



Geochemical Investigation of Kerale Area

Factual Report

PREPARED FOR
Collinsville Open Cut

DATE
09 June 2026

REFERENCE
0771288



DOCUMENT DETAILS

DOCUMENT TITLE	Geochemical Investigation of Kerale Area
DOCUMENT SUBTITLE	Factual Report
PROJECT NUMBER	0771288
DATE	09 June 2026
VERSION	01
AUTHOR	ERM
CLIENT NAME	Collinsville Open Cut

DOCUMENT HISTORY

				ERM APPROVAL TO ISSUE		
VERSION	REVISION	AUTHOR	REVIEWED BY	NAME	DATE	COMMENTS
01	0	Isabelle Simonsson	Peter Scott, Brenton Nichol	Chris Gimber	23 April 2026	Draft for COL review
01	1	Isabelle Simonsson	Tamie Weaver	Chris Gimber	18 May 2026	Final draft
01	2	Isabelle Simonsson	Brenton Nichol	Chris Gimber	9 June 2026	Final

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
°C	Degrees Celsius
µS/cm	Microsiemens per centimetre
ABA	Acid base accounting
AMD	Acid and metalliferous drainage
ANC	Acid neutralising capacity
ANZG	Australian and New Zealand Guidelines for Fresh and Marine Water Quality
AOC	Area of contamination
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013)
ASLP	Australian Standard Leaching Procedure
bgl	Below ground level
CoC	Chain of custody
CRS	Chromium reducible sulfur
CSM	Conceptual site model
DETSI	Department of Environment, Tourism, Science and Innovation
DI	Deionised
EA	Environmental authority
EC	Electrical conductivity
ELIP	Environmental Legacy Identification Program
ERM	Environmental Resources Management Australia Pty Ltd
GCAA	Glencore Coal Assets Australia
GPS	Global positioning system
kg	Kilogram
km	Kilometre
KTP	Kerala test pit
LOR	Limit of reporting
m	Metre
mg/L	Milligrams per litre
MPA	Maximum potential acidity
NAF	Non-acid forming
NAG	Net acid generation
NAPP	Net acid producing potential
NATA	National Association of Testing Authorities
NUMA	Non-use management area

Acronym	Description
PAF	Potentially acid forming
pH	Potential of hydrogen
PRC Plan	Progressive rehabilitation and closure plan
QA/QC	Quality assurance/quality control
SAQP	Sampling, analysis and quality plan
t	Tonne
TAA	Titratable actual acidity
Total S	Total sulfur
UC	Uncertain
USCS	Unified Soil Classification System
XRD	X-ray diffraction
wt%	Weight %

1. INTRODUCTION

1.1 BACKGROUND

The Collinsville Open Cut operation is Queensland's oldest operating coal mine, producing thermal and coking coal for both overseas and domestic markets. Located approximately (~) 80 kilometres (km) from Bowen in the northern part of Queensland's Bowen Basin, the operation is a wholly owned subsidiary of Glencore Coal Assets Australia (GCAA), which is part of Glencore Public Limited Company (PLC). An overview of the site is displayed in Figure 1-1

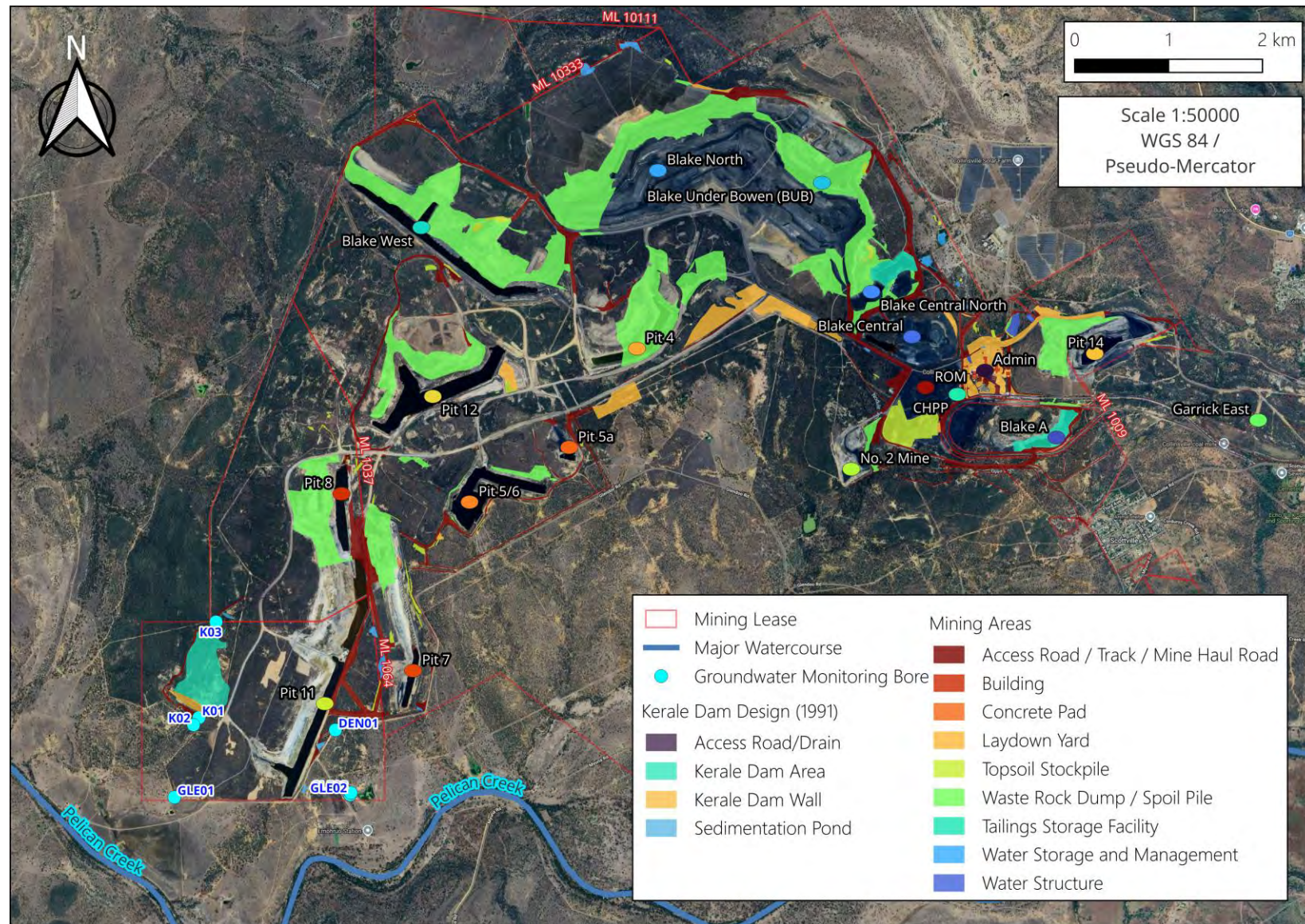
Historical mining activities at the Collinsville Open Cut operation generated acid and metalliferous drainage (AMD), which was, in part, managed through the operation of a lime (calcium hydroxide; $\text{Ca}(\text{OH})_2$) dosing facility located in the upper catchment of Kerale Dam. The facility operated from the early 1990s until its decommissioning in the 2000s. Following decommissioning, residual materials associated with the facility are believed to be contributing to acidic water conditions within the dam. Historical water quality data showed near neutral conditions in 2004 ($\text{pH} \sim 6$) while the plant was likely still operational, with consistently acidic conditions ($\text{pH} \sim 4$) since 2011 and the plant has been decommissioned.

Preliminary assessments suggest that residual materials, runoff or seepage from the former lime dosing facility may be influencing downstream water quality. To better understand the relationship between soil conditions in the upper catchment and the observed acidity in the Kerale upstream area, a targeted geochemical assessment of soil was undertaken.

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by GCAA to undertake this assessment. The purpose of this report is to present the field observations and laboratory analytical data generated from the test pitting program and initial geochemical assessment undertaken in the Kerale area. The report is intended to provide a factual summary of results, including the spatial distribution of key parameters, without detailed interpretation of geochemical processes or source mechanisms. Interpretation of these results, including assessment of acidity sources, controls on metal mobility and implications for ongoing management, will be presented separately in a subsequent interpretive report (ERM, 2026).

The findings presented in this report should be interpreted in the context of the investigation scope, data availability and other constraints outlined in Section 4. In particular, the assessment reflects conditions observed at the time of investigation and is based on the spatial and depth coverage of the test pitting program undertaken. As such, the results provide a targeted characterisation of soil geochemistry within the Kerale area rather than a comprehensive assessment of all subsurface conditions across the broader site.

FIGURE 1-1 COLLINSVILLE SITE OVERVIEW



1.2 SCOPE

The assessment scope comprised a systematic field investigation and laboratory analysis program designed to characterise soil and sediment geochemistry in the Kerale area, which includes the Kerale Dam footprint and catchment as well as upstream and downstream locations.

The work included the excavation and logging of test pits across a grid-based layout, collection of soil samples at defined depth intervals, and submission of samples to a National Association of Testing Authorities (NATA) accredited laboratory for analysis of parameters relevant to AMD and acid sulfate soils (ASS) geochemistry.

Data analysis and interpretation were undertaken in a separate report (ERM, 2026) to assess the spatial distribution of analytes, evaluate potential contaminant migration pathways and refine the conceptual site model (CSM) for the investigation area.

2. METHODOLOGY

2.1 FIELD INVESTIGATION AND SAMPLING

The field investigation was undertaken between 2 and 5 March 2026 in accordance with the sampling, analysis and quality plan (SAQP) prepared by ERM.

A total of 36 test pits (KTP01 to KTP36) were excavated across the investigation area using a backhoe/excavator, encompassing the footprint of the former lime dosing facility (in the upper portion of Kerala Dam catchment), within the Kerala Dam impoundment area (where access allowed) and downgradient of the Kerala Dam embankment.

Test pit locations were established on a systematic grid-based layout to ensure representative spatial coverage, with additional locations selected at suspected areas of contamination (AOC). Test pit locations were recorded using a handheld global positioning system (GPS) and are displayed in Figure 2-1 along with sampling depths and zone designations.

Test pits were excavated to a target depth of up to 2 m below ground level (bgl), with actual depths determined by ground conditions. The presence of weathered sandstone, which was encountered at depths ranging from 0.2 m bgl to 2.3 m bgl across the investigation area, meant that the test pits could not be excavated to the target depth at all locations. Soil material was logged in accordance with the Unified Soil Classification System (USCS), with observations recorded for colour, texture, moisture condition, consistency and the presence of staining, visible residues or other notable inclusions. Each pit was photographed following excavation.

Soil samples were collected at defined depth intervals within each pit, with the number of samples per pit varying between one and six depending on stratigraphy and depth of refusal. 1:5 soil:deionised (DI) water pH and electrical conductivity (EC) measurements were conducted on all samples in the field.

Samples were placed in laboratory-supplied jars and bags, labelled with unique identifiers, kept cold in eskies containing ice bricks and ice cubes and submitted to Australian Laboratory Services (ALS) Brisbane. Field duplicates were collected at a frequency of approximately one in ten samples for quality assurance/quality control (QA/QC), with 9 field duplicate and 1 field triplicate samples collected in total.

The sampling methodology includes the following measures:

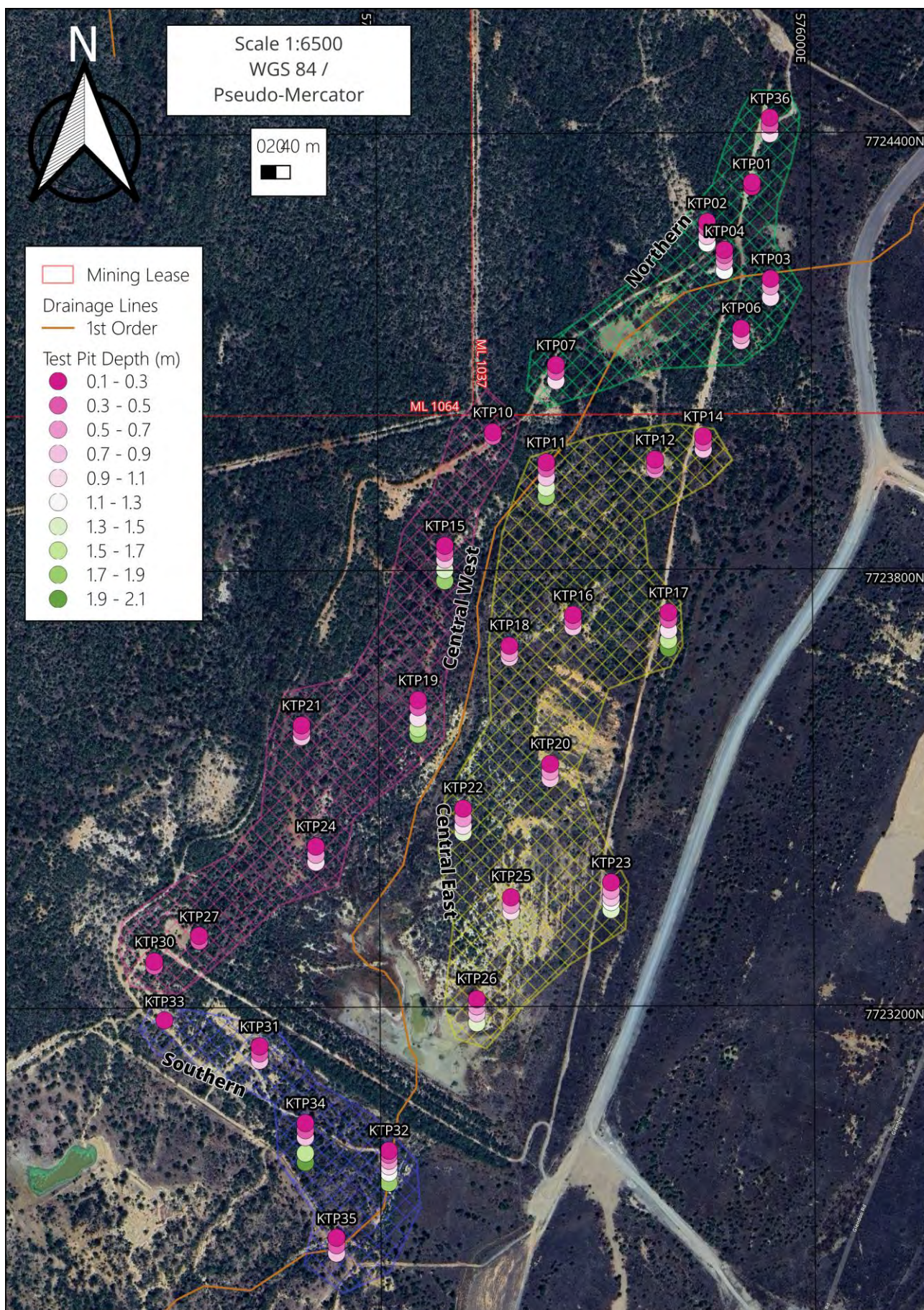
- Service checks and utility clearance by GCAA prior to excavation; dynamic job hazard analyses were completed daily.
- Use of laboratory-supplied containers and bags; samples were labelled, kept cool and stored in eskies.
- Decontamination of re-usable sampling equipment between sampling locations using PFAS-free detergent such as Liquinox, and a wash and rinse of equipment with potable water followed by a dual rinse with deionised water;
- Waste soil returned to pit and track-rolled unless otherwise directed.

To facilitate the interpretation and analysis of results, the investigation area was divided into four zones based on proximity to potential contamination sources and landscape position. Test pits within each zone are shown in Table 2-1.

TABLE 2-1 ZONE CLASSIFICATIONS OF TEST PITS

Zone	Test Pits
Northern – former lime dosing area and surroundings	KTP01, KTP02, KTP03, KTP04, KTP06, KTP07, KTP36
Central West – Western portion of Kerale Dam impoundment	KTP10, KTP15, KTP19, KTP21, KTP24, KTP27, KTP30
Central East – Eastern portion of Kerale Dam impoundment	KTP11, KTP12, KTP14, KTP16, KTP17, KTP18, KTP20, KTP22, KTP23, KTP25, KTP26
Southern – Downgradient of Kerale Dam embankment	KTP31, KTP32, KTP33, KTP34, KTP35

FIGURE 2-1 TEST PIT SAMPLING LOCATIONS, ZONES AND DEPTHS



2.2 LABORATORY ANALYSES

Laboratory analyses were performed by ALS Brisbane, a NATA-accredited laboratory. The analytical program comprised three testing streams applied to the bulk soil and two leachate fractions, as summarised below.

2.2.1 BULK SOIL

The following parameters were tested on all soil samples:

- single net acid generation (NAG);
- net acid production potential (NAPP) comprising acid neutralising capacity (ANC), total sulfur (S) and chromium-reducible sulfur (CRS); and
- total metals and metalloids following acid digestion, covering:
 - aluminium (Al);
 - arsenic (As);
 - boron (B);
 - barium (Ba);
 - beryllium (Be);
 - bismuth (Bi);
 - calcium (Ca);
 - cadmium (Cd);
 - cobalt (Co);
 - chromium (Cr);
 - copper (Cu);
 - iron (Fe);
 - lithium (Li);
 - manganese (Mn);
 - nickel (Ni);
 - lead (Pb);
 - tin (Sn).
 - vanadium (V); and
 - zinc (Zn).

2.2.2 ASLP Leachate

The Australian Standard Leaching Procedure (ASLP) was selected as the primary test method for this investigation as it simulates the leaching of contaminants under weakly acidic conditions representative of rainfall infiltration through potentially contaminated soils. This provides an environmentally realistic estimate of contaminant mobility and potential for migration to the surrounding environment.

Testing involved a 1:20 solid:water leach at pH 6.0 over 18 hours (h) in accordance with Australian Standard (AS) 4439.3:2019, with the resulting leachate analysed for the following:

- pH;
- EC;

- total hardness as calcium carbonate (CaCO_3);
- dissolved major anions:
 - chloride (Cl);
 - sulfate (SO_4);
 - alkalinity;
 - fluoride (F);
- acidity as CaCO_3 ;
- dissolved major cations:
 - Ca ;
 - magnesium (Mg);
 - sodium (Na);
 - potassium (K); and
- dissolved metals and metalloids covering the same suite as for total metals.

2.2.3 1:5 LEACHATE

Testing of 1:5 soil:deionised (DI) water leachate involved a standard 1:5 solid:water leach. The resulting leachate was analysed for pH, EC and dissolved metals (same suite as for the ASLP testing in Section 2.2.2).

One sample per test pit was selected for 1:5 leachate testing to allow comparison of results with previous geochemical investigations undertaken at Collinsville.

