Sanjiv Ridge Stage 5 - Waste Rock Geochemical Characterisation – Sparrow Pit Update

Report

8 April 2025

Mine Earth
Unit 1, 94 Forsyth Street
O'Connor WA 6163
Australia

T +61 8 9431 7318

info@mineearth.com.au
www.mineearth.com.au

Mine Earth Pty Ltd (ACN 141 633 696)
as a trustee for the
Mine Earth Unit Trust (ABN 15 751 863 093)

Document Control

Author	Checked	Distribution	Date	Version
J. Tang	V. Lévy, G. Wesley	Sam Nixon	08/04/2025	Rev A

Contents

Figures

Tables

Appendices

Terms and acronyms commonly used in waste material characterisation

Abbreviation	Description
ABA	Acid-base accounting
ABCC	Acid Buffering Characteristic Curve
AC	Acid consuming
AFP	Acid formation potential
AP	Acid production
APP	Acid production potential
Alkalinity	A measure of the buffering capacity of water and capacity to neutralise acidity (kgCaCO3/l)
AMD	Acid and metalliferous drainage
ANC	Acid neutralisation capacity (kg H_2SO_4/t)
ANC_{Lab}	Acid neutralisation capacity measured in the laboratory (kg H_2SO_4/t)
ANC_{Carb}	Acid neutralising capacity estimated from carbonate (total inorganic carbon) (kg H_2SO_4/t)
ANC_{ABCC}	Acid neutralising capacity estimated from ABCC test (kg H_2SO_4/t)
BIF	Banded iron formation
Circum-neutral	pH value near neutral (~pH 7)
EAT	Emerson Aggregate Test
EC	Electrical conductivity (µS/cm)
$EC_{1:2}$	EC of a sample slurry with a solid to water ratio of 1:2 (µS/cm)
ECEC	Effective cation exchange capacity
ESP	Exchangeable sodium percentage
GAI	Geochemical abundance index
ITF	Interface between Stage 4 and Stage 5
MPA	Maximum potential acidity (kg H_2SO_4/t)
NAF	Non-acid forming
NAG	Net acid generation
NAG pH	Measured pH of the NAG solution
NAG pH 4.5	NAG acidity to endpoint pH 4.5 (kg H_2SO_4/t)
NAG pH 7.0	NAG acidity to endpoint pH 7.0 (kg H_2SO_4/t)
NAPP	Net acid producing potential (kg H_2SO_4/t)
PAF	Potentially acid forming
$pH_{1:2}$	pH of a sample slurry with a solid to water ratio of 1:2
PMLU	Post-mining land use
PSD	Particle Size Distribution
QXRD	Quantitative X-ray diffraction
SAQP	Sampling, analysis and quality program
SD	Saline drainage
Sulfate	Oxidised form of sulfur (SO_4^{2-})
Sulfide	Reduced form of sulfur (S^{2-})
Total-C	Total carbon (%).
TDS	Total dissolved solids
TIC	Total inorganic carbon
TOC	Total organic carbon
Total-S	Total sulfur (%)
TVD	True Vertical Depth
UC	Uncertain
WRD	Waste Rock Dump

Executive Summary

In 2024, Mine Earth conducted a geochemical assessment of the Sparrow Stage 4 and Stage 5 pit waste rock with a review of the lithological and sulfur databases and preliminary analytical work undertaken. The stage 4 (above groundwater) material was shown to present low risks of Acid and Metalliferous Drainage (AMD) due to low sulfur content, but the Stage 5 (below groundwater) material was shown to present a higher risk of AMD due to higher sulfur content, mostly in the shale. The study also identified that the material available for analysis in 2024 was not spatially representative of the pit, and that there were gaps in the northeast and southeast corners of the pit.

To address these gaps and support the Stage 4 and Stage 5 expansion closure studies, Mine Earth designed 13 drillholes (SPWL001-013) that intersected areas of interest. The data collected from these drillholes was added to the lithological and assay databases, and was augmented with data from an additional 19 drillholes (CDRC1974-1992) drilled by Atlas in the northern section of the pit for resource estimation. The Stage 5 material characterisation was further expanded with a detailed geochemical program run on 119 samples (100 from the SPWLC drillholes and 19 from the CDRC drillholes (1968-1970)).

The findings from this updated study are summarised as follows:

- The waste material from the Stage 5 Sparrow pit can be mostly classed as non-acid forming (NAF), with 85.4 % of the samples containing less than 0.1% sulfur (S). This is confirmed by the detailed geochemical analysis, which shows that most samples fall into the NAF quadrant (Figure 1). However, over 10% of the waste material has a sulfur content above 0.3% and, as a precautionary measure, should be considered PAF with appropriate management measures put in place.
- The volume of PAF material requiring management in cells is estimated at 396,463 bcm.
- Shale is the source of existing and potential acidity. The other lithologies are classed as NAF except when close to a sulfur halo (SPWL002).
- Saline and neutral metalliferous drainage are not considered a risk.

This updated Stage 5 material characterisation study confirms the need for appropriate PAF material management measures to be implemented, including encapsulation. The following steps are recommended:

- Update the database as more information becomes available.
- Update the sulfur block model using the new sulfur data collected and cross-check with the positioning of the shale (PAF) domains. Sulfur halos should also be identified and incorporated.
- Design encapsulation cells and assess if material use and disposal requirements align with the mining schedule.
- Estimate the AMD release for the Stage 5 material by undertaking tests to understand how the material will oxidise (currently ongoing).
- Prepare a PAF management plan.

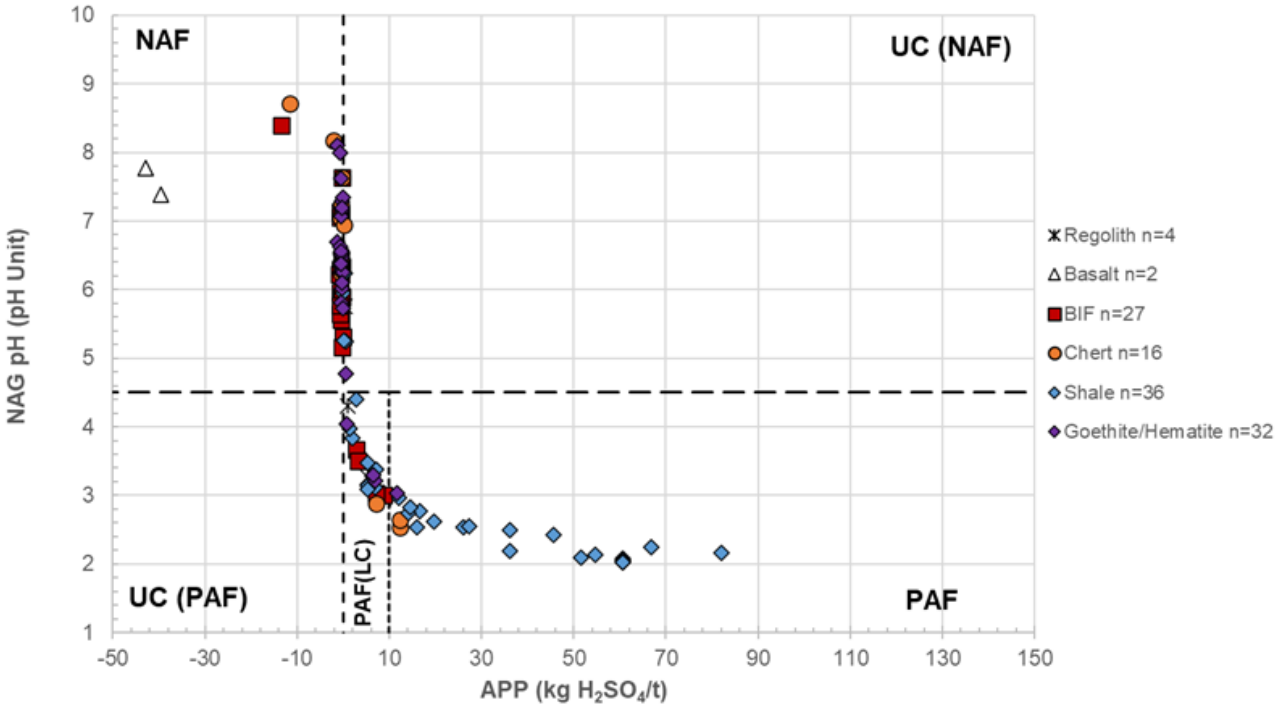


Figure 1: NAF/PAF waste rock geochemical classifications using CRS (AMIRA)

1. Introduction

1.1 Background

Atlas Iron engaged Mine Earth to assess the waste rock characteristics of the Sanjiv Ridge Stage 4 project (above groundwater table) and, later, of the Stage 5 project (below groundwater). Both stages followed the same approach, with each project commencing with an assessment of the sulfur assay database, complemented by the analysis of the material available from three (3) drillholes (Mine Earth, 2024a; Mine Earth, 2024c). The Stage 5 preliminary study showed that the below groundwater pit contains some pockets of sulfurous waste rock that may be sulfidic, with 6.4% of the material having a sulfur content above 0.3%. The highest sulfur content values were found in the shale and chert materials along the eastern side of the pit. These initial Stage 5 samples were not analysed further as it was acknowledged that a more extensive program was required.

The stage 5 findings were similar to stage 4 and stated:

- Limited spatial coverage – Material was available from only three drillholes that were not spatially representative of the pit.
- Insufficient geochemical data coverage – the assay database had gaps in the southeast and northeast corners of the Sparrow Pit.
- Limited sample material available for detailed geochemical characterisation with only 17 samples of Stage 5 material from the three (3) drillholes analysed for pH, NAGpH, EC and total sulfur.
- There were discrepancies between the sulfur data presented in the block model and the sulfur data collated in the drillhole database.

Following this study, an additional 32 drillholes were drilled; 19 in the lake area and 13 designed by Mine Earth to fill gaps identified in the assay database. This report presents the findings for the updated lithological distribution resulting from the additional drilling and geochemical characterisation conducted to address the knowledge gaps. The information will be used to assist with the waste management strategy and the closure strategies (e.g. pit lake water quality modelling).

1.2 Objectives and scope of work

The objective of this assessment is to increase the geochemical understanding of the Stage 5 pit material to refine the sulfur block model and determine whether any lithologies within the Stage 5 zone pose a risk of acid metalliferous or saline drainage. The findings will inform mine waste management and long-term closure strategies.

1.3 Information available

The following documentation relates to this study:

- Atlas (2024a). Mine Closure Plan.
- Atlas (2024b). Mining Proposal.
- Mine Earth (2022). Review of Waste Characterisation Requirements for the Runway South Pit Expansion.
- Mine Earth (2024a). Sanjiv Ridge Stage 4 – Waste Rock Assessment – Detailed Geochemical Characterisation-Rev1, May 2024.
- Mine Earth (2024b). Sanjiv Ridge Stage 4 – PAF Material Management Plan – Rev0, June 2024

- Mine Earth (2024c). Sanjiv Ridge Stage 5 – Waste Rock Assessment – Interim Report – Preliminary Geochemical Characterisation, September 2024.
- Mine Earth (2025). Sanjiv Ridge Stage 4 - Waste Rock Geochemical Characterisation - Sparrow Pit update - Rev A, March 2025.
- Recent drilling databases for the Sparrow (formerly Split Rock) project area, including data for iron and sulfur content, lithology, stratigraphy and rock quality designation (RQD).
- Mining surfaces for all planned pits, from Stage 3 to Stage 5:
  - spl_pit_u_dc_v5 (Sparrow Stage 3)
  - spl_pit_u_bwt1_v1 (Sparrow Stage 4)
  - spl_bwt_pit (Sparrow Stage 5)
- Mining surfaces for geological units and mineralisation
- Block mode including data for iron, sulfur, lithology, stratigraphy and volume: spl_202110

The drilling database and block model (as provided by Atlas) were imported into Leapfrog Works, along with the pit shell files, to assist with the interpretation of the data.

2. Updated geology

2.1 Sparrow geology

The geology of the Sparrow deposit consists of westerly-dipping, sub-vertical beds of alternating BIF and chert, bounded on the east and west by shale. Several major shears converge at the deposit, resulting in high-strain zones and hydrothermal brecciation (Atlas, 2024b).

2.2 Pit geometry

The Stage 5 geometry for Sparrow is shown in Figure 2, with the Stage 4 pit shell coloured in pink and the Stage 5 pit shell in grey. The estimated volume and tonnage to be generated during the Stage 5 operation is presented in Table 2. The estimated volume was derived by "tagging" the block model with the planned pit shell and interrogating the total block volumes contained within.

Table 1: Estimated block model volumes and tonnages for the Sparrow pit for Stage 5 (spl_202110)

	Volume (m^3)	Estimated tonnage (t)
Sparrow Pit	3,943,203	9,092,376

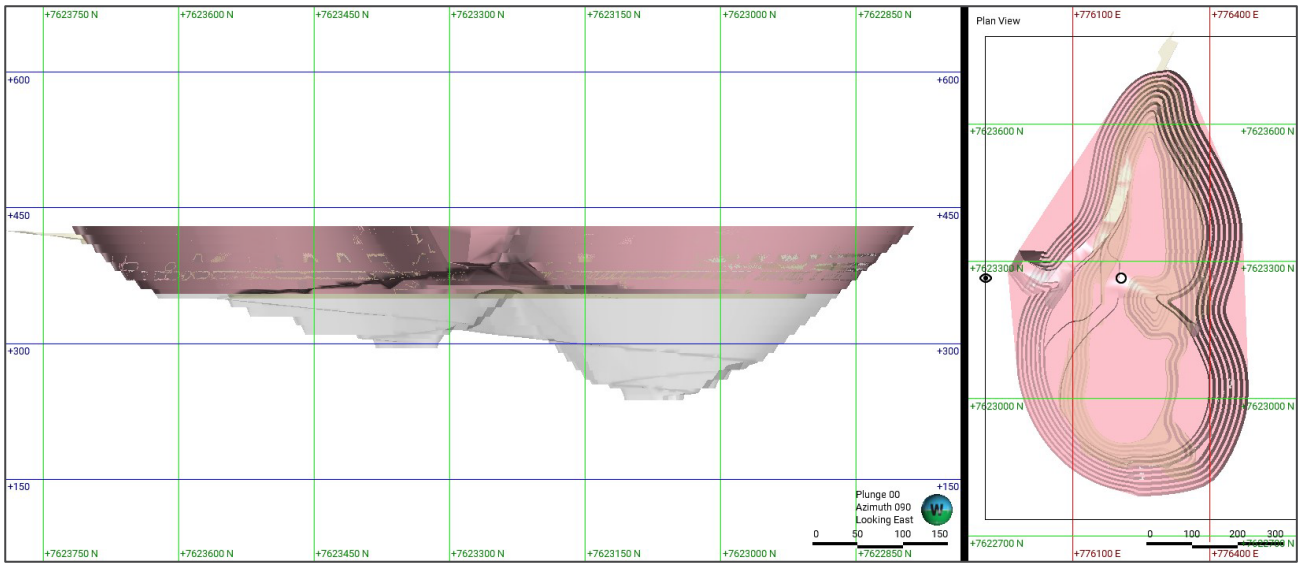


Figure 2: Sparrow – Stage 4 pit geometry in pink, Stage 5 pit geometry in grey

2.3 2024 Drillholes

A total of 32 drillholes were drilled in 2024, logged, and added to the drillhole database:

- 19 drillholes (CDRC1974-1992) labelled CDRC drilled by Atlas to cover the "Lake" area for mining purposes.
- 13 drillholes (SPLWC 001-013) designed by Mine Earth to cover the gaps highlighted in the previous study.

These new drillholes are shown in Figure 3 along with the three (3) drillholes drilled in 2023 (CDRC1968-1970) and used in the 2024 material characterisation study (Mine Earth, 2024a). The figure highlights how the new SPWLC drillholes fill the gaps in the northeast and southeast corners of the pit, whilst the 2024 CDRC drillholes cover the mineralisation area used for mine planning. The figure also highlights the lithological variability across

the pit, with the four drillholes in the northeast corner (SPLWC010-013) having a higher percentage of chert and BIF than the southwest corner.

2.4 2024 Samples

A total of 290 in-pit intervals were collected from the 32 drillholes, with 135 classed as waste based on an iron (Fe) cut-off grade of 45%.

All samples were analysed for total elements by XRD. One hundred (100) waste samples were selected for detailed geochemical analysis from the SPLW drillholes, with an additional 19 samples selected from the 2023 drilling campaign.

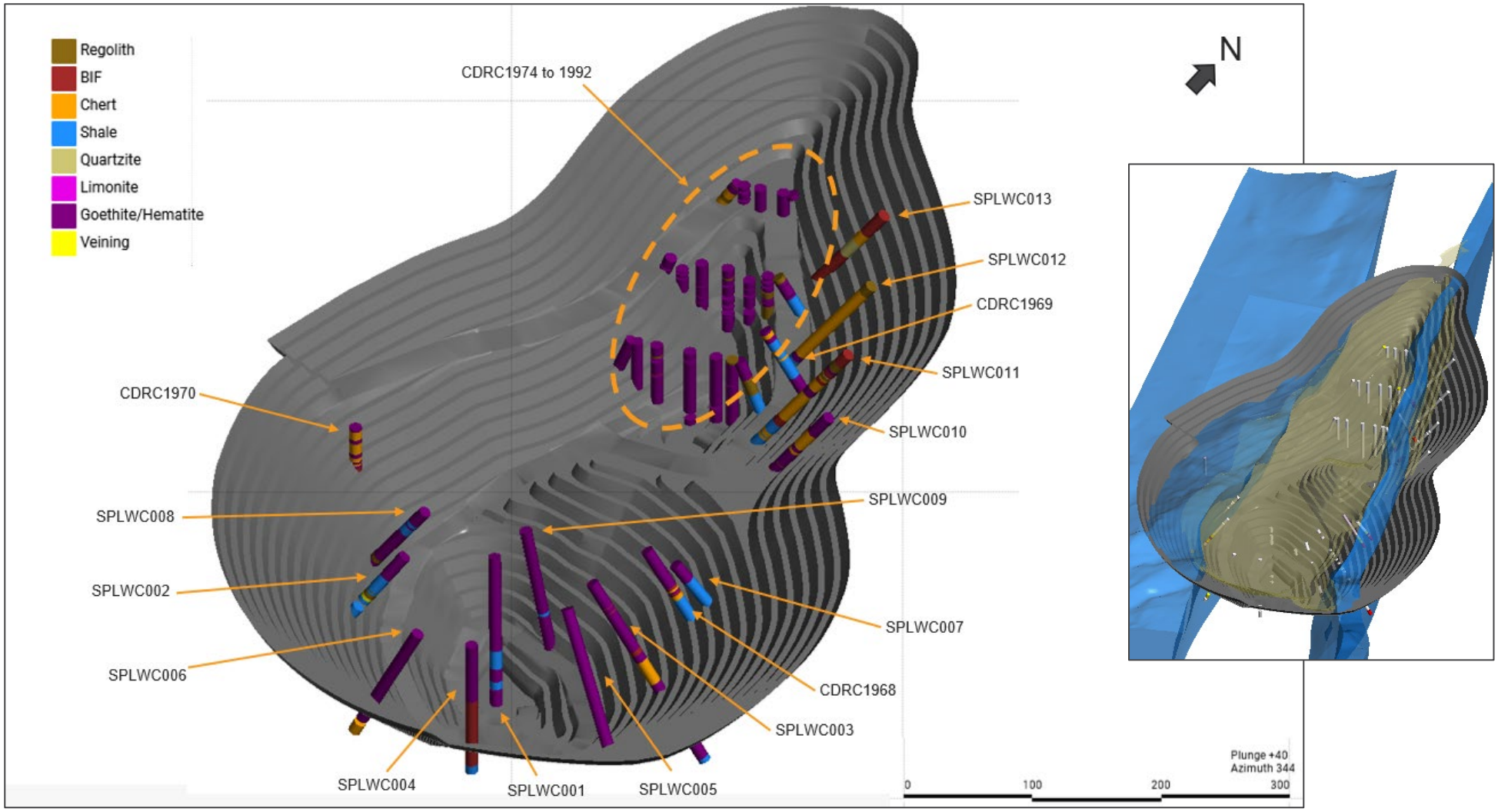


Figure 3: **Sanjiv expansion showing the 32 new drillholes (SPLWC001 to 013 and CDRC1974-1992) and the 3 drillholes used for the 2024 study (CDRC1968-1970) – looking NE; insert shows the position of the shale domain (in blue) and the stage 5 pit limit (in yellow)**

2.5 Lithological distribution

The drilling database for the Stage 5 pit contains predominantly regolith, mineralisation and sedimentary lithological groups. Nine individual lithologies (with 21 variations) were observed within these groups, with the updated drillhole database proportions provided in Appendix B.

The updated lithological distribution for the waste (<45% of iron) is shown in Table 2 along with the lithological distribution of the 32 new 2024 drillholes. The data shows that the major lithologies (>5% of the total intervals logged in Stage 5) account for 98% of the material found in the Sparrow Stage 5 pit.

Table 2: Major lithologies (distribution over 5%) logged for Stage 5 Waste Rock

Lithology	2023 distribution (%)	Updated 2024 distribution (%)	Distribution in the 2024 new drillholes (%)
Goethite	25	23	14
Hematite	5	6	9
Hematite/Goethite	15	15	14
Chert	39	34	10
Shale	12	15	26*
BIF	1	3	16

Note: the percentage of shale samples is higher as the new drillholes target the shale domain, thereby addressing a gap that had been noted in previous studies.

3. Methods

3.1 Analytical program

All samples were analysed for total elements by Atlas prior to despatch to Perth. This information was retrieved from the assay database and used for the sulfur assessment.

The samples were analysed by MPL Laboratory (MPL) for a selection of analytes, and parameters were calculated as outlined in Table 3. The full list of samples analysed is provided in Appendix C.

Table 3: Geochemical testwork undertaken to date

Characteristic	Parameters and specific tests	Sample count	
		2023	2024
Natural pH and salinity	pH, EC on a 1:2 solid/water slurry	19	100
Sulfur / carbon forms	Total sulfur (total-S) Chromium-reducible sulfur (CRS)* Total carbon (total-C) Total Inorganic/Organic carbon (TIC	19 19 19 19	100 38 100 100
Acid generation	Maximum potential acidity MPA) (calculation) Net Acid Producing Potential (NAPP) Net acid generation pH (NAGpH)	19 19 19	100 100 100
Acid neutralisation	Acid neutralisation capacity (ANC) (test work and calculation)	19	100
Element solubility	Water extraction test work	19	100

Notes: For the 2024 program, CRS was only analysed if TS>0.1%

3.2 Geochemical data analysis

The detailed geochemical characterisation work undertaken in the laboratory, including the selection of samples, analyses and data interpretation, aligns with industry-leading practice and recommended guidelines (AMIRA, 2002; Price, 2009; INAP, 2009; DMP, 2016; DFAT, 2016; DMIRS, 2020). All data is presented in Appendix F.

The acid formation potential (AFP) of materials is estimated using acid-base accounting (ABA) parameters (Table 4) that evaluate the balance between the material's acid-forming and acid-neutralising constituents. Samples were classed using the AMIRA system (Table 4) combining the Net Acid Potential Production (NAPP)[1] and the net-acid generation pH (NAGpH) of the sample.

Samples falling in the Uncertain Categories (UC) are further assessed using the neutralisation potential ratio (NPR) (Price system, Table 4), other test work results (e.g. sulfur forms, mineralogy, pH buffering curves) and site-specific factors; they are then classed as NAF or PAF.

[1] The NAPP is calculated by subtracting the Acid Neutralisation Capacity (ANC)[1] from the Acid Production (AP) with:
- the ANC value selected for the calculation of the NAPP being the lowest value between the ANC value measured in the laboratory and the ANC value calculated from the carbonate content.
- the AP value selected for the calculation of the NAPP being the lowest value between the maximum acidity produced by total-S and Chromium Reducible Sulfur (CRS) values when available.

The saline drainage (SD) and neutral metalliferous drainage (NMD) potential of materials is estimated using the $EC_{1:2}$, or $TDS_{1:2}$, and the multi-element analysis of solid-liquid extraction leachate. Risk classifications for SD and NMD potential are assessed based on use and receptors such as irrigation (Table 5) or livestock drinking water (ANZG, 2023) for context. The uses and associated receptors should be aligned with the site's long-term strategy and the regulator's advice.

Table 4: Preliminary screening criteria based on Total-S, NAPP and NAG test data (DFAT, 2016)

			Amira System		Price System
	Total-S (%S)	$pH_{1:2}$ (pH Unit)	NAGpH (pH Unit)	NAPP Value (kg H_2SO_4/t)	NPR
Existing Acidity		<5.5			
Potentially Acid Forming (PAF)			< 4.5	≥ 10	<2
PAF-Low Capacity (PAF-LC)			<4.5	<10	
Non-Acid Forming (NAF)	<0.1		≥ 4.5	< 0 (negative)	≥2
Acid Consuming (ACM)			≥ 4.5	< -100	
Uncertain (UC-NAF)			≥ 4.5	≥ 0 (positive)	
Uncertain (UC-PAF)			< 4.5	< 0 (negative)	

Table 5: Guidance on additional characterisation for water usage in irrigation (DMP, 2016)

EC (µS/cm)	Suitability for use
0-400	Suitable for topsoil growth medium
400-1,600	Suitable for some salt-tolerant species
>1,600	May not be suitable for growth medium

4. Geochemical Data Interpretation

The following sections discuss the geochemical findings from a combination of the 2023 and 2024 samples. The data interpretation from the 2023 preliminary study can be found in Appendix A.

4.1 Sulfur database assessment update

4.1.1 Waste Material

All 2024 drillhole intervals were analysed for multi-elements, and the new data points were used to update the assay database. The updated sulfur distribution for the Stage 5 pit and waste only are presented in Table 6 and Figure 5. The waste rock sulfur contents across lithologies for the Stage 5 pit are presented in Figure 4 and Table 7.

Table 6: Updated sulfur distribution across the sulfur ranges

Sulfur content	Stage 5 pit	Waste zones only
<0.1%	94.3%	85.4%
0.1-0.3%	1.8%	4.5%
0.3-0.5%	0.6%	1.5%
>0.5%	3.3%	8.6%

The box and whiskers plot for sulfur shows that shale is the lithology with the highest sulfur content. Compared to the 2023 study, the shale unit now shows a greater spread in sulfur values across the database, with the median sulfur content increasing from 0.01% to 0.08%.

The statistical analysis of the data shows that 14.5% of the sulfur measurements for the waste material extracted from the Sparrow Stage 5 pit are above 0.1% sulfur, which is a conservative cut-off value used in the absence of NAGpH and ANC measurements. This value is higher than the value of 9.4% reported before this update (Mine Earth, 2024c) and is due to the 2024 drillholes targeting the shale lithologies (CDRC1969,-1974 and SPWL-002,-007,-008,-010,-011,-012,-013).

Figure 5 shows how the new drillholes traverse the shale lithologies where the highest sulfur content is found, and how the data collected has bridged some of the gaps highlighted in the previous study, in particular for the northeastern edge of the pit.

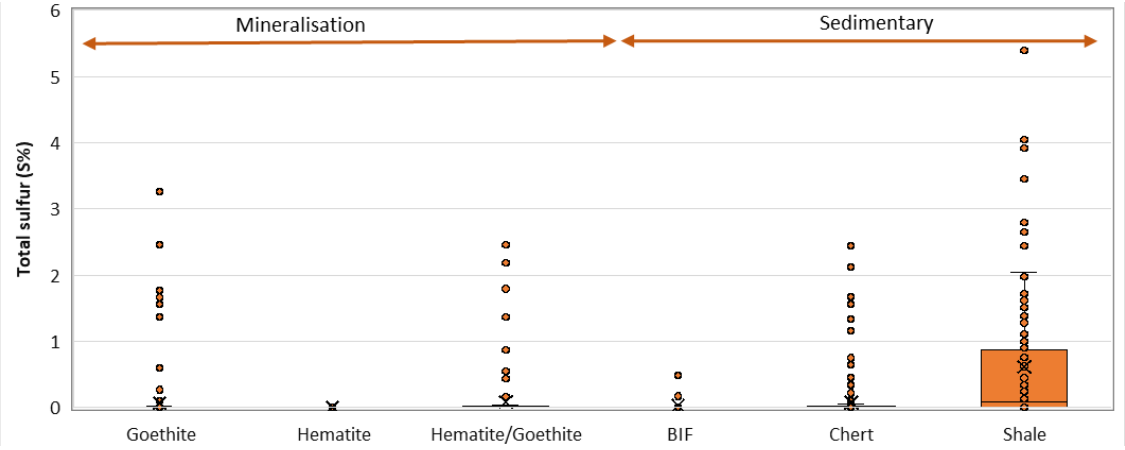


Figure 4: Box and Whiskers plot for the sulfur distribution in the Sparrow – Stage 5 pit. Data for the major lithologies

Note: The bottom and top sides of the box represent the lower and upper quartiles, the box covers 50% of the data spread, the horizontal lines in the boxes show median values, and crosses show the average

Table 7: Waste rock sulfur content across lithologies for the Sparrow Stage 5 pit (major lithologies >5% in bold)

Group	Lithology	Total samples	Median S%	Maximum S%
Regolith	Clay	30	0.01	0.3
Mineralisation	**Goethite**	**253**	**0.007**	**3.3**
	Hematite/Goethite	**161**	**0.005**	**2.5**
	Hematite	**66**	**0.003**	**0.04**
Sedimentary	**Chert**	**370**	**0.003**	**2.4**
	Shale	**169**	**0.08**	**5.4**
	BIF	**38**	**0.001**	**0.5**
Igneous	Mafic	4	0.39	2
Veining	Quartz	8	0.08	2.7

4.1.2 Comparison with the Sulfur Block Model - whole pit

The previous study (Mine Earth, 2024c) highlighted discrepancies between the sulfur block model and the drilling database, mostly for Stage 4. These discrepancies were due to sulfur enrichment values being extrapolated from the below-water-table (BWT) zone up into specific areas of the above-water-table (AWT) zone where drilling intercepts were lacking. The SPLW drillholes were designed to address this gap.

The sulfur distributions across thresholds for the previous and new datasets and block model have been summarised in Table 8. The comparison shows that the sulfur distribution between the drilling databases is in agreement for Stage 5, with minor increases in the percentage of material containing sulfur contents above 0.5%, due to an increased number of shale samples.

Table 8: Updated sulfur data comparison between block model and drilling database for Stage 5

Total Sulfur	Drilling database (Mine Earth, 2024c)	Updated drillhole database (2024)	Block Model
<0.1%	94.1%	94.3%	83.5%
0.1-0.3%	5.6%	1.8%	9.9%
0.3-0.5%	0.1%	0.6%	3.1%
>0.5%	0.2%	3.3%	3.6%

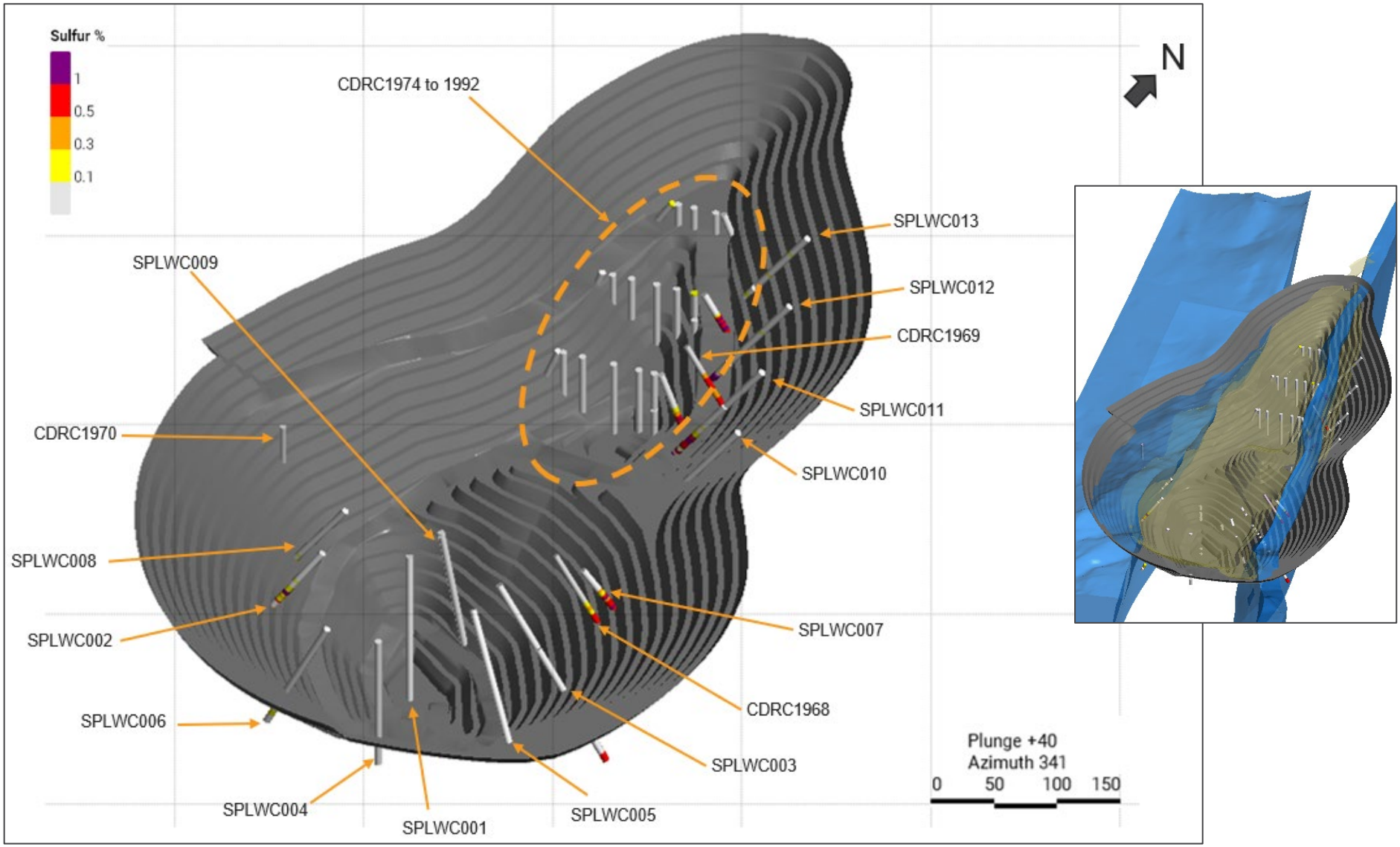


Figure 5: Stage 5 sulfur distribution for the 2023 and 2024 drillholes, insert showing the position of the shale domain (in blue) and the stage 5 pit limit (in yellow)

4.2 Detailed geochemistry data interpretation

4.2.1 Samples selected

A total of 119 waste samples were selected for geochemical analyses based on the lithological distribution of the new drillholes and drilling database (Table 9):

- 19 from the three 2023 drillholes (CDRC1968-1970).
- 100 from the 13 drillholes drilled in 2024 (SPLWC 001-013).

Table 9: Stage 5 lithological distribution and sample count

Lithology	Updated 2024 distribution	Distribution in the 13 new drillholes	Sample Count
Regolith	3%	3%	4
Basalt	-	-	2
BIF	6%	26%	27
Chert	35%	14%	16
Shale	13%	26%	36
Goethite, hematite, hematite/goethite	44%	31%	32

Note: SPLW001 only contained ore material

4.2.2 Existing and potential acidity ($pH_{1:2}$ and NAGpH), total sulfur and $EC_{1:2}$

Box-and-whisker plots for $pH_{1:2}$, $EC_{1:2}$, NAGpH and total sulfur for all samples (grouped by lithologies) are shown in Figure 6. These four parameters in combination indicate the material's potential to release acid or generate saline leachates, using the following threshold values and criteria:

- $pH_{1:2}$ < 5.5: material contains existing acidity.
- NAGpH < 4.5: material is likely PAF.
- $EC_{1:2}$ > 400 µS/cm: salt tolerant species only, 1,600 µS/cm may not be suitable.
- Total S > 0.1%: conservative sulfur cut-off for PAF.

The analysis of the results indicates:

- $pH_{1:2}$ values ranged from 3.5 to 8.4. No existing acidity was detected in the regolith, basalt, BIF, chert, and goethite/hematite samples, as their pH values were all above 5.5. However, 12 out of 36 shale samples (one-third) had $pH_{1:2}$ measurements below 5.5, indicating the presence of existing acidity.
- NAGpH values for all shale samples were below 4.5, indicating a high potential for acid generation.
- NAG pH values were also low for three (3) of the four (4) samples of regolith available from the 13 drillholes, two of these samples were located next to a quartz vein enriched in sulfur found in SPLW002, where 12 samples out of 18 had NAGpH values below 4.5. These samples may be representative of a sulfur halo found around SPLW002 rather than being representative of the lithology. Some outliers in the BIF, chert, and goethite/hematite samples also had values below this threshold and were associated with the proximity to shale.
- Total sulfur content ranged from below the limit of reporting (LOR) 0.01% to 4.3% S, with 46 out of 119 samples (38.7 %) exceeding the commonly used 0.1% threshold for differentiating between acid-forming and non-acid-forming potential. The highest sulfur content was found in the shale, followed by regolith (up

to 0.44% S). Outliers in the BIF, chert, and goethite/hematite samples also exceeded this threshold. The two basalt samples contained 0.47% and 0.46% S.

- $EC_{1:2}$ values were below 1,600 µS/cm for all samples, except for the two shale samples, indicating that the risk of salt release is low.

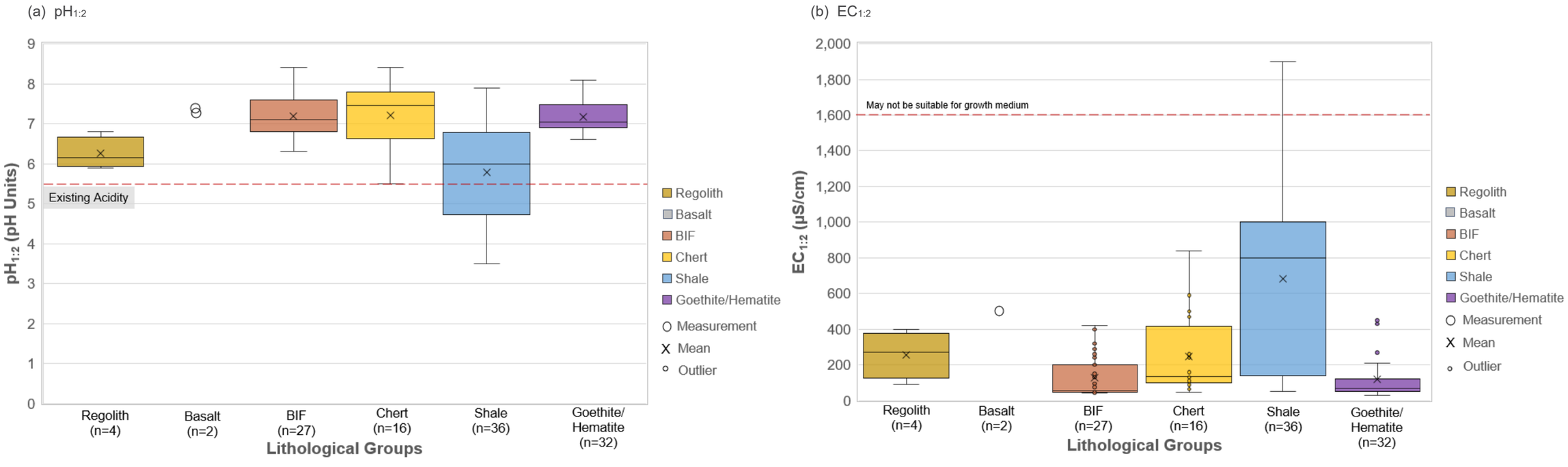


Figure 6: Box-and-whisker plots of key ABA parameters grouped by lithologies (a) $pH_{1:2}$; (b) $EC_{1:2}$; (c) NAGpH; (d) Total sulfur

Note: hematite, goethite and hematite/goethite fall under mineralisation and were grouped together

4.2.3 Sulfur speciation

Sulfur speciation testwork was conducted on samples with total sulfur content greater than 0.05% S. The chromium reducible sulfur (CRS) method was used to determine sulfide-S, while hydrochloric acid (HCl) extraction was used to estimate sulfate-S content. Bar charts showing their distributions across the lithologies are presented in Figure 7.