2.3 ASSESSMENT GUIDELINES

Analytical results were assessed against a range of reference sources, including relevant Queensland and national environmental guidelines, including the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2025) and the National Environment Protection (Assessment of Site Contamination) Measure 1999, amended 2013 (ASC NEPM).

Where applicable, site-specific EA trigger levels from EPML00332013 were used in the comparison of results.

2.3.1 ENVIRONMENTAL AUTHORITY LIMITS

EA Release Water Trigger Levels

Under the EA, Kerale Dam is designated as a mine-affected water release point to Pelican Creek (RP3). The EA specifies release water quality trigger investigation levels that must be met prior to any release. These are presented in Table 2-2 and are used in this report as a benchmark for contextualising the degree of contamination currently present in Kerale Dam.

TABLE 2-2 EA RELEASE WATER TRIGGER INVESTIGATION LEVELS

Element	Unit	Trigger Level	Comment on Trigger Level (80th percentile)
pH	-	<6.0 or >9.0	-
EC	$\mu\text{S}/\text{cm}$	3,000	-
SO_4	mg/L	1,000	-

Element	Unit	Trigger Level	Comment on Trigger Level (80th percentile)
Fluoride (total)		2.0	Protection of livestock and short-term irrigation guideline
Dissolved metals and metalloids			
Al	mg/L	0.050	-
As		0.013	For aquatic ecosystem protection, based on slightly to moderate disturbed level of protection ("SMD guideline") as defined by ANZG
Cd		0.0002	For aquatic ecosystem protection, based on SMD guideline
Cr		0.001	For aquatic ecosystem protection, based on SMD guideline
Cu		0.050	-
Fe		0.100	-
Pb		0.004	For aquatic ecosystem protection, based on SMD guideline
Hg		0.0002	For aquatic ecosystem protection, based on limit of reporting (LOR) for cold vapour flame ionisation mercury system (CV FIMS)
Ni		0.011	For aquatic ecosystem protection, based on SMD guideline
Zn		0.008	For aquatic ecosystem protection, based on SMD guideline.
B		0.370	For aquatic ecosystem protection, based on SMD guideline
Co		0.090	For aquatic ecosystem protection, based on low reliability guideline
Mn		1.9	For aquatic ecosystem protection, based on SMD guideline
Mo		0.034	For aquatic ecosystem protection, based on low reliability guideline
Se		0.010	For aquatic ecosystem protection, based on LOR for ICPMS
Ag		0.001	For aquatic ecosystem protection, based on LOR for ICPMS
U	0.001	For aquatic ecosystem protection, based on LOR for ICPMS	
V	0.010	For aquatic ecosystem protection, based on LOR for ICPMS	
Source: Adapted from EA EPML00332013 (Table G3 – Release water trigger investigation levels), 26 March 2026			

EA Groundwater Trigger Levels

The EA specifies groundwater quality limits for monitoring bores located downgradient of mining activities. However, K01, K02 and K03, the bores located near the Kerale Dam area, do not have any EA trigger limits. Instead, GLE01 trigger limits are included here for reference, as it is located ~1 km south (downgradient) of Kerale Dam and screened at a depth of 9 to 19 m in the Glendoo Sandstone.

The applicable groundwater quality limits for GLE01 are presented in Table 2-3 and are used in this report to contextualise the groundwater quality conditions observed in the Kerale Dam area.

TABLE 2-3 EA GROUNDWATER QUALITY LIMITS FOR DISSOLVED METALS AND METALLOIDS

Parameter	Unit	GLE01 Investigation Trigger Bore Limit
pH	-	6 to 9
EC	$\mu\text{S}/\text{cm}$	10,757
SO ₄	mg/L	2,834
Dissolved metals and metalloids		
Ag	mg/L	0.001
Al		0.15
As		0.024
B		0.674
Cd		0.0002
Co		0.001
Cr		0.0033
Cu		0.018
Fe		4.289
Hg		0.0006
Mn		1.698
Mo		0.034
Ni		0.016
Pb		0.0034
Se		0.010
U		0.025
V		0.010
Zn	0.581	
Source: Adapted from EA EPML00332013 (Table E2 – Groundwater quality and level limits), 26 March 2026		

2.3.2 AMD, ACIDITY AND SALINITY GUIDELINES

This section presents general guidelines for soil pH, electrical conductivity, acid-mine drainage classification and net acidity used to interpret and contextualise laboratory and field results throughout this assessment.

2.3.2.1 pH AND EC

Soil extract pH and EC are key indicators of acidity and salt loading in the soil profile. pH indicates the degree of acidity or alkalinity of the soil extract, which reflects conditions controlling metal mobility, mineral stability and the rate of secondary mineral hydrolysis. EC provides a measure of the total dissolved salt content of the extract, reflecting the accumulation of soluble oxidation products such as sulfate salts in the profile. Both parameters

were used in this assessment to characterise conditions across the study area shown in Figure 2-1 and evaluate the potential for acidic or saline conditions.

The classification scheme applied to pH and EC results was based on Hazelton and Murphy (2025) and is presented in Table 2-4.

Note that EC thresholds were derived from the 60-80% clay content column of Shaw (1999) as reported in Hazelton and Murphy (2025). Soil descriptions from test pit logs indicated that materials across the study area were predominantly fine-grained clayey sands and sandy clays, consistent with clay contents broadly in the range of 10-40%. However, the 60-80% clay column was selected as a conservative upper estimate given that drying and crushing of samples prior to laboratory extraction is likely to have inflated EC values relative to field conditions.

TABLE 2-4 pH AND EC GUIDELINE CLASSIFICATIONS

pH_{1:5}		EC (µS/cm)¹			
Classification	Range	Classification	EC_{1:5}	EC_{1:2} (Paste)²	EC_{1:20} (ASLP)²
			Range		
Very strongly acidic	<4.0	Very low	<150	<375	<37.5
Strongly acidic	4.0-5.5	Low	150-300	375-750	37.5-75.0
Moderately acidic	5.5-6.0	Moderate	300-700	750-1,750	75.0-175
Slightly acidic	6.0-7.0	High	700-1,180	1,750-2,950	175-295
Neutral	7.0	Very high	1,180-1,870	2,950-4,680	295-468
Slightly alkaline	7.0-8.0	Extreme	>1,870	>4,680	>468
Moderately alkaline	8.0-9.0				
Strongly alkaline	9.0-10				
Very strongly alkaline	10-11				

Source: Hazelton and Murphy (2025)

Notes:

¹ Assumed 60-80% clay content.

² EC_{1:2} and EC_{1:20} values derived by multiplying EC_{1:5} by 2.5 and dividing by 4 respectively.

2.3.2.2 AMD AND ASS CLASSIFICATION

Soil and spoil materials associated with coal mining can be characterised according to their acid-generating potential. As shown in Table 2-5, materials are broadly classified as potentially acid-forming (PAF), non-acid-forming (NAF) or uncertain (UC), based on the balance between acid-generating sulfide minerals and acid-neutralising minerals present in the material. A conservative approach to material classification is to consider all materials with an UC classification as PAF.

PAF materials have the potential to generate sulfuric acid (H₂SO₄) upon oxidation, which can mobilise metals and acidify receiving waters. NAF materials have sufficient buffering capacity to neutralise any acidity generated.

TABLE 2-5 AMD CLASSIFICATION CRITERIA BASED ON NAPP AND NAG TEST RESULTS

AMD Class		NAPP (kg H ₂ SO ₄ /t)	NAG pH
PAF		>10	<4.5
NAF		<0	≥ 4.5
UC	UC (PAF)	>0	≥ 4.5
	UC (NAF)	<0	<4.5

Source: Based on AMIRA (2002).

2.3.2.3 NET ACIDITY

The Kerale Dam area has been identified as having a low to moderate probability of containing acid sulfate soils based on national mapping data (Fitzpatrick, 2008). Therefore, Net Acidity was calculated from the measured laboratory parameters to evaluate acidity levels across the study area against established action criteria in *Queensland Acid Sulfate Soil Technical Manual, Soil Management Guidelines V5.1* (Dear, 2024).

Where sulfide oxidation has occurred and acidity has accumulated in the soil profile, Net Acidity provides a quantitative measure of the total acid load present and the treatment required to neutralise it. Net Acidity is the sum of Potential Sulfidic Acidity (by CRS), Actual Acidity (by titratable actual acidity (TAA)) and Retained Acidity (by Net Acid Soluble Sulfur) and forms the basis for assessing whether acid sulfate soils require active management using the criteria in Table 2-6.

TABLE 2-6 TEXTURE-BASED ACID SULFATE SOIL ACTION CRITERIA

Material Type	Clay Content	Net Acidity Lower Limit			
		<1000 t disturbed		>1000 t disturbed	
Unit	%	mol H ⁺ /t	%S	mol H ⁺ /t	%S
Coarse: sands to loamy sands and peats	<5	18	0.03	18	0.03
Medium: clayey sands to light clays	5-40	36	0.06		
Fine: light medium to heavy clays and silty clays	>40	62	0.10		

Source: Dear (2024)

2.3.3 METALS AND METALLOIDS GUIDELINES

Leachate and soil results were assessed against relevant guidelines for metals and metalloids to evaluate potential environmental impacts and inform the spatial distribution of analytes across the investigation area.

The applied guidelines are described in the following subsections.

2.3.3.1 FICKLIN DIAGRAM

The Ficklin diagram is a geochemical classification tool used to characterise the metal loading and acidity of leachate from mine-affected materials (Ficklin, 1992). It plots the sum of

dissolved base metals against leachate pH, allowing classification of samples by both acidity and metal enrichment on a single diagram.

The base metal sum used in this assessment comprises dissolved Al, Ba, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb and Zn, expressed in mg/L, consistent with the approach applied to ASLP leachate results. Samples are classified according to the following scheme:

- pH: alkaline (pH 8-10), near-neutral (pH 6-8), acidic (pH 3-6) or hyperacidic (pH <3)
- Metal sum: low (<1 mg/L), moderate (1-10 mg/L), high (10-100 mg/L) or extreme (>100 mg/L)

The resulting quadrant classification describes leachate metal content and pH characteristics, reflecting the degree of AMD impact and the mobility of metals under prevailing pH conditions.

2.3.3.2 DISSOLVED METALS AND METALLOIDS

ANZG

Leachate results were assessed against the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2025) default guideline values (DGVs) for freshwater ecosystems, as presented in Table 2-7. These guidelines were considered the most appropriate benchmark for leachate interpretation given the potential for contaminated soils in the Kerala Dam catchment.

The ANZG (2025) DGVs are expressed across four levels of species protection (99%, 95%, 90% and 80%), with the 95% protection level generally considered the default trigger value for investigation in slightly to moderately disturbed ecosystems.

TABLE 2-7 ANZG FRESHWATER SPECIES PROTECTION LEVELS FOR DISSOLVED METALS AND METALLOIDS

Element	Freshwater Protection Level (% of species) (µg/L)				
	Unknown ¹	99	95	90	80
Al (pH<6.5)	0.8	-	-	-	-
Al (pH>6.5)	-	27	55	80	150
As(III)	-	1	24	94	360
As(V)	-	0.8	13	42	140
B	-	340	940	1,500	2,500
Cd	-	0.06	0.2	0.4	0.8
Cr(III)	3.3	-	-	-	-
Cr(VI)	-	0.01	1	6	40
Co	1.4	-	-	-	-
Cu	-	1	1.4	1.8	2.5
Fe	-	140	280	430	730
Pb	-	1	3.4	5.6	9.4
Mn	-	1,200	1,900	2,500	3,600

Element	Freshwater Protection Level (% of species) (µg/L)				
	Unknown ¹	99	95	90	80
Hg (inorganic)	-	0.06	0.6	1.9	5.4
Mo	34	-	-	-	-
Ni	-	8	11	13	17
V	6	-	-	-	-
Zn	-	2.4	8	15	31

Note:

¹ Unknown toxic level of species protection values are derived from limited toxicological data where the level of species protection cannot be statistically determined and is therefore presented as a single threshold value.

Source: ANZG (2025)

2.3.3.3 TOTAL METALS AND METALLOIDS

NEPM

Soil results were assessed against the health-based investigation levels (HILs) for metals and inorganics published in the National Environment Protection (Assessment of Site Contamination) Measure 1999, amended 2013 (ASC NEPM), as presented in Table 2-8.

HILs are defined for four land use categories: Residential A (high-density residential with garden/recreational areas), Residential B (low-density residential with minimal soil access), Recreational C (public open space and recreational areas) and Commercial/Industrial D.

The Kerala Dam area is likely to be designated a NUMA; however, conversion to a post-mining land use (PMLU) may become an option in the future. Given the potential uncertainty around the final PMLU, Residential A HILs are adopted as the primary assessment benchmark on the basis that they represent the most conservative and protective scenario for human health.

TABLE 2-8 NEPM HIL GUIDELINES FOR METALS AND METALLOIDS IN SOILS

Element	Residential A	Residential B	Recreational C	Commercial/Industrial D
Unit	mg/kg			
As	100	500	300	3,000
Be	60	90	90	500
B	4,500	40,000	20,000	300,000
Cd	20	150	90	900
Cr(VI)	100	500	300	3,600
Co	100	600	300	4,000
Cu	6,000	30,000	17,000	240,000
Pb	300	1,200	600	1,500
Mn	3,800	14,000	19,000	60,000
Hg (inorganic)	40	120	80	730

Element	Residential A	Residential B	Recreational C	Commercial/Industrial D
Ni	400	1,200	1,200	6,000
Se	200	1,400	700	10,000
Zn	7,400	60,000	30,000	400,000

Source: ASC NEPM (2013)

2.3.3.4 GEOCHEMICAL ABUNDANCE INDEX

The geochemical abundance index (GAI) was calculated for each element by dividing the measured concentration by the corresponding reference value (INAP, 2014).

$$\text{GAI} = \log_2(\text{sample concentration}/\text{reference concentration})$$

A GAI of 0 indicates a concentration consistent with or less than the reference value, GAI 1 to 2 indicates minor enrichment within the range of natural variability, GAI 3 indicates significant enrichment and GAI 6 indicates extreme enrichment representing a factor of at least 100 times the reference value (Förstner, 1993; Müller, 1969). A GAI of 3 or more is generally considered significant and flags an element for further investigation to determine whether it poses an environmental risk such as AMD.

For total metals and metalloids derived from acid digestion of the soil samples, the GAI was calculated using a site-specific background concentration derived from the median of the 25th percentile of detected values across all 113 samples (the first quartile, "Q1"). This approach was adopted in the absence of pre-mining or nearby undisturbed reference data and provides a more locally representative baseline than continental crustal abundance values. Use of site-specific background concentrations derived from lower percentile statistics is consistent with INAP (2014), which recognises that locally derived baselines are preferable in mineralised settings and that lower end data are commonly used to minimise the influence of enrichment.

Note that the 1.5 factor included in the original formulation was omitted, as this factor is intended to account for natural variability in background concentrations when using a global crustal reference; it is not appropriate when a site-specific background is used as the reference value, since natural variability is already captured within the Q1 dataset.

For elements where the Q1 background was at or below the laboratory limit of reporting, no GAI values were calculated.

3. GEOCHEMISTRY RESULTS

This section presents the geochemical results from soil samples collected within the Kerala Dam area. Results are organised by test type, progressing from field measurements to laboratory analyses.

3.1 FIELD TEST RESULTS

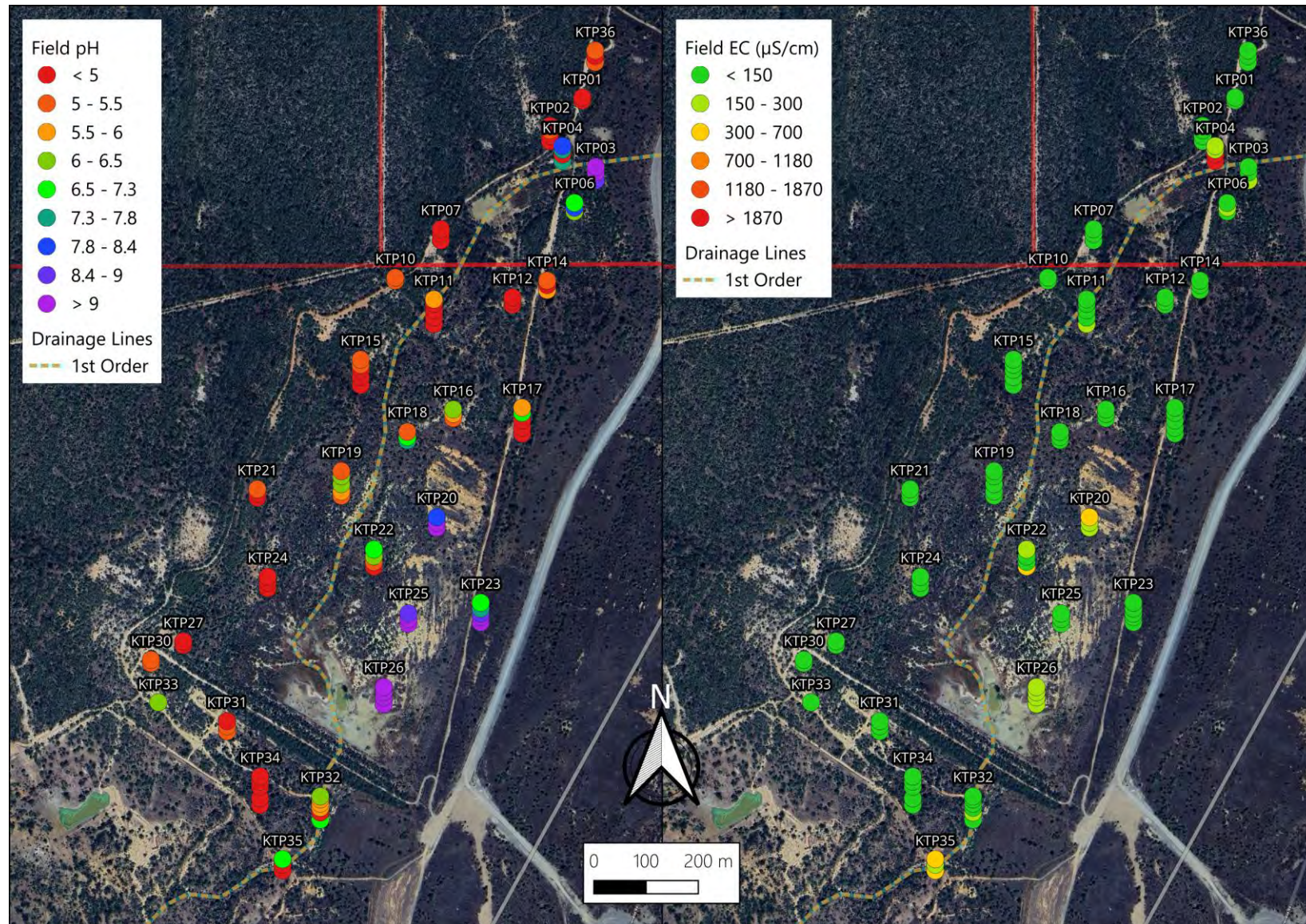
Field investigations included bore log observations and field paste measurements performed on soil samples at the time of collection. Raw field data are provided in Appendix D 1.

3.1.1 FIELD PASTE pH AND EC

Field paste pH and EC were measured on a ~1:5 soil:water dispersion prepared from each sample at the time of collection. Results are displayed spatially in Figure 3-1 and summarised by location in Table D1-1 and below.

- Field paste pH ranged from 4.25 (KTP34) to 9.27 (KTP26).
 - The majority of samples returned slightly acidic to neutral conditions (pH 6.1-7.3), with very strongly to strongly acidic results (pH<5.5) concentrated in the central zone (KTP11, KTP12, KTP17, KTP22, KTP24) and southern zone (KTP34, KTP35).
- Mildly to very strongly alkaline conditions (pH>7.4) were recorded at KTP23, KTP25 and KTP26.
 - KTP23 is notable in showing increasing pH with depth, from slightly acidic at surface (pH 6.83) to very strongly alkaline at the base of the profile (pH 9.14).
- EC was very low (<375 $\mu\text{S}/\text{cm}$) at most locations. Moderate EC (750-1,750 $\mu\text{S}/\text{cm}$) was recorded at KTP04 (median 1,500 $\mu\text{S}/\text{cm}$) and KTP20 (median 1,140 $\mu\text{S}/\text{cm}$), indicating localised accumulation of soluble salts.
 - KTP04 reached a maximum of 2,770 $\mu\text{S}/\text{cm}$ at 0.85-1.4 m depth, classified as high, likely associated with the presence of residual lime sludge.
- At several locations including KTP11, KTP17, KTP22, KTP34 and KTP35, pH decreased and EC increased with depth, consistent with progressive leaching of acidic, salt-enriched porewater toward the base of the soil profile.
 - This pattern is most pronounced at KTP11, where pH declined from slightly acidic at surface (pH 6.32) to very strongly acidic at depth (pH 4.32) and EC increased from very low to low (7.2 to 575 $\mu\text{S}/\text{cm}$) over the same interval.

FIGURE 3-1 FIELD PASTE pH AND EC RESULTS



3.2 LABORATORY TEST RESULTS

Laboratory analyses were performed on soil samples collected from test pits across the Kerala Dam area. Results are presented by analytical suite in the following subsections. Full laboratory results in the form of certificates of analysis are provided in Appendix D 2.

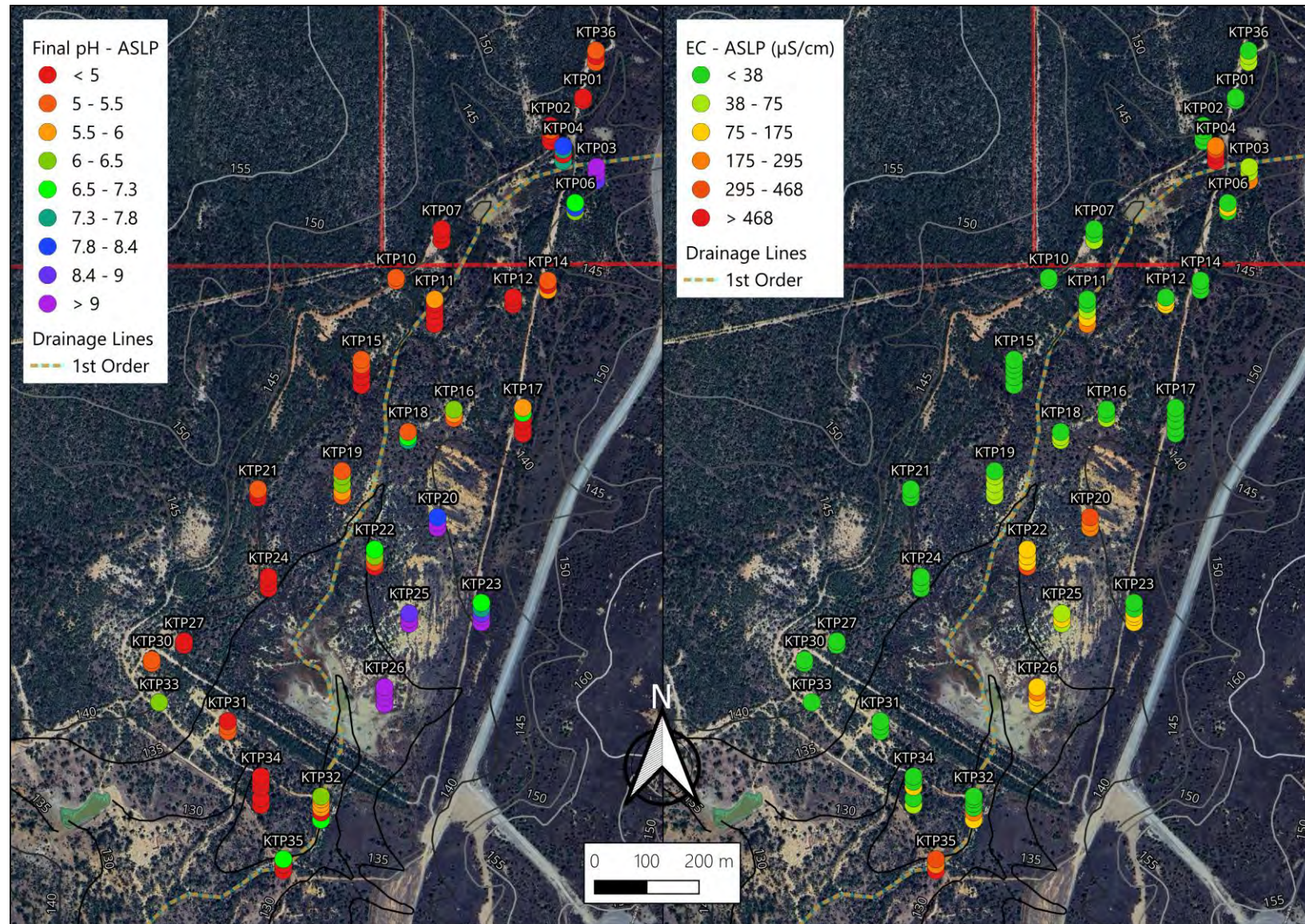
3.2.1 pH AND EC

ASLP initial pH, final pH and EC were measured on leachate from all 113 samples. Initial pH reflects pre-oxidation conditions, while final pH reflects acidity released during oxidative leaching. Results are shown spatially in Figure 3-2 and outlined below.

- Initial ASLP pH ranged from 5.07 to 9.34 with a median of 6.48.
 - The majority of samples (72%) returned neutral initial pH.
 - 13 samples (12%) returned mildly alkaline initial pH, concentrated at locations with residual lime influence including KTP03, KTP04 (northern area) and KTP26 (central east area).
- Final ASLP pH, i.e. after 18 h of leaching, ranged from 4.0 to 10.0 with a median of 5.20, markedly lower than the initial median pH.
 - 49 samples (43%) returned strongly to very strongly acidic final pH (<5.1), confirming widespread acid-generating character under oxidative leaching conditions.
 - Eight samples (7%) returned very strongly alkaline final pH (>9.1), confined to KTP20, KTP23, KTP25 and KTP26 in the central east area, consistent with residual lime influence or potentially naturally elevated carbonate content at those locations.
- Spatially, acidic final pH and high to extreme EC values were widespread across the study area, with alkaline final pH confined to isolated locations:
 - In the northern zone, KTP01, KTP02, KTP04 and KTP07 returned strongly to very strongly acidic final pH, with KTP04 also returning EC values consistent with extreme EC classification, in the area of the residual lime sludge.
 - In the central west zone, KTP15, KTP21, KTP24 and KTP27 returned strongly to very strongly acidic final pH despite predominantly very low EC, indicating that stored acidity is being actively flushed from these profiles with limited salt accumulation or storage.
 - In the central east zone
 - The northernmost sampling locations (KTP17, KTP12, KTP11) returned acidic final pH at most depths.
 - The two deepest KTP22 (central east) samples exhibit strongly acidic conditions, while surface samples were near neutral.
 - Alkaline final pH was confined to KTP20, KTP23, KTP25 and KTP26, reflecting residual lime or carbonate influence in the central east area, along the central drainage line. These locations also exhibit high to very high EC.
 - In the southern zone, KTP34 and KTP35 returned acidic to strongly acidic final pH, with KTP35 also returning high to extreme EC, suggesting secondary sulfate mineral accumulation.
- Final pH and EC showed distinct depth-dependent trends at several locations:

- At KTP11 and KTP22, final pH decreased and EC increased consistently with depth, indicating progressive accumulation of stored acidity and secondary sulfate minerals toward the base of the profile.
- At KTP23 and KTP25, final pH increased consistently with depth toward very strongly alkaline values, reflecting increasing residual lime or carbonate influence at depth.
- At KTP35, both stored acidity and high to extreme EC were present throughout the profile, with final pH decreasing to be strongly acidic and EC becoming extreme from surface to depth.
- At KTP04, the profile was varied.
 - KTP04-3 (3rd deepest sample) returned the lowest final pH (4.0) and highest EC (extreme EC; 2,560 $\mu\text{S}/\text{cm}$) in the dataset.
 - KTP04-4 (from immediately below KTP04-3) returned near-neutral to mildly alkaline final pH with similarly extreme EC (2,620 $\mu\text{S}/\text{cm}$), potentially reflecting the variable distribution of lime sludge and secondary sulfate minerals with depth at this location.

FIGURE 3-2 pH AND EC RESULTS (ASLP)



3.2.2 ACID-BASE ACCOUNTING AND NET ACID GENERATION

Acid-base accounting and net acid generation testing were performed on all samples. ABA results are reported as maximum potential acidity (MPA) calculated from sulfur content, ANC and NAPP. NAG results are reported as NAG pH measured at oxidation completion, with NAG titration results reported at pH 7.0. Results are summarised in Table 3-1. NAPP by total S and NAPP by TAA are compared spatially in Figure 3-4.

- NAPP ranged from strongly negative to strongly positive values, with the majority of samples returning near-zero NAPP, indicating limited net acid-forming or acid-neutralising potential across most of the study area.
 - NAPP calculated by CRS is more negative than NAPP calculated by total S, confirming that concentration of sulfides capable of further oxidation is negligible.
 - NAPP by TAA is more negative than NAPP by total S because TAA does not fully recover acidity stored in sparingly soluble secondary sulfate minerals such as jarosite and gypsum. Total S includes sulfur held in non-acid-generating minerals such as gypsum, anhydrite and alunite, as well as organic S associated with coal-derived material and soil organic matter.
- NAG pH was predominantly near-neutral to alkaline, with only three samples returning acidic NAG pH consistent with PAF classification (KTP01-1, KTP04-3 and KTP31-1).
 - All three PAF samples returned positive NAPP by TAA, confirming that the acid-forming character is driven by stored acidity in secondary sulfate minerals rather than residual sulfide.
- UC (PAF) is the dominant classification, accounting for 52% of all samples. This reflects a site where acid-forming potential is widespread but is held in secondary sulfate minerals rather than active sulfide, consistent with a largely complete stage of sulfide oxidation.
 - UC (PAF) material is conservatively classified as PAF.
- High positive NAPP values were recorded at KTP04-2 and KTP04-4, despite near-neutral to alkaline NAG pH at those samples. This reflects the influence of residual lime sludge at KTP04, which neutralises acidity during the NAG test without eliminating the underlying acid-forming potential.
 - The variable NAG pH across the KTP04 profile reflects the uneven distribution of lime sludge with depth, and the neutral NAG pH results at KTP04-2 and KTP04-4 should not be interpreted as indicative of NAF character at those intervals.
- ANC was low across most of the study area (also refer to Section 3.2.2.1), indicating limited capacity to buffer against ongoing or future acid release.
 - Of the 113 samples, 40 returned ANC below the limit of reporting ($<0.5 \text{ kg H}_2\text{SO}_4/\text{t}$). 94 samples (83%) returned very low ANC ($<5 \text{ kg H}_2\text{SO}_4/\text{t}$), with a median of $1.0 \text{ kg H}_2\text{SO}_4/\text{t}$.
 - Elevated ANC was confined to locations associated with residual lime influence (KTP03, KTP04, KTP20, KTP25 and KTP26), where values reached a maximum of $41.2 \text{ kg H}_2\text{SO}_4/\text{t}$. Outside these locations, ANC was insufficient to neutralise the acid-forming potential indicated by positive NAPP values across much of the study area.

TABLE 3-1 ABA RESULTS SUMMARY

Parameter	Unit	n above LOR	Min	P5	Median	Mean	P95	Max
NAPP by Total S	kg H ₂ SO ₄ /t	113	-39.7	-17.6	0.10	-0.06	5.30	96.7
NAPP by CRS		113	-40.8	-21.1	-0.67	-3.61	0.05	0.14
NAPP by TAA		81	-41.1	-21.3	-0.11	-2.56	3.90	5.53
ANC		75	<0.5	<0.5	1.00	3.98	21.4	41.2
NAG pH	-	113	3.40	4.60	6.00	6.40	10.2	11.0
NAG titration (pH 7.0)	kg H ₂ SO ₄ /t	80	0.10	0.10	1.10	2.74	9.92	34.1

Notes: NAPP by CRS and NAPP by TAA are derived parameters calculated for this assessment. Values below the limit of reporting are substituted with the LOR value in all calculations.

TABLE 3-2 ABA CLASSIFICATIONS

Classification	Definition	n	%	Samples
PAF	NAPP > 0, NAG pH < 4.5	3	3%	KTP01-1, KTP04-3, KTP31-1
NAF	NAPP ≤ 0, NAG pH ≥ 4.5	50	44%	-
UC (PAF)	NAPP > 0, NAG pH ≥ 4.5	59	52%	-
UC (NAF)	NAPP ≤ 0, NAG pH < 4.5	1	1%	KTP06-1

Note: Classification based on NAPP by total S and NAG pH.

The NAG pH versus NAPP by TAA diagram (Figure 3-3) is used to classify samples by their acid-forming character based on stored acidity rather than total sulfur content. NAPP by TAA uses measured titratable actual acidity rather than a sulfur-based estimate of acid potential, making it more appropriate for this site where sulfide oxidation is largely complete and stored acidity in secondary sulfate minerals dominates over residual sulfide. The four quadrants shown graphically in Figure 3-3 define PAF, NAF, UC (PAF) and UC (NAF) classifications based on the intersection of NAPP = 0 and NAG pH = 4.5.

FIGURE 3-3 NAG pH VS. NAPP BY TAA PLOT

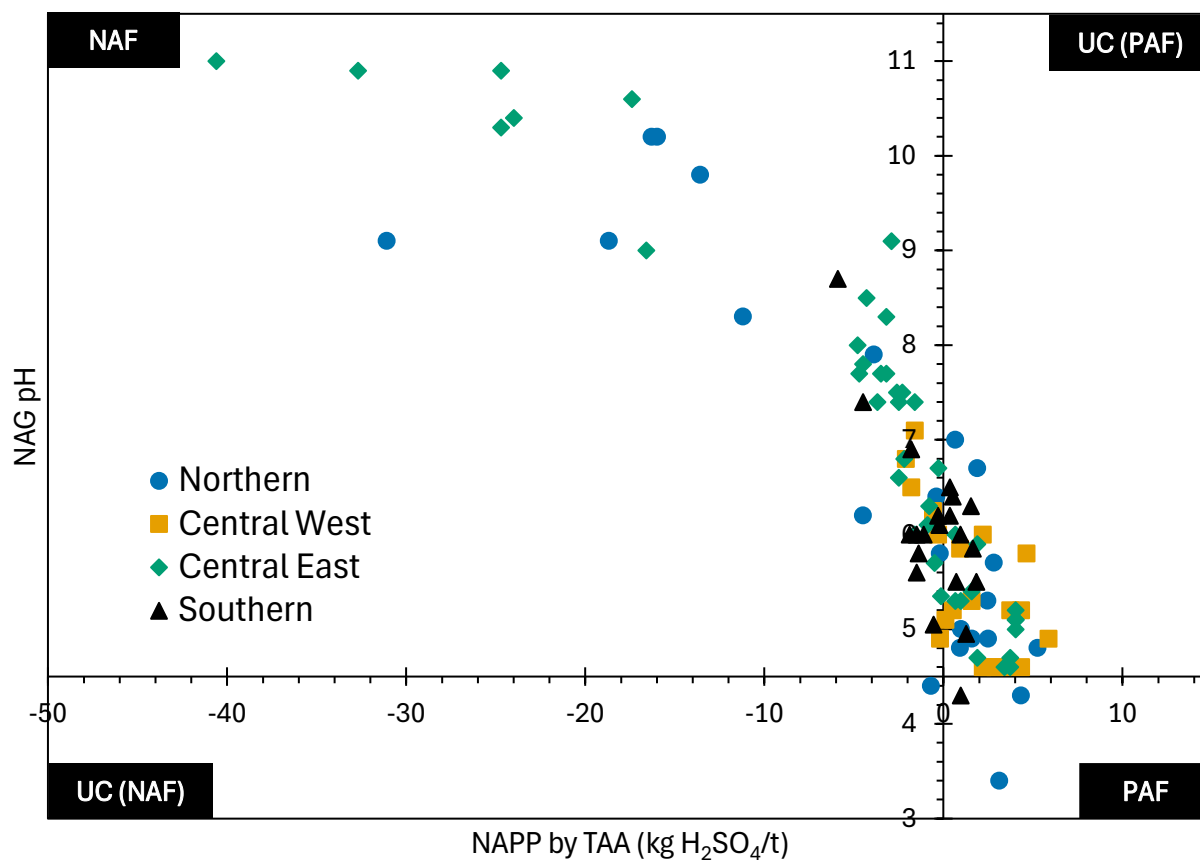
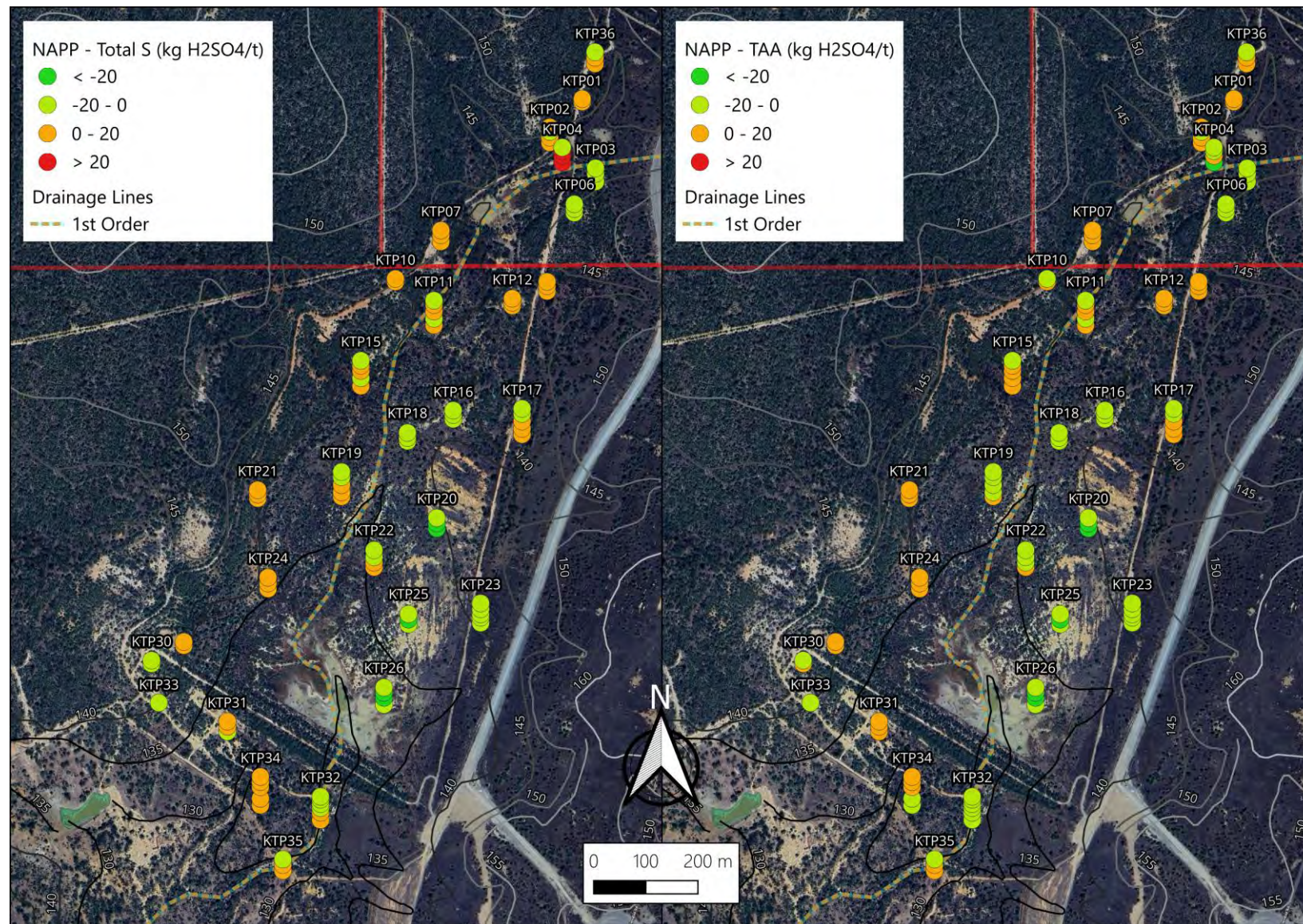