Sulfidic sulfur is the dominant species in all lithologies. The sulfur speciation analysis (CRS and S_{HCl}) suggests that not all sulfur was accounted for, as the sum of CRS and S_{HCl} does not match the total sulfur for the regolith, basalt and shale samples. The remaining sulfur may be present in secondary sulfate minerals such as alunite or violarite which generate acidity.

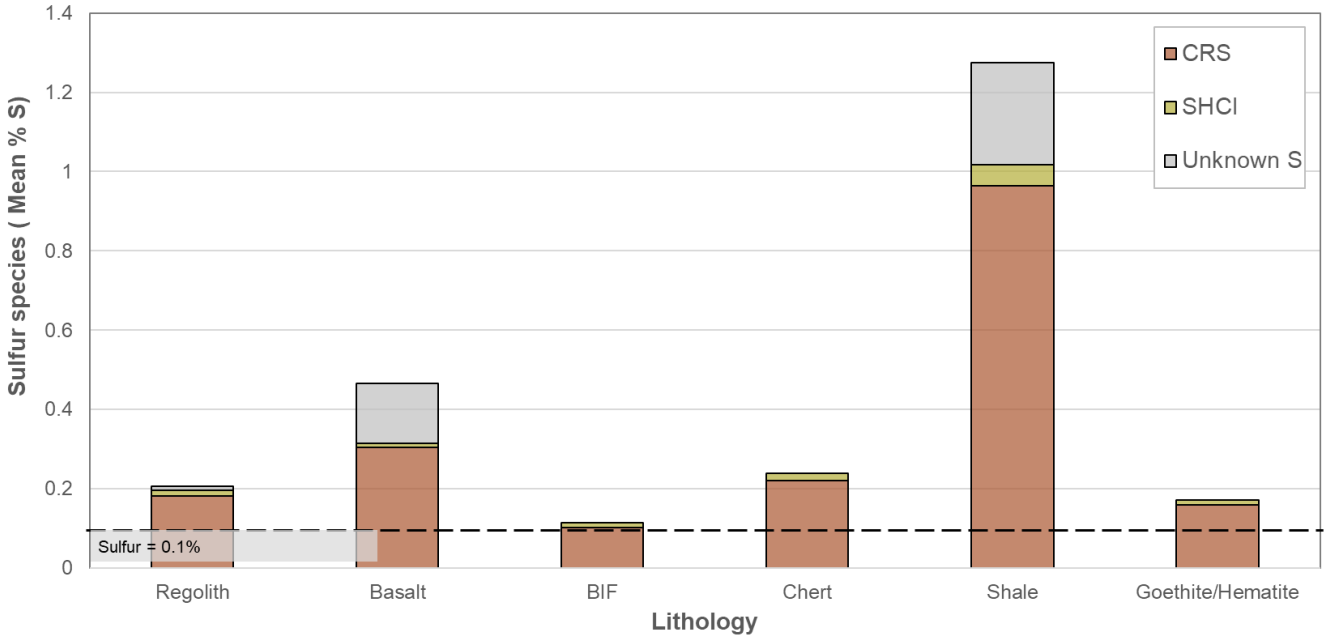


Figure 7: Bar charts of mean sulfur types grouped by lithologies

4.2.4 MPA and ANC

The MEND classification (Price, 1997) consists of comparing the MPA to the ANC and deciding on a safe neutralisation potential ratio (NPR) where the neutralisation capacity may be sufficient to neutralise the acidity generated. A ratio of 2 or 3 is usually recommended.

- NPR = ANC/MPR

Figure 8 and Figure 9 present box-and-whisker plots of ANC and MPA across different lithologies. The data shows that all lithologies have either similar or higher MPA compared to ANC, with the highest MPA values observed in shale samples, which also had limited ANC. This suggests a low neutralisation capacity in the Stage 5 materials.

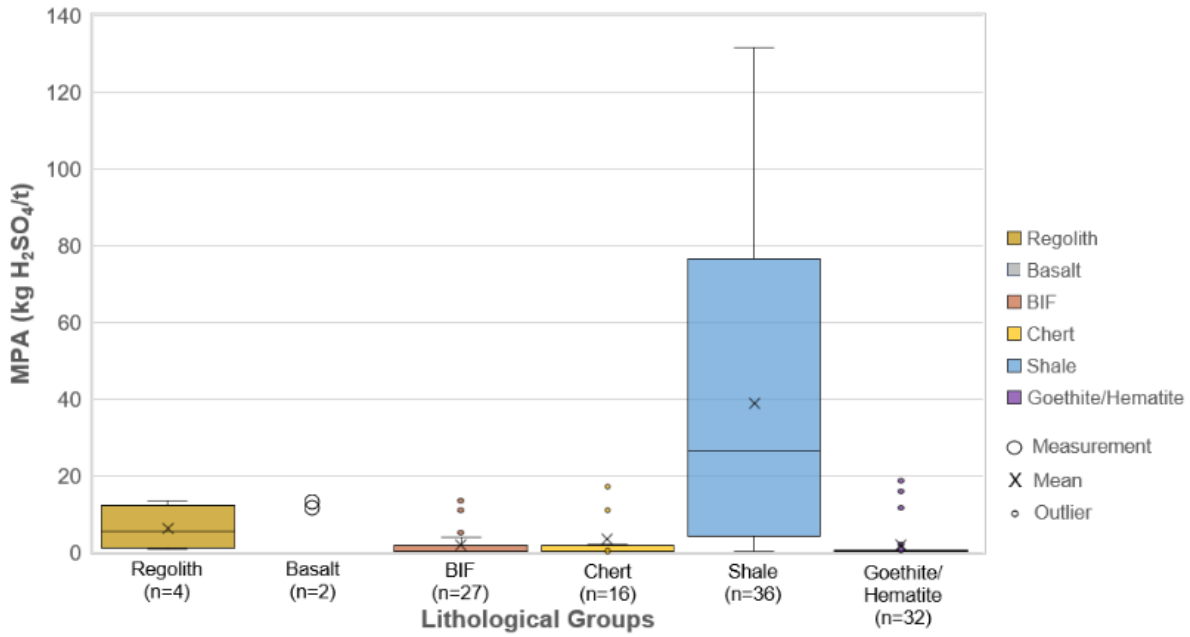


Figure 8: Box-and-whisker plots of MPA grouped by lithologies

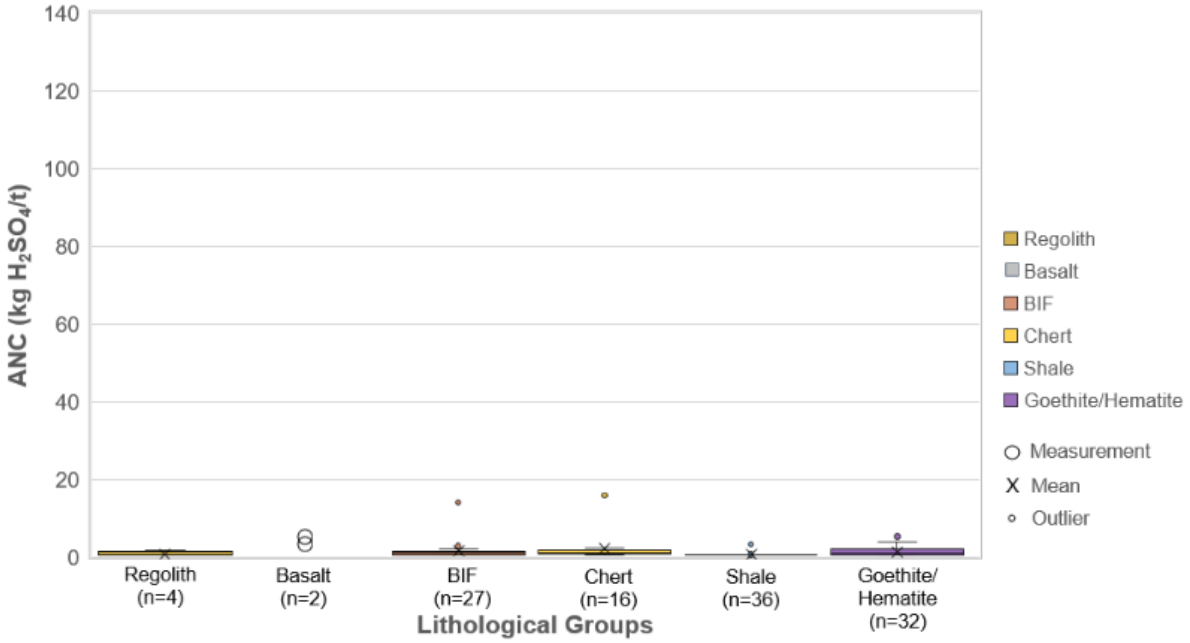


Figure 9: Box-and-whisker plots of ANC grouped by lithologies

4.2.5 AMIRA NAF/PAF classification

The NAF/PAF classification of the samples (Figure 10 and Figure 11) was conducted by calculating the NAPP values using total sulfur and CRS (Table 4) and plotting these against the NAGpH as per the AMIRA guidelines. Samples classed as uncertain were reassessed considering additional available analyte results such as total S, CRS and $pH_{1:2}$.

NAPP and APP values were calculated using total sulfur/ANC and CRS/TIC, respectively (Figure 10, Figure 11) and show that there is no modification in the classification of the different lithologies and only a mild decrease in the spread of acid production potential data between the two methods.

Out of the 119 samples, 43 were classed as PAF or PAF-LC, these were either shale or waste rock close to the shale layers. The classification of the lithologies is as follows:

- Shale (43 samples): 36 samples were classed as PAF or PAF/LC, seven were classed as NAF or UC-NAF.
- Chert (16 samples): 13 chert samples were classed as NAF, and three samples were classed as PAF. These three (3) samples are from SPWL0011 where high sulfur shale and chert are interbedded.
- BIF (27 samples): 24 BIF samples were classed as NAF, two (2) were classed as PAF and one (1) classed PAF-LC. The two (2) samples classed as PAF are close to the SPWL002 sulfur halo.
- Hematite/Goethite (32 samples): all samples except one (1) were classed as NAF or UC(NAF).
- Regolith (4 samples): three (3) samples were classed as PAF-LC but this classification is most likely due to the influence of the SPLW002 sulfur halo.
- Basalt (2 samples): the two (2) basalt samples were classed as NAF.
- Vein (2 samples): the two (2) quartz samples were classed as PAF.

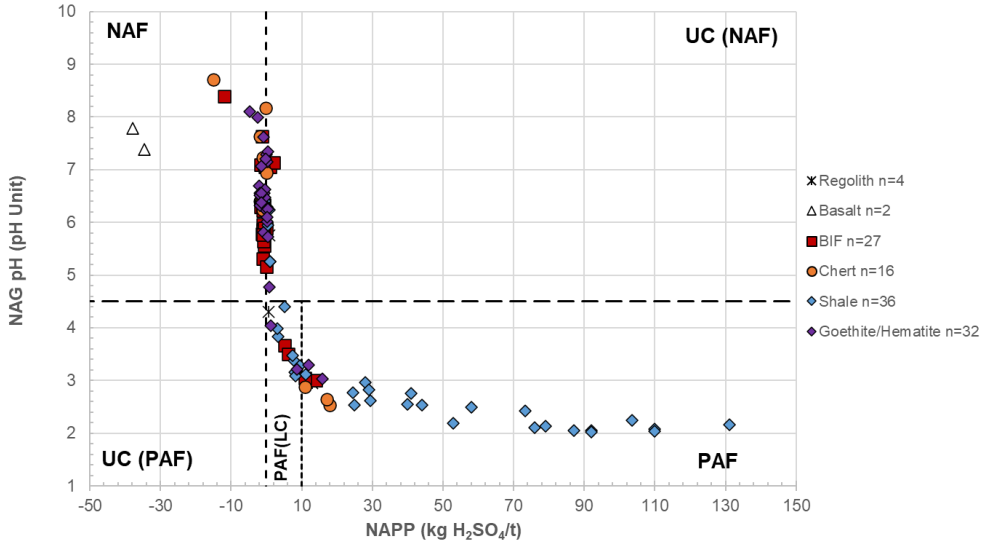


Figure 10: AMIRA sample classification using total sulfur content and ANC

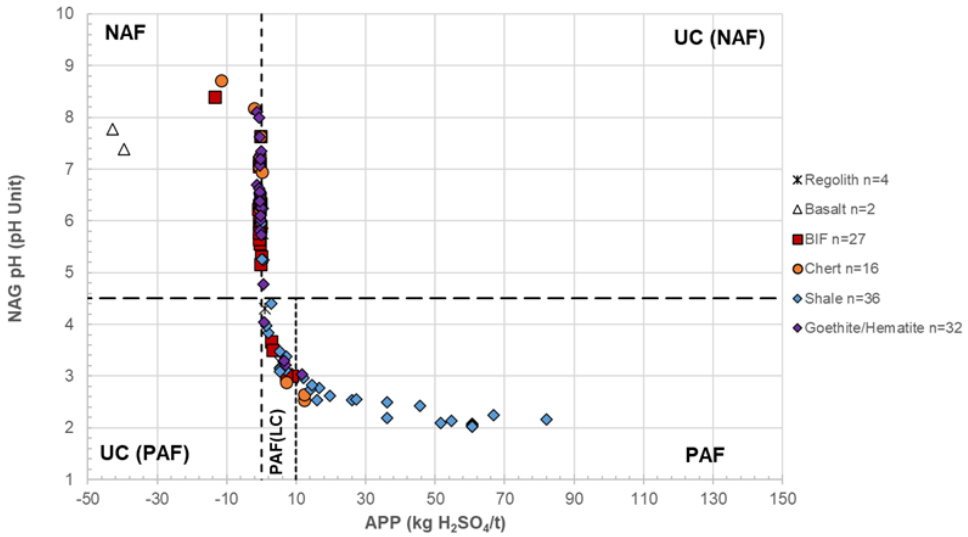


Figure 11: AMIRA sample classification using CRS and lowest neutralisation potential

4.2.6 Saline and neutral metalliferous drainage potential

Saline and neutral metalliferous drainage potential was evaluated using 1:2 rock:water extraction followed by a comprehensive analysis of major ions and metal(loid)s.

A summary of the leach extraction laboratory results for key parameters is shown in Table 10. Only values greater than the Limit of Reporting (LOR) in one or more locations are shown. ANZECC guideline values for livestock drinking water (2000) and the ANZG livestock drinking water guidelines – Draft (2023) are listed for reference only.

The analysis of the $EC_{1:2}$ results indicates the following:

- Median and mean $EC_{1:2}$ values are below 1,600 µS/cm across all lithologies, showing that some the pit material is unlikely to generate saline drainage.

The analysis of the metalliferous data indicates the following:

- The materials contain salts with the following metal(loid)s Al, B, Cd, Cr, Co, Cu, Li, Mn, Mo, Ni, Se, Sr and Zn. These were detected in over 50% of the rock/water 1:2 leachate samples.
- Mean metal(loid) concentrations in the various leachate samples were all below their respective Livestock Drinking Water Guideline values (ANZECC and ARMCANZ, 2000) and draft guideline values (ANZG, 2023), except for the Al and Se measurements in the shale samples.
- Maximum metal(loid) concentrations of Se in BIF, chert, shale, and regolith samples, as well as Al, Ni, and SO_4 in shale, exceed the Livestock Drinking Water Guideline Values.
- The Ficklin diagram (Figure 12) shows all samples have near neutral to alkaline $pH_{1:2}$ values and low metal(loid)s detected (As, Cd, Cr, Co, Cu, Pb, Li, Ni and Zn), except for the shale samples.
- Twelve (12) shale samples had an acidic pH between 3 and 5.5, with Ficklin metal concentrations greater than 1 mg/L up to 34.4 mg/L. The highest Ficklin metal concentration is found in the southeast area of the pit.

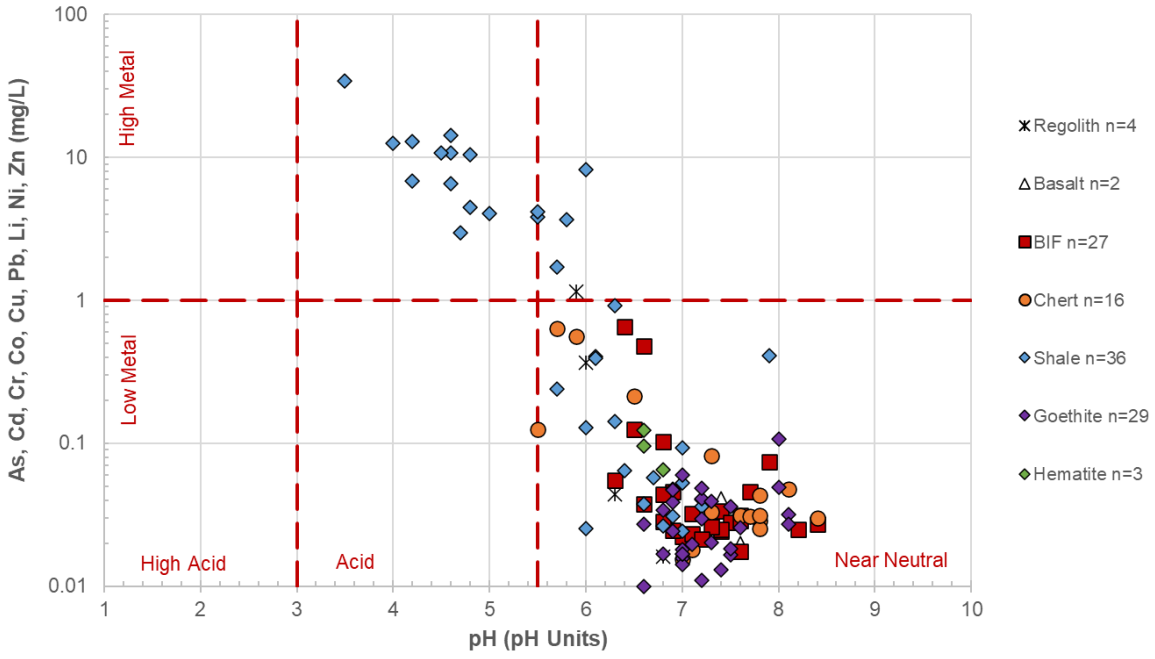


Figure 12: Ficklin diagram for rock:water 1:2 extraction

Table 10: Saline and neutral metalliferous drainage data (mean values)

Lithology Group		Regolith	Basalt	BIF	Chert	Shale	Goethite/Hematite	ANZECC Stock Water Guideline Value (ANZECC and ARMCANZ, 2000)	Draft Stock Water Guideline Value (ANZG, 2023)
Parameter	Count	4	2	27	16	36	32		
	Reporting statistic	Mean	Mean	Mean	Mean	Mean	Mean		
pH (1:2)	pH Units	-	7.9	7.4	7.8	4.8	7.0	6.5–8.5	6.5–8.5
EC (1:2)	µS/cm	-	580	140	188	979	122	-	-
TDS (Calc)	mg/L	218	253	74	146	542	58	-	500
Chloride	mg/L	-	3	6	4	3	4	-	-
Sulfate	mg/L	166	113	37.2	98.7	423	35	1,000	500
Potassium	mg/L	12.5	15	16.0	41.8	99	15	-	-
Magnesium	mg/L	14.9	63	3.7	9.3	22	5	-	500
Sodium	mg/L	6	2.5	5	6.8	10	4	-	-
Calcium	mg/L	9.1	5.45	3.2	4.7	11.0	2.1	1,000	1,000
Total Alkalinity as $CaCO_3$	mg/L	9.15	180	40.5	32.2	6.5	21	-	-
Aluminium	mg/L	1.0	0.02	0.31	0.86	9.81	0.36	5	5
Arsenic	mg/L	*<0.001*	*<0.001*	0.001	*<0.001*	0.001	0.001	0.5	0.025
Beryllium	mg/L	0.001	-	0.0005	0.0006	0.003	*<0.0005*	-	0.06
Boron	mg/L	0.14	0.04	0.18	0.11	0.15	0.1	5	5
Cadmium	mg/L	0.0005	*<0.0001*	0.0001	0.0005	0.003	0.0001	0.01	0.01
Chromium	mg/L	0.002	*<0.001*	0.002	0.009	0.046	0.003	1	0.05
Cobalt	mg/L	0.07	0.001	0.012	0.021	0.3	0.002	1	1
Copper	mg/L	0.008	0.012	0.006	0.012	2.8	0.002	1 (cattle)	1 (cattle)
Lithium	mg/L	0.088	0.01	0.028	0.01	0.03	0.02	-	-
Manganese	mg/L	2.09	0.13	0.42	1.62	2.17	0.10	-	10
Mercury	mg/L	*<0.00005*	*<0.00005*	5.96E-05	7.67E-05	5.18E-05	9.22E-05	0.002	0.002
Molybdenum	mg/L	0.001	0.002	0.002	0.003	0.001	0.001	0.15	0.01
Nickel	mg/L	0.16	0.005	0.017	0.057	0.9	0.007	1	1
Selenium	mg/L	0.019	0.002	0.008	0.014	0.05	0.003	0.02	0.02
Strontium	mg/L	0.221	0.02	0.07	0.06	0.06	0.02	-	-
Uranium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.002	*<0.001*	0.2	0.2
Vanadium	mg/L	0.001	*<0.001*	0.002	0.003	0.002	0.002	-	0.1
Yttrium	mg/L	0.0063	-	0.001	0.002	0.03	*<0.001*	-	-
Zinc	mg/L	0.057	*<0.001*	0.011	0.011	0.2	0.004	20	20

Note: values below the LOR are in italics and in grey

Values above the stock water guideline highlighted in grey (ANZECC and ARMCANZ, 2000)

4.2.7 pH4.8 leach

The leach extraction laboratory results are provided in Appendix F. This test provides an indication of the availability of metals under weak acid conditions.

A summary of the pH4.8 leach extraction laboratory results for key parameters is shown in Table 12. Only values greater than the LOR in one or more locations are shown. ANZECC guideline values for livestock drinking water (2000) and the livestock drinking water guidelines – DRAFT (ANZG, 2023) are listed for reference only.

Key findings are as follows:

- Dissolved trace element concentrations for Sb, Bi, W and U were all below the Limit of Reporting (LOR).
- Trace elements that were readily leachable included: Al, Be, B, Cd, Cr, Co, Cu, Li, Mn, Ni, Sr Sn, V and Zn with dissolved concentrations above LOR in more than 20% of the tests. In many cases, the highest trace element contents were present in the shale samples.

Table 11 summarises the metals measured above the ANZECC guideline values.

Table 11: Analytes above the ANZECC Livestock Guideline

Lithology	Analytes above the ANZECC Stock Water Guideline
Regolith	Se
BIF	Se (maximum)
Chert	Se
Shale	Ni, Se, Al (maximum), SO_4 (maximum)

Table 12: pH4.8 leach results summary

Lithology Group		Regolith	BIF	Chert	Shale	Goethite/Hematite	ANZECC Stock Water Guideline Value (ANZECC and ARMCANZ, 2000)	Draft Stock Water Guideline Value (ANZG, 2023)
Parameter	Count Reporting statistic	3 Mean	7 Mean	3 Mean	21 Mean	2 Mean		
Chloride	mg/L	19.3	21	27	27	42	-	-
Sulfate	mg/L	242	179	497	896	125	1,000	500
Potassium	mg/L	15.3	77.2	127	113	95	-	-
Magnesium	mg/L	30.3	83.9	30	38	36.5	-	500
Calcium	mg/L	19.7	86.3	18.7	20.5	22.5	1,000	1,000
Total Alkalinity as $CaCO_3$	mg/L	1,933	2,571	2,767	1,679	2,950	-	-
Aluminium	mg/L	1.4	0.613	1.14	2.4	0.41	5	5
Arsenic	mg/L	*<0.001*	*<0.001*	*<0.001*	0.001	*<0.001*	0.5	0.025
Beryllium	mg/L	0.002	0.001	0.002	0.002	0.0008	-	0.06
Boron	mg/L	0.098	0.109	0.09	0.15	0.088	5	5
Cadmium	mg/L	0.005	0.001	0.0019	0.005	0.0017	0.01	0.01
Chromium	mg/L	0.021	0.01	0.045	0.17	0.017	1	0.05
Cobalt	mg/L	0.1	0.08	0.10	0.49	0.08	1	1
Copper	mg/L	0.034	0.09	0.17	3.3	0.065	1 (cattle)	1 (cattle)
Lithium	mg/L	0.12	0.089	0.01	0.05	0.05	-	-
Manganese	mg/L	3.1	3.1	4.51	4.0	18.6	-	10
Mercury	mg/L	*<0.00005*	5.64E-05	0.0006	*<0.00005*	*<0.00005*	0.002	0.002
Molybdenum	mg/L	*<0.001*	0.002	*<0.001*	*<0.001*	*<0.001*	0.15	0.01
Nickel	mg/L	0.31	0.23	0.37	1.4	0.41	1	1
Selenium	mg/L	0.04	0.02	0.1	0.08	0.012	0.02	0.02
Strontium	mg/L	0.38	0.63	0.28	0.14	0.42	-	-
Uranium	mg/L	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	0.2	0.2
Vanadium	mg/L	0.0016	0.001	0.006	0.004	0.0013	-	0.1
Yttrium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Zinc	mg/L	0.146	0.064	0.19	0.19	0.110	20	20

Note: values below the LOR are in italics and in grey

Values above the stock water guideline highlighted in grey (ANZECC and ARMCANZ, 2000)

5. Conclusions

5.1 Findings

The update of the Stage 5 study review was based on the data obtained from 32 newly drilled holes. Thirteen of these drillholes were designed by Mine Earth (2024c) to address gaps identified in the previous dataset, and the 19 other holes were added to refine the ore resource in the “Lake” area.

The findings from the database review and the geochemical testwork studies are as follows:

- The waste material presents a limited risk of AMD:
  - 10% of the waste material has a sulfur content above 0.3% and should be classed as PAF. This represents a volume of 396,463 bcm.
  - Total sulfur content ranges from below the limit of reporting (LOR) 0.01% to 5.2% S.
  - Sulfide is the sulfur species most present, with pockets of sulfurous material previously noted are sulfidic.
  - Shale is classed as the main PAF material. The other lithologies are classed as NAF except when close to a sulfur halo (SPWL002).
- The sulfur data presented in the block model and the sulfur data collected in the drillhole database are closely aligned for Stage 5 (this is not the case for Stage 4).

The geochemical testwork for the Stage 5 pit was conducted using samples from 12 drillholes (as one drillhole only contained ore samples) and 3 drillholes from 2023 (CDRC1968-70). These drillholes targeted materials in the Stage 5 expansion and the main waste lithologies.

- APP calculations using CRS classed 25 samples as PAF, 20 as PAF-LC, and 74 as either NAF or UC (NAF). The majority of PAF material was found in the shale and the quartz vein samples.
- Existing acidity was present in the shale samples collected from the SPLWC007, 011 and 012. These samples also had the highest $EC_{1:2,}$ pointing to the presence of weathered material.
- Saline drainage is not considered a risk with only two samples having an $EC_{1:2}$ values below 1,600 µS/cm.
- Water extraction tests show that most metal(loid) concentrations are below ANZECC livestock water guidelines (2000), except for elevated Al, Ni, and Se in shale which exceeded the guideline criteria.

5.2 Recommendations for material management

The stage 5 material characterisation update has shown that an estimated 10% of the material extracted has the potential to generate acid. This material will need to be managed appropriately, requiring the construction of PAF cells and an understanding of when these materials will be extracted through operation to adjust the mining schedule. The following is recommended:

- Update the sulfur block model using the new sulfur data collected.
- Correlate the block model with the geological model, in particular the shale, which is classed as PAF in the Stage 5 pit.
- Account for the sulfur halo observed in some areas.
- Update the database as more information becomes available.
- Estimate the AMD release for the Stage 5 material by undertaking tests to understand how the material will oxidise (ongoing).
- Prepare a PAF management plan.

6. Bibliography

AMIRA (2002). *ARD Test Handbook. Project P387A. Prediction and Kinetic Control of Acid Mine Drainage.* Melbourne, Australia: AMIRA International Limited.

ANZECC and ARMCANZ (2000). *Australian and New Zealand Guidelines for Fresh and Marine Water Quality Paper4. National Water Management Strategy.* Canberra: Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ).

ANZG (2023). *Livestock Drinking Water Guidelines - Draft.* Canberra: Australian and New Zealand Governments and Australian state and territory governments.

Atlas (2024a). *Sanjiv Ridge Mine Closure Plan. 179-EN-PLN-0003 v7.0. Tenements: M45/1257, G45/339, L45/507, L45/408, L45/410. 30/05/2024.*

Atlas (2024b). *Sanjiv Ridge: Mining Proposal 179-EN-REP-0004 v4.* Perth: Atlas Iron Ltd.

DFAT (2016). *Preventing Acid and Metalliferous Drainage, Leading Practice Sustainable Development Program for the Mining Industry.* Australian Government. Department of Foreign Affairs and Trade.

DMIRS (2020). *Statutory Guidelines for Mining Proposals, updated June 2023.* Department of Mines, Industry Regulation and Safety, Government of Western Australia.

DMP (2016). *Draft Guidance: Materials characterisation baseline data requirements for mining proposals.* Government of Western Australia: Department of Mines and Petroleum.

INAP (2009). *Global Acid Rock Drainage (GARD) Guide.* The International Network for Acid Prevention.

Mine Earth (2018). *Corunna Downs Project - Waste Rock Geochemical Assessment.* Fremantle: Internal report prepared for Atlas Iron Limited.

Mine Earth (2020). *Corunna Downs Project: Mine Waste Characterisation.* Internal report prepared for Atlas Iron Ltd.

Mine Earth (2024). *Sanjiv Ridge Stage 4 - Waste Rock Assessment. Detailed Geochemical Characterisation. 10 May 2024.*

Mine Earth (2024a). Sanjiv Ridge Stage 4 - Waste Rock Assessment - Detailed Geochemical Characterisation.

Mine Earth (2024b). *Sanjiv Ridge Stage 4 - PAF Material Management Plan - Sparrow and Runway Pit-Rev0, June 2024.*

Mine Earth (2024c). *Sanjive Ridge Stage 5 - Waste Rock Assessment. Interim Report - Preliminary Geochemical Characterisation. 3 September 2024.*

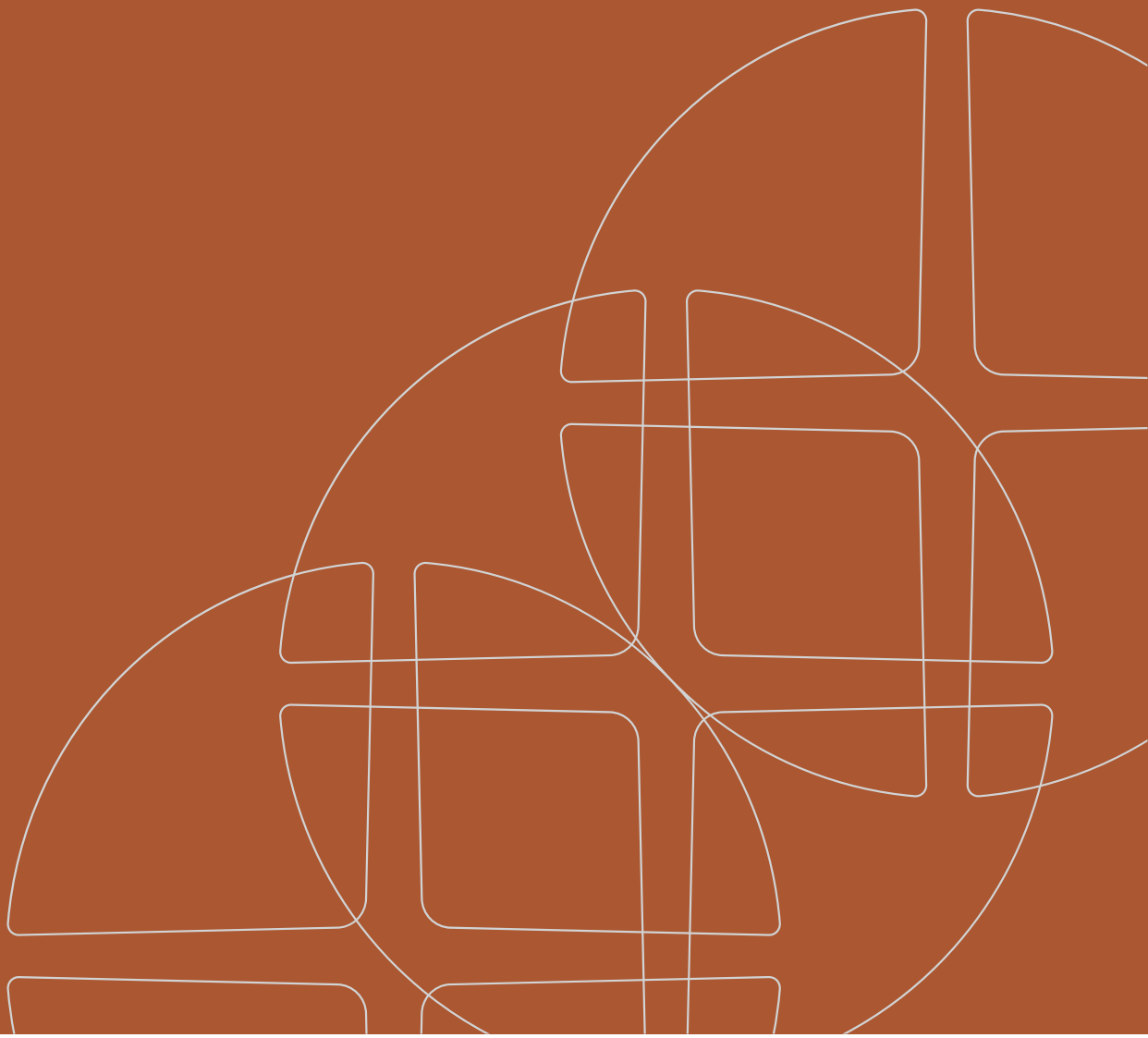
Mine Earth (2025). *Sanjiv Ridge Stage 4 - Waste Rock Geochemical Characterisation - Sparrow Pit update - Rev A, March 2025.*

MWH (2016). *Corunna Downs Project: Soil resource assessment and waste characterisation.* Report prepared for Atlas Iron Ltd.

Price (2009). *Prediction manual for drainage chemistry from sulfidic geologic materials, MEND report1.20.1.* Smithers, British Columbia: CANMET-Mining and Mineral Sciences Laboratories.

Appendix A

Stage 5 – Waste Rock Assessment – 2023 Geochemical Data Interpretation



A.1 2023 Preliminary Geochemical Data Interpretation

A.1.1 Drilling Database Sulfur Assessment – Preliminary Stage 5

The drilling database, as it was in 2023, was assessed to determine the spatial coverage of drillholes across the deposit. The drilling database was "tagged" with the planned pit shells and only total sulfur content in the Waste (cut-off grade Fe 45%) was considered. The datasets for stage 5 are considered comprehensive across both pits and are presented as box and whisker plots for the major lithologies (>5%) in Figure A 1. Waste rock sulfur contents across lithologies for the Stage 5 pits are presented in Table A 1. The spatial distribution of the sulfur across the pits is presented in Figure A 2.

The data shows that 90.5% of the sulfur measurements for Sparrow was less than 0.1% TS which is a conservative cut-off value used in the absence of NAGpH and ANC measurements. The Sparrow pit figure (Figure A 2) show that some areas of the pit are enriched in sulfur, in particular on the edges of the pit, where shale is located.

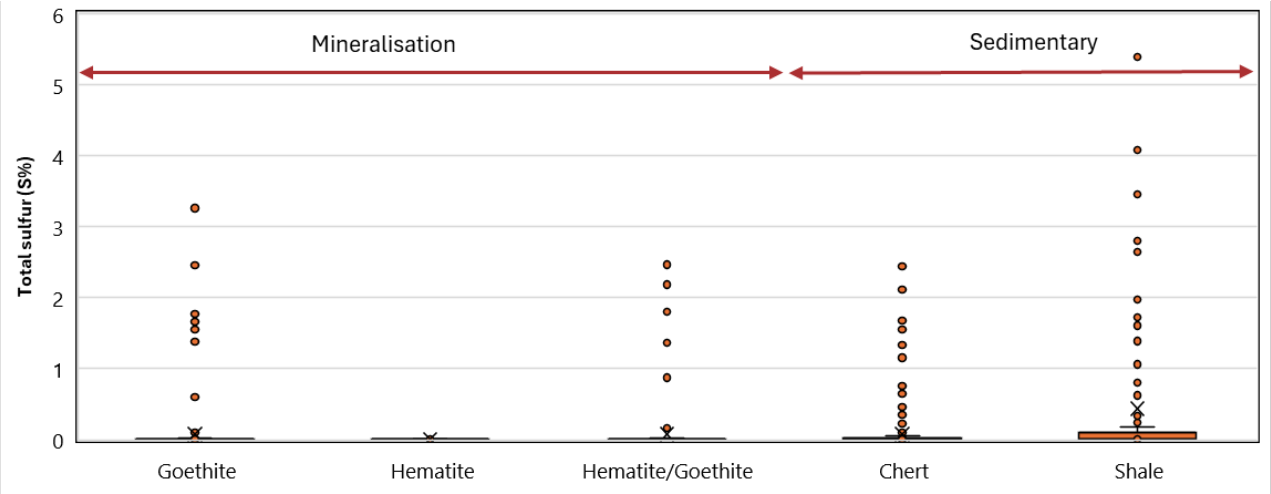


Figure A 1: Box and Whiskers plot for Sparrow, stage 5 data major lithologies

Table A 1: Waste rock sulfur content across lithologies for the Sparrow Stage 5 pit (major lithologies in bold)

		Sparrow		
		Total samples	Median S%	Maximum S%
Regolith	Saprolite	11	0.003	0.021
	Laterite	1	0.012	0.012
Mineralisation	**Goethite**	**224**	**0.007**	**3.3**
	Hematite/Goethite	**129**	**0.006**	**2.5**
	Hematite	**48**	**0.003**	**0.038**
	Limonite			
Sedimentary	**Chert**	**346**	**0.007**	**2.4**
	Shale	**103**	**0.011**	**5.4**
	BIF	8	0.003	0.008
	Sandstone			
	Goethite	1	0.011	0.011
Igneous	Basalt	1	2	2
Veining	Quartz	6	0.063	0.100

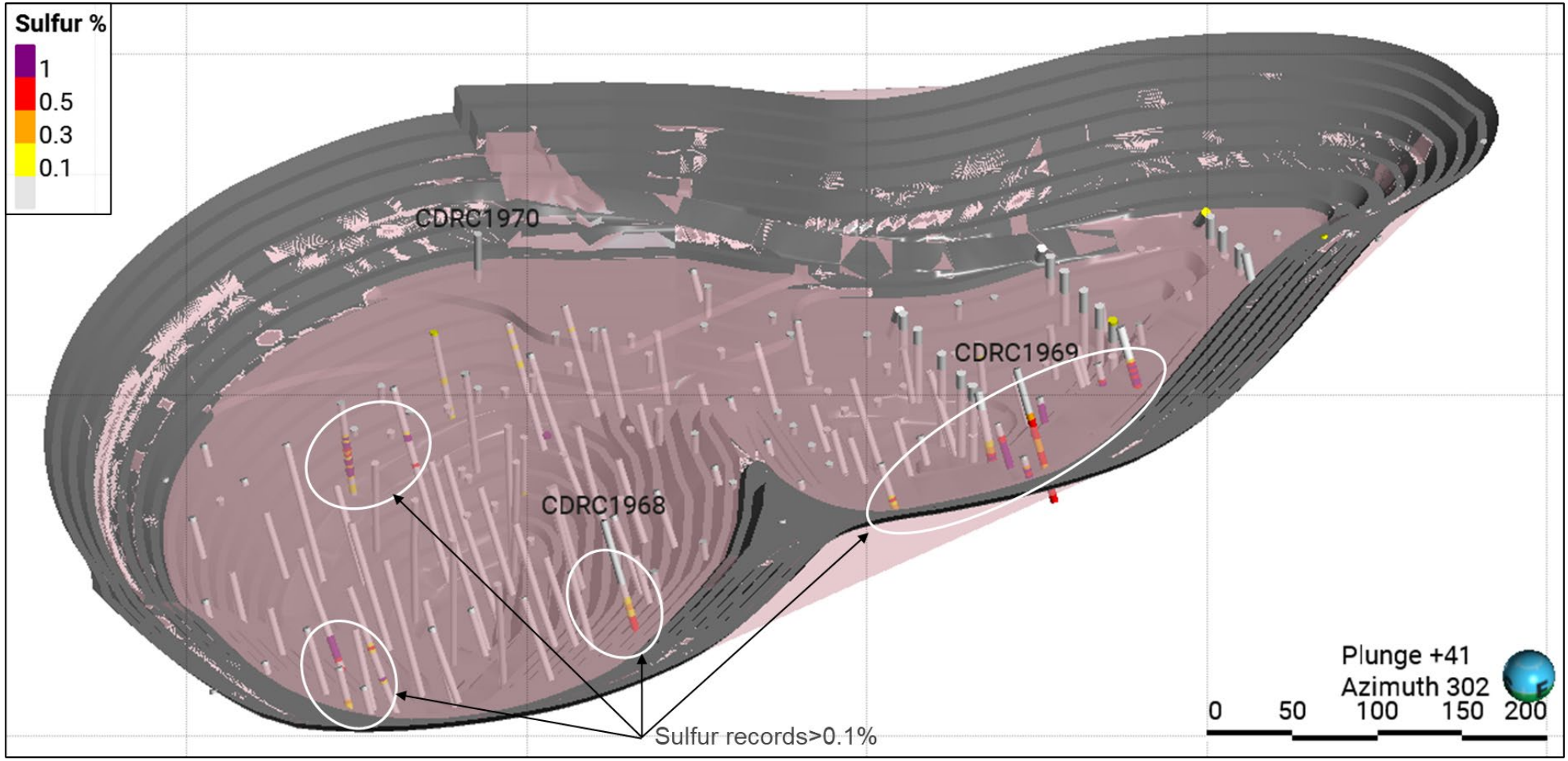


Figure A 2: Sulfur distribution within the Sparrow Pit (looking NW) - Stage 4 (pink) and Stage 5 (grey)

A.1.2 Sulfur Block Model Assessment-Stage 5

The sulfur block model was reviewed for comparison with the sulfur data from the drilling database; the data has been summarised in Table A 2. The comparison shows that there are discrepancies between the datasets, this may be due to how the data is extrapolated in the block model with higher sulfur grades being extended into specific areas of the pit where drilling intercepts may be lacking. The same observations were made for Stage 4 (Mine Earth, 2024a).