FIGURE 3-4 NAPP BY TOTAL S AND TAA RESULTS

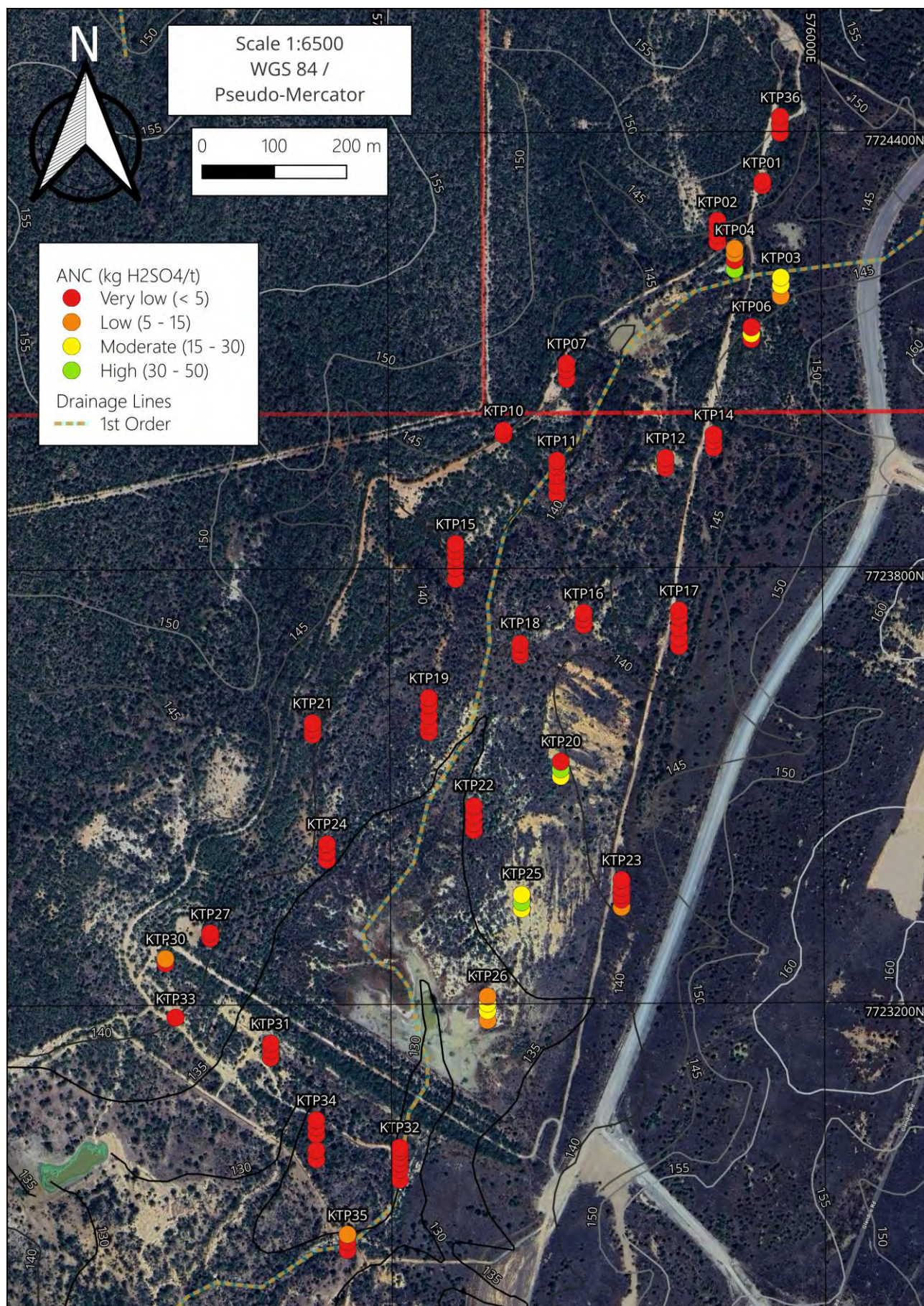


3.2.2.1 ACID-NEUTRALISING CAPACITY

ANC was measured on all 113 samples. Results are presented in Table 3-1 above and shown spatially in Figure 3-5.

- ANC was very low (<5 kg $\text{H}_2\text{SO}_4/\text{t}$) across 83% of samples, reflecting limited buffering capacity throughout the study area.
 - 40 samples returned ANC below the LOR (<0.5 kg $\text{H}_2\text{SO}_4/\text{t}$).
- Elevated ANC was confined to two areas:
 - In the northern zone, KTP03, KTP04 and KTP06 returned moderate to high ANC (up to 31.7 kg $\text{H}_2\text{SO}_4/\text{t}$ at KTP04-4), consistent with residual lime influence from the former lime dosing infrastructure.
 - In the central zone, KTP20, KTP25 and KTP26 returned moderate to high ANC (up to 41.2 kg $\text{H}_2\text{SO}_4/\text{t}$ at KTP20-2), likely reflecting natural carbonate or residual lime influence at those locations.

FIGURE 3-5 ANC RESULTS

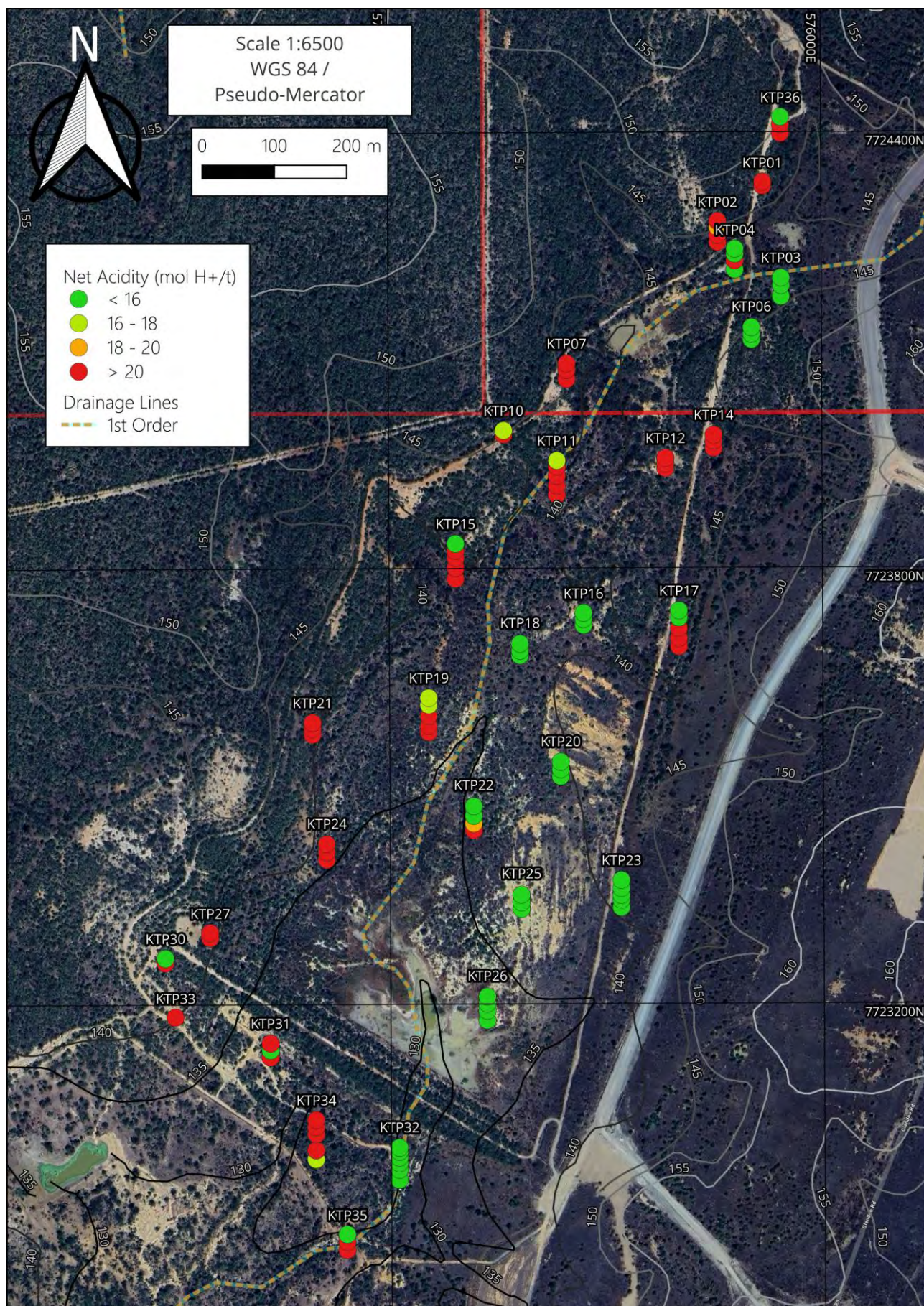


3.2.2.2 NET ACIDITY

Net Acidity results are shown spatially in Figure 3-6. The applicable guideline level for disturbances exceeding 1,000 tonnes is $<18 \text{ mol H}^+/\text{t}$ across all texture classes (Dear, 2024).

- In the northern zone, all locations except KTP03 and KTP06 show exceedances. KTP04-3 returned the highest Net Acidity of $1,090 \text{ mol H}^+/\text{t}$ across the entire dataset. KTP01, KTP02, KTP07 and KTP36 also returned exceedances across most or all depth intervals.
- In the central west zone, all locations had exceedances at one or more depth intervals, including KTP10, KTP15, KTP19, KTP21, KTP24 and KTP27. Exceedances were generally more pronounced at depth, with near-surface samples frequently returning values below or near the guideline level.
- In the central east zone, exceedances were recorded at KTP11, KTP12, KTP14, KTP17 and KTP22, predominantly at depth.
- In the southern zone, KTP30, KTP31, KTP33, KTP34 and KTP35 show exceedances, with KTP34 returning the highest values in the zone.

FIGURE 3-6 NET ACIDITY SPATIAL DISTRIBUTION



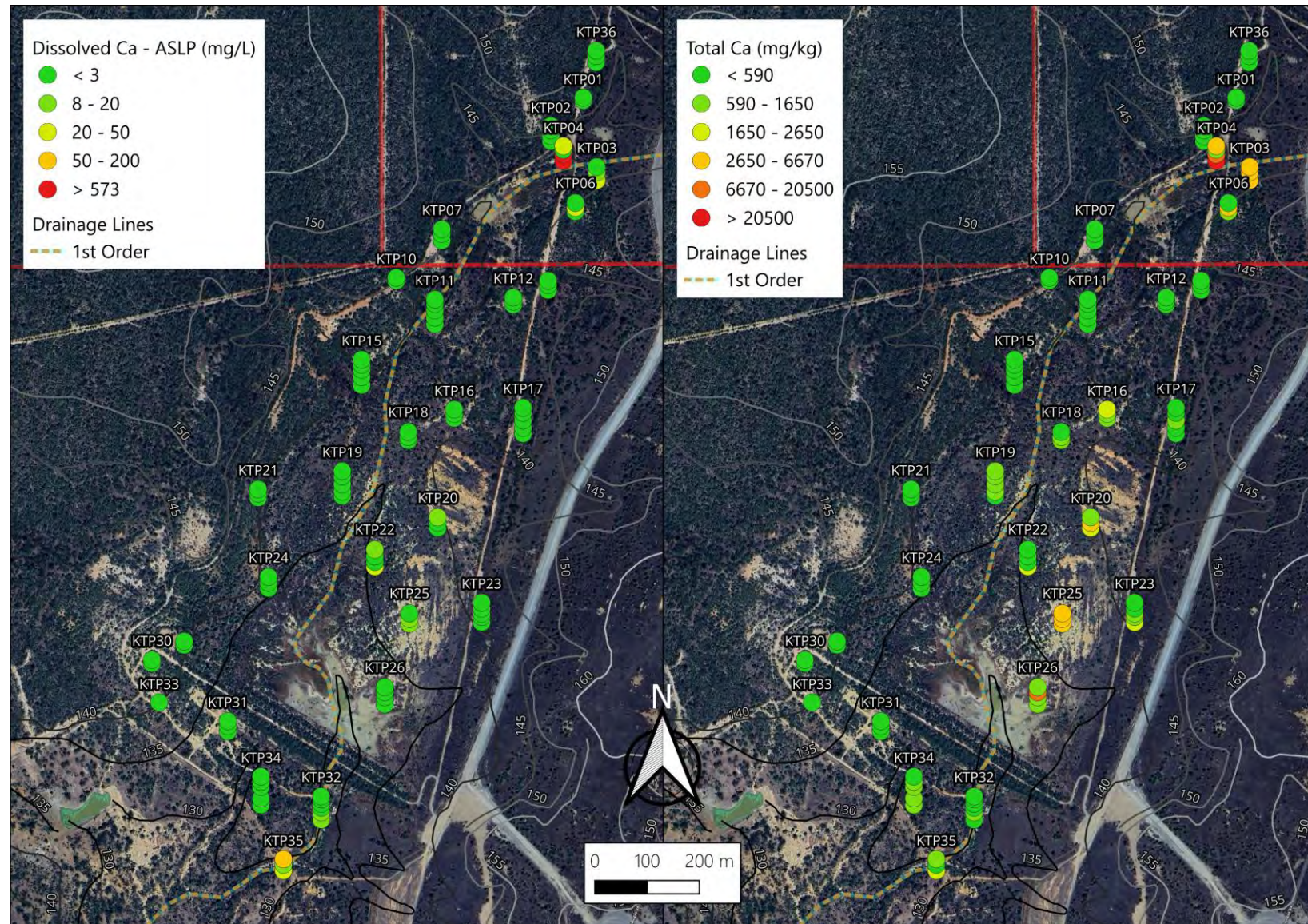
3.2.3 MAJOR IONS

3.2.3.1 TOTAL AND DISSOLVED CALCIUM

Total Ca in soil and dissolved Ca in ASLP leachate are shown spatially in Figure 3-7. Total Ca reflects all Ca-bearing phases in the soil matrix and cannot be interpreted as a direct proxy for lime distribution alone. Dissolved Ca is more diagnostic, representing only the Ca fraction actively dissolving under leaching conditions.

- Elevated dissolved Ca is confined to KTP04, KTP03 and KTP06 in the northern zone, and KTP35 in the southern zone, confirming that lime-derived material has not migrated beyond the former lime dosing pond footprint and the immediately adjacent drainage line.
- Total Ca is also elevated at KTP23, KTP25 and KTP26, but dissolved Ca at these locations is low. The alkaline pH (Figure 3-2) at these locations prevents Ca dissolution. This observation is discussed further in ER (2026).
- Despite KTP04-4 containing roughly five times more total Ca than KTP04-3 (104,000 versus 20,500 mg/kg), both intervals release similar dissolved Ca (573 and 593 mg/L respectively).
 - This observation, together with ABA and NAG data inform the assessment of geochemical behaviour in the Kerales Area provided in ERM (2026).