Table A 2: Sulfur data comparison between block model and drilling database-Stage 5

Total Sulfur	Sparrow (%)	
	Drilling Database	Block Model
<0.1%	90.5%	83.5%
0.1-0.3%	3.2%	9.9%
0.3-0.5%	0.8%	3.1%
>0.5%	5.6%	3.6%

A.1.3 Stage 5 – Preliminary Geochemical Analysis

A.1.4 Drillholes

Six reverse circulation holes (three per deposit) were drilled to collect samples for geochemical testwork. The locations of these drillholes (with geology) are presented in Figure A 3 and the downhole logs of the geology and intersections with the pit stages are presented in Figure A 4.

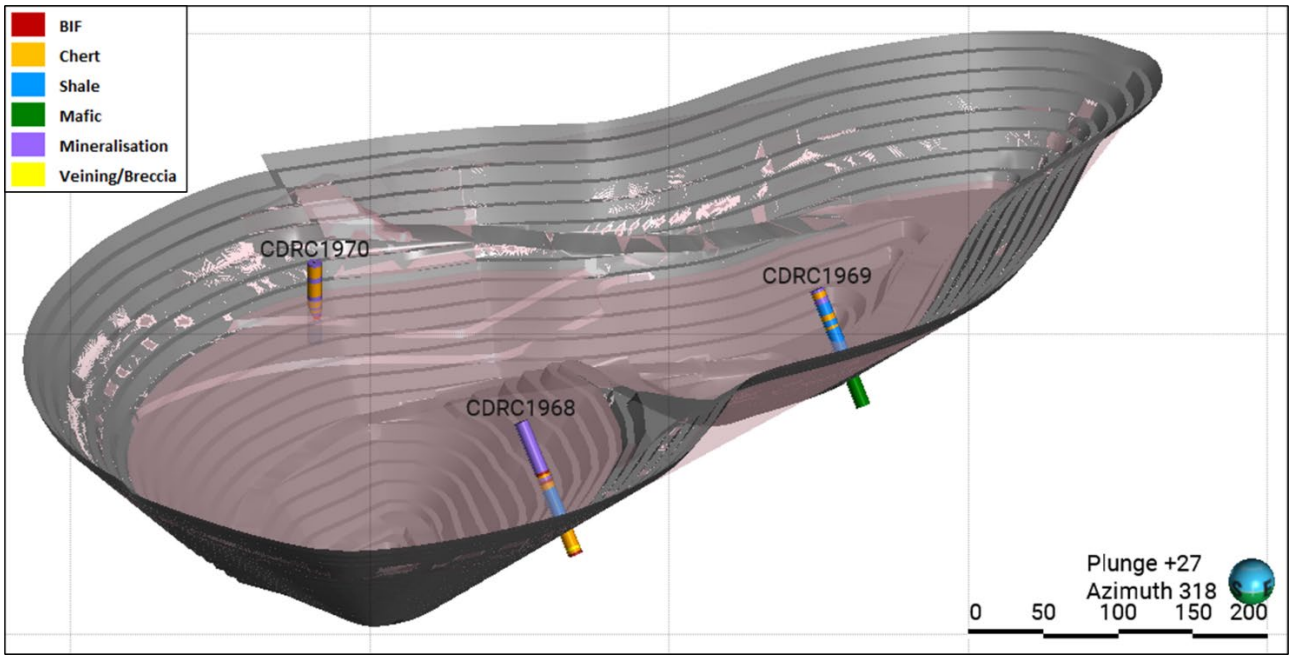


Figure A 3: Geochemical drillholes within Sparrow Pit (looking NW) - Stage 4 (pink), and Stage 5 (grey)

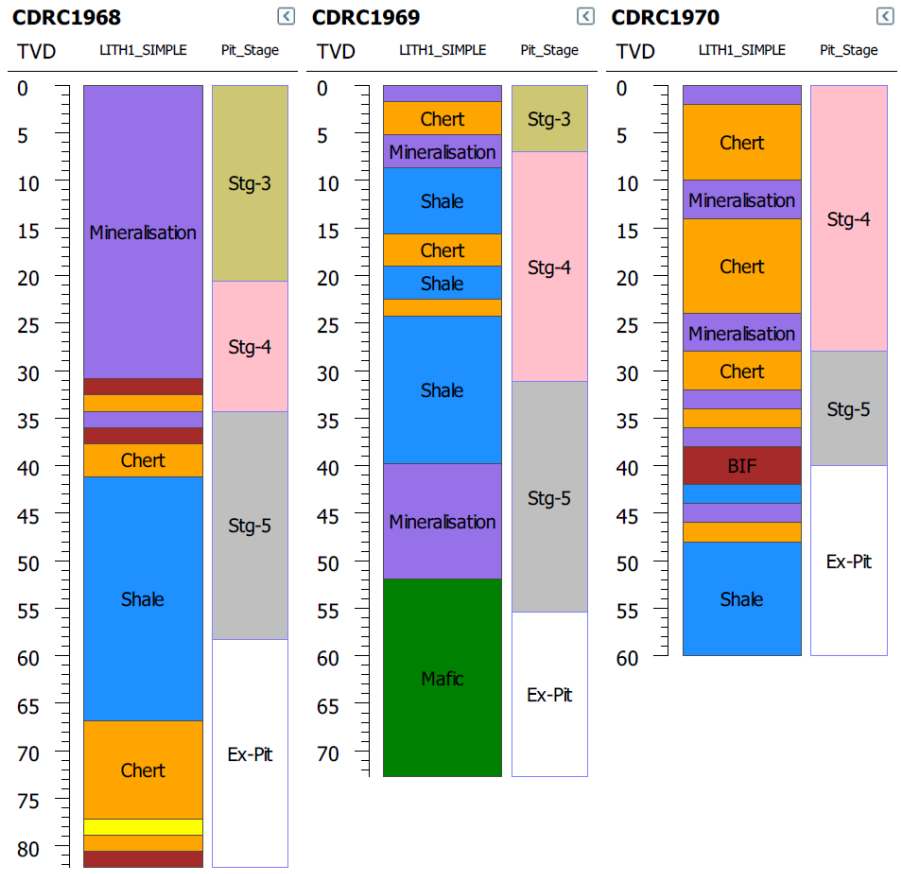


Figure A 4: Downhole logs of Sparrow (CDRC-1968, -69, -70) drillholes

Notes: TVD: True Vertical Depth
CDRC1970 was collared from surface, whilst CDRC1968 and CDRC1969 were collared from within the established pit
Mineralisation regroups hematite and goethite

A.1.5 Data Analysis - Existing and potential acidity ($pH_{1:2}$ and NAGpH), total sulfur and $EC_{1:2}$

Depth profiles for $pH_{1:2}$, NAGpH, total sulfur, and $EC_{1:2,}$ for the Sparrow drillholes are presented by depth in Figure A 5. with tabulated data provided in Appendix C. These four parameters in combination provide guidance on the material's potential to release acid or generate saline leachates, using the following threshold values (Table 4, section 3.2):

- $pH_{1:2}$ <5.5: material contains existing acidity.
- NAGpH <4.5: material is likely PAF.
- Total S > 0.1% conservative sulfur cut-off.
- $EC_{1:2}$ > 400 µS/cm salt tolerant species only.

The analysis of the results indicates:

- Sparrow:
  - All shale samples except one had pH values less than pH 5.5, NAGpH values less than 4.5 and TS above 0.2%, indicating that shale and some mineralisation in this area of the pit contain existing acidity and sulfidic materials which could potentially generate AMD.
  - $EC_{1:2}$ for the low pH samples ranged from 173 to 1027 µS/cm, indicating that some salts/metals are likely to be released.
  - Samples from CDRC-1970 (opposite to CDRC1968 and CDRC-1969) can all be classed as NAF.

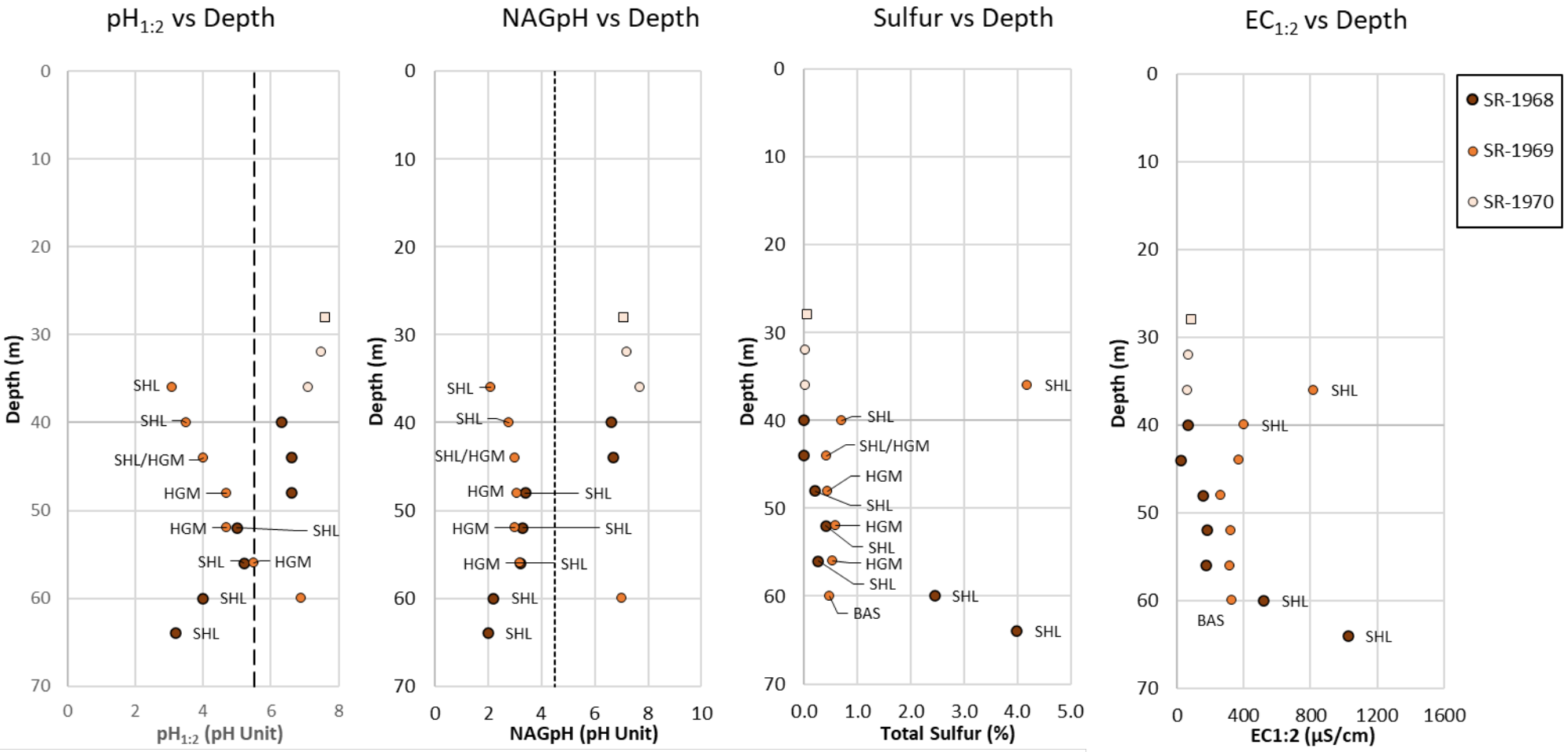


Figure A 5: $pH_{1:2}$, NAGpH, total sulfur and $EC_{1:2}$ plots by depth across the Sparrow Stage 5 pit. Squares represent ore samples

Note: HGM: hematite/goethite medium, SHL: shale, CHT: chert. BAS; Basalt

Appendix B

Updated Stage 5 lithological distribution within the 2024 drilling database – Waste rock

Table B.1: Stage 5 lithological distribution for the waste rock

Group	Subgroup	Lithology	Code	Sparrow Distribution (%)
Mineralisation	Goethite	Goethite Friable	GOF	0.1
		Goethite Moderate	GOM	6.5
		Goethite Hard	GOH	16.5
	Hematite	Hematite Friable	HEF	0.4
		Hematite Moderate	HEM	4.4
		Hematite Hard	HEH	1.2
		Hematite Powdery	HEP	0.1
	Hematite/Goethite	Hematite/Goethite Hard	HGH	4.4
		Hematite/Goethite Moderate	HGM	10
		Hematite/Goethite Friable	HGF	0.1
Regolith	Saprolite	Clay	CLY	2.7
Sedimentary	BIF	Banded Iron Formation	BIF	2.8
		Banded Iron with Chert	BIC	0.4
		Banded iron with Goethite	BIG	0.2
	Chert	Chert	CHT	27.3
		Chert-Goethite	CHG	6.4
	Shale	Shale	SHL/SHLE	9
		Shale Hematised	SHH	0.1
		Shale Ferruginous	SHF	3.4
		Shale Carbonaceous	CBS	2.7
Igneous	Basalt	Basalt	BLT/BAS	0.4
Veining	Veining/Breccia	Quartz	QTZ	0.7

Appendix C

Sample list from the 2023 detailed geochemical characterisation

Sample ID (SJRC-)	Sample ID (SJR-) (Mine Earth, 2024)	Atlas Sample IDs	Sample Depth (from)	Sample Depth (to)	Grade	Pit Stage
-	SJR011	ER02697 ER02699	36	40	Ore	Stage 5
SJRC012	SJR012	ER02701 ER02703	40	44	Waste	Stage 5
SJRC013	SJR013	ER02705 ER02707	44	48	Waste	Stage 5
SJRC014	SJR014	ER02709 ER02711	48	52	Waste	Stage 5
SJRC015	SJR015	ER02713 ER02715	52	56	Waste	Stage 5
SJRC016	SJR016	ER02717 ER02719	56	60	Waste	Stage 5
SJRC017	SJR017	ER02721 ER02723	60	64	Waste	Stage 5
SJRC018	-	ER02725 ER02727	64	68	Waste	Out
SJRC034	SJR034	ER03159 ER03161	36	40	Waste	Stage 5
SJRC035	SJR035	ER03163 ER03165	40	44	Waste	Stage 5
SJRC036	SJR036	ER03167 ER03169	44	48	Waste	Stage 5
SJRC037	SJR037	ER03171 ER03173	48	52	Waste	Stage 5
SJRC038	SJR038	ER03175 ER03177	52	56	Waste	Stage 5
SJRC039	SJR039	ER03179 ER03181	56	60	Waste	Stage 5
SJRC040	SJR040	ER03183 ER03185	60	64	Waste	Stage 5
SJRC041	-	ER03187 ER03189	64	68	Waste	Out
SJRC053	SJR053	ER03091 ER03093	28	32	Waste	Stage 5
SJRC054	SJR054	ER03095 ER03097	32	36	Waste	Stage 5
SJRC055	SJR055	ER03099 ER03101	36	40	Waste	Stage 5
SJRC056	-	ER03103 ER03105	40	44	Waste	Out

Appendix D

Sample list from the 2024 detailed geochemical characterisation

Sample ID	Hole ID	Sample Depth (from)	Sample Depth (to)	Lithology
SPL001	SPLWC002	30	32	Shale
SPL002	SPLWC002	32	34	Shale
SPL003	SPLWC002	34	36	Shale
SPL004	SPLWC002	36	38	Shale
SPL005	SPLWC002	38	40	Shale
SPL006	SPLWC002	40	42	Shale
SPL007	SPLWC002	44	46	Regolith
SPL008	SPLWC002	46	48	Regolith
SPL009	SPLWC002	48	50	Veining
SPL010	SPLWC002	50	52	Veining
SPL011	SPLWC002	52	54	Shale
SPL012	SPLWC002	54	56	Shale
SPL013	SPLWC002	56	58	BIF
SPL014	SPLWC002	58	60	BIF
SPL015	SPLWC002	60	62	BIF
SPL016	SPLWC002	62	64	Shale
SPL017	SPLWC002	64	66	Shale
SPL018	SPLWC002	66	68	Shale
SPL019	SPLWC003	60	62	Goethite
SPL020	SPLWC003	62	64	Goethite
SPL021	SPLWC003	66	68	Goethite
SPL022	SPLWC003	68	70	BIF
SPL023	SPLWC003	70	72	BIF
SPL024	SPLWC003	72	74	Goethite
SPL025	SPLWC003	74	76	Goethite
SPL026	SPLWC003	76	78	Goethite
SPL027	SPLWC003	80	82	Chert
SPL028	SPLWC003	82	84	Chert
SPL029	SPLWC003	84	86	Chert
SPL030	SPLWC003	86	88	Chert
SPL031	SPLWC003	90	92	Chert
SPL032	SPLWC003	92	94	Chert
SPL033	SPLWC003	94	96	Chert
SPL034	SPLWC003	96	98	Chert
SPL035	SPLWC003	100	102	Goethite
SPL036	SPLWC003	102	104	Goethite
SPL037	SPLWC003	104	106	Goethite
SPL038	SPLWC003	106	108	Goethite
SPL039	SPLWC004	52	54	Goethite
SPL040	SPLWC004	58	60	BIF
SPL041	SPLWC004	60	62	BIF
SPL042	SPLWC004	64	66	BIF
SPL043	SPLWC004	66	68	BIF
SPL044	SPLWC004	68	70	BIF
SPL045	SPLWC004	72	74	BIF
SPL046	SPLWC004	74	76	BIF

Sample ID	Hole ID	Sample Depth (from)	Sample Depth (to)	Lithology
SPL047	SPLWC004	76	78	BIF
SPL048	SPLWC004	80	82	BIF
SPL049	SPLWC004	82	84	BIF
SPL050	SPLWC004	84	86	BIF
SPL051	SPLWC004	86	88	BIF
SPL052	SPLWC004	90	92	BIF
SPL053	SPLWC004	92	94	BIF
SPL054	SPLWC004	94	96	BIF
SPL055	SPLWC004	98	100	BIF
SPL056	SPLWC005	102	104	Goethite
SPL057	SPLWC005	106	108	Goethite
SPL058	SPLWC005	108	110	Goethite
SPL059	SPLWC006	68	70	Goethite
SPL060	SPLWC006	74	76	Goethite
SPL061	SPLWC006	76	78	Goethite
SPL062	SPLWC007	28	30	Shale
SPL063	SPLWC007	30	32	Shale
SPL064	SPLWC007	34	36	Shale
SPL065	SPLWC007	36	38	Shale
SPL066	SPLWC007	38	40	Shale
SPL067	SPLWC008	52	54	Goethite
SPL068	SPLWC008	54	56	Goethite
SPL069	SPLWC008	58	60	Goethite
SPL070	SPLWC008	64	66	Regolith
SPL071	SPLWC008	66	68	Regolith
SPL072	SPLWC008	68	70	Goethite
SPL073	SPLWC009	90	92	Goethite
SPL074	SPLWC009	92	94	Goethite
SPL075	SPLWC010	72	74	Goethite
SPL076	SPLWC011	90	92	BIF
SPL077	SPLWC011	92	94	BIF
SPL078	SPLWC011	94	96	BIF
SPL079	SPLWC011	96	98	BIF
SPL080	SPLWC011	100	102	Shale
SPL081	SPLWC011	102	104	Shale
SPL082	SPLWC011	104	106	Shale
SPL083	SPLWC011	106	108	Shale
SPL084	SPLWC011	110	112	Chert
SPL085	SPLWC011	112	114	Chert
SPL086	SPLWC011	114	116	Shale
SPL087	SPLWC011	116	118	Chert
SPL088	SPLWC011	118	120	Shale
SPL089	SPLWC011	120	122	Shale
SPL090	SPLWC011	122	124	Shale
SPL091	SPLWC012	90	92	Chert
SPL092	SPLWC012	92	94	Chert

Sample ID	Hole ID	Sample Depth (from)	Sample Depth (to)	Lithology
SPL093	SPLWC012	94	96	Chert
SPL094	SPLWC012	98	100	Goethite
SPL095	SPLWC012	100	102	Goethite
SPL096	SPLWC012	102	104	Goethite
SPL097	SPLWC012	106	108	Shale
SPL098	SPLWC012	108	110	Shale
SPL099	SPLWC012	110	112	Shale
SPL100	SPLWC013	78	80	BIF

Appendix E

ABA, Saline Leach and pH4.8 Leach Results

Lithology Group	Count	Pit Proportions (%)	$pH_{1:2}$ (pH Unit)	$EC_{1:2}$ (µS/cm)	Total S (%)	ANC (kg H_2SO_4/t)	NAG pH (pH Unit)	NAG to pH 4.5	NAG to pH 7.0	MPA	NAPP (MPA - ANC)	NPR (ANC/MPA)
								kg H_2SO_4/t				
Regolith	4	-	6.2	270	0.18	*<0.5*	3.8	2.5	6	5.4	4.6	0.3
Basalt	2	-	7.5	520	0.47	50.5	7.6	*<0.5*	*<0.5*	14.2	-36.3	3.6
BIF	27	1	7.1	57	*<0.01*	1.1	5.9	*<0.5*	2.9	0.3	-0.76	2.3
Chert	16	39	7.5	135	*<0.01*	1.2	6.4	*<0.5*	*<0.5*	0.3	-0.91	3.6
Shale	36	12	6	800	0.87	0.5	2.8	13	21	26.5	26.5	0.02
Goethite/Hematite	32	45	7	66	*<0.01*	1.1	6.5	*<0.5*	1.1	0.3	-0.51	2.0

1:2 MEND Leach Metals

Lithology Group		Regolith		Basalt		BIF		Chert		Shale		Goethite/Hematite		ANZECC Stock Water Guideline Value (ANZECC and ARMCANZ, 2000)	Draft Stock Water Guideline Value (ANZG, 2023)
Parameter	Count	4		2		27		16		36		32			
	Reporting statistic	Mean	Maximum	Mean	Maximum	Mean	Maximum	Mean	Maximum	Mean	Maximum	Mean	Maximum		
pH (1:2)	pH Units	-	-	7.9		7.4	6.5/7.4	7.8	5.9/8	4.8	4.1/7.5	7.0	6.5/7.8	6.5–8.5	6.5–8.5
EC (1:2)	µS/cm	-	-	580	620	140	140	188	290	979	1,800	122	450	-	-
TDS (Calc)	mg/L	218	362	253	280	74	280	146	649	542	1,499	58	335	-	500
Chloride	mg/L	-	-	3	3	6	6	4	6	3	5	4	5	-	-
Sulfate	mg/L	166	280	113	130	37.2	220	98.7	490	423	1,200	35	260	1,000	500
Potassium	mg/L	12.5	33	15	17	16.0	84	41.8	120	99	240	15	52	-	-
Magnesium	mg/L	14.9	26	63	68	3.7	18	9.3	80	22	55	5	42	-	500
Sodium	mg/L	6	7.3	2.5	3	5	11	6.8	14	10	23	4	13	-	-
Calcium	mg/L	9.1	14	5.45	5.8	3.2	18	4.7	36	11.0	30	2.1	12	1,000	1,000
Total Alkalinity as $CaCO_3$	mg/L	9.15	18	180	190	40.5	410	32.2	130	6.5	25	21	42	-	-
Aluminium	mg/L	1.0	3.6	0.02	0.023	0.31	2.7	0.86	2.8	9.81	65	0.36	3.2	5	5
Antimony	mg/L	0.001	0.001	*<0.001*	*<0.001*	0.001	0.0016	0.001	0.004	0.001	0.001	0.001	0.002	-	-
Arsenic	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.003	*<0.001*	*<0.001*	0.001	0.001	0.001	0.004	0.5	0.025
Barium	mg/L	0.03	0.06	0.001	0.0012	0.02	0.061	0.009	0.036	0.017	0.064	0.004	0.033	-	-
Beryllium	mg/L	0.001	0.003	-	-	0.0005	0.0008	0.0006	0.001	0.003	0.016	*<0.0005*	*<0.0005*	-	0.06
Bismuth	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Boron	mg/L	0.14	0.16	0.04	0.04	0.18	0.42	0.11	0.15	0.15	0.27	0.1	0.24	5	5
Cadmium	mg/L	0.0005	0.0011	*<0.0001*	*<0.0001*	0.0001	0.0006	0.0005	0.0032	0.003	0.027	0.0001	0.00018	0.01	0.01
Caesium	mg/L	*<0.001*	*<0.001*	-	-	0.0011	0.0015	0.0010	0.0014	0.002	0.003	0.0010	0.0012	-	-
Cerium	mg/L	0.004	0.014	-	-	0.0011	0.0023	0.002	0.0064	0.007	0.026	*<0.001*	*<0.001*	-	-
Chromium	mg/L	0.002	0.006	*<0.001*	*<0.001*	0.002	0.02	0.009	0.031	0.046	0.36	0.003	0.024	1	0.05
Cobalt	mg/L	0.07	0.23	0.001	0.0013	0.012	0.15	0.021	0.14	0.3	1.7	0.002	0.006	1	1
Copper	mg/L	0.008	0.027	0.012	0.022	0.006	0.09	0.012	0.064	2.8	31.0	0.002	0.012	1 (cattle)	1 (cattle)
Gallium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.0016	*<0.001*	*<0.001*	-	-
Germanium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Hafnium	mg/L	*<0.001*	*<0.001*	-	-	0.001	0.0011	0.001	0.0012	0.001	0.0015	*<0.001*	*<0.001*	-	-
Iron	mg/L	0.23	0.82	*<0.01*	*<0.01*	0.9	3.4	1.97	14	25.8	260	1.02	7.1	-	-
Lanthanum	mg/L	0.003	0.009	-	-	0.001	0.0015	0.0009	0.0037	0.004	0.014	0.001	0.001	-	-
Lead	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.0044	*<0.001*	*<0.001*	-	-
Lithium	mg/L	0.088	0.22	0.01	0.01	0.028	0.18	0.01	0.04	0.03	0.13	0.02	0.05	-	-
Manganese	mg/L	2.09	4.6	0.13	0.13	0.42	4.9	1.62	19	2.17	8.2	0.10	1	-	10
Mercury	mg/L	*<0.00005*	*<0.00005*	*<0.00005*	*<0.00005*	5.96E-05	0.0002	7.67E-05	0.0003	5.18E-05	0.0001	9.22E-05	0.0006	0.002	0.002
Molybdenum	mg/L	0.001	0.0015	0.002	0.0027	0.002	0.026	0.003	0.012	0.001	0.0081	0.001	0.0061	0.15	0.01
Nickel	mg/L	0.16	0.5	0.005	0.006	0.017	0.17	0.057	0.35	0.9	4.7	0.007	0.06	1	1
Niobium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.0011	*<0.001*	*<0.001*	-	-
Rhenium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Rubidium	mg/L	0.01	0.03	-	-	0.023	0.12	0.056	0.15	0.130	0.36	0.019	0.068	-	-
Scandium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	0.001	0.0015	0.004	0.024	*<0.001*	*<0.001*	-	-
Selenium	mg/L	0.019	0.05	0.002	0.003	0.008	0.067	0.014	0.14	0.05	0.22	0.003	0.011	0.02	0.02
Silver	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Strontium	mg/L	0.221	0.69	0.02	0.019	0.07	0.54	0.06	0.5	0.06	0.36	0.02	0.18	-	-
Tantalum	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Tellurium	mg/L	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.0068	*<0.001*	*<0.001*	-	-
Thallium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.0024	*<0.001*	*<0.001*	-	-
Thorium	mg/L	0.001	0.001	*<0.0005*	*<0.0005*	0.001	0.0008	0.0006	0.0014	0.001	0.0013	0.001	0.0014	-	-
Tin	mg/L	0.001	0.001	0.003	0.004	0.001	0.0026	0.001	0.001	0.001	0.0023	0.001	0.0084	-	-
Titanium	mg/L	0.003	0.006	-	-	0.004	0.025	0.006	0.022	0.002	0.0031	0.004	0.016	-	-
Tungsten	mg/L	*<0.01*	*<0.01*	-	-	*<0.01*	*<0.01*	*<0.01*	<0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	-	-
Uranium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	<0.001	0.002	0.02	*<0.001*	*<0.001*	0.2	0.2
Vanadium	mg/L	0.001	0.0014	*<0.001*	*<0.001*	0.002	0.0088	0.003	0.0092	0.002	0.019	0.002	0.0096	-	0.1
Yttrium	mg/L	0.0063	0.022	-	-	0.001	0.0041	0.002	0.012	0.03	0.13	*<0.001*	*<0.001*	-	-
Zinc	mg/L	0.057	0.16	*<0.001*	*<0.001*	0.011	0.076	0.011	0.055	0.2	0.7	0.004	0.036	20	20

< are in italics and in grey

Value above the stock water guideline highlighted in grey

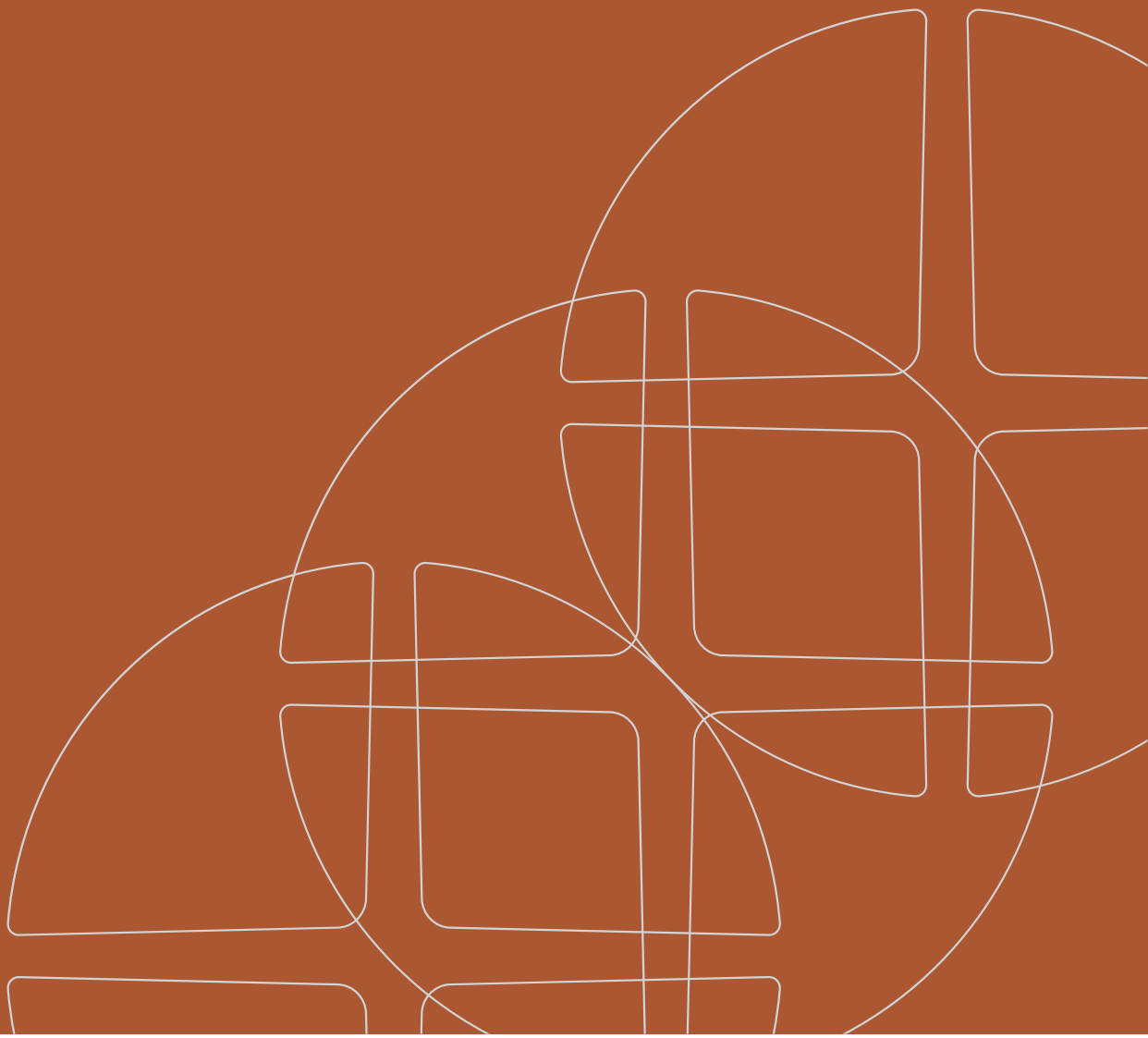
1:2 Leach Metals Extraction at pH4.8

Lithology Group		Regolith		BIF		Chert		Shale		Goethite/Hematite		ANZECC Stock Water Guideline Value (ANZECC and ARMCANZ, 2000)	Draft Stock Water Guideline Value (ANZG, 2023)
Parameter	Count	3		7		3		21		2			
	Reporting statistic	Mean	Maximum	Mean	Maximum	Mean	Maximum	Mean	Maximum	Mean	Maximum		
pH (1:2)	pH Units	-	-	-	-	-	-	-	-	-	-	6.5–8.5	6.5–8.5
EC (1:2)	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-
TDS (Calc)	mg/L	-	-	-	-	-	-	-	-	-	-	-	500
Chloride	mg/L	19.3	21	21	24	27	31	27	50	42	50	-	-
Sulfate	mg/L	242	430	179	350	497	550	896	1,900	125	140	1,000	500
Potassium	mg/L	15.3	37	77.2	140	127	160	113	220	95	120	-	-
Magnesium	mg/L	30.3	50	83.9	290	30	38	38	60	36.5	45	-	500
Sodium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	mg/L	19.7	22	86.3	270	18.7	20	20.5	35	22.5	26	1,000	1,000
Total Alkalinity as CaCO3	mg/L	1,933	2,000	2,571	3,200	2,767	3,000	1,679	2,600	2,950	3,000	-	-
Aluminium	mg/L	1.4	2.2	0.613	1.7	1.14	2	2.4	6.7	0.41	0.42	5	5
Antimony	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Arsenic	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.002	*<0.001*	*<0.001*	0.5	0.025
Barium	mg/L	0.14	0.21	0.16	0.34	0.10	0.14	0.083	0.21	0.24	0.29	-	-
Beryllium	mg/L	0.002	0.002	0.001	0.002	0.002	0.002	0.002	0.0041	0.0008	0.0008	-	0.06
Bismuth	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Boron	mg/L	0.098	0.11	0.109	0.19	0.09	0.11	0.15	0.22	0.088	0.089	5	5
Cadmium	mg/L	0.005	0.011	0.001	0.0015	0.0019	0.0026	0.005	0.035	0.00165	0.0022	0.01	0.01
Caesium	mg/L	0.002	0.002	0.002	0.0028	0.002	0.002	0.002	0.005	0.0016	0.0022	-	-
Cerium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	mg/L	0.021	0.029	0.01	0.05	0.045	0.064	0.17	0.5	0.0165	0.019	1	0.05
Cobalt	mg/L	0.1	0.17	0.08	0.19	0.10	0.14	0.49	1.4	0.08	0.12	1	1
Copper	mg/L	0.034	0.041	0.09	0.27	0.17	0.38	3.3	20	0.065	0.081	1 (cattle)	1 (cattle)
Gallium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.001	0.001	0.0012	*<0.001*	*<0.001*	-	-
Germanium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hafnium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	3.26	5.8	53.1	270	47	80	15.8	170	3.57	7.1	-	-
Lanthanum	mg/L	0.003	0.006	0.002	0.0051	0.006	0.009	0.004	0.009	0.0015	0.0017	-	-
Lead	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.001	0.001	*<0.001*	*<0.001*	-	-
Lithium	mg/L	0.12	0.16	0.089	0.22	0.01	0.02	0.05	0.18	0.05	0.06	-	-
Manganese	mg/L	3.1	4.9	3.1	9.7	4.51	7.3	4.0	20	18.55	32	-	10
Mercury	mg/L	*<0.00005*	*<0.00005*	5.64E-05	0.0001	0.0006	0.001	*<0.00005*	*<0.00005*	*<0.00005*	*<0.00005*	0.002	0.002
Molybdenum	mg/L	*<0.001*	*<0.001*	0.002	0.0083	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.15	0.01
Nickel	mg/L	0.31	0.42	0.23	0.38	0.37	0.43	1.4	3.7	0.41	0.54	1	1
Niobium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rhenium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	mg/L	0.02	0.04	0.12	0.21	0.19	0.23	0.17	0.34	0.137	0.18	-	-
Scandium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	mg/L	0.04	0.06	0.02	0.079	0.1	0.2	0.08	0.28	0.012	0.013	0.02	0.02
Silver	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Strontium	mg/L	0.38	0.69	0.63	0.95	0.28	0.4	0.14	0.58	0.415	0.47	-	-
Tantalum	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Tellurium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Thorium	mg/L	*<0.001*	*<0.001*	0.002	0.0026	*<0.001*	*<0.001*	0.001	0.0019	0.00105	0.0011	-	-
Tin	mg/L	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	0.001	0.0007	*<0.0005*	*<0.0005*	-	-
Titanium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.002	0.005	0.002	0.012	*<0.001*	*<0.001*	-	-
Tungsten	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Uranium	mg/L	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	0.2	0.2
Vanadium	mg/L	0.0016	0.0028	0.001	0.0023	0.006	0.007	0.004	0.010	0.0013	0.0014	-	0.1
Yttrium	mg/L	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-
Zinc	mg/L	0.146	0.25	0.064	0.160	0.19	0.51	0.19	0.40	0.110	0.160	20	20

< are in italics and in grey

Value above the stock water guideline highlighted in grey

Appendix F
Laboratory Reports



Envirolab Services (WA) Pty Ltd trading as MPL Laboratories
ABN 53 140 099 207
16-18 Hayden Court Myaree WA 6154
ph +61 8 9317 2505
lab@mpl.com.au
www.mpl.com.au

Certificate of Analysis PFK0468

Client Details

Client	Mine Earth
Contact	Glendon Wesley
Address	1/94 Forsyth St, O'CONNOR, WA, 6163

Sample Details

Your Reference	SAN-2401
Number of Samples	100 Solid adhoc
Date Samples Received	16/09/2024
Date Instructions Received	14/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	19/12/2024
Date of Issue	02/01/2025

Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with *.