FIGURE 3-7 DISSOLVED (ASLP) AND TOTAL CALCIUM (SOIL)

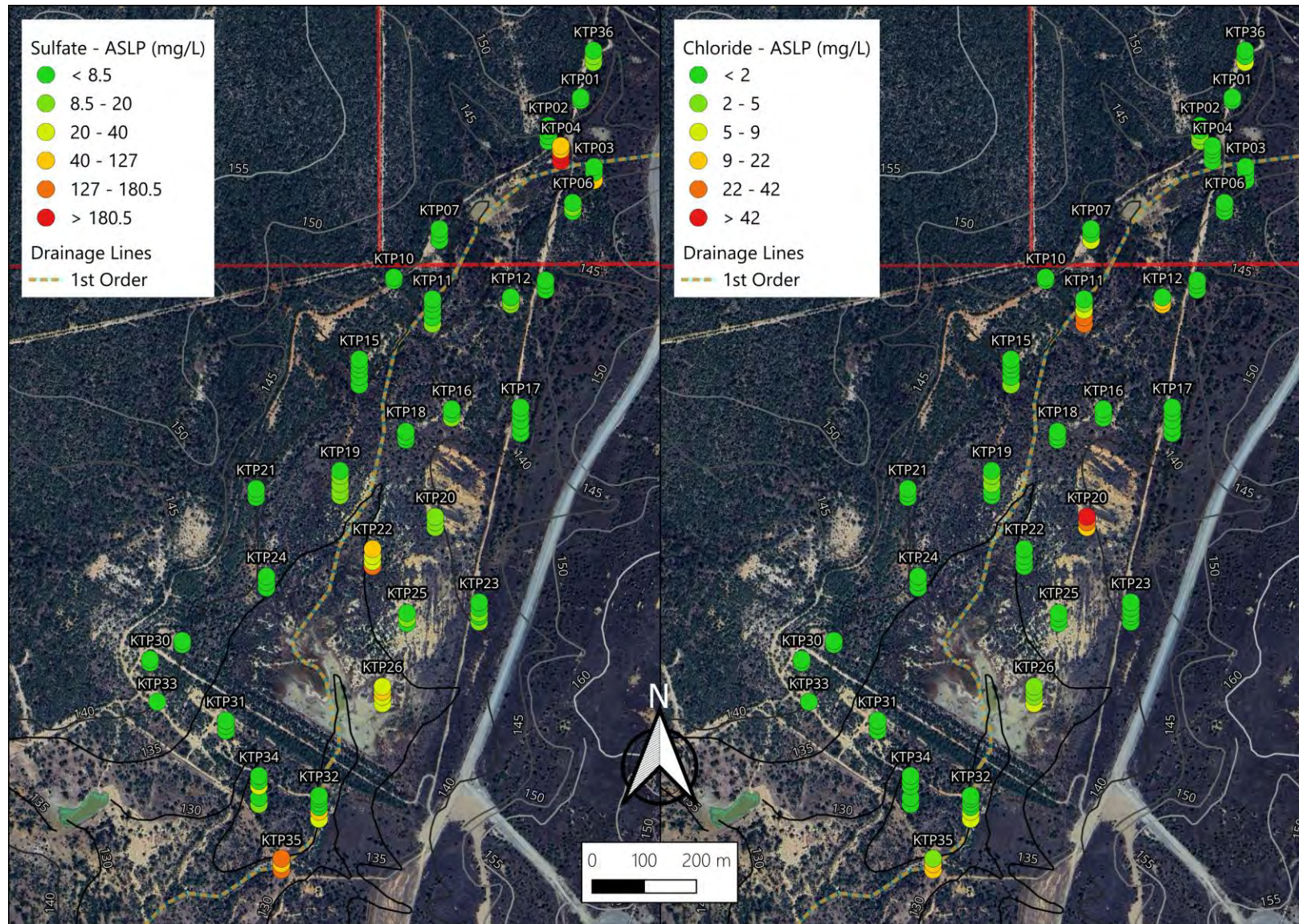


3.2.3.2 SULFATE AND CHLORIDE

ASLP sulfate and chloride concentrations were measured on all 113 samples. Results are shown spatially in Figure 3-8.

- Dissolved sulfate ranged from 1 to 1,540 mg/L with a median of 5 mg/L. Most samples returned low sulfate concentrations.
 - Sulfate concentrations were highest at KTP04-3 (1,540 mg/L) and KTP04-4 (1,520 mg/L), reflecting the high secondary sulfate mineral content of the lime sludge profile.
 - Moderately elevated sulfate (100-300 mg/L) at KTP22-4, KTP35-1 and KTP35-3 indicates localised accumulation of secondary sulfate minerals in the central and southern zones.
- Dissolved chloride was below the LOR at most locations with a median of 1 mg/L.
 - Chloride concentrations above 30 mg/L were confined to KTP11-4, KTP11-5, KTP20-1 and KTP20-2 (up to 102 mg/L), and were not associated with elevated sulfate concentrations.
- Sulfate concentrations above 1,000 mg/L were spatially associated with locations identified as potential sources of acidic leachate, particularly KTP04 in the northern zone.

FIGURE 3-8 DISSOLVED SULFATE AND CHLORIDE CONCENTRATIONS (ASLP)



3.2.3.3 IONIC RATIOS

Ca:Mg and Cl:SO₄ molar ratios were calculated from ASLP leachate results for all 113 samples. These ratios are commonly used to distinguish between different sources of dissolved ions in soil leachate.

Results are shown spatially in Figure 3-9 and summarised below.

Ca:Mg Ratio

Ca:Mg reflects the relative contribution of Ca-bearing minerals such as carbonates and residual lime versus Mg-bearing silicate minerals.

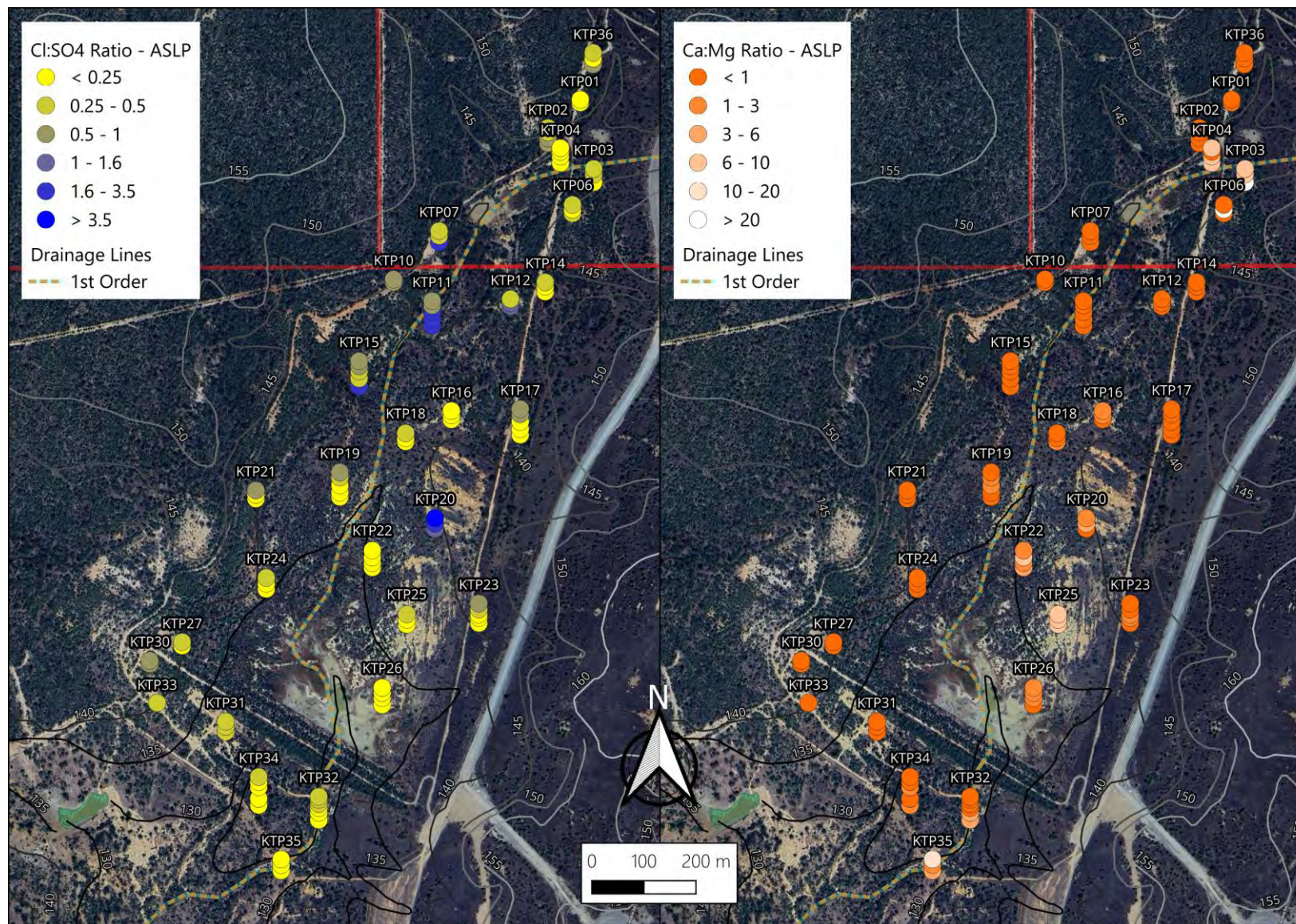
- Ca:Mg ranged from 0.3 to 32.0 with a median of 1.0. Most samples (76%) returned Ca:Mg between 1 and 3, consistent with silicate mineral weathering across the study area.
- Elevated Ca:Mg at KTP03-3 (32) and KTP06-2 (28) reflect Ca enrichment from lime or carbonate dissolution along the northern drainage line, most likely related to residual lime influence downgradient of the former lime dosing facility.
 - KTP04 returned moderate Ca:Mg (7.0 to 7.8), consistent with Ca enrichment from residual lime dissolution at that location.

Cl:SO₄ Ratio

Cl:SO₄ indicates whether sulfate or chloride is the dominant leachable anion, which helps identify whether secondary sulfate minerals from sulfide oxidation are the primary source of soluble salts in the profile.

- Cl:SO₄ ranged from <0.01 to 5.10 with a median of 0.33. Most samples (77%) returned Cl:SO₄ below 1.0, confirming sulfate as the dominant leachable anion across the study area.

FIGURE 3-9 DISSOLVED CALCIUM:MAGNESIUM AND CHLORIDE:SULFATE RATIOS (ASLP)



3.2.4 METALS AND METALLOIDS

3.2.4.1 TOTAL METALS AND METALLOIDS

Total metals and metalloids were determined by acid digestion on all samples and assessed against NEPM HILs for Residential A land use (Table 2-8) for conservatism, as it is the most stringent NEPM HIL category. Results are summarised in Table 3-3 and below.

- Total Al and Fe are the dominant metals across the dataset, reflecting the aluminosilicate and iron oxide mineralogy of the soils and the accumulation of secondary Fe and Al sulfate minerals at KTP04.
 - Concentrations are within the range expected for coal measure-derived materials and do not exceed any applicable HIL.
- Total concentrations of As, Be, Cd, Cr, Cu, Ni, Pb and Zn are below their respective NEPM HIL A thresholds across all samples, indicating no human health concern under the most conservative land use scenario.
- Co exceeds the NEPM HIL A of 100 mg/kg at two samples: KTP04-4 and KTP23-5.
- Mn exceeds the NEPM HIL A of 3,800 mg/kg at one sample, KTP04-4, where total Mn reaches 5,200 mg/kg.
- Ba is elevated relative to the site median at several locations including KTP18, KTP20 and KTP23, reaching up to 1,200 mg/kg.
 - No NEPM HIL is applicable for Ba, and concentrations are assessed against crustal abundance for context.
- Elevated Ba, Co and Ni are also present at KTP18, KTP20 and KTP23 in the central east zone. However, soil colour and lithological descriptions at these locations are broadly consistent with those recorded across the wider site, including locations without elevated Ba, Co and Ni, and do not identify a distinct local lithological unit. According to the sampling pit logs:
 - KTP18 samples were light brown to yellow-orange fine-grained sand from 0-0.4 m bgl, grading to light brown to grey-yellow fine-grained sand from 0.4-0.7 m bgl, underlain by light grey-brown weathered and fractured sandstone at pit base.
 - KTP20 samples were yellow-brown sandy clay from 0-0.35 m bgl, overlying light brown sandy clay to 0.75 m bgl, with grey-white to light brown fine-grained weathered sandstone encountered from 0.75-1.05 m bgl.
 - KTP23 samples were dark brown to yellow-red-brown slightly clayey sand from 0-0.3 m bgl, dark brown to orange fine-grained sand to 0.6 m bgl grading to yellow fine-grained sand to 0.8 m bgl, followed by grey-white to red-brown oxidised fine-grained clayey sand to 1.25 m bgl.

TABLE 3-3 TOTAL METALS AND METALLOIDS SUMMARY (SOIL)

Parameter	Unit	<i>n</i> > LOR	NEPM HIL A	Min	P5	Median	Mean	P95	Max
Al	mg/kg	113	-	1,020	1,360	2,810	3,270	6,950	14,200
As		113	100	0.8	1.1	2.6	3.1	6.8	17
Ba		113	-	11	17	67	126	501	1,200

Parameter	Unit	<i>n</i> > LOR	NEPM HIL A	Min	P5	Median	Mean	P95	Max
Be		81	60	<0.1	<0.1	0.2	0.40	0.9	10
Cd		4	20	<0.1	<0.1	<0.1	0.07	<0.1	1.3
Co		113	100	0.1	0.2	0.9	6.4	12	296
Cr		113	100	1.0	1.4	3.6	4.8	11	20
Cu		113	6,000	0.4	0.8	2.8	3.4	7.7	14
Fe		113	-	2,530	2,910	8,320	11,800	29,500	85,600
Mn		113	3,800	0.2	1.8	15	117	317	5,200
Ni		113	400	0.3	0.5	2.2	8.7	22	262
Pb		113	300	3.3	4.0	8.3	10	22	37
V		113	-	2.0	4.0	8.0	10	22	32
Zn		113	7,400	0.6	0.7	5.5	20	38	869

Note: Exceedances are marked in **bold**.

GAI

This section presents a selection of GAI values calculated as described in Section 2.3.3.4. The full dataset is provided in Appendix D 3.

Enrichment of Co and Ni (Figure 3-10) show near-identical spatial distributions, indicating a common geochemical source. Significant enrichment (i.e. GAI>3) above site background (Q1) is concentrated in the former lime dosing pond in the northern zone and broadly across the central-east zone, with an isolated occurrence in the southern zone. The western margins of the investigation area show little to no enrichment.

Ba and Zn GAI values (Figure 3-11) show distinctly different spatial patterns:

- Ba enrichment is scattered across the investigation area with no strong spatial trend, occurring at isolated locations across all zones.
 - Enrichment generally increases with depth at several locations.
- Zn enrichment is more widespread and spatially coherent, with significant enrichment concentrated in the northern zone around the former lime dosing pond and broadly across the central east and southern zones.
 - Zn enrichment shows no consistent depth trend across the site.

FIGURE 3-10 TOTAL COBALT AND NICKEL GAI VALUES (SOIL)

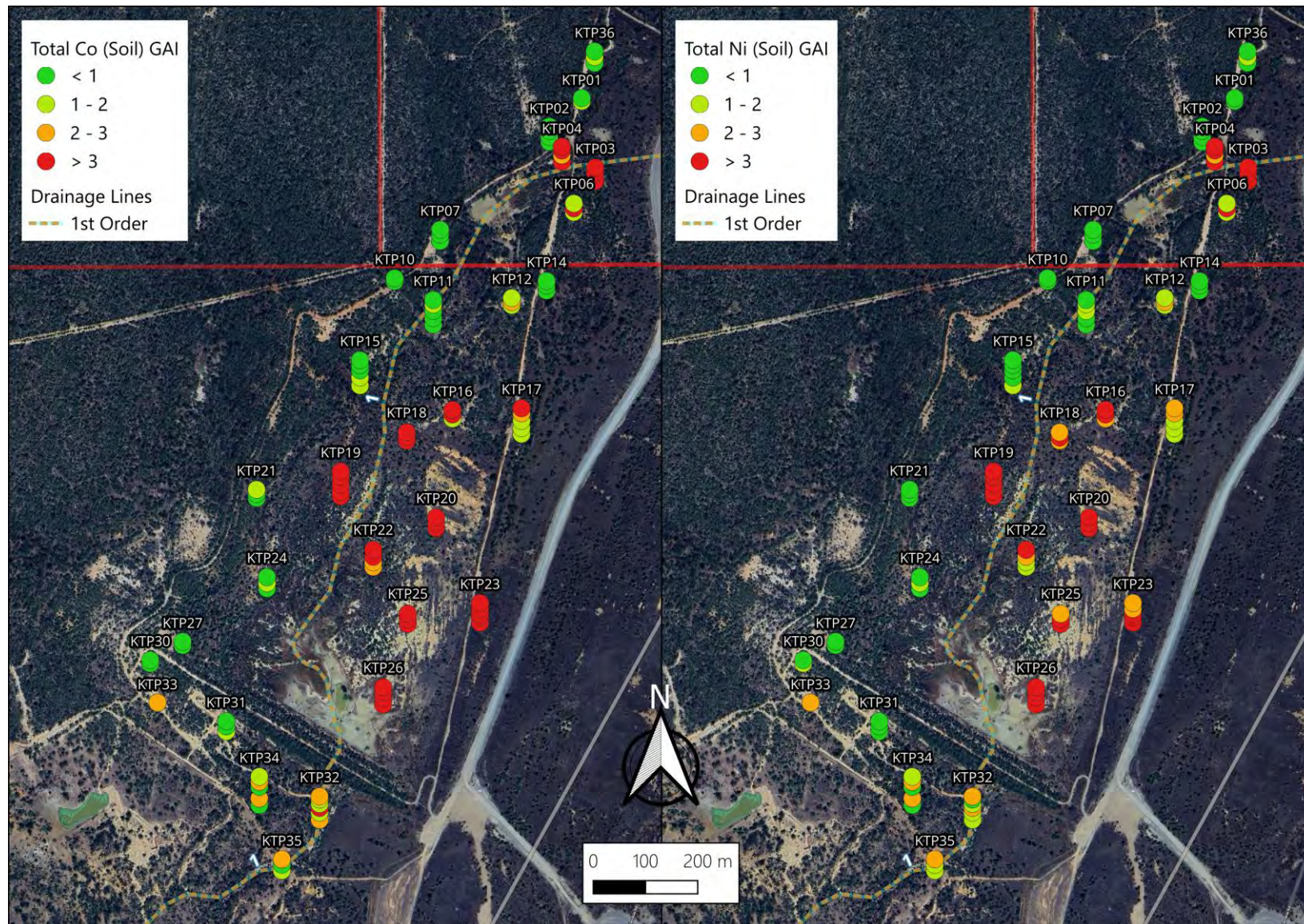
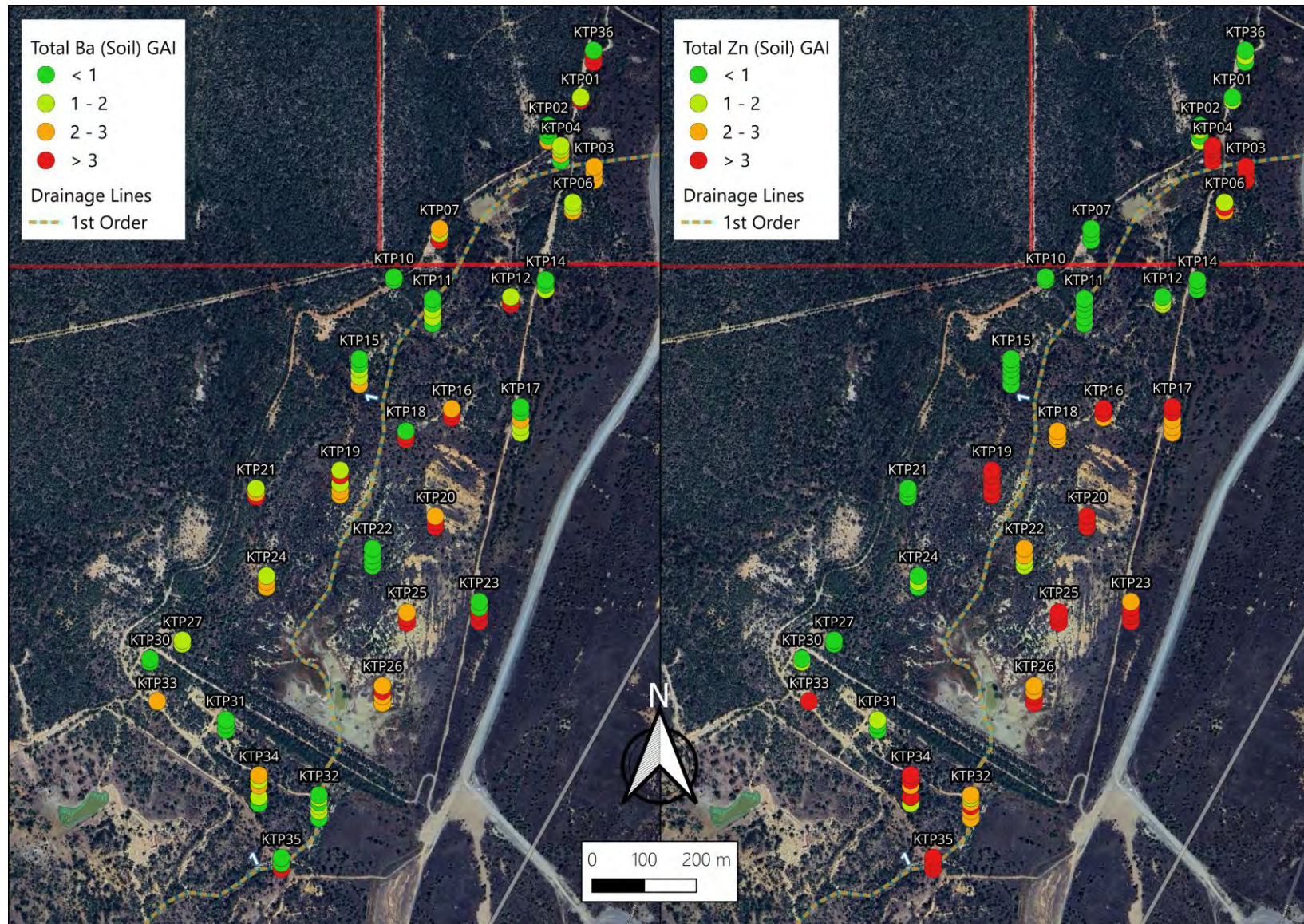


FIGURE 3-11 TOTAL BARIUM AND ZINC GAI VALUES (SOIL)



3.2.4.2 DISSOLVED METALS AND METALLOIDS

Dissolved metals and metalloids were determined from ASLP leachate on all samples and assessed against ANZG (2025) default guideline values at the 95% level of species protection for freshwater systems (Table 2-7). Results are summarised in Table 3-4 and below.

- Dissolved Al and Fe concentrations exceed the adopted guidelines in the highest proportion of samples.
 - Dissolved Al exceeds the guideline at 109 of 113 samples.
 - Dissolved Fe exceeds the guideline at 80 of 113 samples.
 - Spatially, elevated dissolved Al and Fe are concentrated in the central east zone, particularly at KTP16, KTP19 and KTP23,
- Dissolved Zn concentrations exceed the ANZG 95% guideline of 0.008 mg/L in all 113 samples, with a median of 0.102 mg/L.
 - Dissolved Zn is elevated across a wide pH range and over most of the study area with no strong spatial pattern.
- Dissolved Cr, Co, Cu and Pb concentrations exceed their respective ANZG 95% guidelines at 48, 25, 35 and 18 samples respectively.
- Dissolved Ni concentrations exceed the ANZG 95% guideline of 0.011 mg/L in 11 samples, concentrated at KTP18, KTP20 and KTP23, consistent with elevated total Ni at those locations.
- Dissolved Mn concentrations remain below the ANZG 95% guideline of 1.9 mg/L at all 113 samples, reaching a maximum of 1.88 mg/L.
- Dissolved As and B concentrations are below their respective ANZG guidelines in all samples.
- Dissolved metal concentrations generally increase with depth at locations where final ASLP pH declines with depth, most notably at KTP11, KTP22 and KTP34.

TABLE 3-4 DISSOLVED METALS AND METALLOIDS SUMMARY (ASLP)

Parameter	Unit	<i>n</i> above LOR	ANZG 95%	Min	P5	Median	Mean	P95	Max
Al	mg/L	113	0.055 ¹	<0.01	0.12	1.33	2.08	6.86	13.9
As		23	0.013	<0.001	<0.001	<0.001	<0.001	0.002	0.006
B		113	0.94	0.11	0.13	0.26	0.29	0.57	0.86
Cr		63	0.001	<0.001	<0.001	0.001	0.002	0.006	0.015
Co		27	0.0014	<0.001	<0.001	<0.001	0.002	0.007	0.035
Cu		57	0.0014	<0.001	<0.001	0.001	0.002	0.005	0.096
Fe		103	0.28	<0.05	<0.05	0.92	1.79	7.44	14.8
Mn		97	1.9	<0.001	<0.001	0.004	0.041	0.097	1.88
Ni		68	0.011	<0.001	<0.001	0.001	0.004	0.024	0.081
Pb		62	0.0034	<0.001	<0.001	0.001	0.002	0.008	0.014

Parameter	Unit	<i>n</i> above LOR	ANZG 95%	Min	P5	Median	Mean	P95	Max
Zn		113	0.008	<0.005	0.028	0.102	0.145	0.422	0.832

Notes: Exceedances are marked in **bold**.

¹ ANZG (2025) AI guideline at pH>6.5 (95% species protection). The unknown threshold of 0.0008 mg/L applies at pH<6.5; all 113 samples exceed this lower threshold.

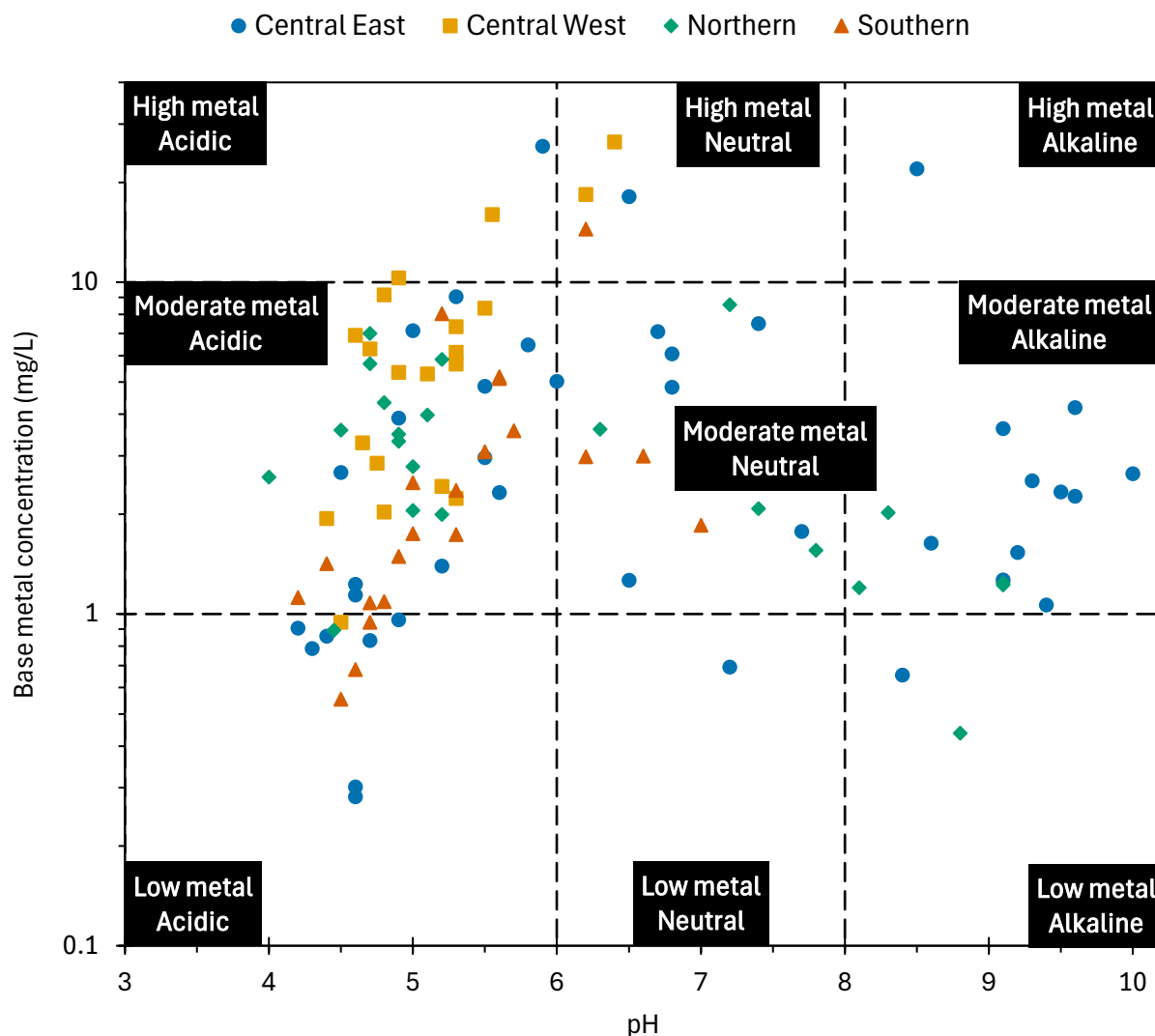
Ficklin Diagram

The Ficklin diagram (Figure 3-12) plots the sum of dissolved Al, Ba, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb and Zn against final ASLP pH.

The conventional base metal sum (Zn, Cu, Pb, Cd, Co and Ni) was extended to include Al, Fe, Mn and Ba given the dominance of these elements in ASLP leachate at this site. Consistent with the ABA and NAG results, this reflects secondary mineral dissolution as the dominant metal-releasing process, rather than ongoing primary sulfide oxidation.

- Most samples return moderate metal acidic character across all four zones (n=52, 50%), consistent with widespread stored acidity and secondary mineral dissolution throughout the study area.
- Three samples plot in the high metal acidic field (n=3, 3%), one in the central east zone and two in the central west zone, reflecting the highest secondary mineral dissolution in the catchment.
- Several samples return low metal acidic character (n=12, 12%), predominantly in the central east zone, with the remainder distributed across the central west, northern and southern zones.
- A proportion of central east and northern zone samples plot in the moderate metal neutral field (n=14, 13%), with a smaller number in the high metal neutral field (n=4, 4%) across the central east, central west and southern zones.
- Alkaline samples are predominantly moderate metal character (15, 14%), confined to the central east and northern zones, consistent with potential carbonate influence at KTP20, KTP23, KTP25 and KTP26.
 - One sample plot in the high metal alkaline field (1, 1%) in the central east zone.
 - Two samples return low metal neutral or alkaline character (2, 2%).

FIGURE 3-12 FICKLIN DIAGRAM OF DISSOLVED BASE METAL CONTENT (ASLP)



3.2.4.3 COMPARISON BETWEEN TOTAL AND DISSOLVED CONCENTRATIONS

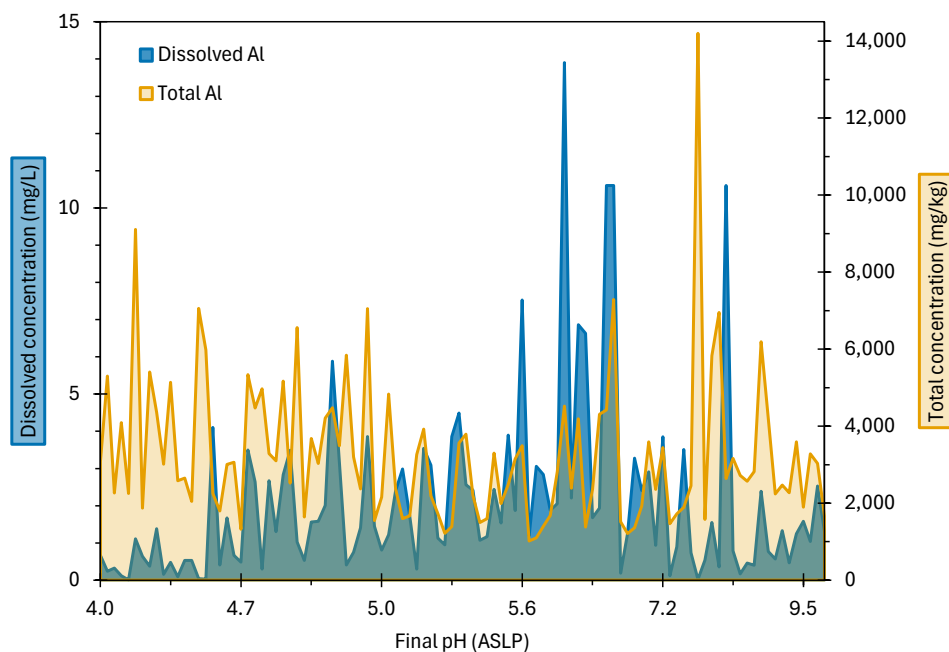
Total and dissolved concentrations of Al, Fe, Mn, Zn, Co and Ni were determined for all 113 samples by total acid digest and ASLP leachate analysis respectively. Results are compared as a function of final ASLP pH to assess the degree of metal mobility versus storage in sparingly soluble secondary mineral phases and to identify metals with the potential for further future dissolution.

Aluminium

Total Al concentrations were relatively uniform across the full pH range. Dissolved Al peaked at pH 5.6 to 6.6, reaching up to 13.9 mg/L at KTP16-2; total Al concentrations were not elevated. This confirms that dissolved Al is controlled by mineral solubility rather than total availability, consistent with alunite dissolution above pH 5.5 (MEND, 2009).

The highest total Al concentrations (at KTP04-4; 14,200 mg/kg) alongside a near-zero dissolved Al concentration (0.02 mg/L) indicates a large reservoir locked in sparingly soluble secondary minerals. Results are shown in Figure 3-13.

FIGURE 3-13 TOTAL (SOIL) AND DISSOLVED (ASLP) ALUMINIUM AS A FUNCTION OF pH



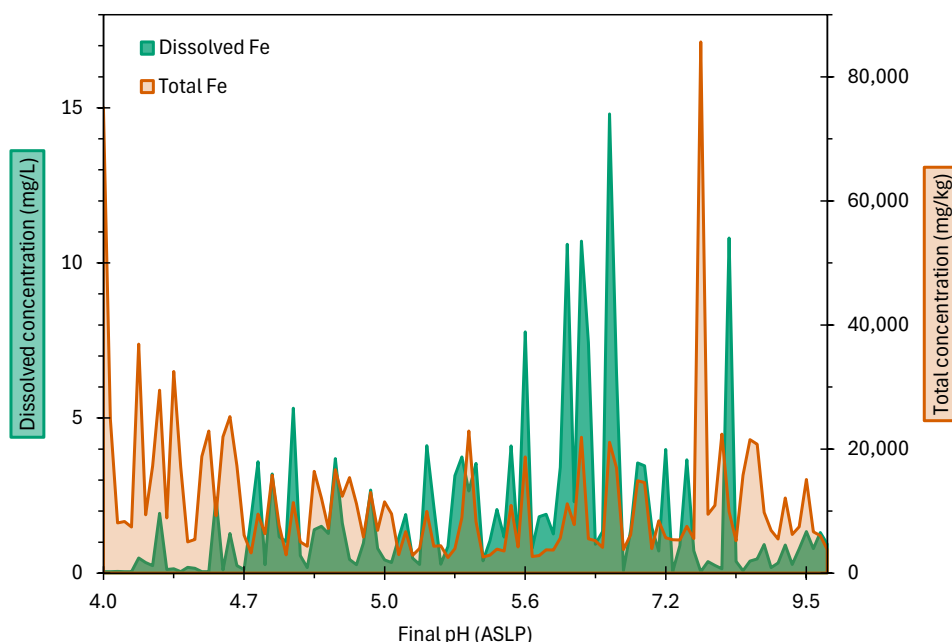
Iron

Total Fe was dominated by high values at KTP04, reaching 85,600 mg/kg at KTP04-4 and 75,100 mg/kg at KTP04-3.

Dissolved Fe tracked dissolved Al closely, peaking at up to 14.8 mg/L at KTP19-2 at pH 6.4, consistent with co-dissolution of Fe and Al from jarosite and alunite above their respective minimum dissolution pH values (MEND, 2009).

Both KTP04-3 and KTP04-4 returned near-zero dissolved Fe concentrations despite the total Fe concentrations. Results are shown in Figure 3-14.