Authorisation Details

Results Approved By	Ben Carpenter, Metals Technician Lucas Yii, Inorganics Team Leader Michael Mowle, Inorganics Supervisor Stacey Hawkins, ASS/AMD Supervisor Varsha Ho Wing, Inorganics and Metals Supervisor
Laboratory Manager	Michael Kubiak

Certificate of Analysis PFK0468

Samples in this Report

Envirolab ID	Sample ID	Description	Depth	Matrix	Date Sampled	Date Received
PFK0468-01	SPL001	ATRC006488	30.00-32.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-02	SPL002	ATRC006489	32.00-34.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-03	SPL003	ATRC006490	34.00-36.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-04	SPL004	ATRC006491	36.00-38.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-05	SPL005	ATRC006492	38.00-40.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-06	SPL006	ATRC006493	40.00-42.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-07	SPL007	ATRC006495	44.00-46.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-08	SPL008	ATRC006496	46.00-48.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-09	SPL009	ATRC006497	48.00-50.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-10	SPL010	ATRC006498	50.00-52.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-11	SPL011	ATRC006499	52.00-54.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-12	SPL012	ATRC006502	54.00-56.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-13	SPL013	ATRC006503	56.00-58.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-14	SPL014	ATRC006504	58.00-60.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-15	SPL015	ATRC006505	60.00-62.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-16	SPL016	ATRC006506	62.00-64.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-17	SPL017	ATRC006507	64.00-66.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-18	SPL018	ATRC006508	66.00-68.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-19	SPL019	ATRC006171	60.00-62.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-20	SPL020	ATRC006172	62.00-64.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-21	SPL021	ATRC006174	66.00-68.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-22	SPL022	ATRC006175	68.00-70.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-23	SPL023	ATRC006176	70.00-72.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-24	SPL024	ATRC006177	72.00-74.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-25	SPL025	ATRC006178	74.00-76.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-26	SPL026	ATRC006179	76.00-78.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-27	SPL027	ATRC006183	80.00-82.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-28	SPL028	ATRC006184	82.00-84.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-29	SPL029	ATRC006185	84.00-86.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-30	SPL030	ATRC006186	86.00-88.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-31	SPL031	ATRC006188	90.00-92.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-32	SPL032	ATRC006189	92.00-94.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-33	SPL033	ATRC006190	94.00-96.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-34	SPL034	ATRC006191	96.00-98.00	Solid adhoc	16/09/2024	05/11/2024

Samples in this Report

Envirolab ID	Sample ID	Description	Depth	Matrix	Date Sampled	Date Received
PFK0468-35	SPL035	ATRC006193	100.00-102.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-36	SPL036	ATRC006194	102.00-104.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-37	SPL037	ATRC006195	104.00-106.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-38	SPL038	ATRC006196	106.00-108.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-39	SPL039	ATRC006096	52.00-54.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-40	SPL040	ATRC006099	58.00-60.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-41	SPL041	ATRC006102	60.00-62.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-42	SPL042	ATRC006104	64.00-66.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-43	SPL043	ATRC006105	66.00-68.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-44	SPL044	ATRC006106	68.00-70.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-45	SPL045	ATRC006108	72.00-74.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-46	SPL046	ATRC006109	74.00-76.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-47	SPL047	ATRC006110	76.00-78.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-48	SPL048	ATRC006112	80.00-82.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-49	SPL049	ATRC006113	82.00-84.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-50	SPL050	ATRC006114	84.00-86.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-51	SPL051	ATRC006115	86.00-88.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-52	SPL052	ATRC006117	90.00-92.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-53	SPL053	ATRC006118	92.00-94.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-54	SPL054	ATRC006119	94.00-96.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-55	SPL055	ATRC006123	98.00-100.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-56	SPL056	ATRC006057	102.00-104.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-57	SPL057	ATRC006059	106.00-108.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-58	SPL058	ATRC006062	108.00-110.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-59	SPL059	ATRC006275	68.00-70.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-60	SPL060	ATRC006278	74.00-76.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-61	SPL061	ATRC006279	76.00-78.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-62	SPL062	ATRC006319	28.00-30.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-63	SPL063	ATRC006322	30.00-32.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-64	SPL064	ATRC006324	34.00-36.00	Solid adhoc	16/09/2024	05/11/2024

Samples in this Report

Envirolab ID	Sample ID	Description	Depth	Matrix	Date Sampled	Date Received
PFK0468-65	SPL065	ATRC006325	36.00-38.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-66	SPL066	ATRC006326	38.00-40.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-67	SPL067	ATRC006453	52.00-54.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-68	SPL068	ATRC006454	54.00-56.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-69	SPL069	ATRC006456	58.00-60.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-70	SPL070	ATRC006459	64.00-66.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-71	SPL071	ATRC006462	66.00-68.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-72	SPL072	ATRC006463	68.00-70.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-73	SPL073	ATRC006671	90.00-92.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-74	SPL074	ATRC006672	92.00-94.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-75	SPL075	ATRC006394	72.00-74.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-76	SPL076	ATRC006817	90.00-92.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-77	SPL077	ATRC006818	92.00-94.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-78	SPL078	ATRC006819	94.00-96.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-79	SPL079	ATRC006822	96.00-98.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-80	SPL080	ATRC006824	100.00-102.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-81	SPL081	ATRC006825	102.00-104.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-82	SPL082	ATRC006826	104.00-106.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-83	SPL083	ATRC006827	106.00-108.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-84	SPL084	ATRC006829	110.00-112.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-85	SPL085	ATRC006830	112.00-114.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-86	SPL086	ATRC006831	114.00-116.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-87	SPL087	ATRC006832	116.00-118.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-88	SPL088	ATRC006833	118.00-120.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-89	SPL089	ATRC006834	120.00-122.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-90	SPL090	ATRC006835	122.00-124.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-91	SPL091	ATRC006891	90.00-92.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-92	SPL092	ATRC006892	92.00-94.00	Solid adhoc	16/09/2024	05/11/2024

Samples in this Report

Envirolab ID	Sample ID	Description	Depth	Matrix	Date Sampled	Date Received
PFK0468-93	SPL093	ATRC006893	94.00-96.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-94	SPL094	ATRC006895	98.00-100.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-95	SPL095	ATRC006896	100.00-102.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-96	SPL096	ATRC006897	102.00-104.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-97	SPL097	ATRC006899	106.00-108.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-98	SPL098	ATRC006902	108.00-110.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-99	SPL099	ATRC006903	110.00-112.00	Solid adhoc	16/09/2024	05/11/2024
PFK0468-AA	SPL100	ATRC006962	78.00-80.00	Solid adhoc	16/09/2024	05/11/2024

Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
Total Organic Carbon*	%	0.010	0.74	0.23	0.37	0.13	0.18
Total Carbon*	%	0.010	0.73	0.22	0.36	0.13	0.18
Total Sulfur*	%	0.010	0.029	0.11	0.26	0.010	0.013
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
Total Organic Carbon*	%	0.010	0.34	0.51	0.39	0.51	0.32
Total Carbon*	%	0.010	0.34	0.51	0.40	0.50	0.32
Total Sulfur*	%	0.010	0.097	0.44	0.28	8.0	1.8
Total Inorganic Carbon (Combustion)	%	0.010	0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
Total Organic Carbon*	%	0.010	0.33	0.24	0.25	0.27	0.16
Total Carbon*	%	0.010	0.33	0.25	0.26	0.28	0.17
Total Sulfur*	%	0.010	0.27	0.31	0.17	0.44	0.36
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
Total Organic Carbon*	%	0.010	0.038	0.041	0.090	0.062	0.065
Total Carbon*	%	0.010	0.047	0.047	0.094	0.066	0.067
Total Sulfur*	%	0.010	0.015	0.011	0.032	<0.010	0.012
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Total Organic Carbon*	%	0.010	0.053	0.029	0.023	0.042	0.027
Total Carbon*	%	0.010	0.063	0.034	0.024	0.061	0.034
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	0.010	<0.010	<0.010	0.019	<0.010

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Total Organic Carbon*	%	0.010	0.025	0.028	0.020	0.031	0.027

Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Total Carbon*	%	0.010	0.026	0.037	0.022	0.033	0.034
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Total Organic Carbon*	%	0.010	0.039	0.032	0.035	0.028	0.030
Total Carbon*	%	0.010	0.048	0.040	0.041	0.038	0.028
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
Total Organic Carbon*	%	0.010	0.048	0.038	0.052	0.032	0.031
Total Carbon*	%	0.010	0.029	0.038	0.055	0.045	0.033
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	0.013	<0.010

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
Total Organic Carbon*	%	0.010	0.090	0.12	0.015	0.023	0.020
Total Carbon*	%	0.010	0.092	0.12	0.031	0.036	0.031
Total Sulfur*	%	0.010	0.024	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	0.016	0.013	0.011

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
Total Organic Carbon*	%	0.010	0.012	<0.010	0.029	0.042	0.022
Total Carbon*	%	0.010	0.023	0.027	0.024	0.020	0.021
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	0.011	0.027	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Total Organic Carbon*	%	0.010	0.025	0.040	0.045	0.044	0.014
Total Carbon*	%	0.010	0.025	0.058	0.059	0.060	0.029

Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Total Sulfur*	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	0.018	0.014	0.016	0.015

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
Total Organic Carbon*	%	0.010	0.042	0.074	0.051	0.038	0.032
Total Carbon*	%	0.010	0.050	0.047	0.041	0.030	0.026
Total Sulfur*	%	0.010	<0.010	0.010	<0.010	<0.010	<0.010
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
Total Organic Carbon*	%	0.010	0.038	2.0	1.3	2.1	2.2
Total Carbon*	%	0.010	0.033	2.1	1.3	2.1	2.2
Total Sulfur*	%	0.010	0.013	0.91	1.3	0.96	1.5
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Total Organic Carbon*	%	0.010	1.9	0.059	0.18	0.12	0.065
Total Carbon*	%	0.010	1.9	0.16	0.17	0.11	0.062
Total Sulfur*	%	0.010	1.9	0.010	<0.010	<0.010	0.026
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	0.098	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
Total Organic Carbon*	%	0.010	0.066	0.058	0.056	0.038	0.049
Total Carbon*	%	0.010	0.065	0.055	0.077	0.052	0.049
Total Sulfur*	%	0.010	0.075	0.012	0.012	<0.010	0.012
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	0.021	0.014	<0.010

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Total Organic Carbon*	%	0.010	0.23	0.24	0.29	0.58	0.81
Total Carbon*	%	0.010	0.59	0.24	0.28	0.54	0.76
Total Sulfur*	%	0.010	0.060	0.13	0.11	0.20	1.3

Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Total Inorganic Carbon (Combustion)	%	0.010	0.36	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
Total Organic Carbon*	%	0.010	1.1	1.2	1.5	0.53	0.47
Total Carbon*	%	0.010	0.99	1.1	1.4	0.51	0.44
Total Sulfur*	%	0.010	2.5	3.0	3.0	0.58	0.56
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
Total Organic Carbon*	%	0.010	1.1	0.51	2.0	1.6	2.4
Total Carbon*	%	0.010	1.0	0.48	1.9	1.5	2.1
Total Sulfur*	%	0.010	3.4	0.36	0.067	2.6	0.82
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
Total Organic Carbon*	%	0.010	0.036	0.058	0.078	0.090	0.18
Total Carbon*	%	0.010	0.053	0.21	0.084	0.088	0.18
Total Sulfur*	%	0.010	0.044	0.024	0.020	<0.010	0.069
Total Inorganic Carbon (Combustion)	%	0.010	0.017	0.15	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
Total Organic Carbon*	%	0.010	0.18	1.6	1.8	2.2	0.049
Total Carbon*	%	0.010	0.18	1.4	1.6	2.0	0.064
Total Sulfur*	%	0.010	0.074	1.7	2.9	3.6	0.033
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	<0.010	<0.010	<0.010	0.015

Inorganics (1:2 soil:water) (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
pH*	pH units		6.8	6.4	6.3	6.9	7.0
Electrical Conductivity*	µS/cm	1.0	54	110	120	52	51

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
pH*	pH units		6.0	5.9	6.0	5.7	6.0
Electrical Conductivity*	µS/cm	1.0	95	310	230	2400	490

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
pH*	pH units		6.1	5.7	6.5	6.4	6.6
Electrical Conductivity*	µS/cm	1.0	220	190	150	320	260

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
pH*	pH units		7.2	7.2	7.0	7.2	7.2
Electrical Conductivity*	µS/cm	1.0	65	54	81	43	38

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
pH*	pH units		8.1	8.2	7.9	7.4	7.5
Electrical Conductivity*	µS/cm	1.0	95	95	93	120	110

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
pH*	pH units		8.1	7.6	7.8	7.7	7.8
Electrical Conductivity*	µS/cm	1.0	120	110	120	160	90

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
pH*	pH units		7.8	7.3	7.1	7.0	7.0
Electrical Conductivity*	µS/cm	1.0	130	99	46	65	46

Inorganics (1:2 soil:water) (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
pH*	pH units		7.0	7.1	7.2	7.3	7.4
Electrical Conductivity*	µS/cm	1.0	55	49	65	59	45

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
pH*	pH units		7.1	7.0	7.6	7.4	7.5
Electrical Conductivity*	µS/cm	1.0	45	58	57	75	54

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
pH*	pH units		7.4	7.3	6.9	7.1	6.9
Electrical Conductivity*	µS/cm	1.0	46	55	48	44	43

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
pH*	pH units		7.2	6.8	6.8	6.6	7.1
Electrical Conductivity*	µS/cm	1.0	47	51	44	54	57

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
pH*	pH units		7.6	7.5	7.3	7.0	7.0
Electrical Conductivity*	µS/cm	1.0	110	85	78	52	66

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
pH*	pH units		7.0	4.6	5.8	4.7	3.5
Electrical Conductivity*	µS/cm	1.0	52	960	930	810	930

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
pH*	pH units		4.2	6.6	6.8	6.8	6.3
Electrical Conductivity*	µS/cm	1.0	1100	65	39	30	400

Inorganics (1:2 soil:water) (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
pH*	pH units		6.8	7.2	6.9	6.9	6.6
Electrical Conductivity*	µS/cm	1.0	90	51	66	59	69

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
pH*	pH units		8.4	7.6	7.6	6.3	5.7
Electrical Conductivity*	µS/cm	1.0	290	400	240	420	750

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
pH*	pH units		5.0	4.6	4.0	5.7	5.9
Electrical Conductivity*	µS/cm	1.0	1000	1300	1600	590	500

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
pH*	pH units		5.5	5.5	6.0	4.6	4.8
Electrical Conductivity*	µS/cm	1.0	1200	470	320	1100	820

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
pH*	pH units		6.5	8.4	7.8	7.5	7.0
Electrical Conductivity*	µS/cm	1.0	840	240	140	120	270

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
pH*	pH units		6.9	4.8	4.5	4.2	6.8
Electrical Conductivity*	µS/cm	1.0	210	850	1100	1000	200

Chromium Reducible Sulfur Suite (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-02	PFK0468-03	PFK0468-06	PFK0468-07	PFK0468-08
Your Reference			SPL002 ATRC006489	SPL003 ATRC006490	SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			32.00-34.00	34.00-36.00	40.00-42.00	44.00-46.00	46.00-48.00
Chromium Reducible Sulfur*	% w/w	0.0050	0.078	0.19	0.064	0.30	0.19

Envirolab ID	Units	PQL	PFK0468-09	PFK0468-10	PFK0468-11	PFK0468-12	PFK0468-13
Your Reference			SPL009 ATRC006497	SPL010 ATRC006498	SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			48.00-50.00	50.00-52.00	52.00-54.00	54.00-56.00	56.00-58.00
Chromium Reducible Sulfur*	% w/w	0.0050	5.2	1.3	0.19	0.22	0.11

Envirolab ID	Units	PQL	PFK0468-14	PFK0468-15	PFK0468-62	PFK0468-63	PFK0468-64
Your Reference			SPL014 ATRC006504	SPL015 ATRC006505	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			58.00-60.00	60.00-62.00	28.00-30.00	30.00-32.00	34.00-36.00
Chromium Reducible Sulfur*	% w/w	0.0050	0.30	0.25	0.41	0.48	0.49

Envirolab ID	Units	PQL	PFK0468-65	PFK0468-66	PFK0468-71	PFK0468-76	PFK0468-77
Your Reference			SPL065 ATRC006325	SPL066 ATRC006326	SPL071 ATRC006462	SPL076 ATRC006817	SPL077 ATRC006818
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			36.00-38.00	38.00-40.00	66.00-68.00	90.00-92.00	92.00-94.00
Chromium Reducible Sulfur*	% w/w	0.0050	0.87	1.2	0.055	0.019	<0.0050

Envirolab ID	Units	PQL	PFK0468-78	PFK0468-79	PFK0468-80	PFK0468-81	PFK0468-82
Your Reference			SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824	SPL081 ATRC006825	SPL082 ATRC006826
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			94.00-96.00	96.00-98.00	100.00-102.00	102.00-104.00	104.00-106.00
Chromium Reducible Sulfur*	% w/w	0.0050	<0.0050	0.12	0.91	1.7	2.0

Envirolab ID	Units	PQL	PFK0468-83	PFK0468-84	PFK0468-85	PFK0468-86	PFK0468-87
Your Reference			SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830	SPL086 ATRC006831	SPL087 ATRC006832
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	110.00-112.00	112.00-114.00	114.00-116.00	116.00-118.00
Chromium Reducible Sulfur*	% w/w	0.0050	2.0	0.42	0.42	2.0	0.25

Envirolab ID	Units	PQL	PFK0468-88	PFK0468-89	PFK0468-90	PFK0468-95	PFK0468-96
Your Reference			SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835	SPL095 ATRC006896	SPL096 ATRC006897
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			118.00-120.00	120.00-122.00	122.00-124.00	100.00-102.00	102.00-104.00
Chromium Reducible Sulfur*	% w/w	0.0050	0.034	1.8	0.54	0.042	0.053

Envirolab ID	Units	PQL	PFK0468-97	PFK0468-98	PFK0468-99
Your Reference			SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903
Date Sampled			16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	108.00-110.00	110.00-112.00
Chromium Reducible Sulfur*	% w/w	0.0050	1.2	2.0	2.0

SPOCAS (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-02	PFK0468-03	PFK0468-06	PFK0468-07	PFK0468-08
Your Reference			SPL002 ATRC006489	SPL003 ATRC006490	SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			32.00-34.00	34.00-36.00	40.00-42.00	44.00-46.00	46.00-48.00
SHCl*	% w/w S	0.0050	0.0060	0.0080	0.0080	0.023	0.014

Envirolab ID	Units	PQL	PFK0468-09	PFK0468-10	PFK0468-11	PFK0468-12	PFK0468-13
Your Reference			SPL009 ATRC006497	SPL010 ATRC006498	SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			48.00-50.00	50.00-52.00	52.00-54.00	54.00-56.00	56.00-58.00
SHCl*	% w/w S	0.0050	0.18	0.037	0.016	0.017	0.010

Envirolab ID	Units	PQL	PFK0468-14	PFK0468-15	PFK0468-62	PFK0468-63	PFK0468-64
Your Reference			SPL014 ATRC006504	SPL015 ATRC006505	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			58.00-60.00	60.00-62.00	28.00-30.00	30.00-32.00	34.00-36.00
SHCl*	% w/w S	0.0050	0.018	0.016	0.056	0.054	0.048

Envirolab ID	Units	PQL	PFK0468-65	PFK0468-66	PFK0468-71	PFK0468-76	PFK0468-77
Your Reference			SPL065 ATRC006325	SPL066 ATRC006326	SPL071 ATRC006462	SPL076 ATRC006817	SPL077 ATRC006818
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			36.00-38.00	38.00-40.00	66.00-68.00	90.00-92.00	92.00-94.00
SHCl*	% w/w S	0.0050	0.066	0.079	<0.0050	0.0060	0.011

Envirolab ID	Units	PQL	PFK0468-78	PFK0468-79	PFK0468-80	PFK0468-81	PFK0468-82
Your Reference			SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824	SPL081 ATRC006825	SPL082 ATRC006826
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			94.00-96.00	96.00-98.00	100.00-102.00	102.00-104.00	104.00-106.00
SHCl*	% w/w S	0.0050	0.013	0.016	0.042	0.064	0.097

Envirolab ID	Units	PQL	PFK0468-83	PFK0468-84	PFK0468-85	PFK0468-86	PFK0468-87
Your Reference			SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830	SPL086 ATRC006831	SPL087 ATRC006832
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	110.00-112.00	112.00-114.00	114.00-116.00	116.00-118.00
SHCl*	% w/w S	0.0050	0.13	0.027	0.023	0.084	0.020

Envirolab ID	Units	PQL	PFK0468-88	PFK0468-89	PFK0468-90	PFK0468-95	PFK0468-96
Your Reference			SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835	SPL095 ATRC006896	SPL096 ATRC006897
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			118.00-120.00	120.00-122.00	122.00-124.00	100.00-102.00	102.00-104.00
SHCl*	% w/w S	0.0050	0.0090	0.079	0.045	0.0070	0.0060

Envirolab ID	Units	PQL	PFK0468-97	PFK0468-98	PFK0468-99
Your Reference			SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903
Date Sampled			16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	108.00-110.00	110.00-112.00
SHCl*	% w/w S	0.0050	0.060	0.085	0.082

Certificate of Analysis PFK0468

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
NAPP	kg H2SO4/t	-10000	0.89	3.3	8.1	-0.52	-0.50
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	0.82	0.90
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.24	3.84	3.15	6.38	6.40
NAG pH4.5	kg H2SO4/t	0.50	<0.50	1.1	4.7	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	1.2	3.8	7.9	0.71	0.63
APP	kg H2SO4/t	0.50	0.89	3.3	8.1	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010	<0.010	0.084	0.092

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
NAPP	kg H2SO4/t	-10000	3.0	13	8.4	240	55
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		3.98	2.95	3.27	1.78	2.10
NAG pH4.5	kg H2SO4/t	0.50	0.74	8.1	4.5	180	45
NAG pH7.0	kg H2SO4/t	0.50	3.4	13	8.2	210	52
APP	kg H2SO4/t	0.50	3.0	13	8.4	240	55
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
NAPP	kg H2SO4/t	-10000	8.2	9.5	5.2	14	11
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		3.09	3.28	3.67	3.01	3.04
NAG pH4.5	kg H2SO4/t	0.50	5.1	4.7	1.9	7.5	6.5
NAG pH7.0	kg H2SO4/t	0.50	8.3	8.8	4.6	12	11
APP	kg H2SO4/t	0.50	8.2	9.5	5.2	14	11
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010	<0.010	<0.010	0.014

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
NAPP	kg H2SO4/t	-10000	0.46	-0.29	0.98	0.092	0.37
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	0.63	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		5.95	6.29	5.25	7.29	7.34
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	1.8	0.98	0.94	<0.50	<0.50

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
APP	kg H2SO4/t	0.50	<0.50	<0.50	0.98	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.029	0.064	0.032	0.042	0.049

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
NAPP	kg H2SO4/t	-10000	-0.80	-1.7	-1.7	-2.0	-1.7
ANC H2SO4*	kg H2SO4/t	0.50	1.0	1.8	1.9	2.1	1.8
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		7.62	6.29	7.10	6.70	6.33
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	<0.50	4.3	<0.50	0.69	3.3
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.11	0.18	0.19	0.21	0.18

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
NAPP	kg H2SO4/t	-10000	-1.8	-1.8	-1.2	-1.6	-1.5
ANC H2SO4*	kg H2SO4/t	0.50	1.9	1.8	1.3	1.8	1.6
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.55	6.41	6.53	6.41	6.37
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	1.8	2.4	1.8	2.7	2.8
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.20	0.19	0.13	0.18	0.16

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
NAPP	kg H2SO4/t	-10000	-0.88	-1.0	-0.88	-0.93	-0.51
ANC H2SO4*	kg H2SO4/t	0.50	0.97	1.1	0.95	1.1	0.60
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.25	6.24	6.40	7.23	6.27
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	2.5	2.5	1.4	<0.50	2.0
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.099	0.11	0.096	0.12	0.061

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
NAPP	kg H2SO4/t	-10000	-0.71	-0.59	-0.32	-0.41	-0.67
ANC H2SO4*	kg H2SO4/t	0.50	0.80	0.65	0.50	1.0	0.70
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.26	6.55	6.47	6.62	6.22
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	2.3	0.92	1.2	0.51	1.6
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	0.61	<0.50
ANC CaCO3	% CaCO3	0.010	0.081	0.066	0.051	0.10	0.071

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
NAPP	kg H2SO4/t	-10000	-1.1	0.031	-0.76	-1.1	-0.68
ANC H2SO4*	kg H2SO4/t	0.50	1.9	<0.50	0.76	1.1	0.71
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		5.31	5.16	5.88	6.29	5.56
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	4.1	3.6	2.7	1.1	4.0
APP	kg H2SO4/t	0.50	0.73	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.19	0.019	0.078	0.12	0.073

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
NAPP	kg H2SO4/t	-10000	-1.2	-0.97	0.031	-1.1	-1.0
ANC H2SO4*	kg H2SO4/t	0.50	1.2	1.0	<0.50	1.2	1.1
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		5.78	5.96	5.89	5.86	5.84
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	3.2	2.4	2.4	2.9	3.0
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.12	0.10	0.026	0.12	0.11

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
NAPP	kg H2SO4/t	-10000	-0.53	-0.63	-0.90	-1.1	-1.1
ANC H2SO4*	kg H2SO4/t	0.50	0.59	0.66	0.93	1.1	1.3
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		5.89	6.34	5.64	5.77	6.23
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	3.1	1.0	3.4	2.9	0.98

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.060	0.068	0.095	0.11	0.14

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
NAPP	kg H2SO4/t	-10000	-1.9	-1.8	-1.4	0.12	-1.4
ANC H2SO4*	kg H2SO4/t	0.50	2.1	2.1	1.6	<0.50	1.5
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.32	6.52	6.56	7.15	7.07
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	2.4	1.0	0.74	<0.50	<0.50
APP	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.21	0.21	0.17	0.019	0.15

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
NAPP	kg H2SO4/t	-10000	-0.29	28	41	29	44
ANC H2SO4*	kg H2SO4/t	0.50	0.69	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		7.20	2.96	2.75	2.82	2.54
NAG pH4.5	kg H2SO4/t	0.50	<0.50	10	13	14	33
NAG pH7.0	kg H2SO4/t	0.50	<0.50	16	21	21	38
APP	kg H2SO4/t	0.50	<0.50	28	41	29	44
ANC CaCO3	% CaCO3	0.010	0.071	<0.010	<0.010	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
NAPP	kg H2SO4/t	-10000	58	0.31	0.12	0.18	0.80
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		2.49	6.30	6.02	6.28	5.76
NAG pH4.5	kg H2SO4/t	0.50	46	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	54	1.0	1.9	1.1	3.8
APP	kg H2SO4/t	0.50	58	<0.50	<0.50	<0.50	0.80
ANC CaCO3	% CaCO3	0.010	<0.010	0.010	0.020	0.015	0.045

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
NAPP	kg H2SO4/t	-10000	0.54	-0.72	0.37	0.21	0.37
ANC H2SO4*	kg H2SO4/t	0.50	1.8	1.1	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		4.31	5.81	6.25	6.10	5.73
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	2.1	4.0	1.3	1.6	4.2
APP	kg H2SO4/t	0.50	2.3	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.18	0.11	0.018	0.013	0.040

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
NAPP	kg H2SO4/t	-10000	-12	1.1	2.0	6.1	40
ANC H2SO4*	kg H2SO4/t	0.50	14	2.8	1.3	<0.50	<0.50
Fizz Rating*	-		1.0	0.0	0.0	0.0	0.0
NAG pH	pH units		8.40	7.06	7.14	3.50	2.55
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	2.4	33
NAG pH7.0	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	4.7	39
APP	kg H2SO4/t	0.50	1.8	3.9	3.2	6.1	40
ANC CaCO3	% CaCO3	0.010	1.4	0.29	0.13	0.035	<0.010

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
NAPP	kg H2SO4/t	-10000	76	92	92	18	17
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		2.10	2.05	2.02	2.54	2.65
NAG pH4.5	kg H2SO4/t	0.50	63	80	76	13	14
NAG pH7.0	kg H2SO4/t	0.50	71	84	85	18	17
APP	kg H2SO4/t	0.50	76	92	92	18	17
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010	<0.010	0.031	<0.010

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
NAPP	kg H2SO4/t	-10000	110	11	1.0	79	25
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	0.63	1.0	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		2.08	2.88	5.26	2.14	2.54
NAG pH4.5	kg H2SO4/t	0.50	88	6.6	<0.50	67	16
NAG pH7.0	kg H2SO4/t	0.50	98	9.9	1.1	74	22

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
APP	kg H2SO4/t	0.50	110	11	2.1	79	25
ANC CaCO3	% CaCO3	0.010	<0.010	0.064	0.11	<0.010	<0.010

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
NAPP	kg H2SO4/t	-10000	0.059	-15	-1.8	-1.5	0.73
ANC H2SO4*	kg H2SO4/t	0.50	1.3	16	2.4	1.7	1.4
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		6.94	8.71	7.63	6.38	4.77
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	1.6	1.4
APP	kg H2SO4/t	0.50	1.3	0.73	0.61	<0.50	2.1
ANC CaCO3	% CaCO3	0.010	0.13	1.6	0.25	0.18	0.14

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
NAPP	kg H2SO4/t	-10000	1.3	53	87	110	-1.2
ANC H2SO4*	kg H2SO4/t	0.50	0.92	<0.50	<0.50	<0.50	2.2
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		4.04	2.19	2.05	2.03	7.63
NAG pH4.5	kg H2SO4/t	0.50	0.52	46	72	87	<0.50
NAG pH7.0	kg H2SO4/t	0.50	2.9	52	80	96	<0.50
APP	kg H2SO4/t	0.50	2.3	53	87	110	1.0
ANC CaCO3	% CaCO3	0.010	0.094	<0.010	<0.010	<0.010	0.22

1:2 Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
Chloride*	mg/L	1.0	6.6	11	3.5	4.7	4.9
Chloride*	mg/L	1.0	[NA]	26	16	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	1900	2000	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	<5.0	<5.0	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	<5.0	<5.0	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	1900	2000	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	79	150	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
Chloride*	mg/L	1.0	7.4	7.9	9.3	5.6	8.5
Chloride*	mg/L	1.0	14	19	21	17	19
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	1700	2000	2000	95	1700
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	1700	2000	2000	95	1700
Sulfate*	mg/L	1.0	150	430	240	2400	990

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
Chloride*	mg/L	1.0	9.0	14	13	8.4	5.1
Chloride*	mg/L	1.0	19	24	21	19	16
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	2000	1600	2000	2100	2100
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	2000	1600	2000	2100	2100
Sulfate*	mg/L	1.0	240	190	120	350	320

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
Chloride*	mg/L	1.0	6.2	4.9	6.2	3.2	5.8
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

1:2 Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Chloride*	mg/L	1.0	5.8	9.3	12	17	13
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Chloride*	mg/L	1.0	12	14	14	17	6.8
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Chloride*	mg/L	1.0	26	21	5.2	9.4	6.3
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
Chloride*	mg/L	1.0	10	6.2	9.9	8.3	3.8
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

1:2 Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
Chloride*	mg/L	1.0	6.4	6.0	7.2	10	5.4
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
Chloride*	mg/L	1.0	4.3	5.3	5.1	4.6	4.1
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Chloride*	mg/L	1.0	4.8	4.3	2.8	5.0	5.5
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
Chloride*	mg/L	1.0	13	7.8	11	5.7	8.1
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	[NA]

1:2 Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
Chloride*	mg/L	1.0	4.7	19	17	15	8.9
Chloride*	mg/L	1.0	[NA]	26	26	27	21
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	1300	1100	1200	550
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	1300	1100	1200	550
Sulfate*	mg/L	1.0	[NA]	860	700	770	970

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Chloride*	mg/L	1.0	12	2.7	3.6	2.9	8.2
Chloride*	mg/L	1.0	21	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	610	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	610	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	1400	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
Chloride*	mg/L	1.0	4.9	7.0	3.2	3.9	17
Chloride*	mg/L	1.0	18	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	1800	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	[NA]	[NA]	[NA]	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	1800	[NA]	[NA]	[NA]	[NA]
Sulfate*	mg/L	1.0	56	[NA]	[NA]	[NA]	[NA]

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Chloride*	mg/L	1.0	8.2	11	3.6	5.1	20
Chloride*	mg/L	1.0	20	22	24	22	46
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	3200	2700	3200	2700	2500
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	3200	2700	3200	2700	2500
Sulfate*	mg/L	1.0	27	100	56	280	980

1:2 Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
Chloride*	mg/L	1.0	8.5	5.4	3.0	6.7	7.3
Chloride*	mg/L	1.0	26	<20 [3]	<50 [3]	22	27
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	2600	1100	1200	2700	3000
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	2600	1100	1200	2700	3000
Sulfate*	mg/L	1.0	1000	1900	1600	540	550

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
Chloride*	mg/L	1.0	15	8.0	14	11	7.3
Chloride*	mg/L	1.0	36	31	33	29	27
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	1800	2600	2600	2100	2000
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	1800	2600	2600	2100	2000
Sulfate*	mg/L	1.0	1400	400	220	1500	1000

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
Chloride*	mg/L	1.0	9.0	5.5	9.6	5.7	12
Chloride*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	33
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	3000
Carbonate Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	<5.0
Hydroxide OH- as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	<5.0
Total Alkalinity as CaCO3*	mg/L	5.0	[NA]	[NA]	[NA]	[NA]	3000
Sulfate*	mg/L	1.0	[NA]	[NA]	[NA]	[NA]	140

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
Chloride*	mg/L	1.0	3.0	8.8	7.9	17	8.4
Chloride*	mg/L	1.0	<50 [3]	28	25	28	[NA]
Bicarbonate Alkalinity as CaCO3*	mg/L	5.0	2900	2000	1800	1600	[NA]
Carbonate Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	[NA]
Hydroxide OH- as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	[NA]
Total Alkalinity as CaCO3*	mg/L	5.0	2900	2000	1800	1600	[NA]
Sulfate*	mg/L	1.0	110	1100	1300	1300	[NA]

1:2 Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-02	PFK0468-03	PFK0468-06	PFK0468-07	PFK0468-08
Your Reference			SPL002 ATRC006489	SPL003 ATRC006490	SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			32.00-34.00	34.00-36.00	40.00-42.00	44.00-46.00	46.00-48.00
Calcium*	mg/L	0.50	35	25	21	18	19
Magnesium*	mg/L	0.50	43	27	24	18	23
Potassium*	mg/L	0.50	10	7.8	8.5	2.5	6.4
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	29	25	31	20	26

Envirolab ID	Units	PQL	PFK0468-09	PFK0468-10	PFK0468-11	PFK0468-12	PFK0468-13
Your Reference			SPL009 ATRC006497	SPL010 ATRC006498	SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			48.00-50.00	50.00-52.00	52.00-54.00	54.00-56.00	56.00-58.00
Calcium*	mg/L	0.50	22	17	16	25	21
Magnesium*	mg/L	0.50	38	19	15	34	25
Potassium*	mg/L	0.50	0.79	3.3	8.7	27	25
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	20	16	22	29	28

Envirolab ID	Units	PQL	PFK0468-14	PFK0468-15	PFK0468-62	PFK0468-63	PFK0468-64
Your Reference			SPL014 ATRC006504	SPL015 ATRC006505	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			58.00-60.00	60.00-62.00	28.00-30.00	30.00-32.00	34.00-36.00
Calcium*	mg/L	0.50	17	22	6.4	11	9.0
Magnesium*	mg/L	0.50	15	20	18	15	23
Potassium*	mg/L	0.50	42	9.3	220	130	190
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	18	19	16	19	24

Envirolab ID	Units	PQL	PFK0468-65	PFK0468-66	PFK0468-71	PFK0468-76	PFK0468-77
Your Reference			SPL065 ATRC006325	SPL066 ATRC006326	SPL071 ATRC006462	SPL076 ATRC006817	SPL077 ATRC006818
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			36.00-38.00	38.00-40.00	66.00-68.00	90.00-92.00	92.00-94.00
Calcium*	mg/L	0.50	9.3	16	22	270	190
Magnesium*	mg/L	0.50	13	34	50	290	140
Potassium*	mg/L	0.50	22	170	37	74	120
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	5.6	24	29	16	24

Envirolab ID	Units	PQL	PFK0468-78	PFK0468-79	PFK0468-80	PFK0468-81	PFK0468-82
Your Reference			SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824	SPL081 ATRC006825	SPL082 ATRC006826
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			94.00-96.00	96.00-98.00	100.00-102.00	102.00-104.00	104.00-106.00
Calcium*	mg/L	0.50	53	31	25	17	27
Magnesium*	mg/L	0.50	56	41	51	42	43
Potassium*	mg/L	0.50	140	130	190	210	98
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	27	23	19	22	20

1:2 Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-83	PFK0468-84	PFK0468-85	PFK0468-86	PFK0468-87
Your Reference			SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830	SPL086 ATRC006831	SPL087 ATRC006832
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	110.00-112.00	112.00-114.00	114.00-116.00	116.00-118.00
Calcium*	mg/L	0.50	22	16	20	21	20
Magnesium*	mg/L	0.50	37	26	27	40	38
Potassium*	mg/L	0.50	42	120	100	130	160
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	15	17	17	19	24

Envirolab ID	Units	PQL	PFK0468-88	PFK0468-89	PFK0468-90	PFK0468-95	PFK0468-96
Your Reference			SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835	SPL095 ATRC006896	SPL096 ATRC006897
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			118.00-120.00	120.00-122.00	122.00-124.00	100.00-102.00	102.00-104.00
Calcium*	mg/L	0.50	25	27	29	26	19
Magnesium*	mg/L	0.50	52	59	57	45	28
Potassium*	mg/L	0.50	180	200	130	70	120
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	28	23	20	25	25

Envirolab ID	Units	PQL	PFK0468-97	PFK0468-98	PFK0468-99
Your Reference			SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903
Date Sampled			16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	108.00-110.00	110.00-112.00
Calcium*	mg/L	0.50	20	24	20
Magnesium*	mg/L	0.50	50	60	53
Potassium*	mg/L	0.50	130	140	120
Phosphorus*	mg/L	0.050	<0.050	<0.050	<0.050
Silicon*	mg/L	0.10	16	17	16

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-02	PFK0468-03	PFK0468-06	PFK0468-07	PFK0468-08
Your Reference			SPL002 ATRC006489	SPL003 ATRC006490	SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			32.00-34.00	34.00-36.00	40.00-42.00	44.00-46.00	46.00-48.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	0.20	0.27	0.66	2.2	1.1
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.20	0.21	0.15	0.070	0.15
Beryllium*	mg/L	0.00050	0.0012	0.0011	0.0019	0.0024	0.0022
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.14	0.13	0.16	0.074	0.11
Cadmium*	mg/L	0.00010	0.00044	0.00074	0.00075	0.0016	0.0013
Caesium*	mg/L	0.0010	0.0050	0.0041	0.0031	<0.0010	0.0020
Chromium*	mg/L	0.0010	0.0031	0.0059	0.0036	0.029	0.014
Cobalt*	mg/L	0.0010	0.016	0.026	0.036	0.17	0.098
Copper*	mg/L	0.0010	0.0036	0.0038	0.051	0.031	0.030
Gallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	110	170	1.1	5.8	3.5
Lanthanum*	mg/L	0.00050	<0.00050	0.00054	0.0011	0.0059	0.0017
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.11	0.12	0.14	0.16	0.12
Manganese*	mg/L	0.0010	9.3	11	2.1	1.9	2.5
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	0.12	0.14	0.15	0.42	0.21
Rubidium*	mg/L	0.0010	0.039	0.030	0.028	0.0066	0.020
Selenium*	mg/L	0.0010	0.015	0.0091	0.044	0.030	0.013
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.26	0.22	0.33	0.69	0.28
Thallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium*	mg/L	0.00050	0.00074	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.21	0.23	0.11	0.068	0.12