FIGURE 3-14 TOTAL (SOIL) AND DISSOLVED (ASLP) IRON AS A FUNCTION OF pH



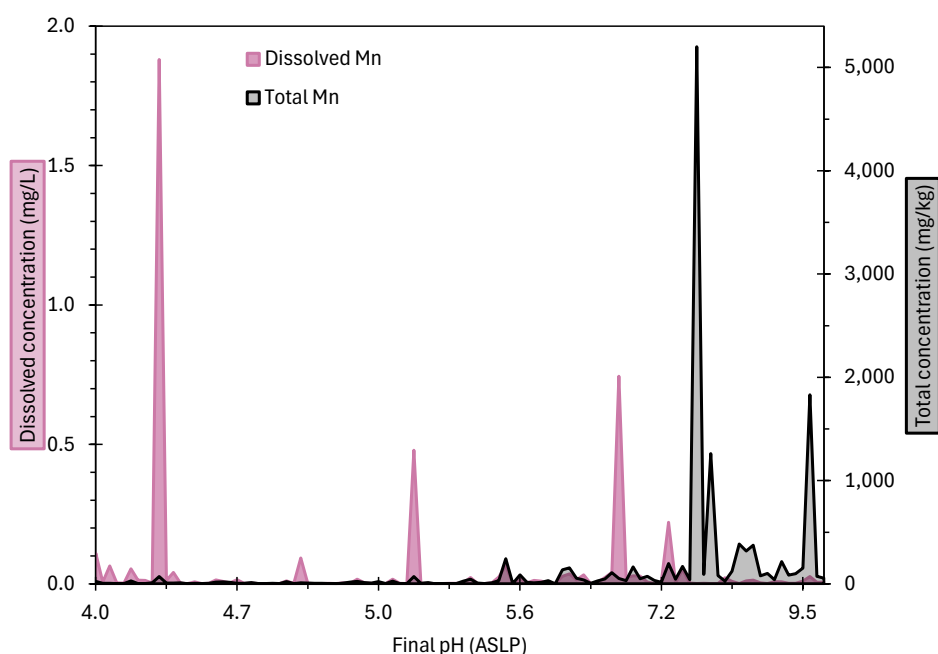
Manganese

The Mn dataset shown in Figure 3-15 shows a distinctly different pattern from Al and Fe.

Dissolved Mn concentrations were highest under strongly acidic conditions at pH 4 to 4.5, reaching 1.88 mg/L at KTP22-4.

Total Mn was near zero across the acidic range but increased to 5,200 mg/kg at KTP04-4 at near-neutral pH, with near-zero dissolved Mn (0.001 mg/L).

FIGURE 3-15 TOTAL (SOIL) AND DISSOLVED (ASLP) MANGANESE AS A FUNCTION OF pH



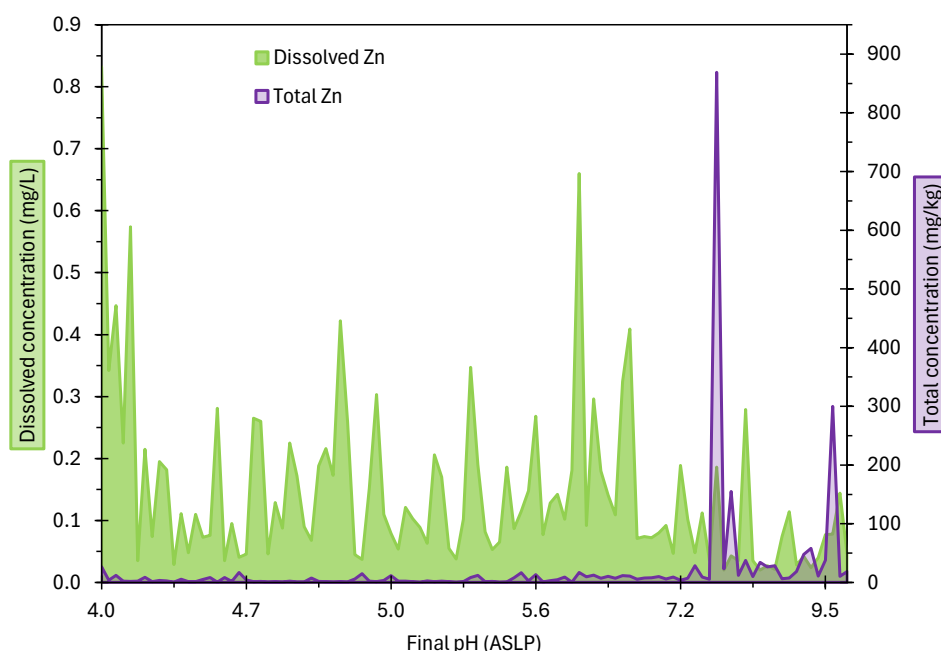
Zinc

Dissolved Zn concentrations were elevated compared to ANZG guidelines (i.e. 8 µg/L for 95% species protection) across most of the pH range, reaching up to 0.832 mg/L at KTP04-3, declining only above pH 8, consistent with the solid ZnO stability under alkaline conditions (Krężel, 2016).

Total Zn was low across most of the site despite widespread dissolved Zn, with the highest values at KTP04-4 (869 mg/kg, pH 7.8) and KTP23-5 (300 mg/kg, pH 9.6), associated with near-neutral to alkaline pH.

Results are shown in Figure 3-16.

FIGURE 3-16 TOTAL (SOIL) AND DISSOLVED (ASLP) ZINC AS A FUNCTION OF pH



3.2.5 SULFUR CONTENT AND ACTUAL ACIDITY

Sulfur fractionation and actual acidity testing were performed alongside total sulfur analysis on the soil samples. Results are reported as total S, CRS, TAA, net acid soluble sulfur, and KCl and HCl extractable sulfur. Results are summarised in Table 3-5.

- Total S ranged from 0.01% to 3.33% across all samples, with a median of 0.04% S. The highest values occurred at KTP04, consistent with the high sulfate content of the residual lime sludge at that location. Away from KTP04, total S was very low at most locations, with isolated elevated values at KTP02-4 and KTP34-3.
- CRS was very low across all samples, ranging from 0.006% to 0.021% S with a median of 0.012% S. The consistently near-minimum CRS values indicate that sulfide oxidation is largely complete across the study area, with negligible residual sulfide remaining.
- TAA, shown in Figure 3-17, was the dominant acidity parameter across the dataset, with results ranging from 3 to 123 mol H⁺/t and a median of 31 mol H⁺/t. Of the 113 samples, 32 returned TAA below the LOR (<2 mol H⁺/t).
 - The highest TAA values were recorded in the central zone and at KTP02-4, indicating significant stored acidity at those locations.

- Net acid soluble sulfur, KCl extractable sulfur and HCl extractable sulfur were elevated almost exclusively at KTP04-3.

TABLE 3-5 SUMMARY OF SULFUR RESULTS

Parameter	Unit	<i>n</i> above LOR	Min	P5	Median	Mean	P95	Max
Total S	%	113	0.010	0.020	0.040	0.123	0.240	3.33
CRS		113	0.006	0.007	0.012	0.012	0.019	0.021
Net acid soluble S		13	0.020	0.020	0.030	0.140	0.140	2.20
KCl extractable S		2	0.020	0.020	0.020	0.121	0.050	2.10
HCl extractable S		9	0.020	0.020	0.020	0.179	0.110	3.20
TAA	<i>mol H⁺/t</i>	81	2.0	2.0	15	29	91	123

TABLE 3-6 SUMMARY OF SULFUR RESULTS BY ZONE

Parameter	Unit	Zone	<i>n</i> > <i>LOR</i>	Min	P5	Median	Mean	P95	Max
Total S	%	Northern	23	0.020	0.020	0.060	0.407	3.2	3.33
		Central West	25	0.010	0.020	0.030	0.038	0.060	0.150
		Central East	42	0.010	0.020	0.030	0.035	0.060	0.090
		Southern	23	0.020	0.020	0.070	0.094	0.220	0.390
CRS		Northern	23	0.007	0.007	0.013	0.013	0.020	0.021
		Central West	25	0.006	0.007	0.014	0.013	0.021	0.021
		Central East	42	0.006	0.007	0.011	0.011	0.017	0.018
		Southern	23	0.007	0.007	0.011	0.012	0.017	0.021
Net acid soluble S		Northern	4	0.020	0.020	0.060	0.410	2.2	2.20
		Central West	4	0.020	0.020	0.030	0.027	0.040	0.040
		Central East	4	0.020	0.020	0.020	0.024	0.040	0.040
		Southern	1	0.130	0.130	0.130	0.130	0.130	0.130
KCl extractable S		Northern	1	0.020	0.020	0.020	0.368	2.1	2.10
		Central West	0	0.020	0.020	0.020	0.020	0.020	0.020
		Central East	0	0.020	0.020	0.020	0.020	0.020	0.020
		Southern	1	0.050	0.050	0.050	0.050	0.050	0.050
HCl extractable S		Northern	4	0.020	0.020	0.030	0.560	3.2	3.20
		Central West	1	0.020	0.020	0.020	0.020	0.020	0.020
		Central East	3	0.020	0.020	0.020	0.021	0.030	0.030
		Southern	1	0.110	0.110	0.110	0.110	0.110	0.110
TAA	<i>mol H⁺/t</i>	Northern	15	2.0	2.0	17	33	91	110
		Central West	24	2.0	8.0	37	45	97	123

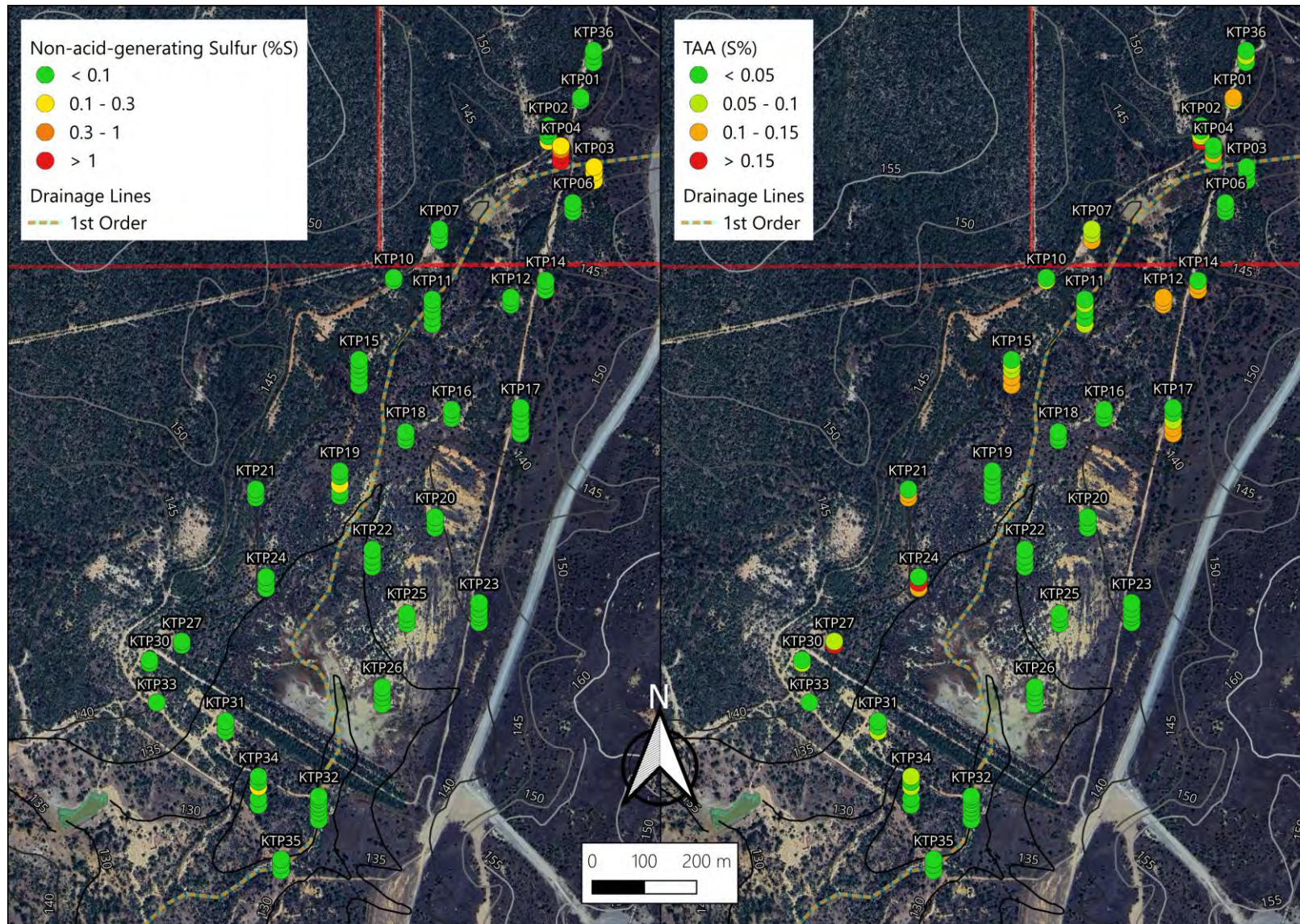
Parameter	Unit	Zone	<i>n</i> > <i>LOR</i>	Min	P5	Median	Mean	P95	Max
		Central East	22	2.0	2.0	4.0	22	89	89
		Southern	20	2.0	2.0	15	22	58	58

3.2.5.1 NON-ACID-GENERATING SULFUR AND TITRATABLE ACTUAL ACIDITY

Non-acid-generating S and TAA (%S) were derived to characterise the relative contribution of acid-generating and non-acid-generating sulfur fractions across the study area. Results are shown spatially in Figure 3-17 (note that the classification limits differ between the two maps).

- TAA values are consistently lower than total S because TAA does not fully detect acidity stored in sparingly soluble secondary sulfate minerals such as jarosite and gypsum. In addition, non-acidic sulfur in organic matter are not detected by TAA.
 - Total S includes sulfur held in non-acid-generating minerals such as gypsum, anhydrite and alunite, as well as organic S associated with coal-derived material and soil organic matter.
- Non-acid-generating S is elevated in the northern zone, particularly at KTP04 and KTP03, potentially reflecting gypsum and secondary sulfate mineral accumulation associated with the former lime dosing infrastructure. Across the central and southern zones, non-acid-generating S is negligible.
- TAA shows a contrasting spatial pattern, with elevated values concentrated in the central west and central east zones rather than the northern zone. This indicates that stored acidity is more widely distributed across the catchment than non-acid-generating sulfur and is not confined to the former lime dosing infrastructure footprint.
- Both TAA (%S) and non-acid-generating S show depth-dependent trends at several locations:
 - At KTP12, KTP15, KTP17, KTP21 and KTP24, TAA increases with depth while total S remains near constant.
 - At KTP04, non-acid-generating S increases sharply with depth.

FIGURE 3-17 NON-ACID-GENERATING SULFUR AND TITRATABLE ACTUAL ACIDITY SULFUR



3.2.6 MINERALOGY BY XRD

A selection of KTP soil samples were analysed by the X-ray diffraction (XRD) technique to obtain their mineral content, with the results presented in Figure 3-18 and Table 3-7. The complete set of results are provided in Appendix D 4.

The results show variation in mineral assemblages across the KTP area, with clear differences between samples collected within the former lime dosing pond, those located immediately upstream and downstream, and more distal sites. While quartz remains the dominant mineral phase at all locations, the relative abundances of clay and sulfate minerals vary spatially and are closely related to sampling location and distance from the former lime dosing pond footprint.

Key results and spatial trends for each zone are summarised below.

- Northern zone:
 - Former lime dosing pond footprint (KTP04-1, KTP04-3, KTP04-4) contains the highest abundances of sulfate minerals across the dataset, with gypsum present at elevated concentrations (up to 29 wt% in KTP04-4). Jarosite is most prominent in this area, reaching up to 6.0 wt% in KTP04-3. Calcite is largely absent or present only at trace levels.
 - Upstream and immediately adjacent to the former lime dosing pond (KTP02-4, KTP03-2) has low sulfate mineral content (jarosite and gypsum). Alunite is detected in KTP03-2 (0.82 wt%) and there is no significant carbonate mineralisation.
 - In samples downstream of the former lime dosing pond (KTP06-2, KTP07-3), gypsum and jarosite persist but at lower abundances compared to samples within the former pond footprint. Carbonate minerals are absent or present only at trace levels.
- Central east zone (KTP20-2):
 - Sulfate minerals absent and calcite detected at 2.4 wt%.
- Central west zone (KTP19-2 and KTP24-2):
 - Iron oxides (goethite and hematite) present at low but consistent abundances. Jarosite present in KTP24-2 at 1.3 wt%.
 - Gypsum and calcite not detected.
- Southern zone (KTP34-3 and KTP35-3):
 - Jarosite detected in KTP35-3; gypsum absent at both locations. Iron oxides present at both locations.
 - Carbonate minerals not detected.

FIGURE 3-18 XRD RESULTS

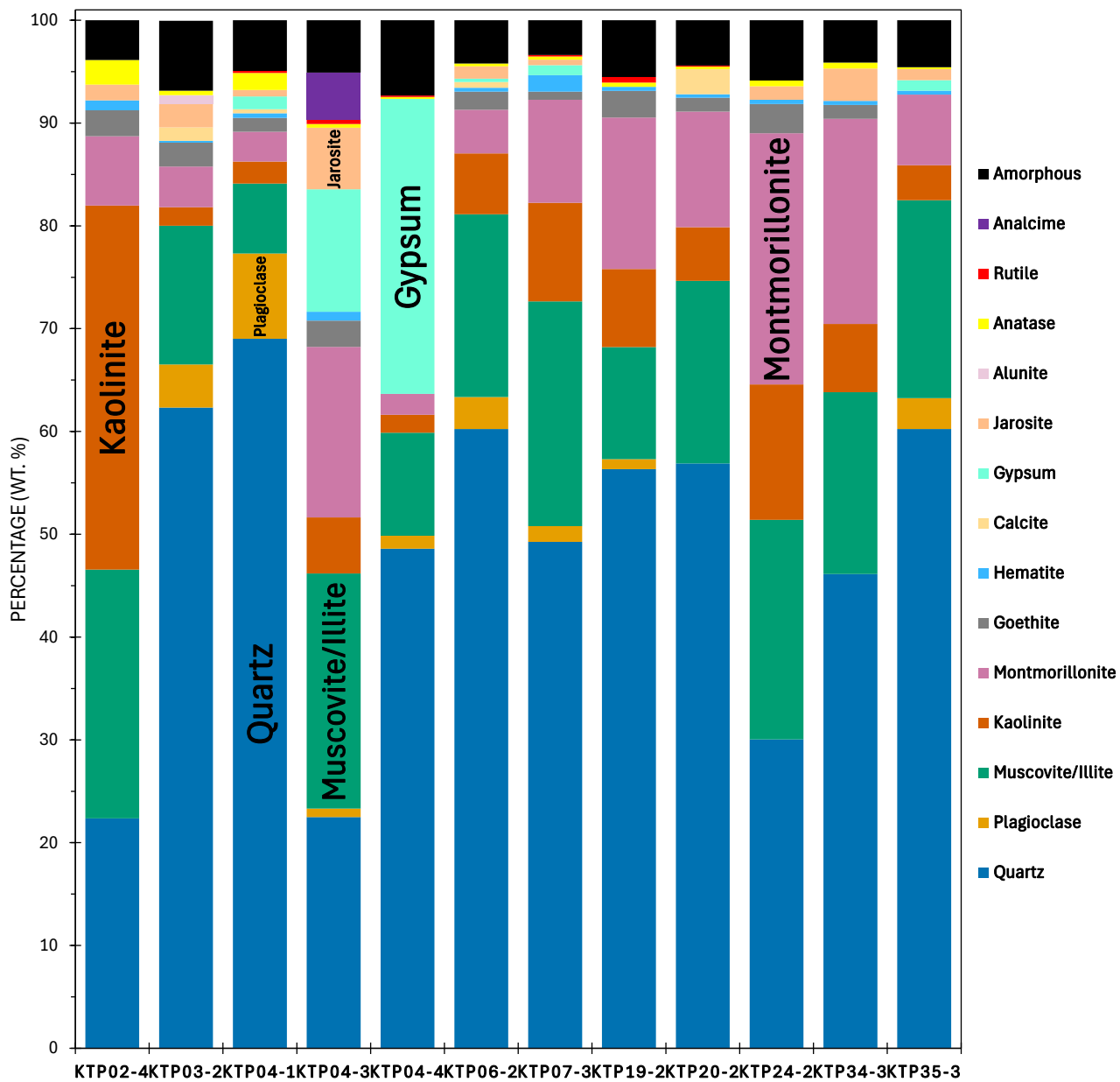


TABLE 3-7 XRD RESULTS (% ABUNDANCE)