Envirolab ID	Units	PQL	PFK0468-09	PFK0468-10	PFK0468-11	PFK0468-12	PFK0468-13
Your Reference			SPL009 ATRC006497	SPL010 ATRC006498	SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			48.00-50.00	50.00-52.00	52.00-54.00	54.00-56.00	56.00-58.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	38	12	1.1	1.3	0.88
Antimony*	mg/L	0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.0082	0.050	0.15	0.19	0.17
Beryllium*	mg/L	0.00050	0.0068	0.0042	0.0020	0.0019	0.0018

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-09	PFK0468-10	PFK0468-11	PFK0468-12	PFK0468-13
Your Reference			SPL009 ATRC006497	SPL010 ATRC006498	SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			48.00-50.00	50.00-52.00	52.00-54.00	54.00-56.00	56.00-58.00
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.083	0.11	0.14	0.17	0.19
Cadmium*	mg/L	0.00010	0.00046	0.0018	0.0022	0.00092	0.00072
Caesium*	mg/L	0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0017
Chromium*	mg/L	0.0010	0.55	0.16	0.012	0.013	0.0071
Cobalt*	mg/L	0.0010	3.6	0.48	0.070	0.16	0.097
Copper*	mg/L	0.0010	0.018	0.10	0.034	1.2	0.27
Gallium*	mg/L	0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	99	14	42	0.10	33
Lanthanum*	mg/L	0.00050	0.010	0.011	0.0059	0.00074	0.00096
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.27	0.19	0.15	0.18	0.19
Manganese*	mg/L	0.0010	18	3.1	2.6	1.8	2.7
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	5.3	1.1	0.15	0.12	0.13
Rubidium*	mg/L	0.0010	0.0032	0.016	0.021	0.035	0.042
Selenium*	mg/L	0.0010	0.0073	0.010	0.0059	0.0080	0.0046
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.085	0.31	0.58	0.17	0.26
Thallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	0.0023	0.0022	<0.0010	0.0019	<0.0010
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.86	0.24	0.13	0.11	0.14

Envirolab ID	Units	PQL	PFK0468-14	PFK0468-15	PFK0468-62	PFK0468-63	PFK0468-64
Your Reference			SPL014 ATRC006504	SPL015 ATRC006505	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			58.00-60.00	60.00-62.00	28.00-30.00	30.00-32.00	34.00-36.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	1.7	0.82	1.9	2.0	2.1
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.14	0.16	0.095	0.038	0.094
Beryllium*	mg/L	0.00050	0.0021	0.0021	<0.00050	<0.00050	<0.00050
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.12	0.11	0.19	0.15	0.22
Cadmium*	mg/L	0.00010	0.0010	0.00076	0.00068	0.00044	0.00037
Caesium*	mg/L	0.0010	0.0015	0.0014	0.0021	0.0012	0.0020
Chromium*	mg/L	0.0010	0.020	0.017	0.091	0.11	0.23
Cobalt*	mg/L	0.0010	0.19	0.13	0.35	0.23	0.33

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-14	PFK0468-15	PFK0468-62	PFK0468-63	PFK0468-64
Your Reference			SPL014 ATRC006504	SPL015 ATRC006505	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			58.00-60.00	60.00-62.00	28.00-30.00	30.00-32.00	34.00-36.00
Copper*	mg/L	0.0010	0.23	0.0013	3.1	2.2	3.2
Gallium*	mg/L	0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Iron*	mg/L	0.010	68	270	0.75	0.099	0.30
Lanthanum*	mg/L	0.00050	0.0051	0.0030	0.0076	0.0066	0.0025
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.17	0.22	0.0063	0.012	0.011
Manganese*	mg/L	0.0010	2.3	9.7	0.62	1.0	0.84
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	0.22	0.15	0.72	0.63	0.81
Rubidium*	mg/L	0.0010	0.065	0.020	0.31	0.22	0.28
Selenium*	mg/L	0.0010	0.016	0.018	0.17	0.092	0.099
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.57	0.93	0.060	0.078	0.036
Thallium*	mg/L	0.0010	<0.0010	<0.0010	0.0014	0.0013	0.0016
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	<0.0010	<0.0010	0.0015	0.0020	0.0016
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.11	0.16	0.19	0.26	0.12

Envirolab ID	Units	PQL	PFK0468-65	PFK0468-66	PFK0468-71	PFK0468-76	PFK0468-77
Your Reference			SPL065 ATRC006325	SPL066 ATRC006326	SPL071 ATRC006462	SPL076 ATRC006817	SPL077 ATRC006818
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			36.00-38.00	38.00-40.00	66.00-68.00	90.00-92.00	92.00-94.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	0.000076	0.000069
Aluminium*	mg/L	0.010	2.3	6.7	0.85	<0.010	0.051
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.0017	0.083	0.21	0.34	0.12
Beryllium*	mg/L	0.00050	<0.00050	0.00090	0.00092	<0.00050	<0.00050
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.025	0.19	0.11	0.077	0.095
Cadmium*	mg/L	0.00010	0.00028	0.00056	0.011	0.00010	0.0014
Caesium*	mg/L	0.0010	<0.0010	0.0015	0.0019	0.0016	0.0028
Chromium*	mg/L	0.0010	0.073	0.50	0.020	<0.0010	0.0027
Cobalt*	mg/L	0.0010	0.43	0.62	0.032	0.019	0.050
Copper*	mg/L	0.0010	17	2.1	0.041	0.0069	0.017
Gallium*	mg/L	0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	0.30	1.0	0.48	0.011	<0.010
Lanthanum*	mg/L	0.00050	<0.00050	0.0080	0.00076	<0.00050	<0.00050
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.0095	0.015	0.070	0.0062	0.0089

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-65	PFK0468-66	PFK0468-71	PFK0468-76	PFK0468-77
Your Reference			SPL065 ATRC006325	SPL066 ATRC006326	SPL071 ATRC006462	SPL076 ATRC006817	SPL077 ATRC006818
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			36.00-38.00	38.00-40.00	66.00-68.00	90.00-92.00	92.00-94.00
Manganese*	mg/L	0.0010	0.38	0.83	4.9	0.57	2.0
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0083	<0.0010
Nickel*	mg/L	0.0010	0.95	2.1	0.29	0.17	0.38
Rubidium*	mg/L	0.0010	0.029	0.24	0.037	0.10	0.18
Selenium*	mg/L	0.0010	0.14	0.070	0.064	0.0067	0.0087
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.0068	0.055	0.17	0.95	0.89
Thallium*	mg/L	0.0010	<0.0010	0.0013	<0.0010	0.0026	0.0021
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	0.012	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	0.0037	0.0030	0.0028	0.0013	<0.0010
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.24	0.17	0.25	0.0020	0.0097

Envirolab ID	Units	PQL	PFK0468-78	PFK0468-79	PFK0468-80	PFK0468-81	PFK0468-82
Your Reference			SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824	SPL081 ATRC006825	SPL082 ATRC006826
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			94.00-96.00	96.00-98.00	100.00-102.00	102.00-104.00	104.00-106.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	0.33	0.50	2.0	3.0	5.7
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.10	0.12	0.076	0.052	0.0049
Beryllium*	mg/L	0.00050	0.00058	0.00075	0.00097	0.0011	0.0018
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.087	0.084	0.13	0.19	0.13
Cadmium*	mg/L	0.00010	0.0012	0.0015	0.035	0.0016	0.0029
Caesium*	mg/L	0.0010	0.0024	0.0020	0.0032	0.0025	<0.0010
Chromium*	mg/L	0.0010	0.010	0.046	0.22	0.21	0.49
Cobalt*	mg/L	0.0010	0.034	0.029	0.30	0.34	1.4
Copper*	mg/L	0.0010	0.023	0.049	1.6	1.0	4.9
Gallium*	mg/L	0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010
Iron*	mg/L	0.010	0.039	0.49	0.29	0.48	1.4
Lanthanum*	mg/L	0.00050	<0.00050	0.0021	0.0088	0.0070	0.0049
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.0096	0.015	0.011	0.015	0.022
Manganese*	mg/L	0.0010	2.4	1.8	3.3	4.0	4.1
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	0.36	0.23	1.1	1.3	3.7
Rubidium*	mg/L	0.0010	0.21	0.19	0.33	0.34	0.12
Selenium*	mg/L	0.0010	0.0062	0.079	0.085	0.050	0.019
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-78	PFK0468-79	PFK0468-80	PFK0468-81	PFK0468-82
Your Reference			SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824	SPL081 ATRC006825	SPL082 ATRC006826
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			94.00-96.00	96.00-98.00	100.00-102.00	102.00-104.00	104.00-106.00
Strontium*	mg/L	0.0010	0.34	0.45	0.29	0.16	0.065
Thallium*	mg/L	0.0010	0.0020	0.0014	0.0019	0.0016	<0.0010
Thorium*	mg/L	0.00050	<0.00050	<0.00050	0.00072	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	<0.0010	0.0023	0.0062	0.0071	0.0099
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.0085	0.019	0.14	0.085	0.30

Envirolab ID	Units	PQL	PFK0468-83	PFK0468-84	PFK0468-85	PFK0468-86	PFK0468-87
Your Reference			SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830	SPL086 ATRC006831	SPL087 ATRC006832
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	110.00-112.00	112.00-114.00	114.00-116.00	116.00-118.00
Mercury*	mg/L	0.000050	<0.000050	0.00086	0.0010	<0.000050	<0.000050
Aluminium*	mg/L	0.010	2.8	2.0	0.66	2.6	0.76
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.0020	0.086	0.081	0.016	0.14
Beryllium*	mg/L	0.00050	0.0013	0.0012	0.0014	0.0019	0.0023
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.086	0.093	0.075	0.14	0.11
Cadmium*	mg/L	0.00010	0.0041	0.0019	0.0026	0.022	0.0012
Caesium*	mg/L	0.0010	<0.0010	0.0019	0.0017	0.0022	0.0020
Chromium*	mg/L	0.0010	0.22	0.064	0.045	0.12	0.027
Cobalt*	mg/L	0.0010	1.1	0.14	0.13	0.40	0.036
Copper*	mg/L	0.0010	1.8	0.082	0.042	0.41	0.38
Gallium*	mg/L	0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	1.0	62	80	0.58	0.021
Lanthanum*	mg/L	0.00050	0.0021	0.0092	0.0064	0.0062	0.0011
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.018	0.015	0.015	0.022	0.011
Manganese*	mg/L	0.0010	2.6	7.3	5.8	5.1	0.43
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	3.1	0.41	0.43	2.1	0.27
Rubidium*	mg/L	0.0010	0.081	0.18	0.16	0.24	0.23
Selenium*	mg/L	0.0010	0.028	0.028	0.030	0.056	0.20
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.019	0.32	0.40	0.087	0.13
Thallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0018	0.0010
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	0.0047	<0.0010	0.0020	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-83	PFK0468-84	PFK0468-85	PFK0468-86	PFK0468-87
Your Reference			SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830	SPL086 ATRC006831	SPL087 ATRC006832
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	110.00-112.00	112.00-114.00	114.00-116.00	116.00-118.00
Uranium*	mg/L	0.0010	0.0070	0.0073	0.0067	0.0041	0.0026
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.088	0.51	0.040	0.071	0.022

Envirolab ID	Units	PQL	PFK0468-88	PFK0468-89	PFK0468-90	PFK0468-95	PFK0468-96
Your Reference			SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835	SPL095 ATRC006896	SPL096 ATRC006897
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			118.00-120.00	120.00-122.00	122.00-124.00	100.00-102.00	102.00-104.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	0.91	5.0	1.8	0.42	0.40
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	0.0015	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.18	0.051	0.053	0.29	0.18
Beryllium*	mg/L	0.00050	0.0023	0.0031	0.0041	0.00079	0.00075
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.18	0.18	0.14	0.089	0.087
Cadmium*	mg/L	0.00010	0.0012	0.0045	0.0023	0.0011	0.0022
Caesium*	mg/L	0.0010	0.0024	0.0024	0.0018	0.0010	0.0022
Chromium*	mg/L	0.0010	0.029	0.28	0.068	0.019	0.014
Cobalt*	mg/L	0.0010	0.066	0.85	0.60	0.12	0.040
Copper*	mg/L	0.0010	1.5	1.7	20	0.081	0.049
Gallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	0.018	0.51	0.090	0.040	7.1
Lanthanum*	mg/L	0.00050	0.0028	0.0075	0.0047	0.0017	0.0013
Lead*	mg/L	0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.023	0.029	0.023	0.062	0.034
Manganese*	mg/L	0.0010	0.89	20	2.1	32	5.1
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	0.30	2.8	1.1	0.54	0.28
Rubidium*	mg/L	0.0010	0.23	0.29	0.17	0.094	0.18
Selenium*	mg/L	0.0010	0.28	0.088	0.25	0.010	0.013
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.20	0.15	0.11	0.47	0.36
Thallium*	mg/L	0.0010	0.0010	0.0019	0.0012	<0.0010	0.0011
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	0.0014	0.0051	0.0044	0.0014	0.0012
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.051	0.35	0.34	0.16	0.060

1:2 Leach Metals Low Level (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-97	PFK0468-98	PFK0468-99
Your Reference			SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903
Date Sampled			16/09/2024	16/09/2024	16/09/2024
Depth			106.00-108.00	108.00-110.00	110.00-112.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050
Aluminium*	mg/L	0.010	2.3	2.6	3.3
Antimony*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Arsenic*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Barium*	mg/L	0.0010	0.066	0.021	0.011
Beryllium*	mg/L	0.00050	0.0020	0.0027	0.0033
Bismuth*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Boron*	mg/L	0.020	0.12	0.14	0.12
Cadmium*	mg/L	0.00010	0.0071	0.0056	0.0044
Caesium*	mg/L	0.0010	0.0029	0.0029	0.0025
Chromium*	mg/L	0.0010	0.21	0.29	0.38
Cobalt*	mg/L	0.0010	0.59	1.1	1.2
Copper*	mg/L	0.0010	0.60	2.8	3.3
Gallium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Iron*	mg/L	0.010	0.20	0.32	0.74
Lanthanum*	mg/L	0.00050	0.0041	0.0053	0.0045
Lead*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Lithium*	mg/L	0.0010	0.019	0.020	0.018
Manganese*	mg/L	0.0010	3.9	5.9	2.2
Molybdenum*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Nickel*	mg/L	0.0010	1.6	2.7	2.7
Rubidium*	mg/L	0.0010	0.19	0.21	0.16
Selenium*	mg/L	0.0010	0.041	0.053	0.059
Silver*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Strontium*	mg/L	0.0010	0.062	0.030	0.018
Thallium*	mg/L	0.0010	0.0012	0.0013	0.0011
Thorium*	mg/L	0.00050	<0.00050	<0.00050	<0.00050
Tin*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Titanium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Tungsten*	mg/L	0.010	<0.010	<0.010	<0.010
Uranium*	mg/L	0.0010	0.0026	0.0042	0.0043
Vanadium*	mg/L	0.0010	<0.0010	<0.0010	<0.0010
Zinc*	mg/L	0.0010	0.14	0.40	0.25

1:2 MEND Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
Total Alkalinity as CaCO3*	mg/L	5.0	13	5.5	<5.0	9.5	11
Sulfate*	mg/L	1.0	3.3	51	70	12	11

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sulfate*	mg/L	1.0	59	280	150	2700	590

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sulfate*	mg/L	1.0	170	100	55	210	140

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
Total Alkalinity as CaCO3*	mg/L	5.0	11	7.3	6.6	20	20
Sulfate*	mg/L	1.0	12	12	30	6.6	5.7

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Total Alkalinity as CaCO3*	mg/L	5.0	35	25	23	38	30
Sulfate*	mg/L	1.0	6.6	5.9	7.7	4.7	9.2

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Total Alkalinity as CaCO3*	mg/L	5.0	39	33	25	32	28
Sulfate*	mg/L	1.0	9.5	6.7	5.9	30	6.6

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Total Alkalinity as CaCO3*	mg/L	5.0	34	22	19	26	12
Sulfate*	mg/L	1.0	5.3	3.9	1.6	2.9	1.6

1:2 MEND Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
Total Alkalinity as CaCO3*	mg/L	5.0	13	16	20	16	21
Sulfate*	mg/L	1.0	1.9	2.4	2.6	5.2	1.8

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
Total Alkalinity as CaCO3*	mg/L	5.0	18	22	17	16	410
Sulfate*	mg/L	1.0	2.0	2.2	2.4	5.6	1.9

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
Total Alkalinity as CaCO3*	mg/L	5.0	14	18	14	15	13
Sulfate*	mg/L	1.0	2.6	3.5	3.0	2.4	2.4

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Total Alkalinity as CaCO3*	mg/L	5.0	11	15	16	16	15
Sulfate*	mg/L	1.0	2.4	3.5	1.3	2.6	3.2

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
Total Alkalinity as CaCO3*	mg/L	5.0	28	23	20	17	19
Sulfate*	mg/L	1.0	7.7	6.2	5.0	3.0	6.2

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
Total Alkalinity as CaCO3*	mg/L	5.0	20	<5.0	<5.0	<5.0	<5.0
Sulfate*	mg/L	1.0	3.9	540	670	430	690

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	19	10	9.1	8.6
Sulfate*	mg/L	1.0	740	11	4.7	3.0	200

1:2 MEND Leach Inorganics (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
Total Alkalinity as CaCO3*	mg/L	5.0	18	15	32	19	<5.0
Sulfate*	mg/L	1.0	34	1.2	9.7	8.5	<1.0

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Total Alkalinity as CaCO3*	mg/L	5.0	130	150	42	<5.0	<5.0
Sulfate*	mg/L	1.0	36	130	80	220	530

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sulfate*	mg/L	1.0	780	900	1000	370	320

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sulfate*	mg/L	1.0	940	230	120	760	550

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
Total Alkalinity as CaCO3*	mg/L	5.0	24	130	47	21	25
Sulfate*	mg/L	1.0	490	27	22	22	110

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
Total Alkalinity as CaCO3*	mg/L	5.0	13	<5.0	<5.0	<5.0	32
Sulfate*	mg/L	1.0	89	690	790	780	54

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.039	0.020	0.018	0.031	0.084
Antimony	mg/L	0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0013	0.0074	0.021	0.0013	<0.0010
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.23	0.18	0.19	0.18	0.17
Cadmium	mg/L	0.00010	0.00020	0.00012	0.00021	0.00010	0.00014
Caesium	mg/L	0.0010	<0.0010	0.0012	0.0013	0.0010	0.0012
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	0.0080	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.020	0.030	0.030	0.081	0.12
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.011	0.041	0.067	0.036	0.045
Manganese	mg/L	0.0010	0.057	0.38	1.3	0.027	0.010
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0039	0.012	0.044	0.0026	0.0023
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0038	0.0086	0.0097	0.0054	0.0063
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0020	0.018	0.0069	0.0056	0.0081
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0048	0.021	0.036	0.0057	0.0044
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	0.00065	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	0.0019	0.0012	0.0012	0.0010	0.0011
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0062	0.0060	0.018	0.0044	0.041
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	0.81	3.6	4.6	0.78	0.81

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-01	PFK0468-02	PFK0468-03	PFK0468-04	PFK0468-05
Your Reference			SPL001 ATRC006488	SPL002 ATRC006489	SPL003 ATRC006490	SPL004 ATRC006491	SPL005 ATRC006492
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			30.00-32.00	32.00-34.00	34.00-36.00	36.00-38.00	38.00-40.00
Potassium	mg/L	0.50	1.5	3.1	3.4	1.6	1.9
Magnesium	mg/L	0.50	1.1	5.2	5.5	1.2	1.3
Sodium	mg/L	0.50	5.1	7.1	4.4	5.6	5.0
Sulfur	mg/L	0.50	0.71	9.9	14	2.6	2.1
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.018	3.6	0.15	0.093	24
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.016	0.055	0.060	0.0033	0.047
Beryllium	mg/L	0.00050	<0.00050	0.0034	0.00064	<0.00050	0.010
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.19	0.14	0.16	0.10	0.16
Cadmium	mg/L	0.00010	0.00018	0.0011	0.00050	0.00013	0.0014
Caesium	mg/L	0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	0.014	<0.0010	0.0015	0.042
Chromium	mg/L	0.0010	<0.0010	0.0055	<0.0010	<0.0010	0.024
Cobalt	mg/L	0.0010	0.0060	0.23	0.061	0.0036	0.51
Copper	mg/L	0.0010	0.0011	0.027	0.0043	<0.0010	0.12
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0025	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Iron	mg/L	0.010	<0.010	0.82	0.051	980	11
Lanthanum	mg/L	0.00050	<0.00050	0.0090	<0.00050	0.0014	0.027
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.077	0.22	0.11	0.14	0.35
Manganese	mg/L	0.0010	0.42	2.2	1.5	18	3.6
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.028	0.50	0.13	0.023	1.1
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0077	0.0041	0.0089	0.015	0.023
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0025
Selenium	mg/L	0.0010	0.022	0.014	0.0066	0.0038	0.0019
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.062	0.69	0.15	0.026	0.34
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-06	PFK0468-07	PFK0468-08	PFK0468-09	PFK0468-10
Your Reference			SPL006 ATRC006493	SPL007 ATRC006495	SPL008 ATRC006496	SPL009 ATRC006497	SPL010 ATRC006498
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			40.00-42.00	44.00-46.00	46.00-48.00	48.00-50.00	50.00-52.00
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	0.0011	<0.00050
Tin	mg/L	0.0010	<0.0010	0.0011	<0.0010	0.0011	0.0012
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0033
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	0.022	0.0012	0.0026	0.073
Zinc	mg/L	0.0010	0.014	0.16	0.056	0.15	0.55
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	4.3	14	11	21	14
Potassium	mg/L	0.50	3.4	2.0	3.8	11	10
Magnesium	mg/L	0.50	5.4	17	13	32	19
Sodium	mg/L	0.50	6.1	5.8	6.0	2.5	6.7
Sulfur	mg/L	0.50	12	41	26	610	94
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.21	0.17	0.28	0.62	0.19
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.064	0.018	0.0078	0.035	0.061
Beryllium	mg/L	0.00050	0.00058	<0.00050	<0.00050	0.00080	0.00053
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.18	0.21	0.22	0.18	0.16
Cadmium	mg/L	0.00010	0.0011	0.00022	0.00019	0.00060	0.00032
Caesium	mg/L	0.0010	<0.0010	<0.0010	0.0011	0.0015	<0.0010
Cerium	mg/L	0.0010	0.0016	<0.0010	<0.0010	0.0023	0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010
Cobalt	mg/L	0.0010	0.059	0.036	0.013	0.15	0.098
Copper	mg/L	0.0010	0.0076	0.049	0.0057	0.093	0.011
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.19	0.17	0.60	0.59	2.7
Lanthanum	mg/L	0.00050	0.0013	<0.00050	<0.00050	0.0015	0.00083
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.13	0.081	0.070	0.17	0.18
Manganese	mg/L	0.0010	1.7	0.57	0.50	1.7	4.9
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.12	0.044	0.022	0.17	0.11

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-11	PFK0468-12	PFK0468-13	PFK0468-14	PFK0468-15
Your Reference			SPL011 ATRC006499	SPL012 ATRC006502	SPL013 ATRC006503	SPL014 ATRC006504	SPL015 ATRC006505
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			52.00-54.00	54.00-56.00	56.00-58.00	58.00-60.00	60.00-62.00
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.011	0.017	0.018	0.056	0.012
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0029	0.0044	0.0023	0.0074	0.0094
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.36	0.044	0.038	0.35	0.54
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	0.0015	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	0.0057	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	0.0023	<0.0010	<0.0010	0.0041	0.0016
Zinc	mg/L	0.0010	0.071	0.025	0.012	0.067	0.076
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	8.3	7.1	3.3	9.0	10
Potassium	mg/L	0.50	5.8	15	12	35	6.7
Magnesium	mg/L	0.50	9.3	9.9	4.2	9.4	12
Sodium	mg/L	0.50	6.2	8.5	7.9	7.3	5.6
Sulfur	mg/L	0.50	23	24	11	37	30
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	0.00037	<0.000050
Aluminium	mg/L	0.010	0.030	0.025	<0.010	<0.010	<0.010
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0022	0.0011
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0029	0.0034	0.012	0.0015	<0.0010
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.11	0.14	0.12	0.083	0.10
Cadmium	mg/L	0.00010	<0.00010	0.00018	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-16	PFK0468-17	PFK0468-18	PFK0468-19	PFK0468-20
Your Reference			SPL016 ATRC006506	SPL017 ATRC006507	SPL018 ATRC006508	SPL019 ATRC006171	SPL020 ATRC006172
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			62.00-64.00	64.00-66.00	66.00-68.00	60.00-62.00	62.00-64.00
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	1.9	0.13	0.098	0.40	0.90
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.026	0.023	0.043	0.015	0.034
Manganese	mg/L	0.0010	0.31	0.057	0.34	0.031	0.089
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0030	0.0027	0.0038	0.0086	0.0010
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0036	0.0052	0.014	0.0032	0.0046
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	<0.0010	0.0038	0.0011	<0.0010	<0.0010
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.099	0.055	0.056	0.027	0.018
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	0.00088	<0.00050
Tin	mg/L	0.0010	<0.0010	0.0010	<0.0010	0.0012	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0060	0.0050	<0.0010	<0.0010	<0.0010
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	2.0	1.0	2.2	2.0	1.2
Potassium	mg/L	0.50	1.6	1.7	4.2	1.9	2.8
Magnesium	mg/L	0.50	3.1	1.4	2.7	1.7	1.2
Sodium	mg/L	0.50	4.1	4.1	5.4	2.3	3.3
Sulfur	mg/L	0.50	2.9	2.4	6.3	1.3	0.95
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	1.7	2.7	2.2	0.22	1.2
Antimony	mg/L	0.0010	0.0021	0.0012	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Barium	mg/L	0.0010	0.0037	0.0048	0.0035	<0.0010	0.0022
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.12	0.13	0.12	0.15	0.16
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.017	0.015	0.012	0.0011	0.0066
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	0.0012	<0.0010	<0.0010	0.0012	0.0021
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	0.0010	<0.0010	0.0011	<0.0010	<0.0010
Iron	mg/L	0.010	7.1	1.1	0.79	0.62	2.8
Lanthanum	mg/L	0.00050	0.00057	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0032	<0.0010	0.0011	0.0017	0.0013
Manganese	mg/L	0.0010	0.053	0.0078	0.0077	0.0043	0.0021
Molybdenum	mg/L	0.0010	0.0023	0.0010	0.0016	<0.0010	0.0013
Nickel	mg/L	0.0010	0.0035	0.0028	0.0017	0.0044	0.0025
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.037	0.037	0.035	0.038	0.034
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	<0.0010	<0.0010	0.0012	0.0056	0.0062
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0019	<0.0010	0.0016	0.0011	<0.0010
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	0.00089	0.00065	0.00065	<0.00050	<0.00050
Tin	mg/L	0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.016	0.013	0.025	<0.0020	0.012
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0039	0.0088	0.0082	<0.0010	0.0051
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0039	0.0020	0.055	0.0015	<0.0010
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Potassium	mg/L	0.50	26	31	26	28	25
Magnesium	mg/L	0.50	<0.50	1.1	0.79	<0.50	<0.50
Sodium	mg/L	0.50	2.0	1.8	2.1	4.6	3.0
Sulfur	mg/L	0.50	2.1	1.8	2.1	2.0	2.8

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-21	PFK0468-22	PFK0468-23	PFK0468-24	PFK0468-25
Your Reference			SPL021 ATRC006174	SPL022 ATRC006175	SPL023 ATRC006176	SPL024 ATRC006177	SPL025 ATRC006178
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	70.00-72.00	72.00-74.00	74.00-76.00
Phosphorus	mg/L	0.050	0.13	0.15	0.067	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	1.8	1.6	1.6	1.9	1.9
Antimony	mg/L	0.0010	<0.0010	<0.0010	0.0012	0.0035	0.0020
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0039	0.0023	0.0028	0.0029	0.0029
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.12	0.13	0.12	0.13	0.14
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.016	0.021	0.019	0.019	0.031
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	0.0019	0.0015	0.0016	0.0021	0.0026
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	1.5	2.0	0.66	0.39	2.4
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0023	0.0032	0.0025	0.0036	0.0020
Manganese	mg/L	0.0010	0.0053	0.0031	0.0024	0.0041	0.0032
Molybdenum	mg/L	0.0010	0.0040	0.0025	0.0050	0.0058	0.0021
Nickel	mg/L	0.0010	0.0016	0.0014	0.0016	0.0019	0.0023
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.045	0.032	0.036	0.060	0.036
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0010	0.0013
Selenium	mg/L	0.0010	0.0064	0.0037	0.0091	0.0059	0.0041
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0021	<0.0010
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	0.0014	0.00089
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Titanium	mg/L	0.0020	0.013	0.022	0.011	0.013	0.016
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-26	PFK0468-27	PFK0468-28	PFK0468-29	PFK0468-30
Your Reference			SPL026 ATRC006179	SPL027 ATRC006183	SPL028 ATRC006184	SPL029 ATRC006185	SPL030 ATRC006186
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00	86.00-88.00
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0096	0.0063	0.0087	0.0092	0.0083
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0023	<0.0010	<0.0010	<0.0010	0.0021
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	0.0054	<0.0050
Calcium*	mg/L	0.50	<0.50	<0.50	<0.50	0.61	<0.50
Potassium	mg/L	0.50	36	25	32	43	25
Magnesium	mg/L	0.50	1.2	0.69	1.3	1.6	0.66
Sodium	mg/L	0.50	2.3	3.2	2.8	4.7	1.9
Sulfur	mg/L	0.50	3.0	2.4	2.2	10	2.2
Phosphorus	mg/L	0.050	0.15	0.058	0.053	<0.050	0.088

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.89	0.32	0.099	0.17	0.070
Antimony	mg/L	0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.11	0.14	0.15	0.15	0.16
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.0086	0.0028	<0.0010	0.0020	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	0.0010	<0.0010	0.0016	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	1.0	1.4	1.4	1.1	1.1
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0090	0.0060	0.0084	0.0074	0.0085
Manganese	mg/L	0.0010	0.024	0.0024	<0.0010	0.0070	<0.0010
Molybdenum	mg/L	0.0010	0.0018	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0021	<0.0010	0.0018	<0.0010	<0.0010
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.037	0.026	0.012	0.016	0.010
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-31	PFK0468-32	PFK0468-33	PFK0468-34	PFK0468-35
Your Reference			SPL031 ATRC006188	SPL032 ATRC006189	SPL033 ATRC006190	SPL034 ATRC006191	SPL035 ATRC006193
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Selenium	mg/L	0.0010	0.0021	0.0019	0.0025	0.0010	0.0012
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0026	0.0013	<0.0010	0.0019	<0.0010
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.0041	0.0039	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0024	0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0016	0.019	0.0022	<0.0010	<0.0010
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	0.55	<0.50	<0.50	<0.50	<0.50
Potassium	mg/L	0.50	28	20	7.2	11	6.8
Magnesium	mg/L	0.50	1.2	0.51	<0.50	0.62	<0.50
Sodium	mg/L	0.50	6.4	4.8	2.9	4.3	2.7
Sulfur	mg/L	0.50	3.3	1.2	<0.50	0.77	<0.50
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.13	0.18	0.31	<0.010	0.18
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0026	0.017
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.16	0.13	0.14	0.12	0.42
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.0015	0.0021	0.0030	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	1.0	1.5	1.4	0.14	3.4

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-36	PFK0468-37	PFK0468-38	PFK0468-39	PFK0468-40
Your Reference			SPL036 ATRC006194	SPL037 ATRC006195	SPL038 ATRC006196	SPL039 ATRC006096	SPL040 ATRC006099
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	52.00-54.00	58.00-60.00
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0066	0.011	0.0047	0.032	0.017
Manganese	mg/L	0.0010	0.0015	0.0014	0.0022	0.011	0.020
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	<0.0010	0.0015	<0.0010	<0.0010	<0.0010
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.011	0.011	0.016	0.0083	0.012
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0011	0.0018	0.0015	0.0012	0.0036
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	<0.0010	<0.0010	0.0010	0.0091	0.021
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	0.0027	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	<0.0010	<0.0010	0.036	<0.0010	<0.0010
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	<0.50	<0.50	<0.50	1.0	0.59
Potassium	mg/L	0.50	8.5	8.6	13	3.6	5.9
Magnesium	mg/L	0.50	<0.50	<0.50	<0.50	1.6	<0.50
Sodium	mg/L	0.50	3.6	3.0	3.0	4.4	2.4
Sulfur	mg/L	0.50	<0.50	0.55	0.57	1.4	0.56
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	<0.010	<0.010	0.033	0.015	<0.010
Antimony	mg/L	0.0010	0.0013	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.024	0.037	0.035	0.033	0.027
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.19	0.23	0.13	0.18	0.19

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-41	PFK0468-42	PFK0468-43	PFK0468-44	PFK0468-45
Your Reference			SPL041 ATRC006102	SPL042 ATRC006104	SPL043 ATRC006105	SPL044 ATRC006106	SPL045 ATRC006108
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			60.00-62.00	64.00-66.00	66.00-68.00	68.00-70.00	72.00-74.00
Cadmium	mg/L	0.00010	<0.00010	<0.00010	0.00011	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.46	0.59	0.32	0.51	0.70
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.013	0.011	0.016	0.022	0.017
Manganese	mg/L	0.0010	0.15	0.28	0.99	0.64	0.24
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0022	0.0039	0.0070	0.0041	0.0034
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0088	0.012	0.0046	0.0044	0.0044
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0070	0.0053	0.0070	0.0068	0.012
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.075	0.068	0.039	0.058	0.040
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	0.00080	<0.00050	0.00052	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0023	0.0023	0.0023	0.0022	0.0024
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	1.6	2.1	1.5	2.1	1.5
Potassium	mg/L	0.50	4.2	5.3	2.5	2.5	2.4
Magnesium	mg/L	0.50	1.4	1.8	1.3	2.2	1.4
Sodium	mg/L	0.50	3.7	4.0	4.2	5.7	4.0
Sulfur	mg/L	0.50	1.3	1.3	1.0	2.3	1.1
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	<0.010	0.013	0.027	<0.010	<0.010
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.017	0.018	0.029	0.018	0.023
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.16	0.15	0.23	0.21	0.25
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.37	0.25	1.9	2.1	1.9
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.017	0.018	0.019	0.015	0.017
Manganese	mg/L	0.0010	0.069	0.10	0.080	0.054	0.019
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0014	0.0014	0.0017	0.0010	<0.0010
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0043	0.0072	0.0038	0.0048	0.0055
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0058	0.0051	0.0039	0.0062	0.0039
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.029	0.029	0.043	0.033	0.040
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0026	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0016	0.0014	0.020	0.0020	0.0016
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	1.1	1.2	1.5	1.0	1.1

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-46	PFK0468-47	PFK0468-48	PFK0468-49	PFK0468-50
Your Reference			SPL046 ATRC006109	SPL047 ATRC006110	SPL048 ATRC006112	SPL049 ATRC006113	SPL050 ATRC006114
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			74.00-76.00	76.00-78.00	80.00-82.00	82.00-84.00	84.00-86.00
Potassium	mg/L	0.50	2.2	3.9	2.0	2.1	2.3
Magnesium	mg/L	0.50	0.94	1.2	1.3	0.86	0.92
Sodium	mg/L	0.50	2.7	3.3	3.1	3.0	2.6
Sulfur	mg/L	0.50	1.1	1.4	1.0	0.97	0.89
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	0.012
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.027	0.046	0.041	0.061	0.016
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.28	0.25	0.16	0.37	0.20
Cadmium	mg/L	0.00010	<0.00010	<0.00010	0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.33	0.16	0.92	0.79	0.93
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.013	0.017	0.015	0.020	0.023
Manganese	mg/L	0.0010	0.035	0.17	0.51	0.32	0.091
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	<0.0010	0.0041	0.019	0.0086	0.0022
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0057	0.0060	0.0049	0.0076	0.0070
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0052	0.0069	0.0058	0.0036	0.0024
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.041	0.069	0.061	0.090	0.033
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-51	PFK0468-52	PFK0468-53	PFK0468-54	PFK0468-55
Your Reference			SPL051 ATRC006115	SPL052 ATRC006117	SPL053 ATRC006118	SPL054 ATRC006119	SPL055 ATRC006123
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			86.00-88.00	90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0021	0.0020	0.0044	0.0037	0.0014
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	0.99	2.1	2.1	2.8	1.6
Potassium	mg/L	0.50	2.3	2.6	2.1	3.6	3.7
Magnesium	mg/L	0.50	0.87	1.9	1.6	2.4	1.4
Sodium	mg/L	0.50	2.9	3.2	2.1	3.3	3.6
Sulfur	mg/L	0.50	0.91	1.1	0.53	0.99	1.4
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.66	0.34	0.16	<0.010	<0.010
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0021	0.0011
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0015	<0.0010	<0.0010	0.0015	0.0012
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.079	0.054	0.039	<0.020	0.022
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0012	0.0011
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.0050	0.0036	0.0011	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	1.7	1.8	1.0	0.13	0.32
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0054	0.0085	0.012	0.0082	0.0084
Manganese	mg/L	0.0010	0.0034	0.0016	0.0016	0.0041	0.0034
Molybdenum	mg/L	0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0017	<0.0010	<0.0010	<0.0010	0.0015

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-56	PFK0468-57	PFK0468-58	PFK0468-59	PFK0468-60
Your Reference			SPL056 ATRC006057	SPL057 ATRC006059	SPL058 ATRC006062	SPL059 ATRC006275	SPL060 ATRC006278
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	68.00-70.00	74.00-76.00
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.037	0.028	0.023	0.012	0.0087
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0041	0.0024	0.0013	0.0017	0.0016
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0054	0.0052
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	0.0014	0.00078
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010
Titanium	mg/L	0.0020	0.0062	0.0054	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0028	0.0012	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0087	<0.0010	0.0021	0.0024	0.0031
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	<0.50	<0.50	<0.50	0.95	1.3
Potassium	mg/L	0.50	27	18	16	5.0	3.4
Magnesium	mg/L	0.50	<0.50	<0.50	<0.50	1.2	1.9
Sodium	mg/L	0.50	2.7	2.5	2.9	3.4	5.3
Sulfur	mg/L	0.50	2.4	2.0	1.3	0.96	2.2
Phosphorus	mg/L	0.050	0.083	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.013	5.5	4.1	1.7	52
Antimony	mg/L	0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011
Barium	mg/L	0.0010	<0.0010	0.056	0.0092	0.039	0.0021
Beryllium	mg/L	0.00050	<0.00050	0.00083	0.00083	<0.00050	0.0032
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.046	0.20	0.16	0.27	0.094
Cadmium	mg/L	0.00010	<0.00010	0.00064	0.0018	0.00043	0.00050
Caesium	mg/L	0.0010	<0.0010	0.0021	0.0020	0.0021	<0.0010
Cerium	mg/L	0.0010	<0.0010	0.012	0.013	0.0025	0.0057
Chromium	mg/L	0.0010	<0.0010	0.012	0.0059	0.0054	0.36
Cobalt	mg/L	0.0010	<0.0010	0.38	0.22	0.22	0.78
Copper	mg/L	0.0010	<0.0010	5.1	2.4	2.1	31

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-61	PFK0468-62	PFK0468-63	PFK0468-64	PFK0468-65
Your Reference			SPL061 ATRC006279	SPL062 ATRC006319	SPL063 ATRC006322	SPL064 ATRC006324	SPL065 ATRC006325
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			76.00-78.00	28.00-30.00	30.00-32.00	34.00-36.00	36.00-38.00
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.013	0.69	1.1	0.60	19
Lanthanum	mg/L	0.00050	<0.00050	0.0061	0.0062	0.0012	0.0020
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0071	0.011	0.011	0.012	0.019
Manganese	mg/L	0.0010	0.0069	0.59	1.5	0.37	0.76
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	<0.0010	0.81	0.53	0.54	1.8
Niobium	mg/L	0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0054	0.36	0.33	0.33	0.047
Scandium	mg/L	0.0010	<0.0010	0.0014	<0.0010	<0.0010	0.024
Selenium	mg/L	0.0010	0.0018	0.13	0.069	0.084	0.11
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0066	0.062	0.052	0.023	0.014
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0068
Thallium	mg/L	0.0010	<0.0010	0.0018	0.0017	0.0017	<0.0010
Thorium	mg/L	0.00050	0.00072	0.00057	0.00053	<0.00050	0.00085
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	0.0012	0.0012	<0.0010	0.020
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015
Yttrium	mg/L	0.0010	<0.0010	0.0083	0.014	0.0026	0.018
Zinc	mg/L	0.0010	0.0036	0.26	0.50	0.087	0.46
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	1.7	5.4	6.8	4.1	15
Potassium	mg/L	0.50	1.8	240	160	210	33
Magnesium	mg/L	0.50	1.9	17	15	13	24
Sodium	mg/L	0.50	3.1	23	17	17	16
Sulfur	mg/L	0.50	1.2	140	110	120	180
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	32	0.014	0.022	0.039	0.023
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0022	0.0013
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Barium	mg/L	0.0010	0.0078	<0.0010	<0.0010	<0.0010	0.013
Beryllium	mg/L	0.00050	0.0028	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.18	0.11	0.20	0.13	0.15
Cadmium	mg/L	0.00010	0.00056	<0.00010	<0.00010	<0.00010	0.00017
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010
Cerium	mg/L	0.0010	0.017	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.086	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	0.60	<0.0010	<0.0010	<0.0010	0.0019
Copper	mg/L	0.0010	3.9	0.0023	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	8.6	0.10	0.11	0.16	0.032
Lanthanum	mg/L	0.00050	0.0073	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.019	0.018	0.026	0.0064	0.018
Manganese	mg/L	0.0010	1.7	0.023	0.050	0.069	4.6
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	2.0	0.0013	<0.0010	<0.0010	0.011
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.15	0.0040	0.0032	<0.0010	0.031
Scandium	mg/L	0.0010	0.0058	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.064	0.0012	<0.0010	<0.0010	0.0099
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.035	0.016	0.0035	0.0058	0.035
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	0.00053	<0.00050	<0.00050	0.0012	0.00067
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	0.0042	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	0.039	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.23	0.0016	0.0021	0.0042	0.0090
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	18	2.2	<0.50	0.74	9.9
Potassium	mg/L	0.50	160	2.0	1.8	0.53	33
Magnesium	mg/L	0.50	38	1.6	0.60	0.73	26
Sodium	mg/L	0.50	18	3.2	2.9	2.0	7.3
Sulfur	mg/L	0.50	200	3.2	0.80	<0.50	58

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-66	PFK0468-67	PFK0468-68	PFK0468-69	PFK0468-70
Your Reference			SPL066 ATRC006326	SPL067 ATRC006453	SPL068 ATRC006454	SPL069 ATRC006456	SPL070 ATRC006459
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			38.00-40.00	52.00-54.00	54.00-56.00	58.00-60.00	64.00-66.00
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.057	0.42	<0.010	<0.010	0.031
Antimony	mg/L	0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0017	0.0014	0.0024	0.0020	<0.0010
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.11	0.19	0.054	0.057	0.097
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	0.0013	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.035	0.24	0.061	0.10	0.021
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0052	0.0022	0.031	0.040	0.0025
Manganese	mg/L	0.0010	0.079	0.0018	0.0068	0.014	0.0062
Molybdenum	mg/L	0.0010	0.0015	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0028	0.0011	<0.0010	0.0013	<0.0010
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.0090	0.011	0.0055	0.0099	0.0024
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.047	0.0020	0.0019	0.0013	<0.0010
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0072	<0.0010	0.015	0.0063	0.0030
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.0063	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-71	PFK0468-72	PFK0468-73	PFK0468-74	PFK0468-75
Your Reference			SPL071 ATRC006462	SPL072 ATRC006463	SPL073 ATRC006671	SPL074 ATRC006672	SPL075 ATRC006394
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			66.00-68.00	68.00-70.00	90.00-92.00	92.00-94.00	72.00-74.00
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0014	0.0019	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0030	0.0023	0.0015	<0.0010	0.0014
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	1.5	<0.50	3.7	1.3	<0.50
Potassium	mg/L	0.50	11	9.6	4.3	7.2	3.3
Magnesium	mg/L	0.50	3.5	<0.50	1.6	0.99	<0.50
Sodium	mg/L	0.50	4.6	2.5	2.0	2.4	8.6
Sulfur	mg/L	0.50	9.3	<0.50	3.2	2.5	<0.50
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Mercury*	mg/L	0.000050	0.00021	0.00015	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.072	0.058	0.094	0.051	1.5
Antimony	mg/L	0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	0.0029	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0075	0.0034	<0.0010	0.0085	0.032
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00071
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.054	0.065	0.063	0.088	0.14
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	0.00011	0.018
Caesium	mg/L	0.0010	<0.0010	0.0015	<0.0010	0.0013	0.0026
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0049
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.011
Cobalt	mg/L	0.0010	0.0027	0.0016	0.0032	0.0038	0.18
Copper	mg/L	0.0010	0.0046	0.0048	0.013	0.0016	0.72
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.034	<0.010	0.033	0.074	0.90
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0026
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	<0.0010	0.0015	<0.0010	0.0056	0.010
Manganese	mg/L	0.0010	0.0018	0.022	0.0042	0.37	1.8
Molybdenum	mg/L	0.0010	0.026	0.0094	0.0046	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.013	0.0048	0.0062	0.039	0.63
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.029	0.088	0.066	0.12	0.27
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-76	PFK0468-77	PFK0468-78	PFK0468-79	PFK0468-80
Your Reference			SPL076 ATRC006817	SPL077 ATRC006818	SPL078 ATRC006819	SPL079 ATRC006822	SPL080 ATRC006824
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	96.00-98.00	100.00-102.00
Selenium	mg/L	0.0010	0.0052	0.010	0.0075	0.067	0.051
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.038	0.079	0.0080	0.11	0.16
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.0036	<0.0020	<0.0020	<0.0020	0.0031
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.010
Zinc	mg/L	0.0010	<0.0010	0.0016	0.0022	0.0023	0.13
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	7.8	18	2.0	8.8	14
Potassium	mg/L	0.50	24	60	49	84	160
Magnesium	mg/L	0.50	15	18	2.8	11	26
Sodium	mg/L	0.50	9.4	11	5.2	6.9	17
Sulfur	mg/L	0.50	9.0	37	20	61	120
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	21	36	65	1.1	0.97
Antimony	mg/L	0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	<0.0010	0.0015	<0.0010	0.030	0.026
Beryllium	mg/L	0.00050	0.0041	0.0054	0.0086	0.0010	0.0010
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.13	0.16	0.11	0.092	0.062
Cadmium	mg/L	0.00010	0.0027	0.0052	0.0061	0.0018	0.0032
Caesium	mg/L	0.0010	0.0019	0.0020	<0.0010	0.0014	0.0010
Cerium	mg/L	0.0010	0.011	0.018	0.013	0.0064	0.0042
Chromium	mg/L	0.0010	0.063	0.15	0.22	0.0048	0.0031
Cobalt	mg/L	0.0010	0.40	1.2	1.7	0.14	0.12
Copper	mg/L	0.0010	1.9	5.5	5.7	0.064	0.033
Gallium	mg/L	0.0010	<0.0010	0.0014	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	0.0013	<0.0010	0.0014	<0.0010	<0.0010
Iron	mg/L	0.010	130	20	48	3.3	3.6

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-81	PFK0468-82	PFK0468-83	PFK0468-84	PFK0468-85
Your Reference			SPL081 ATRC006825	SPL082 ATRC006826	SPL083 ATRC006827	SPL084 ATRC006829	SPL085 ATRC006830
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	104.00-106.00	106.00-108.00	110.00-112.00	112.00-114.00
Lanthanum	mg/L	0.00050	0.0051	0.0087	0.0057	0.0037	0.0026
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.017	0.020	0.021	0.015	0.013
Manganese	mg/L	0.0010	5.8	3.5	3.4	3.7	2.6
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	1.4	3.5	4.7	0.35	0.35
Niobium	mg/L	0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.22	0.27	0.11	0.15	0.12
Scandium	mg/L	0.0010	0.0093	0.0063	0.011	0.0015	0.0012
Selenium	mg/L	0.0010	0.033	0.043	0.030	0.018	0.016
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.058	0.026	0.017	0.17	0.20
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	0.0032	<0.0010	<0.0010
Thallium	mg/L	0.0010	0.0012	0.0020	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	0.00089	0.0013	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	0.0023	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.0020	<0.0020	<0.0020	0.0065	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	0.0023	0.0031	0.0064	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	0.0026	<0.0010	<0.0010
Yttrium	mg/L	0.0010	0.049	0.097	0.10	0.012	0.0097
Zinc	mg/L	0.0010	0.29	0.38	0.20	0.055	0.038
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	21	18	22	8.2	12
Potassium	mg/L	0.50	150	160	54	110	82
Magnesium	mg/L	0.50	38	42	44	15	15
Sodium	mg/L	0.50	11	8.9	7.6	10	8.9
Sulfur	mg/L	0.50	200	250	300	91	80
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	28	0.17	0.062	31	3.6
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0070	0.022	0.0063	0.0056	0.056
Beryllium	mg/L	0.00050	0.0075	<0.00050	<0.00050	0.016	0.0041
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.14	0.099	0.11	0.12	0.14

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-86	PFK0468-87	PFK0468-88	PFK0468-89	PFK0468-90
Your Reference			SPL086 ATRC006831	SPL087 ATRC006832	SPL088 ATRC006833	SPL089 ATRC006834	SPL090 ATRC006835
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			114.00-116.00	116.00-118.00	118.00-120.00	120.00-122.00	122.00-124.00
Cadmium	mg/L	0.00010	0.027	0.00028	<0.00010	0.0057	0.0029
Caesium	mg/L	0.0010	0.0022	0.0012	0.0010	0.0017	0.0023
Cerium	mg/L	0.0010	0.026	<0.0010	<0.0010	0.014	0.0060
Chromium	mg/L	0.0010	0.065	<0.0010	<0.0010	0.11	0.0084
Cobalt	mg/L	0.0010	0.45	0.012	0.0020	1.1	0.39
Copper	mg/L	0.0010	1.0	0.027	0.0078	9.3	9.1
Gallium	mg/L	0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	0.0015	<0.0010	<0.0010	0.0012	<0.0010
Iron	mg/L	0.010	46	0.13	0.028	31	1.2
Lanthanum	mg/L	0.00050	0.014	<0.00050	<0.00050	0.0070	0.0036
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.022	0.0071	0.0037	0.037	0.020
Manganese	mg/L	0.0010	4.2	0.14	0.044	7.2	1.6
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	2.4	0.068	0.0071	3.0	0.63
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.28	0.14	0.074	0.17	0.22
Scandium	mg/L	0.0010	0.0057	<0.0010	<0.0010	0.016	0.0024
Selenium	mg/L	0.0010	0.036	0.14	0.20	0.077	0.22
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.086	0.029	0.011	0.052	0.11
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	0.0024	<0.0010	<0.0010	0.0012	0.0012
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	0.0031	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	0.0014	<0.0010	<0.0010	0.0019	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	0.11	0.0012	<0.0010	0.13	0.033
Zinc	mg/L	0.0010	0.19	0.0070	0.0015	0.67	0.28
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	16	4.1	1.6	30	20
Potassium	mg/L	0.50	170	120	73	120	180
Magnesium	mg/L	0.50	35	9.2	3.5	53	39
Sodium	mg/L	0.50	17	7.6	9.1	18	14
Sulfur	mg/L	0.50	230	70	33	250	170
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	0.071	0.071

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
Mercury*	mg/L	0.000050	0.00033	<0.000050	<0.000050	0.00013	<0.000050
Aluminium	mg/L	0.010	0.044	0.050	0.065	0.30	0.053
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.036	<0.0010	0.0023	0.0018	0.012
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.086	0.074	0.062	0.056	0.052
Cadmium	mg/L	0.00010	0.0012	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0026	<0.0010
Cobalt	mg/L	0.0010	0.048	<0.0010	0.0013	0.0011	0.0063
Copper	mg/L	0.0010	0.014	0.0022	0.0078	0.0075	0.012
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.071	0.024	0.069	0.39	0.21
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.023	0.019	0.0064	0.0067	0.016
Manganese	mg/L	0.0010	19	0.015	0.12	0.017	1.0
Molybdenum	mg/L	0.0010	<0.0010	0.012	0.0047	0.0018	<0.0010
Nickel	mg/L	0.0010	0.10	0.0035	0.0064	0.0058	0.018
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.065	0.033	0.020	0.029	0.036
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0073	0.0022	0.0014	0.0026	0.011
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.50	0.017	0.021	0.0052	0.053
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.025	0.0012	0.0062	0.010	0.0049
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	36	3.4	2.4	<0.50	5.3

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-91	PFK0468-92	PFK0468-93	PFK0468-94	PFK0468-95
Your Reference			SPL091 ATRC006891	SPL092 ATRC006892	SPL093 ATRC006893	SPL094 ATRC006895	SPL095 ATRC006896
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			90.00-92.00	92.00-94.00	94.00-96.00	98.00-100.00	100.00-102.00
Potassium	mg/L	0.50	52	27	21	26	36
Magnesium	mg/L	0.50	80	13	4.6	0.66	9.5
Sodium	mg/L	0.50	13	14	8.5	3.4	13
Sulfur	mg/L	0.50	170	6.7	6.3	6.6	32
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	0.062	15	17	25	0.16
Antimony	mg/L	0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Barium	mg/L	0.0010	0.0036	0.042	0.0075	0.0040	<0.0010
Beryllium	mg/L	0.00050	<0.00050	0.0061	0.0075	0.011	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.058	0.13	0.17	0.15	0.090
Cadmium	mg/L	0.00010	<0.00010	0.0080	0.0055	0.0047	<0.00010
Caesium	mg/L	0.0010	<0.0010	0.0024	0.0027	0.0024	<0.0010
Cerium	mg/L	0.0010	<0.0010	0.011	0.015	0.016	<0.0010
Chromium	mg/L	0.0010	<0.0010	0.13	0.11	0.20	0.0051
Cobalt	mg/L	0.0010	<0.0010	0.68	1.2	1.4	0.021
Copper	mg/L	0.0010	0.0016	1.5	5.7	7.7	0.014
Gallium	mg/L	0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.19	6.2	8.0	11	0.30
Lanthanum	mg/L	0.00050	<0.00050	0.0060	0.0067	0.0071	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.011	0.024	0.033	0.033	0.031
Manganese	mg/L	0.0010	0.15	3.9	5.6	2.2	0.13
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0057	1.8	3.0	3.2	0.021
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.068	0.19	0.21	0.18	0.037
Scandium	mg/L	0.0010	<0.0010	0.0036	0.0037	0.0066	<0.0010
Selenium	mg/L	0.0010	0.011	0.031	0.046	0.051	0.0035
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.018	0.058	0.027	0.017	0.013
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010
Thallium	mg/L	0.0010	<0.0010	0.0012	0.0017	0.0014	<0.0010

1:2 MEND Leach Metals (Solid adhoc)

Envirolab ID	Units	PQL	PFK0468-96	PFK0468-97	PFK0468-98	PFK0468-99	PFK0468-AA
Your Reference			SPL096 ATRC006897	SPL097 ATRC006899	SPL098 ATRC006902	SPL099 ATRC006903	SPL100 ATRC006962
Date Sampled			16/09/2024	16/09/2024	16/09/2024	16/09/2024	16/09/2024
Depth			102.00-104.00	106.00-108.00	108.00-110.00	110.00-112.00	78.00-80.00
Thorium	mg/L	0.00050	<0.00050	<0.00050	0.00094	0.00066	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	0.0013	0.0017	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	0.052	0.094	0.087	<0.0010
Zinc	mg/L	0.0010	0.0020	0.31	0.70	0.42	0.0077
Zirconium	mg/L	0.0050	<0.0050	<0.0050	0.0052	<0.0050	<0.0050
Calcium*	mg/L	0.50	1.0	20	23	21	1.7
Potassium	mg/L	0.50	52	160	170	150	34
Magnesium	mg/L	0.50	2.2	45	55	51	3.4
Sodium	mg/L	0.50	3.9	12	11	11	9.5
Sulfur	mg/L	0.50	25	190	230	230	15
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Result Comments

Identifier	Description
[3]	PQL(s) has/have been raised due to the high concentration of analyte(s) in the sample, resulting in the sample requiring a dilution.

Method Summary

Method ID	Methodology Summary
AMD-001	Acid Mine Drainage determined by AMIRA International - Acid Rock Drainage Test Handbook.
Calc - TIC	Calculation
INORG-001_1:2	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis can be completed outside of the APHA recommended holding times. Solids are reported from a 1:2 water extract unless otherwise specified. Alternatively, pH is determined in a 1:2 extract using 0.01M calcium chloride, pH is measured in the extract.
INORG-002_1:2	Conductivity and Salinity - measured using a conductivity cell at 25 C. Soil results reported from a 1:2 Soil:Water extract unless otherwise specified.
INORG-006	Alkalinity - determined titrimetrically based on APHA latest edition 2320-B. Solids reported from a 1:5 water extract unless otherwise specified. Total Carbon Dioxide - determined by calculation in accordance with APHA latest edition,4500-CO2 D.
INORG-006_MEND	Alkalinity - determined titrimetrically. Solids reported from a custom leach, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-064	sPOCAS determined using titrimetric and ICP-OES techniques. There is no documented official holding time, we have assigned an arbitrary 180 days to frozen samples.
INORG-068	Determination of Chromium Suite analysis - a sample is analysed by traditional titration method as well as ICP-OES analysis. There is no documented official holding time, we have assigned an arbitrary 180 days to frozen samples.
INORG-081	Anions determined by Ion Chromatography. Waters samples are filtered on receipt prior to analysis. Solids are analysed from a water extract. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
INORG-081_1:2LEACH	Anions determined by Ion Chromatography. Waters samples are filtered on receipt prior to analysis. Solids are analysed from a water extract. Alternatively determined by colourimetry/turbidity using Discrete Analyser.A custom leach may have been used, for example a 1:2 solid to liquid ratio.
INORG-081_MEND	Anions determined by Ion Chromatography. Waters samples are filtered on receipt prior to analysis. Solids are analysed from a water extract. Alternatively determined by colourimetry/turbidity using Discrete Analyser.A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-137	Determination of Total Nitrogen, Sulphur and Total Carbon in solids, rock, plant material and vegetation via combustion and NDIR.
METALS-020	Determination of various metals by ICP-OES.
METALS-020_MEND	Determination of various metals by ICP-OES.A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
METALS-021	Determination of Mercury by Cold Vapour AAS.
METALS-021_MEND	Determination of Mercury by Cold Vapour AAS. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
METALS-022	Determination of various metals by ICP-MS.Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements.Salt forms and/or anion/cation forms (e.g. FeO, PbO, ZnO, BO3) are determined stoichiometrically from the base metal concentration.
METALS-022_MEND	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary PFK0468

Client Details

Client	Mine Earth
Your Reference	SAN-2401
Date Issued	02/01/2025

Recommended Holding Time Compliance

Recommended holding time exceedances exist - See detailed list below

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	No	Blank Outliers Exist - See detailed list below
LCS	Yes	No Outliers
Duplicates	No	Duplicate Outliers Exist - See detailed list below
Matrix Spike	No	Matrix Spike Outliers Exist - See detailed list below
Surrogates / Extracted Internal Standards	Yes	No Outliers
QC Frequency	No	QC Frequency Outliers Exist - See detailed list below

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary PFK0468

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
TIC by Combustion | Solid adhoc	1-40	16/09/2024	08/11/2024	18/11/2024	No
	41-AA	16/09/2024	08/11/2024	21/11/2024	No
TOC by Combustion | Solid adhoc	1-40	16/09/2024	08/11/2024	18/11/2024	No
	41-AA	16/09/2024	08/11/2024	21/11/2024	No
Total Carbon | Solid adhoc	1-40	16/09/2024	08/11/2024	18/11/2024	No
	41-AA	16/09/2024	08/11/2024	21/11/2024	No
Total Sulfur | Solid adhoc	1-AA	16/09/2024	08/11/2024	21/11/2024	Yes
EC 1:2 soil:water | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	No
	41-80	16/09/2024	08/11/2024	13/11/2024	No
	81-AA	16/09/2024	08/11/2024	14/11/2024	No
pH 1:2 | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	No
	41-80	16/09/2024	08/11/2024	13/11/2024	No
	81-AA	16/09/2024	08/11/2024	14/11/2024	No
CRS Suite | Solid adhoc	2-3, 6-15, 62-66, 71, 76-90, 95-99	16/09/2024	15/11/2024	15/11/2024	Yes
SHCl | Solid adhoc	2-3, 6-15, 62-66, 71, 76-90, 95-99	16/09/2024	15/11/2024	21/11/2024	Yes
ANC CaCO3 | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
ANC H2SO4 | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
APP | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
Fizz Rating | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
NAG pH | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
NAG pH4.5 | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
NAG pH7.0 | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
NAPP | Solid adhoc	1-40	16/09/2024	08/11/2024	12/11/2024	Yes
	41-80	16/09/2024	08/11/2024	13/11/2024	Yes
	81-AA	16/09/2024	08/11/2024	14/11/2024	Yes
Alkalinity 1:2 Leach pH 4.8 | Solid adhoc	2-3, 6-15, 62-66, 71, 76-90, 95-99	16/09/2024	30/12/2024	31/12/2024	No

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
Chloride 1:2 Leach | Solid adhoc	1, 3-40	16/09/2024	05/12/2024	05/12/2024	No
	2	16/09/2024	05/12/2024	06/12/2024	No
	41-60	16/09/2024	05/12/2024	07/12/2024	No
	61, 67-79	16/09/2024	05/12/2024	12/12/2024	No
	62-66, 80, 83, 87-96, AA	16/09/2024	05/12/2024	13/12/2024	No
	81-82, 84-86, 97-99	16/09/2024	05/12/2024	16/12/2024	No
Chloride 1:2 Leach pH 4.8 | Solid adhoc	2-3, 6-15, 62-66, 71, 76-77, 80-81, 84-90, 95, 97-99	16/09/2024	20/12/2024	24/12/2024	No
	78-79, 82-83, 96	16/09/2024	20/12/2024	30/12/2024	No
Sulfate 1:2 Leach pH 4.8 | Solid adhoc	2-3, 6-15, 62-66, 71, 76-77, 80-81, 84-90, 95, 97-99	16/09/2024	20/12/2024	24/12/2024	No
	78-79, 82-83, 96	16/09/2024	20/12/2024	30/12/2024	No
ICPOES Metals 1:2 pH 4.8 Leach | Solid adhoc	2-3, 6-15, 62-66, 71, 76-77	16/09/2024	17/12/2024	22/12/2024	Yes
	78-90, 95-99	16/09/2024	20/12/2024	22/12/2024	Yes
Hg 1:2 pH 4.8 Leach | Solid adhoc	2-3, 6-15, 62-66, 71, 76-77	16/09/2024	17/12/2024	22/12/2024	No
	78-90, 95-99	16/09/2024	20/12/2024	22/12/2024	No
ICPMS Metals 1:2 pH 4.8 Leach | Solid adhoc	2-3, 6-15	16/09/2024	17/12/2024	30/12/2024	Yes
	62-66, 71, 76-77	16/09/2024	17/12/2024	31/12/2024	Yes
	78-90, 95-99	16/09/2024	20/12/2024	30/12/2024	Yes
Alkalinity 1:2 MEND Leach | Solid adhoc	1-20	16/09/2024	11/12/2024	12/12/2024	No
	21-60	16/09/2024	11/12/2024	13/12/2024	No
	61-AA	16/09/2024	16/12/2024	17/12/2024	No
Sulfate 1:2 MEND Leach | Solid adhoc	1, 3-8, 11-20	16/09/2024	05/12/2024	05/12/2024	No
	2, 10	16/09/2024	05/12/2024	06/12/2024	No
	21-40	16/09/2024	24/12/2024	05/12/2024	No
	41-60	16/09/2024	24/12/2024	07/12/2024	No
	61, 67-79	16/09/2024	24/12/2024	12/12/2024	No
	62-66, 80, 87-96, AA	16/09/2024	24/12/2024	13/12/2024	No
	81-86, 97-99	16/09/2024	24/12/2024	16/12/2024	No
	9	16/09/2024	24/12/2024	24/12/2024	No
1:2 MEND Leachate Metals | Solid adhoc	82-AA	16/09/2024	03/12/2024	10/12/2024	Yes
	81	16/09/2024	03/12/2024	12/12/2024	Yes
	9	16/09/2024	22/11/2024	02/12/2024	Yes
	1-8, 10-40	16/09/2024	22/11/2024	29/11/2024	Yes
	48-50, 54-55	16/09/2024	25/11/2024	12/12/2024	Yes
	41-47, 51-53, 56-80	16/09/2024	25/11/2024	30/11/2024	Yes
Hg 1:2 MEND Leach | Solid adhoc	81-AA	16/09/2024	03/12/2024	05/12/2024	No
	1-40	16/09/2024	22/11/2024	25/11/2024	No
	41-80	16/09/2024	25/11/2024	27/11/2024	No
ICPOES Metals 1:2 MEND | Solid adhoc	81-AA	16/09/2024	03/12/2024	09/12/2024	Yes
	1-20	16/09/2024	22/11/2024	22/11/2024	Yes

Data Quality Assessment Summary PFK0468

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
	21-40	16/09/2024	22/11/2024	25/11/2024	Yes
	41-80	16/09/2024	25/11/2024	27/11/2024	Yes

Outliers: Blanks

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1394

Sample ID	Analyte	Limits	Result
BFK1394-BLK1	NAPP	-10000	0.00

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1395

Sample ID	Analyte	Limits	Result
BFK1395-BLK1	NAPP	-10000	0.00

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1396

Sample ID	Analyte	Limits	Result
BFK1396-BLK1	NAPP	-10000	0.00

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1397

Sample ID	Analyte	Limits	Result
BFK1397-BLK1	NAPP	-10000	0.00

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1426

Sample ID	Analyte	Limits	Result
BFK1426-BLK1	NAPP	-10000	0.00

INORG-006 | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL4788

Sample ID	Analyte	Limits	Result
BFL4788-BLK1	Bicarbonate Alkalinity as CaCO3	5.0	2650[7]
BFL4788-BLK1	Total Alkalinity as CaCO3	5.0	2650[7]

Outliers: Duplicates

METALS-022|1:2 Leach Metals Low Level (Solid adhoc)| Batch BFL3220

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-14	DUP2	Iron	20.00	38.0[6]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4017

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-01	DUP1	Manganese	20.00	56.7[4]
PFK0468-01	DUP1	Zinc	40.00	46.0[4]
PFK0468-11	DUP2	Aluminium	20.00	26.1[4]
PFK0468-11	DUP2	Iron	20.00	24.3[4]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4018

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-21	DUP1	Iron	20.00	48.1[4]
PFK0468-21	DUP1	Manganese	20.00	82.7[4]
PFK0468-31	DUP2	Aluminium	20.00	24.5[4]
PFK0468-31	DUP2	Iron	20.00	32.2[4]
PFK0468-31	DUP2	Manganese	20.00	56.9[4]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4410

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-41	DUP1	Manganese	20.00	62.8[6]
PFK0468-51	DUP2	Iron	20.00	41.2[6]
PFK0468-51	DUP2	Manganese	20.00	136[6]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4411

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-61	DUP1	Manganese	20.00	123[4]
PFK0468-71	DUP2	Manganese	20.00	22.2[4]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFL0398

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-81	DUP1	Aluminium	20.00	33.5[4]
PFK0468-81	DUP1	Beryllium	40.00	41.9[4]
PFK0468-81	DUP1	Iron	20.00	42.2[6]
PFK0468-91	DUP2	Copper	40.00	60.2[4]
PFK0468-91	DUP2	Iron	20.00	26.0[4]

Data Quality Assessment Summary PFK0468

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFL0398

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFK0468-91	DUP2	Molybdenum	40.00	200[4]

Outliers: Matrix Spike

METALS-020|1:2 Leach Metals (Solid adhoc)| Batch BFL3221

Sample ID	Analyte	% Limits	% Recovery
PFK0468-03	Silicon	70 - 130	63.9[2]

METALS-022|1:2 Leach Metals Low Level (Solid adhoc)| Batch BFL3220

Sample ID	Analyte	% Limits	% Recovery
PFK0468-03	Aluminium	70 - 130	##[1]
PFK0468-03	Manganese	70 - 130	##[1]
PFK0468-03	Silver	70 - 130	69.4[2]

METALS-022|1:2 Leach Metals Low Level (Solid adhoc)| Batch BFL4095

Sample ID	Analyte	% Limits	% Recovery
PFK0468-79	Aluminium	70 - 130	##[1]
PFK0468-79	Iron	70 - 130	##[1]
PFK0468-79	Manganese	70 - 130	##[1]
PFK0468-79	Silver	70 - 130	##[2]
PFK0468-79	Strontium	70 - 130	67.1[1]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4017

Sample ID	Analyte	% Limits	% Recovery
PFK0468-02	Boron	70 - 130	##[1]
PFK0468-02	Iron	70 - 130	##[2]
PFK0468-02	Silver	70 - 130	##[2]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4018

Sample ID	Analyte	% Limits	% Recovery
PFK0468-22	Aluminium	70 - 130	##[1]
PFK0468-22	Antimony	70 - 130	##[2]
PFK0468-22	Iron	70 - 130	##[1]
PFK0468-22	Selenium	70 - 130	##[2]
PFK0468-22	Tellurium	70 - 130	##[2]
PFK0468-22	Tin	70 - 130	##[2]
PFK0468-22	Titanium	70 - 130	##[2]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4018

Sample ID	Analyte	% Limits	% Recovery
PFK0468-22	Tungsten	70 - 130	##[2]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4410

Sample ID	Analyte	% Limits	% Recovery
PFK0468-42	Iron	70 - 130	##[1]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFK4411

Sample ID	Analyte	% Limits	% Recovery
PFK0468-62	Aluminium	70 - 130	##[1]
PFK0468-62	Cobalt	70 - 130	52.1[1]
PFK0468-62	Copper	70 - 130	##[1]
PFK0468-62	Iron	70 - 130	##[1]
PFK0468-62	Manganese	70 - 130	##[1]
PFK0468-62	Nickel	70 - 130	##[1]
PFK0468-62	Rubidium	70 - 130	##[1]

METALS-022_MEND|1:2 MEND Leach Metals (Solid adhoc)| Batch BFL0398

Sample ID	Analyte	% Limits	% Recovery
PFK0468-82	Aluminium	70 - 130	##[1]
PFK0468-82	Cobalt	70 - 130	##[1]
PFK0468-82	Copper	70 - 130	##[1]
PFK0468-82	Iron	70 - 130	##[1]
PFK0468-82	Nickel	70 - 130	##[1]

Outliers: QC Frequency

INORG-006|1:2 Leach Inorganics (Solid adhoc)| Batch BFL4788

Analysis	QC Type	Expected	Reported
Alkalinity 1:2 Leach pH 4.8	Matrix Spike	1	0

INORG-006|1:2 Leach Inorganics (Solid adhoc)| Batch BFL4789

Analysis	QC Type	Expected	Reported
Alkalinity 1:2 Leach pH 4.8	Matrix Spike	1	0

Quality Control PFK0468

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1404

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	0.743 | 0.736 | 0.947	0.333 | 0.332 | 0.301	[NA]

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1405

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	0.0530 | 0.0500 | 5.83	0.0390 | 0.0440 | [NA]	[NA]

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1406

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	0.0900 | 0.0840 | 6.90	0.0250 | 0.0250 | [NA]	[NA]

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1407

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	0.0380 | 0.0410 | [NA]	0.0660 | 0.0670 | 1.50	[NA]

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1408

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	1.06 | 1.05 | 1.14	0.0360 | <0.010 | [NA]	[NA]

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1409

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.729 | 0.727 | 0.330	0.334 | 0.336 | 0.597	94.2

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1410

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.0630 | 0.0640 | 1.57	0.0480 | 0.0470 | [NA]	92.8

INORG-137 | Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1411

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.0920 | 0.0880 | 4.44	0.0250 | 0.0260 | [NA]	94.9

Quality Control PFK0468

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1412

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.0330 | 0.0320 | [NA]	0.0650 | 0.0640 | 1.55	93.2

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1413

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.989 | 0.982 | 0.710	0.0530 | 0.0530 | 0.00	93.4

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1414

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	0.0290 | 0.0170 | [NA]	0.268 | 0.270 | 0.743	99.9

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1415

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	98.6

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1416

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	0.0240 | 0.0110 | [NA]	<0.010 | <0.010 | [NA]	97.9

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1417

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	0.0130 | <0.010 | [NA]	0.0750 | 0.0840 | 11.3	98.0

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFK1418

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	2.47 | 2.46 | 0.405	0.0440 | 0.0450 | [NA]	96.9

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFK1419

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
pH	pH units		0.0	6.8 | 6.9 | 0.292	6.1 | 6.1 | 0.00	100
Electrical Conductivity	µS/cm	1.0	<1.0	54.4 | 48.1 | 12.3	215 | 227 | 5.43	96.4

Quality Control PFK0468

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFK1420

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
pH	pH units		0.0	8.1 | 8.2 | 1.23	7.8 | 7.8 | 0.257	100
Electrical Conductivity	µS/cm	1.0	<1.0	94.8 | 85.9 | 9.85	129 | 132 | 2.30	96.7

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFK1421

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
pH	pH units		0.0	7.1 | 7.4 | 5.23	7.2 | 7.2 | 0.278	101
Electrical Conductivity	µS/cm	1.0	<1.0	45.2 | 37.7 | 18.1	47.3 | 46.9 | 0.849	99.7

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFK1422

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
pH	pH units		0.0	7.0 | 7.0 | 0.856	6.8 | 6.8 | 0.293	99.9
Electrical Conductivity	µS/cm	1.0	<1.0	51.6 | 50.1 | 2.95	89.7 | 90.1 | 0.445	99.7

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFK1423

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
pH	pH units		0.0	5.0 | 5.0 | 0.598	6.5 | 6.7 | 3.04	101
Electrical Conductivity	µS/cm	1.0	<1.0	1010 | 1010 | 0.0994	844 | 838 | 0.713	101

INORG-068|Chromium Reducible Sulfur Suite (Solid adhoc) | Batch BFK2508

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %
Chromium Reducible Sulfur	% w/w	0.0050	<0.0050	0.0780 | 0.0777 | 0.432	0.299 | 0.304 | 1.73	89.2

INORG-068|Chromium Reducible Sulfur Suite (Solid adhoc) | Batch BFK2509

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-88 Samp | QC | RPD %	LCS %
Chromium Reducible Sulfur	% w/w	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	0.0341 | 0.0346 | 1.47	91.6

INORG-064|SPOCAS (Solid adhoc) | Batch BFK2510

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %
SHCl	% w/w S	0.0050	<0.0050			[NA]

INORG-064|SPOCAS (Solid adhoc) | Batch BFK2511

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-87 Samp | QC | RPD %	LCS %
SHCl	% w/w S	0.0050	<0.0050			[NA]

AMD-001|Acid Mine Drainage (Solid adhoc) | Batch BFK1394

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	1.04 | 1.21 | [NA]	0.970 | 1.12 | [NA]	97.4
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
NAPP	kg H2SO4/t	-10000	0.00	-0.798 | -1.12 | -33.8	-0.878 | -0.902 | -2.77	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	0.106 | 0.124 | 15.2	0.0989 | 0.114 | 14.1	97.4
APP	kg H2SO4/t	0.50	<0.50	<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	[NA]

Quality Control PFK0468

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1395

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	1.87 | 1.73 | [NA]	0.592 | 0.762 | [NA]	102
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
NAPP	kg H2SO4/t	-10000	0.00	-1.14 | -1.70 | -39.4	-0.531 | -0.731 | -31.7	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	0.191 | 0.176 | 8.05	0.0604 | 0.0777 | 25.0	102
APP	kg H2SO4/t	0.50	<0.50	0.734 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	[NA]

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1396

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	0.692 | 0.839 | [NA]	1.75 | 1.85 | [NA]	102
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
NAPP	kg H2SO4/t	-10000	0.00	-0.294 | -0.809 | -93.4	0.545 | 0.721 | 27.9	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	0.0706 | 0.0856 | 19.3	0.179 | 0.189 | 5.47	102
APP	kg H2SO4/t	0.50	<0.50	<0.50 | <0.50 | [NA]	2.30 | 2.57 | [NA]	[NA]

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1397

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	<0.50 | <0.50 | [NA]	1.29 | 1.34 | [NA]	93.0
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
NAPP	kg H2SO4/t	-10000	0.00	75.7 | 75.4 | 0.405	0.0589 | 0.0404 | 37.2	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010 | <0.010 | [NA]	0.131 | 0.136 | 3.74	93.0
APP	kg H2SO4/t	0.50	<0.50	75.7 | 75.4 | 0.405	1.35 | 1.38 | [NA]	[NA]

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1398

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
NAG pH	pH units			6.24 | 6.30 | 0.957	3.09 | 3.18 | 2.87	96.6
NAG pH4.5	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	5.08 | 4.86 | 4.34	111
NAG pH7.0	kg H2SO4/t	0.5		1.16 | 1.04 | [NA]	8.33 | 8.08 | 3.11	97.4

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1399

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
NAG pH	pH units			7.62 | 7.66 | 0.524	6.25 | 6.18 | 1.13	95.3
NAG pH4.5	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	114
NAG pH7.0	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	2.47 | 2.65 | 6.90	95.2

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1403

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %
NAG pH	pH units			2.10 | 2.09 | 0.477	6.94 | 6.96 | 0.288	97.5
NAG pH4.5	kg H2SO4/t	0.5		63.0 | 62.8 | 0.399	<0.50 | <0.50 | [NA]	116
NAG pH7.0	kg H2SO4/t	0.5		70.9 | 70.7 | 0.284	<0.50 | <0.50 | [NA]	101

Quality Control PFK0468

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1426

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	104
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
NAPP	kg H2SO4/t	-10000	0.00	0.887 | 0.520 | 52.2	8.20 | 8.26 | 0.743	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	<0.010 | 0.0240 | [NA]	<0.010 | <0.010 | [NA]	104
APP	kg H2SO4/t	0.50	<0.50	0.887 | 0.520 | [NA]	8.20 | 8.26 | 0.743	[NA]

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1427

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
NAG pH	pH units			5.31 | 5.36 | 0.937	5.89 | 5.91 | 0.339	97.8
NAG pH4.5	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	116
NAG pH7.0	kg H2SO4/t	0.5		4.14 | 3.46 | 18.0	3.05 | 2.93 | 4.03	101

AMD-001 | Acid Mine Drainage (Solid adhoc) | Batch BFK1428

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %
NAG pH	pH units			7.20 | 7.13 | 0.977	4.31 | 4.35 | 0.924	96.6
NAG pH4.5	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	<0.50 | <0.50 | [NA]	119
NAG pH7.0	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	2.09 | 1.97 | [NA]	101

INORG-081_1:2LEACH | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL0809

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %	Spike % PFK0468-02
Chloride	mg/L	1.0	<1.0	6.61 | 7.34 | 10.4	9.01 | 9.00 | 0.118	95.3	121

INORG-081_1:2LEACH | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL0810

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %	Spike % PFK0468-22
Chloride	mg/L	1.0	<1.0	5.80 | 5.64 | 2.73	25.6 | 26.5 | 3.43	96.9	117

INORG-081_1:2LEACH | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL0811

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %	Spike % PFK0468-42
Chloride	mg/L	1.0	<1.0	6.36 | 6.28 | 1.27	4.80 | 4.62 | [NA]	98.2	121

INORG-081_1:2LEACH | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL0812

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %	Spike % PFK0468-62
Chloride	mg/L	1.0	<1.0	4.67 | 5.10 | [NA]	4.90 | 4.87 | [NA]	88.4	103

INORG-081_1:2LEACH | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL0813

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %	Spike % PFK0468-82
Chloride	mg/L	1.0	<1.0	8.53 | 7.02 | [NA]	8.96 | 8.92 | 0.431	90.6	102

INORG-081 | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL3993

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %	Spike % PFK0468-03
Chloride	mg/L	1.0	<1.0	25.8 | 27.0 | [NA]	18.5 | 18.4 | [NA]	95.3	111
Sulfate	mg/L	1.0	<1.0	79.4 | 80.7 | 1.64	352 | 353 | 0.127	94.4	127

Quality Control PFK0468

INORG-081 | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL3994

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-87 Samp | QC | RPD %	LCS %	Spike % PFK0468-79
Chloride	mg/L	1.0	<1.0	24.3 | 24.0 | [NA]	30.6 | 27.6 | [NA]	95.9	112
Sulfate	mg/L	1.0	<1.0	55.8 | 58.6 | [NA]	404 | 402 | 0.666	94.4	128

INORG-006 | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL4788

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-15 Samp | QC | RPD %	LCS %
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	2650 [7]	1920 | 1950 | 1.62	2140 | 2160 | 0.912	[NA]
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0 [7]	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0 [7]	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]
Total Alkalinity as CaCO3	mg/L	5.0	2650 [7]	1920 | 1950 | 1.62	2140 | 2160 | 0.912	102

INORG-006 | 1:2 Leach Inorganics (Solid adhoc) | Batch BFL4789

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-88 Samp | QC | RPD %	LCS %
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	3150 | 3260 | 3.39	2580 | 2780 | 7.45	[NA]
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	3150 | 3260 | 3.39	2580 | 2780 | 7.45	101

METALS-020 | 1:2 Leach Metals (Solid adhoc) | Batch BFL3221

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %	Spike % PFK0468-03
Calcium	mg/L	0.50	<0.50	35.3 | 34.4 | 2.81	16.8 | 16.9 | 0.790	98.0	101
Magnesium	mg/L	0.50	<0.50	43.0 | 41.9 | 2.73	14.7 | 14.9 | 1.43	108	106
Potassium	mg/L	0.50	<0.50	10.5 | 10.3 | 1.66	42.2 | 41.9 | 0.676	99.8	102
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	103	103
Silicon	mg/L	0.10	<0.10	28.9 | 29.0 | 0.231	18.2 | 18.5 | 1.74	110	63.9[2]

METALS-020 | 1:2 Leach Metals (Solid adhoc) | Batch BFL4096

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-88 Samp | QC | RPD %	LCS %	Spike % PFK0468-79
Calcium	mg/L	0.50	<0.50	52.9 | 54.8 | 3.52	25.2 | 26.8 | 6.29	100	[NA]
Magnesium	mg/L	0.50	<0.50	56.0 | 58.5 | 4.35	51.6 | 55.1 | 6.50	112	[NA]
Potassium	mg/L	0.50	<0.50	141 | 145 | 2.56	182 | 192 | 5.18	101	[NA]
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	105	[NA]
Silicon	mg/L	0.10	<0.10	27.1 | 27.1 | 0.225	28.2 | 29.5 | 4.36	113	[NA]

METALS-021 | 1:2 Leach Metals Low Level (Solid adhoc) | Batch BFL3219

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %	Spike % PFK0468-03
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	117	114

Quality Control PFK0468

METALS-022|1:2 Leach Metals Low Level (Solid adhoc) | Batch BFL3220

Analyte	Units	PQL	Blank	DUP1 PFK0468-02 Samp | QC | RPD %	DUP2 PFK0468-14 Samp | QC | RPD %	LCS %	Spike % PFK0468-03
Aluminium	mg/L	0.010	<0.010	0.202 | 0.222 | 9.32	1.70 | 1.87 | 9.57	114	##[1]
Antimony	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.8	107
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	104	105
Barium	mg/L	0.0010	<0.0010	0.201 | 0.205 | 2.18	0.143 | 0.139 | 2.93	92.8	104
Beryllium	mg/L	0.00050	<0.00050	0.00124 | 0.00132 | [NA]	0.00212 | 0.00191 | [NA]	91.5	98.1
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	81.2	86.2
Boron	mg/L	0.020	<0.020	0.140 | 0.145 | 3.47	0.122 | 0.119 | 2.49	112	124
Cadmium	mg/L	0.00010	<0.00010	0.000435 | 0.000475 | [NA]	0.00101 | 0.000905 | 11.0	98.1	99.1
Caesium	mg/L	0.0010	<0.0010	0.00497 | 0.00510 | 2.58	0.00148 | 0.00134 | [NA]	92.3	98.5
Chromium	mg/L	0.0010	<0.0010	0.00314 | 0.00330 | [NA]	0.0205 | 0.0221 | 7.48	96.2	92.5
Cobalt	mg/L	0.0010	<0.0010	0.0156 | 0.0163 | 4.83	0.193 | 0.184 | 4.54	92.6	92.4
Copper	mg/L	0.0010	<0.0010	0.00359 | 0.00432 | [NA]	0.228 | 0.207 | 9.40	92.2	91.9
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.1	102
Iron	mg/L	0.010	<0.010	115 | 105 | 8.39	68.3 | 100 | 38.0 [6]	108	[NA]
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	0.00512 | 0.00500 | 2.27	93.8	97.3
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	86.3	89.5
Lithium	mg/L	0.0010	<0.0010	0.114 | 0.113 | 0.0925	0.168 | 0.166 | 1.66	86.6	103
Manganese	mg/L	0.0010	<0.0010	9.31 | 9.17 | 1.55	2.30 | 2.54 | 9.95	101	##[1]
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	107	110
Nickel	mg/L	0.0010	<0.0010	0.117 | 0.121 | 3.07	0.220 | 0.207 | 6.29	91.4	90.1
Rubidium	mg/L	0.0010	<0.0010	0.0390 | 0.0398 | 2.09	0.0655 | 0.0629 | 3.98	105	109
Selenium	mg/L	0.0010	<0.0010	0.0151 | 0.0145 | 4.15	0.0162 | 0.0157 | 3.48	104	100
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	87.2	69.4[2]
Strontium	mg/L	0.0010	<0.0010	0.256 | 0.257 | 0.558	0.573 | 0.564 | 1.64	105	110
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	84.0	86.2
Thorium	mg/L	0.00050	<0.00050	0.000745 | <0.00050 | [NA] [4]	<0.00050 | <0.00050 | [NA]	73.7	88.2
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	105
Titanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.1	100
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	91.2	89.8
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	90.9	94.1
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.0	99.0
Zinc	mg/L	0.0010	<0.0010	0.214 | 0.217 | 1.42	0.105 | 0.138 | 26.9	93.4	90.3

METALS-021|1:2 Leach Metals Low Level (Solid adhoc) | Batch BFL4094

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-88 Samp | QC | RPD %	LCS %	Spike % PFK0468-79
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	115	116

Quality Control PFK0468

METALS-022|1:2 Leach Metals Low Level (Solid adhoc) | Batch BFL4095

Analyte	Units	PQL	Blank	DUP1 PFK0468-78 Samp | QC | RPD %	DUP2 PFK0468-88 Samp | QC | RPD %	LCS %	Spike % PFK0468-79
Aluminium	mg/L	0.010	<0.010	0.328 | 0.305 | 7.12	0.907 | 0.852 | 6.31	105	##[1]
Antimony	mg/L	0.0010	<0.0010	<0.0010 | 0.00102 | [NA] [4]	<0.0010 | <0.0010 | [NA]	104	101
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	106
Barium	mg/L	0.0010	<0.0010	0.101 | 0.103 | 1.68	0.176 | 0.172 | 1.91	92.4	86.4
Beryllium	mg/L	0.00050	<0.00050	0.000575 | <0.00050 | [NA] [4]	0.00232 | 0.00220 | [NA]	84.6	89.6
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	81.4	79.0
Boron	mg/L	0.020	<0.020	0.0869 | 0.0923 | [NA]	0.177 | 0.185 | 3.89	103	94.6
Cadmium	mg/L	0.00010	<0.00010	0.00116 | 0.00112 | 3.49	0.00118 | 0.00121 | 2.94	98.1	94.5
Caesium	mg/L	0.0010	<0.0010	0.00242 | 0.00247 | [NA]	0.00243 | 0.00253 | [NA]	92.3	91.7
Chromium	mg/L	0.0010	<0.0010	0.0100 | 0.00914 | 9.14	0.0295 | 0.0281 | 5.00	94.6	96.5
Cobalt	mg/L	0.0010	<0.0010	0.0342 | 0.0337 | 1.50	0.0660 | 0.0677 | 2.50	91.6	91.0
Copper	mg/L	0.0010	<0.0010	0.0230 | 0.0225 | 2.55	1.47 | 1.45 | 1.25	90.6	90.2
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.5	98.8
Iron	mg/L	0.010	<0.010	0.0388 | 0.0399 | [NA]	0.0176 | 0.0148 | [NA]	109	##[1]
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	0.00284 | 0.00292 | 2.95	92.2	94.2
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00145 | 0.00144 | [NA]	86.7	86.4
Lithium	mg/L	0.0010	<0.0010	0.00962 | 0.00975 | 1.34	0.0228 | 0.0230 | 0.960	83.0	85.2
Manganese	mg/L	0.0010	<0.0010	2.44 | 2.55 | 4.24	0.890 | 0.899 | 0.997	95.3	##[1]
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	106	109
Nickel	mg/L	0.0010	<0.0010	0.355 | 0.347 | 2.30	0.302 | 0.312 | 3.18	91.3	72.5
Rubidium	mg/L	0.0010	<0.0010	0.207 | 0.213 | 3.02	0.230 | 0.235 | 2.19	102	86.9
Selenium	mg/L	0.0010	<0.0010	0.00625 | 0.00672 | 7.32	0.276 | 0.301 | 8.59	102	90.7
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	85.6	##[2]
Strontium	mg/L	0.0010	<0.0010	0.339 | 0.347 | 2.35	0.199 | 0.205 | 2.66	100	67.1[1]
Thallium	mg/L	0.0010	<0.0010	0.00196 | 0.00226 | [NA]	0.00104 | 0.00106 | [NA]	84.2	82.1
Thorium	mg/L	0.00050	<0.00050	<0.00050 | 0.000510 | [NA] [4]	<0.00050 | <0.00050 | [NA]	74.9	74.4
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.7	101
Titanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.1	97.6
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	91.6	92.7
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00143 | 0.00139 | [NA]	90.9	89.8
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.6	100
Zinc	mg/L	0.0010	<0.0010	0.00852 | 0.00750 | 12.7	0.0508 | 0.0498 | 2.11	91.0	104

INORG-081_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL0809

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %	Spike % PFK0468-02
Sulfate	mg/L	1.0	<1.0	3.27 | 3.35 | [NA]	170 | 144 | 16.5	96.0	114

INORG-081_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL0810

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %	Spike % PFK0468-22
Sulfate	mg/L	1.0	<1.0	6.61 | 6.54 | 1.12	5.26 | 6.53 | 21.5	96.4	106

INORG-081_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL0811

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %	Spike % PFK0468-42
Sulfate	mg/L	1.0	<1.0	1.96 | 2.28 | [NA]	2.41 | 2.35 | [NA]	96.1	109

INORG-081_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL0812

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %	Spike % PFK0468-62
Sulfate	mg/L	1.0	<1.0	3.86 | 4.09 | [NA]	34.2 | 34.0 | 0.843	88.2	111

Quality Control PFK0468

INORG-081_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL0813

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %	Spike % PFK0468-82
Sulfate	mg/L	1.0	<1.0	775 | 781 | 0.703	491 | 487 | 0.758	84.2	91.6

INORG-006_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL3890

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	12.8 | 11.4 | [NA]	<5.0 | <5.0 | [NA]	94.8

INORG-006_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL3891

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	35.2 | 38.6 | 9.21	34.3 | 30.6 | 11.4	100

INORG-006_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL3892

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	17.9 | 16.7 | [NA]	10.8 | 10.2 | [NA]	96.8

INORG-006_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL3893

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-72 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	19.8 | 17.4 | [NA]	14.9 | 10.7 | [NA] [4]	102

INORG-006_MEND|1:2 MEND Leach Inorganics (Solid adhoc) | Batch BFL3894

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-92 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0 | <5.0 | [NA]	126 | 129 | 2.28	106

METALS-021_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4015

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %	Spike % PFK0468-02
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	111	106

METALS-021_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4016

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %	Spike % PFK0468-22
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	109	106

Quality Control PFK0468

METALS-022_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4017

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %	Spike % PFK0468-02
Aluminium	mg/L	0.010	<0.010	0.0389 | 0.0498 | [NA] [4]	0.211 | 0.274 | 26.1 [4]	89.3	100
Antimony	mg/L	0.0010	<0.0010	0.00130 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	102	105
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.7	109
Barium	mg/L	0.0010	<0.0010	0.00127 | 0.00118 | [NA]	0.0635 | 0.0607 | 4.49	106	108
Beryllium	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	0.000580 | <0.00050 | [NA] [4]	91.9	89.6
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	81.8	98.4
Boron	mg/L	0.020	<0.020	0.227 | 0.230 | 1.17	0.185 | 0.188 | 1.72	89.6	##[1]
Cadmium	mg/L	0.00010	<0.00010	0.000200 | 0.000110 | [NA] [4]	0.00111 | 0.00108 | 2.74	107	108
Caesium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	107	109
Cerium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00162 | 0.00145 | [NA]	104	110
Chromium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	91.3	103
Cobalt	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.0589 | 0.0534 | 9.85	92.2	108
Copper	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00765 | 0.00674 | 12.6	88.5	103
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.1	101
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	104	98.6
Hafnium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	91.0	90.7
Iron	mg/L	0.010	<0.010	0.0205 | 0.0161 | [NA] [4]	0.186 | 0.237 | 24.3 [4]	111	##[2]
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	0.00127 | 0.00113 | [NA]	105	109
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.0	103
Lithium	mg/L	0.0010	<0.0010	0.0108 | 0.0116 | 7.76	0.131 | 0.132 | 0.395	99.7	94.3
Manganese	mg/L	0.0010	<0.0010	0.0571 | 0.0319 | 56.7 [4]	1.74 | 1.60 | 8.47	89.8	90.0
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	106	110
Nickel	mg/L	0.0010	<0.0010	0.00393 | 0.00253 | [NA] [4]	0.125 | 0.112 | 11.1	90.4	103
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	89.6	95.0
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.7	93.3
Rubidium	mg/L	0.0010	<0.0010	0.00380 | 0.00393 | [NA]	0.0110 | 0.0118 | 7.04	95.8	103
Scandium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	98.8	101
Selenium	mg/L	0.0010	<0.0010	0.00200 | 0.00162 | [NA]	0.00292 | 0.00275 | [NA]	108	97.2
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	##[2]
Strontium	mg/L	0.0010	<0.0010	0.00476 | 0.00375 | [NA]	0.355 | 0.328 | 7.92	93.7	105
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	70.9	93.0
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	107	109
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	98.5	98.1
Thorium	mg/L	0.00050	<0.00050	0.000650 | <0.00050 | [NA] [4]	<0.00050 | <0.00050 | [NA]	95.8	90.7
Tin	mg/L	0.0010	<0.0010	0.00186 | 0.00109 | [NA] [4]	0.00148 | <0.0010 | [NA] [4]	110	110
Titanium	mg/L	0.0020	<0.0020	<0.0020 | <0.0020 | [NA]	<0.0020 | <0.0020 | [NA]	89.0	101
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	99.2	95.8
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.1	102
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	93.8	107
Yttrium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00230 | 0.00205 | [NA]	92.5	109
Zinc	mg/L	0.0010	<0.0010	0.00618 | 0.00387 | 46.0 [4]	0.0708 | 0.106 | 39.4	89.9	89.3
Zirconium	mg/L	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	<0.0050 | <0.0050 | [NA]	104	85.4

Quality Control PFK0468

METALS-022_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4018

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %	Spike % PFK0468-22
Aluminium	mg/L	0.010	<0.010	1.72 | 1.63 | 5.51	0.886 | 0.693 | 24.5 [4]	92.2	##[1]
Antimony	mg/L	0.0010	<0.0010	0.00211 | 0.00170 | [NA]	0.00115 | 0.00103 | [NA]	102	##[2]
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	82.3
Barium	mg/L	0.0010	<0.0010	0.00371 | 0.00288 | [NA]	0.00168 | 0.00163 | [NA]	105	108
Beryllium	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	88.0	84.4
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	83.4	87.5
Boron	mg/L	0.020	<0.020	0.122 | 0.119 | 2.08	0.107 | 0.105 | 1.78	85.3	71.7
Cadmium	mg/L	0.00010	<0.00010	<0.00010 | <0.00010 | [NA]	<0.00010 | <0.00010 | [NA]	107	107
Caesium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	106	97.4
Cerium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	109
Chromium	mg/L	0.0010	<0.0010	0.0175 | 0.0165 | 5.64	0.00864 | 0.00627 | 31.8	94.5	86.5
Cobalt	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.4	106
Copper	mg/L	0.0010	<0.0010	0.00118 | <0.0010 | [NA] [4]	0.00105 | 0.00103 | [NA]	92.5	100
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	100	101
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.3	98.5
Hafnium	mg/L	0.0010	<0.0010	0.00101 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	91.7	90.9
Iron	mg/L	0.010	<0.010	7.14 | 4.37 | 48.1 [4]	1.03 | 0.741 | 32.2 [4]	109	##[1]
Lanthanum	mg/L	0.00050	<0.00050	0.000570 | <0.00050 | [NA] [4]	<0.00050 | <0.00050 | [NA]	103	108
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.1	101
Lithium	mg/L	0.0010	<0.0010	0.00323 | 0.00297 | [NA]	0.00904 | 0.00782 | 14.5	95.8	94.3
Manganese	mg/L	0.0010	<0.0010	0.0525 | 0.0218 | 82.7 [4]	0.0241 | 0.0134 | 56.9 [4]	91.4	112
Molybdenum	mg/L	0.0010	<0.0010	0.00233 | 0.00317 | [NA]	0.00183 | 0.00187 | [NA]	107	75.1
Nickel	mg/L	0.0010	<0.0010	0.00354 | 0.00216 | [NA] [4]	0.00209 | 0.00216 | [NA]	94.8	103
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	91.3	94.1
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	93.8	93.1
Rubidium	mg/L	0.0010	<0.0010	0.0374 | 0.0357 | 4.87	0.0370 | 0.0360 | 2.47	98.9	99.9
Scandium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	98.7
Selenium	mg/L	0.0010	<0.0010	<0.0010 | 0.00122 | [NA] [4]	0.00207 | 0.00224 | [NA]	109	##[2]
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	76.4
Strontium	mg/L	0.0010	<0.0010	0.00192 | 0.00101 | [NA] [4]	0.00260 | 0.00232 | [NA]	95.8	105
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	105	102
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	106	##[2]
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	98.0	92.3
Thorium	mg/L	0.00050	<0.00050	0.000890 | 0.000620 | [NA]	<0.00050 | <0.00050 | [NA]	96.2	86.4
Tin	mg/L	0.0010	<0.0010	0.00114 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	109	##[2]
Titanium	mg/L	0.0020	<0.0020	0.0164 | 0.0151 | 8.23	0.00407 | 0.00670 | [NA] [4]	91.7	##[2]
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	99.0	##[2]
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.6	103
Vanadium	mg/L	0.0010	<0.0010	0.00386 | 0.00372 | [NA]	0.00239 | 0.00191 | [NA]	97.3	99.7
Yttrium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.9	106
Zinc	mg/L	0.0010	<0.0010	0.00388 | 0.00239 | [NA] [4]	0.00161 | <0.0010 | [NA] [4]	94.0	101
Zirconium	mg/L	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	<0.0050 | <0.0050 | [NA]	103	73.7

METALS-020_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4019

Analyte	Units	PQL	Blank	DUP1 PFK0468-01 Samp | QC | RPD %	DUP2 PFK0468-11 Samp | QC | RPD %	LCS %	Spike % PFK0468-02
Calcium	mg/L	0.50	<0.50	0.806 | 0.811 | [NA]	8.31 | 7.87 | 5.50	109	99.7
Potassium	mg/L	0.50	<0.50	1.50 | 1.53 | [NA]	5.83 | 5.89 | 1.02	106	101
Magnesium	mg/L	0.50	<0.50	1.14 | 1.16 | [NA]	9.32 | 8.99 | 3.61	109	101
Sodium	mg/L	0.50	<0.50	5.06 | 5.26 | 3.98	6.19 | 6.25 | 0.860	104	96.0
Sulfur	mg/L	0.50	<0.50	0.712 | 0.676 | [NA]	22.6 | 21.3 | 5.98	103	93.7
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	95.4	93.3

Quality Control PFK0468

METALS-020_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4020

Analyte	Units	PQL	Blank	DUP1 PFK0468-21 Samp | QC | RPD %	DUP2 PFK0468-31 Samp | QC | RPD %	LCS %	Spike % PFK0468-22
Calcium	mg/L	0.50	<0.50	<0.50 | <0.50 | [NA]	0.554 | 0.551 | [NA]	106	107
Potassium	mg/L	0.50	<0.50	26.1 | 24.6 | 5.76	28.4 | 28.8 | 1.22	103	111
Magnesium	mg/L	0.50	<0.50	<0.50 | <0.50 | [NA]	1.17 | 1.08 | [NA]	105	109
Sodium	mg/L	0.50	<0.50	1.98 | 1.89 | [NA]	6.43 | 6.90 | 7.15	97.7	100
Sulfur	mg/L	0.50	<0.50	2.07 | 2.04 | [NA]	3.34 | 3.57 | 6.90	102	100
Phosphorus	mg/L	0.050	<0.050	0.126 | 0.0937 | [NA]	<0.050 | <0.050 | [NA]	99.8	96.3

METALS-021_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4408

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %	Spike % PFK0468-42
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	110	83.2

METALS-021_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4409

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %	Spike % PFK0468-62
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	108	108

Quality Control PFK0468

METALS-022_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4410

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %	Spike % PFK0468-42
Aluminium	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | 0.0150 | [NA] [4]	95.0	111
Antimony	mg/L	0.0010	<0.0010	0.00129 | 0.00126 | [NA]	<0.0010 | <0.0010 | [NA]	90.2	103
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | 0.00111 | [NA] [4]	<0.0010 | 0.00226 | [NA] [4]	104	108
Barium	mg/L	0.0010	<0.0010	0.0236 | 0.0225 | 4.73	0.0269 | 0.0208 | 25.6	98.1	98.2
Beryllium	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	88.1	83.9
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	75.1	88.5
Boron	mg/L	0.020	<0.020	0.192 | 0.160 | 18.2	0.275 | 0.230 | 17.7	81.3	100
Cadmium	mg/L	0.00010	<0.00010	<0.00010 | <0.00010 | [NA]	<0.00010 | <0.00010 | [NA]	107	106
Caesium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	100	102
Cerium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.0	102
Chromium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	98.5	106
Cobalt	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	108
Copper	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.5	109
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	103
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	100	96.6
Hafnium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	90.4	93.5
Iron	mg/L	0.010	<0.010	0.462 | 0.564 | 19.9	0.330 | 0.502 | 41.2 [6]	109	##[1]
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	97.7	102
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	98.6	101
Lithium	mg/L	0.0010	<0.0010	0.0127 | 0.0161 | 23.5	0.0134 | 0.0169 | 23.4	90.3	85.9
Manganese	mg/L	0.0010	<0.0010	0.148 | 0.284 | 62.8 [6]	0.0351 | 0.184 | 136 [6]	94.8	74.2
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | 0.00193 | [NA] [4]	<0.0010 | 0.00376 | [NA] [4]	103	108
Nickel	mg/L	0.0010	<0.0010	0.00225 | 0.00164 | [NA]	<0.0010 | 0.00210 | [NA] [4]	98.2	106
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.9	101
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.1	96.8
Rubidium	mg/L	0.0010	<0.0010	0.00878 | 0.00901 | 2.59	0.00573 | 0.00603 | 5.10	98.1	103
Scandium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	105	106
Selenium	mg/L	0.0010	<0.0010	0.00705 | 0.00219 | [NA] [4]	0.00519 | 0.00106 | [NA] [4]	114	106
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	70.2
Strontium	mg/L	0.0010	<0.0010	0.0751 | 0.0879 | 15.7	0.0408 | 0.0438 | 7.02	95.7	97.3
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	86.8	101
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.8	97.5
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.2	93.9
Thorium	mg/L	0.00050	<0.00050	0.000800 | 0.000590 | [NA]	<0.00050 | <0.00050 | [NA]	95.0	87.8
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	107
Titanium	mg/L	0.0020	<0.0020	<0.0020 | <0.0020 | [NA]	<0.0020 | <0.0020 | [NA]	90.9	104
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	95.7	98.2
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.0	101
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.2	107
Yttrium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.5	106
Zinc	mg/L	0.0010	<0.0010	0.00226 | 0.00342 | [NA] [4]	0.00210 | 0.00502 | [NA] [4]	99.3	99.8
Zirconium	mg/L	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	<0.0050 | <0.0050 | [NA]	93.5	84.8

Analyte	Units	PQL	Blank	LCS %	Spike % PFK0468-42
Cerium	mg/L	0.001		[NA]	97.2
Yttrium	mg/L	0.001		[NA]	95.0

Quality Control PFK0468

METALS-022_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4411

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %	Spike % PFK0468-62
Aluminium	mg/L	0.010	<0.010	0.0125 | <0.010 | [NA] [4]	0.0574 | 0.0279 | [NA] [4]	93.4	##[1]
Antimony	mg/L	0.0010	<0.0010	0.00107 | <0.0010 | [NA] [4]	0.00142 | 0.00129 | [NA]	93.1	94.0
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	111
Barium	mg/L	0.0010	<0.0010	<0.0010 | 0.00184 | [NA] [4]	0.00167 | 0.00169 | [NA]	99.0	94.2
Beryllium	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	88.5	82.5
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	81.2	88.3
Boron	mg/L	0.020	<0.020	0.0464 | 0.0444 | [NA]	0.105 | 0.102 | 2.82	84.6	90.0
Cadmium	mg/L	0.00010	<0.00010	<0.00010 | <0.00010 | [NA]	<0.00010 | 0.000150 | [NA] [4]	107	107
Caesium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.9	101
Cerium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.2	101
Chromium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.4	101
Cobalt	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.2	52.1[1]
Copper	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.5	##[1]
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	104
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	103
Hafnium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	92.5	[NA]
Iron	mg/L	0.010	<0.010	0.0130 | 0.0437 | [NA] [4]	0.0349 | 0.0157 | [NA] [4]	107	##[1]
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	97.7	99.8
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.3	101
Lithium	mg/L	0.0010	<0.0010	0.00713 | 0.00867 | 19.5	0.00524 | 0.00352 | [NA]	90.7	85.0
Manganese	mg/L	0.0010	<0.0010	0.00689 | 0.0287 | 123 [4]	0.0795 | 0.0993 | 22.2 [4]	92.3	##[1]
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00147 | 0.00182 | [NA]	106	108
Nickel	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00281 | 0.00214 | [NA]	96.9	##[1]
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.3	[NA]
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.2	[NA]
Rubidium	mg/L	0.0010	<0.0010	0.00535 | 0.00394 | [NA]	0.00895 | 0.00849 | 5.28	96.6	##[1]
Scandium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	103	[NA]
Selenium	mg/L	0.0010	<0.0010	0.00181 | 0.00113 | [NA] [4]	0.0473 | 0.0431 | 9.47	110	102
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.9	95.2
Strontium	mg/L	0.0010	<0.0010	0.00661 | 0.00847 | 24.7	0.00721 | 0.00671 | 7.18	94.2	93.9
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	82.3	[NA]
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	100	99.7
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.1	93.6
Thorium	mg/L	0.00050	<0.00050	0.000720 | 0.000520 | [NA]	<0.00050 | <0.00050 | [NA]	96.1	83.0
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	105	105
Titanium	mg/L	0.0020	<0.0020	<0.0020 | <0.0020 | [NA]	0.00634 | <0.0020 | [NA] [4]	93.5	109
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	97.7	100
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.7	101
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	0.00138 | 0.00174 | [NA]	97.5	107
Yttrium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.4	106
Zinc	mg/L	0.0010	<0.0010	0.00364 | 0.00162 | [NA] [4]	0.00300 | 0.00175 | [NA] [4]	97.8	81.1
Zirconium	mg/L	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	<0.0050 | <0.0050 | [NA]	105	78.8

Analyte	Units	PQL	Blank	LCS %	Spike % PFK0468-62
Cerium	mg/L	0.001		[NA]	94.4
Hafnium	mg/L	0.001		[NA]	90.5
Niobium	mg/L	0.001		[NA]	96.1
Rhenium	mg/L	0.001		[NA]	91.1
Scandium	mg/L	0.001		[NA]	100
Tantalum	mg/L	0.001		[NA]	94.1
Yttrium	mg/L	0.001		[NA]	89.8

Quality Control PFK0468

METALS-020_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4412

Analyte	Units	PQL	Blank	DUP1 PFK0468-41 Samp | QC | RPD %	DUP2 PFK0468-51 Samp | QC | RPD %	LCS %	Spike % PFK0468-42
Calcium	mg/L	0.50	<0.50	1.58 | 2.04 | [NA]	0.989 | 1.37 | [NA]	99.2	99.5
Potassium	mg/L	0.50	<0.50	4.20 | 4.55 | 7.91	2.29 | 2.66 | [NA]	99.0	100
Magnesium	mg/L	0.50	<0.50	1.38 | 1.86 | [NA]	0.874 | 1.32 | [NA] [5]	102	102
Sodium	mg/L	0.50	<0.50	3.72 | 4.06 | 8.64	2.90 | 3.57 | 20.8	93.1	95.2
Sulfur	mg/L	0.50	<0.50	1.26 | 0.958 | [NA]	0.914 | 0.971 | [NA]	101	101
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	101	99.4

METALS-020_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFK4413

Analyte	Units	PQL	Blank	DUP1 PFK0468-61 Samp | QC | RPD %	DUP2 PFK0468-71 Samp | QC | RPD %	LCS %	Spike % PFK0468-62
Calcium	mg/L	0.50	<0.50	1.66 | 1.95 | [NA]	1.54 | 1.41 | [NA]	101	100
Potassium	mg/L	0.50	<0.50	1.82 | 1.68 | [NA]	10.8 | 10.3 | 4.82	99.3	107
Magnesium	mg/L	0.50	<0.50	1.90 | 2.52 | [NA]	3.49 | 3.18 | 9.36	103	109
Sodium	mg/L	0.50	<0.50	3.14 | 3.48 | 10.3	4.57 | 4.06 | 11.9	95.6	112
Sulfur	mg/L	0.50	<0.50	1.20 | 1.48 | [NA]	9.31 | 8.20 | 12.7	104	118
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	105	102

METALS-021_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFL0397

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %	Spike % PFK0468-82
Mercury	mg/L	0.000050	<0.000050	<0.000050 | <0.000050 | [NA]	0.000332 | 0.000136 | [NA] [4]	115	112

Quality Control PFK0468

METALS-022_MEND | 1:2 MEND Leach Metals (Solid adhoc) | Batch BFL0398

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %	Spike % PFK0468-82
Aluminium	mg/L	0.010	<0.010	21.1 | 15.0 | 33.5 [4]	0.0437 | 0.0470 | [NA]	95.2	##[1]
Antimony	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	96.9	99.4
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	108	110
Barium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA] [4]	0.0360 | 0.0402 | 11.0	106	102
Beryllium	mg/L	0.00050	<0.00050	0.00410 | 0.00268 | 41.9 [4]	<0.00050 | <0.00050 | [NA]	77.8	80.8
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	92.4	88.9
Boron	mg/L	0.020	<0.020	0.126 | 0.148 | 15.7	0.0855 | 0.0794 | [NA]	98.8	85.6
Cadmium	mg/L	0.00010	<0.00010	0.00268 | 0.00260 | 2.84	0.00118 | 0.000860 | 31.0	109	113
Caesium	mg/L	0.0010	<0.0010	0.00190 | 0.00144 | [NA]	<0.0010 | <0.0010 | [NA]	104	102
Cerium	mg/L	0.0010	<0.0010	0.0109 | 0.00874 | 22.3	<0.0010 | <0.0010 | [NA]	105	101
Chromium	mg/L	0.0010	<0.0010	0.0627 | 0.0802 | 24.5	<0.0010 | <0.0010 | [NA]	104	93.4
Cobalt	mg/L	0.0010	<0.0010	0.396 | 0.346 | 13.5	0.0481 | 0.0394 | 19.9	107	##[1]
Copper	mg/L	0.0010	<0.0010	1.94 | 1.37 | 34.6	0.0140 | 0.00750 | 60.2 [4]	105	##[1]
Gallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	104
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	91.4	95.5
Hafnium	mg/L	0.0010	<0.0010	0.00130 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	94.8	85.6
Iron	mg/L	0.010	<0.010	128 | 83.4 | 42.2 [6]	0.0708 | 0.0545 | 26.0 [4]	80.0	##[1]
Lanthanum	mg/L	0.00050	<0.00050	0.00510 | 0.00428 | 17.5	<0.00050 | <0.00050 | [NA]	105	102
Lead	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	97.3
Lithium	mg/L	0.0010	<0.0010	0.0167 | 0.0119 | 33.6	0.0228 | 0.0338 | 38.8	83.8	86.1
Manganese	mg/L	0.0010	<0.0010	5.75 | 5.18 | 10.6	19.4 | 22.6 | 14.9	102	87.0
Molybdenum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | 0.00526 | 200 [4]	107	111
Nickel	mg/L	0.0010	<0.0010	1.41 | 1.27 | 10.3	0.100 | 0.0957 | 4.44	105	##[1]
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	93.5	95.7
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	112	87.0
Rubidium	mg/L	0.0010	<0.0010	0.217 | 0.195 | 10.7	0.0648 | 0.0538 | 18.5	104	98.6
Scandium	mg/L	0.0010	<0.0010	0.00926 | 0.00912 | 1.47	<0.0010 | <0.0010 | [NA]	87.0	99.2
Selenium	mg/L	0.0010	<0.0010	0.0332 | 0.0347 | 4.55	0.00730 | 0.00602 | 19.2	113	108
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	102
Strontium	mg/L	0.0010	<0.0010	0.0582 | 0.0710 | 19.8	0.498 | 0.492 | 1.27	103	104
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	85.4	92.2
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	102	96.8
Thallium	mg/L	0.0010	<0.0010	0.00124 | <0.0010 | [NA] [4]	<0.0010 | <0.0010 | [NA]	95.2	93.0
Thorium	mg/L	0.00050	<0.00050	<0.00050 | 0.000610 | [NA] [4]	<0.00050 | <0.00050 | [NA]	80.1	84.9
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	112	115
Titanium	mg/L	0.0020	<0.0020	0.00205 | <0.0020 | [NA] [4]	<0.0020 | <0.0020 | [NA]	97.0	102
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	100	98.0
Uranium	mg/L	0.0010	<0.0010	0.00227 | 0.00187 | [NA]	<0.0010 | <0.0010 | [NA]	97.4	94.4
Vanadium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	106	108
Yttrium	mg/L	0.0010	<0.0010	0.0485 | 0.0364 | 28.7	<0.0010 | <0.0010 | [NA]	106	107
Zinc	mg/L	0.0010	<0.0010	0.286 | 0.295 | 3.29	0.0252 | 0.0178 | 34.1	107	106
Zirconium	mg/L	0.0050	<0.0050	<0.0050 | <0.0050 | [NA] [4]	<0.0050 | <0.0050 | [NA]	94.6	92.0

Analyte	Units	PQL	Blank	LCS %	Spike % PFK0468-82
Cerium	mg/L	0.001		[NA]	93.0
Yttrium	mg/L	0.001		[NA]	84.8

Quality Control PFK0468

METALS-020_MEND|1:2 MEND Leach Metals (Solid adhoc) | Batch BFL0399

Analyte	Units	PQL	Blank	DUP1 PFK0468-81 Samp | QC | RPD %	DUP2 PFK0468-91 Samp | QC | RPD %	LCS %	Spike % PFK0468-82
Calcium	mg/L	0.50	<0.50	21.4 | 21.3 | 0.539	36.5 | 36.1 | 1.21	98.4	96.4
Potassium	mg/L	0.50	<0.50	146 | 153 | 4.82	52.1 | 52.2 | 0.0729	102	101
Magnesium	mg/L	0.50	<0.50	37.6 | 38.2 | 1.57	80.4 | 85.3 | 5.96	101	129
Sodium	mg/L	0.50	<0.50	11.2 | 12.7 | 12.1	13.2 | 14.1 | 6.30	104	107
Sulfur	mg/L	0.50	<0.50	200 | 233 | 15.0	174 | 176 | 1.59	97.4	129
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	93.1	89.9

QC Comments

Identifier	Description
[1]	Spike recovery is not applicable due to the relatively high analyte background in the sample (>3* spike level). However, the LCS recovery is within acceptance criteria.
[2]	Spike recovery is outside routine acceptance criteria (70-130%), this may be due to suspected non-homogeneity and/or matrix interference effects. However, an acceptable recovery was achieved for the LCS.
[4]	Duplicate %RPD may be flagged as an outlier to routine laboratory acceptance, however, where one or both results are <10*PQL, the RPD acceptance criteria increases exponentially.
[5]	The laboratory duplicate RPD acceptance criteria has been exceeded. Sample heterogeneity suspected. 3 sets of data have been provided to help demonstrate the degree of non-homogeneity within the sample as well as assessing the analytical precision.
[6]	The laboratory duplicate RPD acceptance criteria has been exceeded. Results are accepted due to the inhomogeneous nature of the sample.
[7]	pH 4.8 Solution used as blank

Envirolab Services (WA) Pty Ltd trading as MPL Laboratories
ABN 53 140 099 207
16-18 Hayden Court Myaree WA 6154
ph +61 8 9317 2505
lab@mpl.com.au
www.mpl.com.au

Certificate of Analysis PFH1210

Client Details

Client	Mine Earth
Contact	Julian Tang
Address	1/94 Forsyth St, O'CONNOR, WA, 6163

Sample Details

Your Reference	SAN-2401
Number of Samples	47 Solid adhoc
Date Samples Received	15/08/2024
Date Instructions Received	22/08/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Results Requested by	24/09/2024
Date of Issue	30/09/2024

Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with *.

Authorisation Details

Results Approved By	Ben Carpenter, Metals Technician Lien Tang, Assistant Operations Manager Lucas Yii, Inorganics Team Leader Michael Mowle, Inorganics Supervisor Stacey Hawkins, ASS/AMD Supervisor Varsha Ho Wing, Inorganics and Metals Supervisor
Laboratory Manager	Michael Kubiak

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
PFH1210-01	SJRC001	Solid adhoc	15/08/2024	20/08/2024
PFH1210-02	SJRC002	Solid adhoc	15/08/2024	20/08/2024
PFH1210-03	SJRC003	Solid adhoc	15/08/2024	20/08/2024
PFH1210-04	SJRC004	Solid adhoc	15/08/2024	20/08/2024
PFH1210-05	SJRC005	Solid adhoc	15/08/2024	20/08/2024
PFH1210-06	SJRC006	Solid adhoc	15/08/2024	20/08/2024
PFH1210-07	SJRC007	Solid adhoc	15/08/2024	20/08/2024
PFH1210-08	SJRC008	Solid adhoc	15/08/2024	20/08/2024
PFH1210-09	SJRC009	Solid adhoc	15/08/2024	20/08/2024
PFH1210-10	SJRC010	Solid adhoc	15/08/2024	20/08/2024
PFH1210-11	SJRC011	Solid adhoc	15/08/2024	20/08/2024
PFH1210-12	SJRC012	Solid adhoc	15/08/2024	20/08/2024
PFH1210-13	SJRC013	Solid adhoc	15/08/2024	20/08/2024
PFH1210-14	SJRC014	Solid adhoc	15/08/2024	20/08/2024
PFH1210-15	SJRC015	Solid adhoc	15/08/2024	20/08/2024
PFH1210-16	SJRC016	Solid adhoc	15/08/2024	20/08/2024
PFH1210-17	SJRC017	Solid adhoc	15/08/2024	20/08/2024
PFH1210-18	SJRC018	Solid adhoc	15/08/2024	20/08/2024
PFH1210-19	SJRC019	Solid adhoc	15/08/2024	20/08/2024
PFH1210-20	ER03131	Solid adhoc	15/08/2024	20/08/2024
PFH1210-21	ER03133	Solid adhoc	15/08/2024	20/08/2024
PFH1210-22	ER03135	Solid adhoc	15/08/2024	20/08/2024
PFH1210-23	ER03137	Solid adhoc	15/08/2024	20/08/2024
PFH1210-24	ER03139	Solid adhoc	15/08/2024	20/08/2024
PFH1210-25	ER03141	Solid adhoc	15/08/2024	20/08/2024
PFH1210-26	ER03143	Solid adhoc	15/08/2024	20/08/2024
PFH1210-27	ER03145	Solid adhoc	15/08/2024	20/08/2024
PFH1210-28	ER03147	Solid adhoc	15/08/2024	20/08/2024
PFH1210-29	ER03149	Solid adhoc	15/08/2024	20/08/2024
PFH1210-30	ER03151	Solid adhoc	15/08/2024	20/08/2024
PFH1210-31	ER03153	Solid adhoc	15/08/2024	20/08/2024
PFH1210-32	ER03155	Solid adhoc	15/08/2024	20/08/2024
PFH1210-33	ER03157	Solid adhoc	15/08/2024	20/08/2024
PFH1210-34	ER03063	Solid adhoc	15/08/2024	22/08/2024
PFH1210-35	ER03065	Solid adhoc	15/08/2024	22/08/2024

Certificate of Analysis PFH1210

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
PFH1210-36	ER03067	Solid adhoc	15/08/2024	22/08/2024
PFH1210-37	ER03069	Solid adhoc	15/08/2024	22/08/2024
PFH1210-38	ER03071	Solid adhoc	15/08/2024	22/08/2024
PFH1210-39	ER03073	Solid adhoc	15/08/2024	22/08/2024
PFH1210-40	ER03075	Solid adhoc	15/08/2024	22/08/2024
PFH1210-41	ER03077	Solid adhoc	15/08/2024	22/08/2024
PFH1210-42	ER03079	Solid adhoc	15/08/2024	22/08/2024
PFH1210-43	ER03081	Solid adhoc	15/08/2024	22/08/2024
PFH1210-44	ER03083	Solid adhoc	15/08/2024	22/08/2024
PFH1210-45	ER03085	Solid adhoc	15/08/2024	22/08/2024
PFH1210-46	ER03087	Solid adhoc	15/08/2024	22/08/2024
PFH1210-47	ER03089	Solid adhoc	15/08/2024	22/08/2024

Sample Comments

General Comment	No sampling date(s) was/were provided by client. Therefore the sampling date(s) is/are assigned as the date(s) of sample receipt to the laboratory.

Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Organic Carbon*	%	0.010	0.17	1.5	1.8	1.2	2.0
Total Carbon*	%	0.010	0.17	1.5	1.7	1.2	2.1
Total Sulfur*	%	0.010	<0.010	0.21	0.40	0.30	2.5
Total Inorganic Carbon (Combustion)	%	0.010	<0.010	0.037	<0.010	<0.010	0.056

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Organic Carbon*	%	0.010	2.1	2.6	1.8	1.0	0.46
Total Carbon*	%	0.010	2.1	2.7	1.8	1.0	0.49
Total Sulfur*	%	0.010	4.3	0.98	3.4	0.82	0.38
Total Inorganic Carbon (Combustion)	%	0.010	0.058	<0.010	0.028	<0.010	0.023

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Organic Carbon*	%	0.010	0.38	0.47	0.42	0.40	0.35
Total Carbon*	%	0.010	0.40	0.47	0.57	4.4	4.8
Total Sulfur*	%	0.010	0.38	0.61	0.52	0.47	0.46
Total Inorganic Carbon (Combustion)	%	0.010	0.012	<0.010	0.15	4.0	4.5

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Organic Carbon*	%	0.010	0.065	0.12	0.22	2.6
Total Carbon*	%	0.010	0.10	0.14	0.20	2.5
Total Sulfur*	%	0.010	0.067	0.022	0.013	0.026
Total Inorganic Carbon (Combustion)	%	0.010	0.038	0.017	<0.010	<0.010

Certificate of Analysis PFH1210

Inorganics (1:2 soil:water) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
pH*	pH units		7.3	7.9	6.9	7.0	6.0
Electrical Conductivity*	µS/cm	1.0	100	220	340	370	1000

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
pH*	pH units		5.5	6.3	6.1	6.6	6.7
Electrical Conductivity*	µS/cm	1.0	1900	960	1400	790	710

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
pH*	pH units		6.6	6.6	6.8	7.4	7.6
Electrical Conductivity*	µS/cm	1.0	430	450	450	520	520

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
pH*	pH units		8.1	8.0	8.0	7.7
Electrical Conductivity*	µS/cm	1.0	260	180	160	130

Chromium Reducible Sulfur Suite (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Chromium Reducible Sulfur*	% w/w	0.0050	<0.0050	0.13	0.26	0.20	1.6

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Chromium Reducible Sulfur*	% w/w	0.0050	2.7	0.66	2.2	0.56	0.24

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Chromium Reducible Sulfur*	% w/w	0.0050	0.26	0.41	0.34	0.31	0.30

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
Chromium Reducible Sulfur*	% w/w	0.0050	<0.0050	<0.0050	0.0066	0.011

SPOCAS (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05	PFH1210-06
Your Reference			SJRC002	SJRC003	SJRC004	SJRC005	SJRC006
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
SHCl*	% w/w S	0.0050	<0.0050	0.013	0.012	0.065	0.13

Envirolab ID	Units	PQL	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10	PFH1210-11
Your Reference			SJRC007	SJRC008	SJRC009	SJRC010	SJRC011
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
SHCl*	% w/w S	0.0050	0.048	0.087	0.045	0.034	0.019

Envirolab ID	Units	PQL	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15	PFH1210-16
Your Reference			SJRC012	SJRC013	SJRC014	SJRC015	SJRC016
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
SHCl*	% w/w S	0.0050	0.021	0.019	0.010	0.0090	0.0081

Envirolab ID	Units	PQL	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024
SHCl*	% w/w S	0.0050	<0.0050	<0.0050	<0.0050

Certificate of Analysis PFH1210

Acid Mine Drainage (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
ANC H2SO4*	kg H2SO4/t	0.50	1.1	1.2	4.5	1.7	3.3
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		7.05	4.40	3.38	3.47	2.42
NAG pH4.5	kg H2SO4/t	0.50	<0.50	4.3	9.2	7.4	53
NAG pH7.0	kg H2SO4/t	0.50	<0.50	8.3	18	14	63
ANC CaCO3	% CaCO3	0.010	0.12	0.12	0.45	0.17	0.34

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
ANC H2SO4*	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Fizz Rating*	-		0.0	0.0	0.0	0.0	0.0
NAG pH	pH units		2.16	2.62	2.24	2.77	3.11
NAG pH4.5	kg H2SO4/t	0.50	92	18	77	13	6.5
NAG pH7.0	kg H2SO4/t	0.50	110	27	88	23	11
ANC CaCO3	% CaCO3	0.010	<0.010	0.014	<0.010	<0.010	0.050

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
ANC H2SO4*	kg H2SO4/t	0.50	2.9	2.9	4.0	49	52
Fizz Rating*	-		0.0	0.0	0.0	3.0	3.0
NAG pH	pH units		3.21	3.03	3.30	7.38	7.78
NAG pH4.5	kg H2SO4/t	0.50	4.9	9.2	4.9	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	9.8	16	11	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.30	0.30	0.41	5.0	5.3

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
ANC H2SO4*	kg H2SO4/t	0.50	2.2	5.3	2.9	1.1
Fizz Rating*	-		0.0	0.0	0.0	0.0
NAG pH	pH units		8.17	8.11	7.99	7.06
NAG pH4.5	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50
NAG pH7.0	kg H2SO4/t	0.50	<0.50	<0.50	<0.50	<0.50
ANC CaCO3	% CaCO3	0.010	0.23	0.54	0.30	0.11

1:2 MEND Leach Inorganics (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Alkalinity as CaCO3*	mg/L	5.0	20	25	9.4	6.7	<5.0
Chloride*	mg/L	1.0	2.6	2.9	4.7	4.8	2.6
Sulfate*	mg/L	1.0	4.0	87	170	150	730
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	20	25	9.4	6.6	<5.0
pH*	pH units		7.6	7.4	6.8	6.3	4.6
Electrical Conductivity*	µS/cm	2.0	85	310	460	420	1400
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Alkalinity as CaCO3*	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloride*	mg/L	1.0	3.0	2.6	2.4	3.1	2.7
Sulfate*	mg/L	1.0	1200	620	<5.0	470	370
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
pH*	pH units		4.1	4.9	5.0	5.3	5.1
Electrical Conductivity*	µS/cm	2.0	1800	1000	1600	1000	820
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Alkalinity as CaCO3*	mg/L	5.0	6.7	9.9	21	190	170
Chloride*	mg/L	1.0	2.2	2.7	2.5	3.2	2.1
Sulfate*	mg/L	1.0	230	260	240	130	95
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	6.6	9.9	21	190	170
pH*	pH units		6.1	6.4	7.0	7.9	7.9
Electrical Conductivity*	µS/cm	2.0	470	520	490	620	540
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
Total Alkalinity as CaCO3*	mg/L	5.0	60	42	39	20
Chloride*	mg/L	1.0	5.9	4.8	5.4	5.7
Sulfate*	mg/L	1.0	54	21	14	22
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	60	42	39	20
pH*	pH units		8.0	7.8	7.8	7.4
Electrical Conductivity*	µS/cm	2.0	290	180	160	140
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0	<5.0	<5.0

1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Mercury*	mg/L	0.000050	0.000087	0.000065	0.00010	<0.000050	<0.000050
Aluminium	mg/L	0.010	2.8	7.1	0.021	0.011	1.5
Antimony	mg/L	0.0010	0.0014	0.0011	<0.0010	0.0012	<0.0010
Arsenic	mg/L	0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0038	0.013	0.0043	0.0038	0.054
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.084	0.12	0.17	0.12	0.24
Cadmium	mg/L	0.00010	<0.00010	0.00020	<0.00010	<0.00010	0.00030
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0012	0.0022
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0033
Chromium	mg/L	0.0010	0.028	0.083	<0.0010	<0.0010	0.0018
Cobalt	mg/L	0.0010	<0.0010	0.027	0.0020	<0.0010	0.22
Copper	mg/L	0.0010	0.022	0.17	0.014	0.0012	7.1
Gallium	mg/L	0.0010	<0.0010	0.0021	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	14	2.0	0.024	0.34	1.1
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0020
Lead	mg/L	0.0010	<0.0010	0.0044	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.010	0.0032	0.0060	0.011	0.0098
Manganese	mg/L	0.0010	0.018	0.13	0.24	0.32	1.3
Molybdenum	mg/L	0.0010	0.0012	0.0081	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	0.0090	0.094	0.0048	0.0059	0.75
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.025	0.061	0.093	0.086	0.29
Scandium	mg/L	0.0010	<0.0010	0.0042	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0012	0.060	0.11	0.046	0.095
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.0010	0.0033	0.012	0.012	0.094
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016
Thorium	mg/L	0.00050	<0.00050	0.00089	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	0.020	0.028	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	0.0078	0.019	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	0.0033	<0.0010	<0.0010	0.0040
Zinc	mg/L	0.0010	0.0099	0.028	<0.0010	0.0019	0.15
Zirconium	mg/L	0.0050	<0.0050	0.019	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	<0.50	<0.50	3.1	3.7	25
Potassium	mg/L	0.50	21	47	85	72	230
Magnesium	mg/L	0.50	<0.50	0.99	6.0	7.4	43

1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-01	PFH1210-02	PFH1210-03	PFH1210-04	PFH1210-05
Your Reference			SJRC001	SJRC002	SJRC003	SJRC004	SJRC005
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Sodium	mg/L	0.50	3.1	22	8.2	5.8	7.9
Sulfur	mg/L	0.50	1.4	29	49	45	190
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	5.0	0.29	0.069	0.079	0.033
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.0088	0.033	0.021	0.034	0.021
Beryllium	mg/L	0.00050	0.00094	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.16	0.16	0.17	0.034	0.037
Cadmium	mg/L	0.00010	0.00030	0.00016	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	0.0012	0.0014	0.0023	0.0010	0.0011
Cerium	mg/L	0.0010	0.0095	0.0014	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	0.0022	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	0.40	0.12	0.079	0.0016	0.0024
Copper	mg/L	0.0010	1.6	0.36	0.012	<0.0010	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	0.0025	<0.0010	0.0017	0.0017	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	260	7.4	150	120	54
Lanthanum	mg/L	0.00050	0.0063	0.0010	0.00060	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.0096	0.014	0.012	0.022	0.032
Manganese	mg/L	0.0010	8.2	2.5	4.8	6.8	4.6
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	0.0010	1.5	0.30	0.069	0.0037	0.0038
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.23	0.22	0.29	0.14	0.090
Scandium	mg/L	0.0010	0.0033	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0059	0.024	0.0014	<0.0010	<0.0010
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.091	0.079	0.075	0.069	0.12
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-06	PFH1210-07	PFH1210-08	PFH1210-09	PFH1210-10
Your Reference			SJRC006	SJRC007	SJRC008	SJRC009	SJRC010
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	0.017	0.0026	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.33	0.12	0.23	0.0062	0.015
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	27	18	8.5	7.5	12
Potassium	mg/L	0.50	170	150	220	110	73
Magnesium	mg/L	0.50	46	31	23	19	28
Sodium	mg/L	0.50	4.5	6.4	6.1	6.0	7.2
Sulfur	mg/L	0.50	340	130	220	150	120
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Mercury*	mg/L	0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Aluminium	mg/L	0.010	<0.010	<0.010	<0.010	0.018	0.023
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium	mg/L	0.0010	0.011	0.0075	0.0062	0.0012	<0.0010
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.061	0.043	0.032	0.040	0.040
Cadmium	mg/L	0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt	mg/L	0.0010	0.0053	0.0060	0.0019	0.0013	<0.0010
Copper	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.022	<0.0010
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	0.15	0.014	<0.010	0.010	<0.010
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.049	0.036	0.038	0.0077	0.0090
Manganese	mg/L	0.0010	0.56	0.53	0.26	0.13	0.12
Molybdenum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	0.0027	0.0016
Nickel	mg/L	0.0010	0.060	0.047	0.018	0.0060	0.0048
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.036	0.018	0.018	0.024	0.021
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0066	0.0038	0.0035	0.0026	0.0013
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.067	0.14	0.18	0.019	0.014
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-11	PFH1210-12	PFH1210-13	PFH1210-14	PFH1210-15
Your Reference			SJRC011	SJRC012	SJRC013	SJRC014	SJRC015
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024	15/08/2024
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	0.0084	<0.0010	0.0039	0.0014
Titanium	mg/L	0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Yttrium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zinc	mg/L	0.0010	0.0055	0.0027	0.0033	<0.0010	<0.0010
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	11	12	11	5.8	5.1
Potassium	mg/L	0.50	26	10	9.9	17	13
Magnesium	mg/L	0.50	29	42	40	68	58
Sodium	mg/L	0.50	8.1	6.8	6.7	3.0	2.0
Sulfur	mg/L	0.50	61	73	66	36	32
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
Mercury*	mg/L	0.000050	0.00016	0.00055	0.00050	<0.000050
Aluminium	mg/L	0.010	0.058	0.45	3.2	1.6
Antimony	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic	mg/L	0.0010	<0.0010	0.0015	0.0040	0.0012
Barium	mg/L	0.0010	0.015	0.0071	0.033	0.021
Beryllium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	0.020	0.11	0.17	0.24	0.18
Cadmium	mg/L	0.00010	<0.00010	<0.00010	0.00018	<0.00010
Caesium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cerium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chromium	mg/L	0.0010	<0.0010	0.0034	0.024	0.0099
Cobalt	mg/L	0.0010	<0.0010	<0.0010	0.0021	<0.0010
Copper	mg/L	0.0010	0.0016	0.0015	0.0066	0.0032
Gallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Germanium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hafnium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Iron	mg/L	0.010	<0.010	0.48	7.0	1.4
Lanthanum	mg/L	0.00050	<0.00050	<0.00050	0.00056	<0.00050
Lead	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Lithium	mg/L	0.0010	0.036	0.034	0.026	0.016
Manganese	mg/L	0.0010	0.23	0.059	0.11	0.055
Molybdenum	mg/L	0.0010	0.0082	0.0061	0.0046	0.0012
Nickel	mg/L	0.0010	0.0052	0.0038	0.016	0.0060
Niobium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010

1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)

Envirolab ID	Units	PQL	PFH1210-16	PFH1210-17	PFH1210-18	PFH1210-19
Your Reference			SJRC016	SJRC017	SJRC018	SJRC019
Date Sampled			15/08/2024	15/08/2024	15/08/2024	15/08/2024
Rhenium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Rubidium	mg/L	0.0010	0.056	0.036	0.045	0.030
Scandium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Selenium	mg/L	0.0010	0.0060	0.0095	0.0050	0.010
Silver	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Strontium	mg/L	0.0010	0.043	0.013	0.0065	0.0028
Tantalum	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tellurium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thallium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Thorium	mg/L	0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Tin	mg/L	0.0010	<0.0010	<0.0010	0.0055	0.0022
Titanium	mg/L	0.0020	<0.0020	0.0032	0.024	0.012
Tungsten	mg/L	0.010	<0.010	<0.010	<0.010	<0.010
Uranium	mg/L	0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium	mg/L	0.0010	<0.0010	0.0015	0.0088	0.0046
Yttrium	mg/L	0.0010	<0.0010	<0.0010	0.0012	<0.0010
Zinc	mg/L	0.0010	<0.0010	0.0028	0.027	0.0077
Zirconium	mg/L	0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium*	mg/L	0.50	4.3	1.1	0.65	<0.50
Potassium	mg/L	0.50	45	32	29	22
Magnesium	mg/L	0.50	5.2	3.7	2.0	1.3
Sodium	mg/L	0.50	13	9.1	9.6	8.8
Sulfur	mg/L	0.50	16	6.9	4.9	6.8
Phosphorus	mg/L	0.050	<0.050	<0.050	<0.050	<0.050

Method Summary

Method ID	Methodology Summary
AMD-001	Acid Mine Drainage determined by AMIRA International - Acid Rock Drainage Test Handbook.
Calc - TIC	Calculation
INORG-001_1:2	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis can be completed outside of the APHA recommended holding times. Solids are reported from a 1:2 water extract unless otherwise specified. Alternatively, pH is determined in a 1:2 extract using 0.01M calcium chloride, pH is measured in the extract.
INORG-001_1:2_MEND	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis can be completed outside of the APHA recommended holding times. Solids are reported from a 1:20 water extract unless otherwise specified. Alternatively, pH is determined in a 1:20 extract using 0.01M calcium chloride, pH is measured in the extract. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-002_1:2	Conductivity and Salinity - measured using a conductivity cell at 25 C. Soil results reported from a 1:2 Soil:Water extract unless otherwise specified.
INORG-002_1:2_MEND	Conductivity and Salinity - measured using a conductivity cell at 25 C based. Soil results reported from a 1:2 Soil:Water extract unless otherwise specified. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-006_MEND	Alkalinity - determined titrimetrically. Solids reported from a custom leach, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-064	sPOCAS determined using titrimetric and ICP-OES techniques. There is no documented official holding time, we have assigned an arbitrary 180 days to frozen samples.
INORG-068	Determination of Chromium Suite analysis - a sample is analysed by traditional titration method as well as ICP-OES analysis. There is no documented official holding time, we have assigned an arbitrary 180 days to frozen samples.
INORG-081_MEND	Anions determined by Ion Chromatography. Waters samples are filtered on receipt prior to analysis. Solids are analysed from a water extract. Alternatively determined by colourimetry/turbidity using Discrete Analyser.A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
INORG-137	Determination of Total Nitrogen, Sulphur and Total Carbon in solids, rock, plant material and vegetation via combustion and NDIR.
METALS-020_MEND	Determination of various metals by ICP-OES.A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
METALS-021_MEND	Determination of Mercury by Cold Vapour AAS. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).
METALS-022_MEND	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. A custom leach may have been used, for example a 1:3 solid to liquid ratio (MEND) or a modified 1:2 solid to liquid ratio (MEND).

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volume measurements are not covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary PFH1210

Client Details

Client	Mine Earth
Your Reference	SAN-2401
Date Issued	30/09/2024

Recommended Holding Time Compliance

Recommended holding time exceedances exist - See detailed list below

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	No	Duplicate Outliers Exist - See detailed list below
Matrix Spike	No	Matrix Spike Outliers Exist - See detailed list below
Surrogates / Extracted Internal Standards	Yes	No Outliers
QC Frequency	Yes	No Outliers

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary PFH1210

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
TIC by Combustion | Solid adhoc	1-19	15/08/2024	11/09/2024	17/09/2024	Yes
TOC by Combustion | Solid adhoc	1-19	15/08/2024	11/09/2024	17/09/2024	Yes
Total Carbon | Solid adhoc	1-19	15/08/2024	11/09/2024	17/09/2024	Yes
Total Sulfur | Solid adhoc	1-19	15/08/2024	11/09/2024	17/09/2024	Yes
EC 1:2 soil:water | Solid adhoc	1-19	15/08/2024	11/09/2024	13/09/2024	No
pH 1:2 | Solid adhoc	1-19	15/08/2024	11/09/2024	13/09/2024	No
CRS Suite | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
SHCl | Solid adhoc	2-19	15/08/2024	11/09/2024	17/09/2024	Yes
ANC CaCO3 | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
ANC H2SO4 | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
Fizz Rating | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
NAG pH | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
NAG pH4.5 | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
NAG pH7.0 | Solid adhoc	1-19	15/08/2024	11/09/2024	11/09/2024	Yes
Alkalinity 1:2 MEND Leach | Solid adhoc	1-19	15/08/2024	18/09/2024	19/09/2024	No
Chloride 1:2 MEND Leach | Solid adhoc	1-19	15/08/2024	21/09/2024	21/09/2024	No
EC 1:2 MEND Leach | Solid adhoc	1-19	15/08/2024	18/09/2024	19/09/2024	No
pH 1:2 MEND Leach | Solid adhoc	1-19	15/08/2024	18/09/2024	19/09/2024	No
Sulfate 1:2 MEND Leach | Solid adhoc	1-4, 9-19	15/08/2024	21/09/2024	21/09/2024	No
	5-8	15/08/2024	21/09/2024	24/09/2024	No
1:2 MEND Leachate Metals | Solid adhoc	1-5, 7, 10-19	15/08/2024	17/09/2024	26/09/2024	Yes
	6, 8-9	15/08/2024	17/09/2024	30/09/2024	Yes
Hg 1:2 MEND Leach | Solid adhoc	1-19	15/08/2024	17/09/2024	19/09/2024	No
ICPOES Metals 1:2 MEND | Solid adhoc	1-19	15/08/2024	17/09/2024	19/09/2024	Yes

No sampling date(s) was/were provided by client. Therefore the sampling date(s) is/are assigned as the date(s) of sample receipt to the laboratory.

Data Quality Assessment Summary PFH1210

Outliers: Duplicates

METALS-022_MEND|1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)| Batch BFI3111

Sample ID	Duplicate ID	Analyte	% Limits	RPD
PFH1210-02	DUP2	Copper	40.00	99.2[3]
PFH1210-02	DUP2	Manganese	20.00	64.4[3]
PFH1210-02	DUP2	Strontium	40.00	122[2]
PFH1210-07	DUP3	Aluminium	20.00	52.4[3]
PFH1210-07	DUP3	Copper	40.00	87.1[3]
PFH1210-07	DUP3	Iron	20.00	137[3]
PFH1210-07	DUP4	Aluminium	20.00	86.3[3]
PFH1210-07	DUP4	Copper	40.00	116[3]
PFH1210-07	DUP4	Iron	20.00	113[3]
PFH1210-07	DUP4	Manganese	20.00	33.9[3]
PFH1210-07	DUP4	Selenium	40.00	60.9[3]

Outliers: Matrix Spike

METALS-022_MEND|1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc)| Batch BFI3111

Sample ID	Analyte	% Limits	% Recovery
PFH1210-03	Boron	70 - 130	##[1]

Quality Control PFH1210

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFI2018

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
Total Organic Carbon	%	0.010	<0.010	0.168 | 0.169 | 0.593	0.383 | 0.383 | 0.00	[NA]

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFI2020

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
Total Carbon	%	0.010	<0.010	0.171 | 0.171 | 0.00	0.395 | 0.393 | 0.508	87.1

INORG-137|Inorganics - Carbon, Nitrogen and Sulfur Species (Solid adhoc) | Batch BFI2021

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
Total Sulfur	%	0.010	<0.010	<0.010 | <0.010 | [NA]	0.383 | 0.381 | 0.524	103

INORG-001_1:2|Inorganics (1:2 soil:water) (Solid adhoc) | Batch BFI2022

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
pH	pH units		0.0	7.3 | 7.4 | 0.680	6.6 | 6.5 | 1.07	100
Electrical Conductivity	µS/cm	1.0	<1.0	99.9 | 93.9 | 6.19	428 | 435 | 1.62	103

INORG-068|Chromium Reducible Sulfur Suite (Solid adhoc) | Batch BFI2019

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
Chromium Reducible Sulfur	% w/w	0.0050	<0.0050	<0.0050 | <0.0050 | [NA]	0.261 | 0.262 | 0.515	90.8

INORG-064|SPOCAS (Solid adhoc) | Batch BFI2023

Analyte	Units	PQL	Blank	DUP1 PFH1210-02 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
SHCl	% w/w S	0.0050	<0.0050			[NA]

AMD-001|Acid Mine Drainage (Solid adhoc) | Batch BFI2016

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
ANC H2SO4	kg H2SO4/t	0.50	<0.50	1.13 | 0.965 | [NA]	2.93 | 2.74 | 6.90	109
Fizz Rating	-		0.00	0.00 | 0.00 | [NA]	0.00 | 0.00 | [NA]	[NA]
ANC CaCO3	% CaCO3	0.010	<0.010	0.115 | 0.0984 | 15.9	0.299 | 0.279 | 6.90	109

AMD-001|Acid Mine Drainage (Solid adhoc) | Batch BFI2017

Analyte	Units	PQL	Blank	DUP1 PFH1210-01 Samp | QC | RPD %	DUP2 PFH1210-11 Samp | QC | RPD %	LCS %
NAG pH	pH units			7.05 | 7.10 | 0.707	3.21 | 3.22 | 0.311	98.1
NAG pH4.5	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	4.91 | 5.02 | 2.33	109
NAG pH7.0	kg H2SO4/t	0.5		<0.50 | <0.50 | [NA]	9.84 | 9.91 | 0.783	99.8

Quality Control PFH1210

INORG-002_1:2_MEND|1:2 MEND Leach Inorganics (0.2µm filtered) (Solid adhoc) | Batch BFI3309

Analyte	Units	PQL	Blank	DUP1 PFH1210-03 Samp | QC | RPD %	DUP2 PFH1210-06 Samp | QC | RPD %	LCS %
Electrical Conductivity	µS/cm	2.0	<2.0	465 | 462 | 0.734	1750 | 2230 | 24.0	98.1

INORG-006_MEND|1:2 MEND Leach Inorganics (0.2µm filtered) (Solid adhoc) | Batch BFI3310

Analyte	Units	PQL	Blank	DUP1 PFH1210-03 Samp | QC | RPD %	DUP2 PFH1210-06 Samp | QC | RPD %	LCS %
Total Alkalinity as CaCO3	mg/L	5.0	<5.0	9.38 | 8.42 | [NA]	<5.0 | <5.0 | [NA]	87.5
Bicarbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	9.38 | 8.42 | [NA]	<5.0 | <5.0 | [NA]	[NA]
pH	pH units		5.8	6.8 | 6.7 | 0.892	4.1 | 4.3 | 5.47	101
Carbonate Alkalinity as CaCO3	mg/L	5.0	<5.0	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]
Hydroxide OH- as CaCO3	mg/L	5.0	<5.0	<5.0 | <5.0 | [NA]	<5.0 | <5.0 | [NA]	[NA]

Analyte	Units	PQL	Blank	LCS %
Total Alkalinity as CaCO3	mg/L	5		94.2

INORG-081_MEND|1:2 MEND Leach Inorganics (0.2µm filtered) (Solid adhoc) | Batch BFI3979

Analyte	Units	PQL	Blank	DUP1 PFH1210-03 Samp | QC | RPD %	DUP2 PFH1210-06 Samp | QC | RPD %	LCS %	Spike % PFH1210-05
Chloride	mg/L	1.0	<1.0	4.67 | 4.42 | [NA]	3.03 | 3.62 | [NA]	93.8	109
Sulfate	mg/L	1.0	<1.0	166 | 163 | 1.79	1230 | 1720 | 33.1	95.2	89.6

METALS-021_MEND|1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc) | Batch BFI3110

Analyte	Units	PQL	Blank	DUP1 PFH1210-02 Samp | QC | RPD %	DUP2 PFH1210-02 Samp | QC | RPD %	LCS %	Spike % PFH1210-03
Mercury	mg/L	0.000050	<0.000050	0.000065 | 0.000123 | [NA] [2]	0.000065 | 0.000291 | [NA] [2]	99.2	95.0

Analyte	Units	PQL	Blank	DUP3 PFH1210-07 Samp | QC | RPD %	DUP4 PFH1210-07 Samp | QC | RPD %	LCS %
Mercury	mg/L	0.00005		<0.000050 | <0.000050 | [NA]	<0.000050 | <0.000050 | [NA]	[NA]

Quality Control PFH1210

METALS-022_MEND | 1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc) | Batch BFI3111

Analyte	Units	PQL	Blank	DUP1 PFH1210-02 Samp | QC | RPD %	DUP2 PFH1210-02 Samp | QC | RPD %	LCS %	Spike % PFH1210-03
Aluminium	mg/L	0.010	<0.010	7.12 | 6.45 | 9.87	7.12 | 7.29 | 2.39	97.0	79.6
Antimony	mg/L	0.0010	<0.0010	0.00108 | <0.0010 | [NA] [2]	0.00108 | 0.00118 | [NA]	96.0	101
Arsenic	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	101	106
Barium	mg/L	0.0010	<0.0010	0.0133 | 0.0133 | 0.300	0.0133 | 0.0145 | 8.57	98.9	105
Beryllium	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	99.2	105
Bismuth	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	95.1	94.2
Boron	mg/L	0.020	<0.020	0.117 | 0.117 | 0.740	0.117 | 0.124 | 5.38	92.9	##[1]
Cadmium	mg/L	0.00010	<0.00010	0.000195 | 0.000180 | [NA]	0.000195 | 0.000140 | [NA]	98.7	103
Caesium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | 0.00110 | [NA] [2]	102	108
Cerium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	100	104
Chromium	mg/L	0.0010	<0.0010	0.0827 | 0.0737 | 11.6	0.0827 | 0.0856 | 3.38	105	106
Cobalt	mg/L	0.0010	<0.0010	0.0269 | 0.0292 | 8.00	0.0269 | 0.0284 | 5.31	105	106
Copper	mg/L	0.0010	<0.0010	0.172 | 0.252 | 38.1	0.172 | 0.509 | 99.2 [3]	106	103
Gallium	mg/L	0.0010	<0.0010	0.00208 | 0.00186 | [NA]	0.00208 | 0.00212 | [NA]	99.9	103
Germanium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	97.6
Hafnium	mg/L	0.0010	<0.0010	0.00166 | <0.0010 | [NA] [2]	0.00166 | <0.0010 | [NA] [2]	97.8	103
Iron	mg/L	0.010	<0.010	2.03 | 1.86 | 8.87	2.03 | 1.90 | 6.39	98.9	104
Lanthanum	mg/L	0.00050	<0.00050	<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	101	104
Lead	mg/L	0.0010	<0.0010	0.00444 | 0.00422 | [NA]	0.00444 | 0.00449 | [NA]	99.4	102
Lithium	mg/L	0.0010	<0.0010	0.00324 | 0.00350 | [NA]	0.00324 | 0.00312 | [NA]	101	104
Manganese	mg/L	0.0010	<0.0010	0.133 | 0.138 | 3.92	0.133 | 0.0680 | 64.4 [3]	100	114
Molybdenum	mg/L	0.0010	<0.0010	0.00807 | 0.00844 | 4.54	0.00807 | 0.00824 | 2.02	102	107
Nickel	mg/L	0.0010	<0.0010	0.0935 | 0.105 | 11.5	0.0935 | 0.104 | 10.8	103	103
Niobium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	105	105
Rhenium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	112	111
Rubidium	mg/L	0.0010	<0.0010	0.0611 | 0.0655 | 6.93	0.0611 | 0.0674 | 9.87	100	101
Scandium	mg/L	0.0010	<0.0010	0.00422 | 0.00433 | [NA]	0.00422 | 0.00474 | [NA]	120	122
Selenium	mg/L	0.0010	<0.0010	0.0604 | 0.0590 | 2.40	0.0604 | 0.0653 | 7.71	100	91.9
Silver	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	97.1	95.6
Strontium	mg/L	0.0010	<0.0010	0.00332 | 0.00388 | [NA]	0.00332 | 0.0136 | 122 [2]	101	104
Tantalum	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	79.0	85.1
Tellurium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	94.9	101
Thallium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	99.0	101
Thorium	mg/L	0.00050	<0.00050	0.000890 | 0.000745 | [NA]	0.000890 | 0.000965 | [NA]	92.4	93.7
Tin	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | 0.00472 | [NA] [2]	109	109
Titanium	mg/L	0.0020	<0.0020	0.0280 | 0.0238 | 16.1	0.0280 | 0.0286 | 2.16	98.8	105
Tungsten	mg/L	0.010	<0.010	<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	97.0	99.5
Uranium	mg/L	0.0010	<0.0010	<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	96.6	99.0
Vanadium	mg/L	0.0010	<0.0010	0.0190 | 0.0165 | 14.5	0.0190 | 0.0193 | 1.51	104	109
Yttrium	mg/L	0.0010	<0.0010	0.00330 | 0.00292 | [NA]	0.00330 | 0.00326 | [NA]	105	106
Zinc	mg/L	0.0010	<0.0010	0.0278 | 0.0263 | 5.45	0.0278 | 0.0249 | 11.2	100	106
Zirconium	mg/L	0.0050	<0.0050	0.0185 | 0.0158 | [NA]	0.0185 | 0.0210 | [NA]	80.5	90.2

Quality Control PFH1210

METALS-022_MEND | 1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc) | Batch BFI3111

Analyte	Units	PQL	Blank	DUP3 PFH1210-07 Samp | QC | RPD %	DUP4 PFH1210-07 Samp | QC | RPD %	LCS %	Spike % PFH1210-03
Aluminium	mg/L	0.01		0.287 | 0.491 | 52.4 [3]	0.287 | 0.723 | 86.3 [3]	[NA]	[NA]
Antimony	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Arsenic	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Barium	mg/L	0.001		0.0330 | 0.0383 | 14.8	0.0330 | 0.0441 | 28.9	[NA]	[NA]
Beryllium	mg/L	0.0005		<0.00050 | <0.00050 | [NA]	<0.00050 | 0.000550 | [NA] [2]	[NA]	[NA]
Bismuth	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Boron	mg/L	0.02		0.161 | 0.161 | 0.140	0.161 | 0.156 | 3.22	[NA]	[NA]
Cadmium	mg/L	0.0001		0.000165 | 0.000235 | [NA]	0.000165 | 0.000240 | [NA]	[NA]	[NA]
Caesium	mg/L	0.001		0.00140 | 0.00152 | [NA]	0.00140 | 0.00172 | [NA]	[NA]	[NA]
Cerium	mg/L	0.001		0.00142 | 0.00190 | [NA]	0.00142 | 0.00273 | [NA] [2]	107	[NA]
Chromium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Cobalt	mg/L	0.001		0.120 | 0.127 | 5.25	0.120 | 0.143 | 17.2	[NA]	[NA]
Copper	mg/L	0.001		0.362 | 0.921 | 87.1 [3]	0.362 | 1.36 | 116 [3]	[NA]	[NA]
Gallium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Germanium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	91.0	[NA]
Hafnium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Iron	mg/L	0.01		7.40 | 1.39 | 137 [3]	7.40 | 2.06 | 113 [3]	[NA]	[NA]
Lanthanum	mg/L	0.0005		0.00104 | 0.00133 | [NA]	0.00104 | 0.00182 | [NA] [2]	[NA]	[NA]
Lead	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Lithium	mg/L	0.001		0.0145 | 0.0136 | 6.09	0.0145 | 0.0144 | 0.346	[NA]	[NA]
Manganese	mg/L	0.001		2.51 | 2.13 | 16.4	2.51 | 1.78 | 33.9 [3]	[NA]	[NA]
Molybdenum	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Nickel	mg/L	0.001		0.301 | 0.330 | 9.35	0.301 | 0.361 | 18.1	[NA]	[NA]
Niobium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Rhenium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Rubidium	mg/L	0.001		0.218 | 0.221 | 1.42	0.218 | 0.231 | 5.88	[NA]	[NA]
Scandium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Selenium	mg/L	0.001		0.0235 | 0.0344 | 37.5	0.0235 | 0.0441 | 60.9 [3]	[NA]	[NA]
Silver	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Strontium	mg/L	0.001		0.0789 | 0.0807 | 2.21	0.0789 | 0.0869 | 9.61	[NA]	[NA]
Tantalum	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Tellurium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Thallium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | 0.00109 | [NA] [2]	[NA]	[NA]
Thorium	mg/L	0.0005		<0.00050 | <0.00050 | [NA]	<0.00050 | <0.00050 | [NA]	[NA]	[NA]
Tin	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Titanium	mg/L	0.002		<0.0020 | <0.0020 | [NA]	<0.0020 | <0.0020 | [NA]	[NA]	[NA]
Tungsten	mg/L	0.01		<0.010 | <0.010 | [NA]	<0.010 | <0.010 | [NA]	[NA]	[NA]
Uranium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Vanadium	mg/L	0.001		<0.0010 | <0.0010 | [NA]	<0.0010 | <0.0010 | [NA]	[NA]	[NA]
Yttrium	mg/L	0.001		0.00260 | 0.00346 | [NA]	0.00260 | 0.00494 | [NA] [2]	109	[NA]
Zinc	mg/L	0.001		0.118 | 0.128 | 8.48	0.118 | 0.134 | 12.7	[NA]	[NA]
Zirconium	mg/L	0.005		<0.0050 | <0.0050 | [NA]	<0.0050 | <0.0050 | [NA]	[NA]	[NA]

Quality Control PFH1210

METALS-020_MEND|1:2 MEND Leach Metals (0.2µm filtered) (Solid adhoc) | Batch BFI3112

Analyte	Units	PQL	Blank	DUP1 PFH1210-02 Samp | QC | RPD %	DUP2 PFH1210-02 Samp | QC | RPD %	LCS %	Spike % PFH1210-03
Calcium	mg/L	0.50	<0.50	<0.50 | 0.785 | [NA] [2]	<0.50 | 0.548 | [NA] [2]	98.5	101
Potassium	mg/L	0.50	<0.50	47.0 | 51.8 | 9.79	47.0 | 50.3 | 6.79	98.0	85.6
Magnesium	mg/L	0.50	<0.50	0.995 | 1.23 | [NA]	0.995 | 1.04 | [NA]	99.5	97.8
Sodium	mg/L	0.50	<0.50	21.9 | 24.8 | 12.6	21.9 | 23.6 | 7.52	98.5	101
Sulfur	mg/L	0.50	<0.50	28.8 | 33.2 | 14.1	28.8 | 31.7 | 9.67	102	90.6
Phosphorus	mg/L	0.050	<0.050	<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	98.8	99.1

Analyte	Units	PQL	Blank	DUP3 PFH1210-07 Samp | QC | RPD %	DUP4 PFH1210-07 Samp | QC | RPD %	LCS %
Calcium	mg/L	0.5		18.3 | 18.7 | 1.82	18.3 | 20.5 | 11.0	[NA]
Potassium	mg/L	0.5		153 | 154 | 0.326	153 | 161 | 5.17	[NA]
Magnesium	mg/L	0.5		30.6 | 31.0 | 1.38	30.6 | 33.4 | 8.81	[NA]
Sodium	mg/L	0.5		6.41 | 6.31 | 1.61	6.41 | 6.47 | 0.926	[NA]
Sulfur	mg/L	0.5		133 | 133 | 0.0903	133 | 140 | 5.22	[NA]
Phosphorus	mg/L	0.05		<0.050 | <0.050 | [NA]	<0.050 | <0.050 | [NA]	[NA]

QC Comments

Identifier	Description
[1]	Spike recovery is not applicable due to the relatively high analyte background in the sample (>3* spike level). However, the LCS recovery is within acceptance criteria.
[2]	Duplicate %RPD may be flagged as an outlier to routine laboratory acceptance, however, where one or both results are <10*PQL, the RPD acceptance criteria increases exponentially.
[3]	The laboratory duplicate RPD acceptance criteria has been exceeded. Sample heterogeneity suspected. 3 sets of data have been provided to help demonstrate the degree of non-homogeneity within the sample as well as assessing the analytical precision.