Mineral Phase	Chemical Formula	Northern							Central West		Central East	Southern	
		KTP02-4	KTP03-2	KTP04-1	KTP04-3	KTP04-4	KTP06-2	KTP07-3	KTP19-2	KTP24-2	KTP20-2	KTP34-3	KTP35-3
		Highest total S outside KTP04 60 m north of lime dosing pond	80 m east and upstream the lime dosing pond	Surface of former lime dosing pond	Contains residual phases at depth within lime dosing pond		Drainage line upstream to the former lime dosing pond	70 m downstream lime dosing pond	500 m downstream the lime dosing pond	Highest TAA outside KTP04	High ANC in central east zone	Near embankment but not along drainage line	Largest distance (1.2 km) from lime dosing pond
Quartz	SiO ₂	22	62	69	22	49	60	49	56	30	57	46	60
Plagioclase	NaAlSi ₃ O ₈ CaAl ₂ Si ₂ O ₈		4.2	8.3	0.83	1.3	3.1	1.5	0.97				3.0
Muscovite/Illite	(K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀ [(OH) ₂ ,(H ₂ O)]	24	13	6.8	23	10	18	22	11	21	18	18	19
Kaolinite	Al ₂ Si ₂ O ₅ (OH) ₄	35	1.8	2.1	5.4	1.8	5.9	9.6	7.6	13	5.2	6.6	3.4
Montmorillonite	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ ×nH ₂ O	6.8	4.0	2.9	17	2.0	4.3	10	15	24	11	20	6.9
Goethite	FeO(OH)	2.5	2.3	1.4	2.6		1.8	0.79	2.6	2.8	1.3	1.3	
Hematite	Fe ₂ O ₃	0.96	0.19	0.44	0.87		0.38	1.6	0.39	0.41	0.36	0.41	0.39
Calcite	CaCO ₃		1.3	0.41			0.55				2.4		
Gypsum	CaSO ₄ (H ₂ O)			1.2	12	29	0.34	0.96					1.0
Jarosite	KFe ₃ (SO ₄) ₂ (OH) ₆	1.5	2.3	0.62	6.0		1.2	0.53		1.3		3.1	1.1
Alunite	KAl ₃ (SO ₄) ₂ (OH) ₆		0.82										
Anatase	TiO ₂	2.4	0.44	1.7	0.36	0.18	0.27	0.32	0.42	0.56	0.24	0.57	0.18
Rutile	TiO ₂			0.21	0.42	0.13		0.14	0.53		0.11		
Analcime	NaAlSi ₂ O ₆ ×H ₂ O				4.6								
Amorphous	-	3.9	6.8	4.9	5.1	7.3	4.2	3.4	5.5	5.9	4.4	4.1	4.6

3.3 SUMMARY OF RESULTS

Field and laboratory results are summarised below. The key findings from each analytical suite are presented in Table 3-8. Further discussion and interpretation of results are provided in ERM (2026).

- The investigation area is characterised by widespread stored acidity in secondary sulfate minerals. This is supported by elevated TAA, high net acidity and locally elevated EC and sulfate in ASLP leachates, particularly at lime-affected locations.
- Residual sulfide is negligible across all samples, and the acidity budget is dominated by TAA rather than CRS. This indicates that acidity is primarily associated with secondary sulfate mineral phases rather than unoxidised sulfides, and that soils unaffected by historical lime dosing activities have low AMD-generating potential.
- The former lime dosing facility footprint at KTP04 represents the most significant localised accumulation of secondary sulfate minerals. This is reflected by very high EC, elevated sulfate and calcium in ASLP leachate, high total sulfur and the highest net acidity values recorded across the study area.
- XRD results show secondary sulfate minerals concentrated within and immediately downstream of the former lime dosing pond footprint at KTP04, with highest gypsum content recorded at KTP04-3 and KTP04-4, and highest jarosite content recorded at KTP03-2, KTP04-3 and KTP34-3. Carbonate minerals are limited to calcite at KTP03-2, KTP04-1, KTP06-2 and KTP20-2. Iron oxides occur primarily as goethite and hematite across most samples, with highest goethite contents at KTP24-2 and KTP19-2 and the highest hematite content at KTP07-3.
- Elevated total metal concentrations are predominantly associated with acidic conditions and increased depth, with exceedances of NEPM HIL-A for total metals (notably Co and Mn) confined to a small number of deeper samples at KTP04 and KTP23. Total-metal enrichment factors (GAI) using Q1 concentrations as reference values indicate widespread but variable enrichment in Mn, Co, Zn and Ni, with extreme enrichments restricted to isolated locations.
- Dissolved metal concentrations in ASLP leachates commonly exceed ANZG freshwater guideline values across all zones, particularly for Zn, Al and Fe, consistent with acidic to moderately acidic leachate conditions. Ficklin diagram classifications based on ASLP-extractable dissolved metals indicate predominantly moderate-metal acidic character, with near-neutral high-metal character confined to central east and central west locations.
- Major ion chemistry indicates a strong lime influence along the northern drainage line, evidenced by elevated dissolved calcium, high Ca:Mg ratios and locally elevated sulfate in ASLP leachates. In contrast, alkaline conditions observed in the central east and southern zones are spatially discrete and, based on associated chemistry, are unlikely to reflect lime influence.

TABLE 3-8 SUMMARY OF ASSESSMENT RESULTS BY PARAMETER, DEPTH AND ZONE

Parameter	Key Findings	Depth Trends	Zone(s)
<i>Field data</i>			
Field paste pH	- Predominantly acidic to near neutral - Alkaline at KTP23, KTP25 and KTP26	- Decreases with depth at multiple locations - Increases with depth at KTP23, KTP25 and KTP26	- Northern - Central East - Southern
Field paste EC	- Very low at most locations - Elevated at KTP04 and KTP20	Increases with depth at KTP11, KTP17, KTP22, KTP34 and KTP35	- Northern - Central East
<i>pH, EC and ABA</i>			
pH (ASLP final)	- Predominantly acidic - Alkaline confined to KTP20, KTP23, KTP25 and KTP26	- Decreases with depth at central east and southern locations - Increases with depth at lime-influenced locations	All zones
EC (ASLP)	- Very low to low across most samples (70%) - Extreme EC confined to KTP04-3 and KTP04-4 - Consistent with high secondary sulfate mineral content of the residual lime sludge - Elevated EC also at KTP20, KTP35 and KTP22-4	Increases with depth at KTP04, KTP11, KTP22 and KTP35	- Northern - Central East - Southern
ABA classification	- Most (52%) samples UC (PAF) - Acid-forming potential is stored in secondary sulfate minerals rather than sulfides 44% of samples are NAF 3% of samples are PAF - Confined to KTP01-1, KTP04-3 and KTP31-1 - One sample UC (NAF).	No consistent trend	All zones
ANC	- Very low across most samples - Elevated only at lime-influenced locations	- No consistent trend - Elevated at depth at KTP04	- Northern - Central East
Net acidity	- Exceeds 18 mol H⁺/kg at most locations - Highest at KTP04	Increases with depth at multiple locations	- Northern - Central East - Southern
CRS	- Negligible across all samples - Residual sulfide not a significant contributor to the acidity	No trend	All zones
TAA	- Dominant acidity parameter - Highest in central west and central east zones	Increases with depth at central west and central east locations	- Central West - Central East

Parameter	Key Findings	Depth Trends	Zone(s)
Total S	- Variable - Highest at KTP04 reflecting secondary sulfate mineral accumulation	Increases with depth at KTP04	Northern
<i>Major Ions</i>			
Dissolved Ca (ASLP)	- Elevated at KTP04, KTP03 and KTP06; low elsewhere - Consistent with lime-derived Ca migrating along northern drainage line	No consistent trend	Northern
Dissolved SO ₄ (ASLP)	- Elevated at KTP04 and KTP35 - Low at most other locations	Increases with depth at KTP04 and KTP35	- Northern - Southern
Ca:Mg ratio	- Elevated along northern drainage line - Consistent with lime-derived Ca	No consistent trend	Northern
Cl:SO ₄ ratio	- Sulfate dominant across most samples - Elevated Cl at KTP11 and KTP20	Cl:SO₄ increases with depth at KTP11	Central East
<i>Metals and Metalloids</i>			
NEPM HIL exceedances (total metals)	- Co and Mn exceed HIL A at KTP04 - Co exceeds HIL A at KTP23	Exceedances concentrated at depth	- Northern - Central East
GAI (total metals)	- Significant enrichment in Mn, Co, Zn and Ni across the study area. - S and Be show significant enrichment at KTP04. - Extreme enrichment in Mn, Co and Zn at isolated locations. - Ba, Fe, As, Al and Cr show minor to moderate enrichment at isolated locations.	Enrichment generally increases with depth	All zones
ANZG exceedances (ASLP dissolved metals)	- Zn exceeds guideline across all samples - Al, Fe, Cr, Cu, Co, Pb and Ni also widely exceeded	No consistent trend	All zones
Ficklin diagram (ASLP dissolved metals)	- Most samples (50%) return moderate metal acidic character across all four zones - Near-neutral high-metal character present in central east and central west zones 3 samples return high metal acidic character - Low metal acidic character present across all zones	- pH decreases and metal concentrations increase with depth across most zones - pH increases with depth at lime-influenced locations	- Central East - Central West

Parameter	Key Findings	Depth Trends	Zone(s)
<i>Mineralogy by XRD</i>			
Clay minerals	- Muscovite/illite, kaolinite and montmorillonite present across all locations - Montmorillonite locally elevated at southern and former pond locations	- Variable with depth - No consistent site-wide depth trend	- Norther - Central East - Central West - Southern
Sulfate minerals	- Elevated gypsum and jarosite at KTP04 - Present at lower levels downstream and at isolated distal locations - Alunite detected only at KTP03-2	Gypsum and jarosite increase with depth at KTP04	- Northern - Southern
Carbonates	Calcite scarce and detected only at isolated lime-influenced samples	No consistent trend	Northern
Iron oxides	- Goethite and hematite are detected in nearly all analysed samples across all zones - Largest goethite content in the central west samples (KTP24-2 and KTP19-2) - Largest hematite content at KTP07-3 (~1.6 wt%)	No consistent trend	All zones
Minor/amorphous phases	- Anatase and rutile present at trace levels - Amorphous content consistent across samples	No consistent trend	All zones

4. STATEMENT OF LIMITATIONS

The limitations outlined below should be considered when interpreting the findings, conclusions and recommendations presented in this report.

- This report was prepared using currently available information provided by the client, supplemented by test pitting and field investigations conducted in the Kerale area during March 2026.
- The findings and conclusions are based on site conditions observed at the time of investigation and on laboratory analyses completed for the collected samples.
- The assessment is limited by the number, depth and spatial distribution of test pits undertaken and may not represent all subsurface conditions across the wider investigation area.
- Subsurface conditions may vary between sampling locations and with depth, and materials not encountered during the investigation may be present elsewhere within the site.
- Laboratory results are subject to inherent uncertainties associated with sampling, handling, analytical methods and detection limits.
 - Reported values reflect laboratory-reported precision. Given the factual nature of this report, results have not been rounded beyond the laboratory reporting resolution.
- Comparisons with guideline values are provided for screening and interpretive purposes only and do not constitute a formal risk assessment unless explicitly stated.
- Changes in site conditions, regulatory frameworks or the availability of additional information after completion of this report may affect the conclusions and recommendations presented.

5. REFERENCES

- Black, S., Allen, D., North, M., Price, B., Rothnie, N., & Sharma, R. (2018). Applicability of the chromium reducible sulfur test for acid metalliferous drainage prediction in hard rock mining. *Applied geochemistry*, 91, 45-53.
- Carbonell, A. A., Pulido, R., DeLaune, R. D., & Patrick Jr, W. H. (1999). Soluble barium in barite and phosphogypsum amended Mississippi River alluvial sediment (Vol. 28, No. 1, pp. 316-321). American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.
- Dear, S. E., Moore, N. G., Dobos, S. K., Watling, K. M., & Ahern, C. R. (2024). Soil management guidelines. Queensland acid sulfate soil technical manual.
- ERM. (2026). Geochemical Investigation of Kerala Area Interpretation Report. Prepared by ERM Pty Limited for Collinsville Open Cut. 07 May.
- Ficklin, W. H., Plumlee, G. S., Smith, K. S., & McHugh, J. B. (1992). Geochemical classification of mine drainages and natural drainages in mineralized areas. *Proceedings of the 7th International Symposium on Water-Rock Interaction*, 381-384.
- Fitzpatrick, R., Powell, B., & Marvanek, S. (2008). Atlas of Australian Acid Sulfate Soils (NatCASS). CSIRO. <https://data.csiro.au/collection/csiro:6181>
- Förstner, U., Ahlf, W., & Calmano, W. (1993). Sediment quality objectives and criteria development in Germany. *Water Science and Technology*, 28(8-9), 307-316.
- Hazelton, P., & Murphy, B. (2025). Interpreting soil test results: What do all the numbers mean? (4th edn.). CSIRO Publishing, Melbourne.
- INAP. (2014). The global acid rock drainage guide (GARD Guide). International Network for Acid Prevention. <https://gardguide.com>
- KCB. (2025). EA Amendment for NUMAs around Pit 11 and Pit 7 EA Groundwater Report Draft. Prepared by KCB Australia Pty Ltd. 03 December.
- Kreżel, A., & Maret, W. (2016). The biological inorganic chemistry of zinc ions. *Archives of biochemistry and biophysics*, 611, 3-19.
- Müller, G. (1969). Index of geoaccumulation in sediments of the Rhine River. *GeoJournal*, 2(3), 108-118.
- Price, W. A. (2009). Prediction manual for drainage chemistry from sulphidic geologic materials (MEND Report 1.20.1). CANMET Mining and Mineral Sciences Laboratories, Mine Environment Neutral Drainage Program.
- Yi, C. P., & Majid, S. R. (2018). The electrochemical performance of deposited manganese oxide-based film as electrode material for electrochemical capacitor application. *Semiconductors-Growth and Characterization*, 142-153.



APPENDIX D 1 FIELD SHEETS



TABLE D1-1 FIELD PASTE pH AND EC STATISTICAL RESULTS BY LOCATION

Sampling Location	n	pH			EC		
		Range	Median	Mean	Range	Median	Mean
Unit	-	-			$\mu\text{S}/\text{cm}$		
KTP01	2	4.75-5.36	5.05	5.06	24.0-33.0	28.5	28.5
KTP02	4	4.26-4.90	4.54	4.56	24.0-57.0	33	36.8
KTP03	3	6.99-7.86	7.21	7.35	38.0-420	49	169
KTP04	4	4.56-7.62	6.86	6.48	496-2,770	1,500	1,560
KTP06	3	5.73-6.76	6.30	6.26	16.0-173	45	78
KTP07	3	4.60-5.61	5.55	5.25	12.0-109	15	45.3
KTP10	2	5.75-6.25	6.00	6.00	8.50-13.0	10.8	10.8
KTP11	5	4.32-6.32	4.46	4.93	7.20-575	37	220
KTP12	3	4.38-4.98	4.40	4.59	33.0-390	319	247
KTP14	3	4.92-5.72	5.29	5.31	22.0-39.0	30	30.3
KTP15	5	4.86-5.40	5.28	5.15	7.70-54.0	19	22.5
KTP16	3	6.87-6.98	6.92	6.92	11.0-40.0	13	21.3
KTP17	5	4.84-6.48	5.31	5.64	10.0-53.0	44	33
KTP18	3	5.81-6.68	6.27	6.25	11.0-61.0	11	27.7
KTP19	5	5.47-6.81	6.26	6.13	9.20-139	98	85.6
KTP20	3	6.58-8.91	7.73	7.74	739-1,840	1,140	1,240
KTP21	3	5.32-5.65	5.37	5.45	6.00-13.0	11.4	10.1
KTP22	4	4.68-5.13	4.93	4.92	152-263	207	207
KTP23	5	6.83-9.14	7.68	7.82	16.0-177	61	74.2
KTP24	3	4.75-5.09	4.81	4.88	19.0-44.0	33	32
KTP25	3	8.27-8.71	8.38	8.45	34.0-117	67	72.7
KTP26	4	8.11-9.27	8.83	8.76	115-298	218	213
KTP27	2	4.92-5.23	5.08	5.08	24.0-43.0	33.5	33.5
KTP30	2	5.92-6.10	6.01	6.01	5.00-6.60	5.8	5.8
KTP31	3	5.28-5.53	5.32	5.38	13.0-29.0	16	19.3
KTP32	6	4.99-6.27	5.97	5.81	11.0-353	44.5	130
KTP33	1	6.10	6.10	6.10	16	16	16
KTP34	6	4.25-5.25	4.68	4.69	25.0-528	214	230
KTP35	3	4.47-7.28	4.67	5.47	225-838	675	579



Sampling Location	n	pH			EC		
		Range	Median	Mean	Range	Median	Mean
KTP36	3	5.17-5.83	5.72	5.57	12.0-184	31	75.7

TABLE D1-2 RAW FIELD pH AND EC RESULTS AND NOTES

Sample ID	pH	EC (µS/cm)	Notes
KTP01-1	4.75	33	-
KTP01-2	5.36	24	-
KTP02-1	4.76	29	-
KTP02-2	4.90	24	-
KTP02-3	4.33	37	-
KTP02-4	4.26	57	-
KTP03-1	7.21	38	-
KTP03-2	7.86	49	-
KTP03-3	6.99	420	-
KTP04-1	6.85	496	-
KTP04-2	6.87	1,860	Water seepage
KTP04-3	4.56	1,130	Water seepage
KTP04-4	7.62	2,770	Water seepage
KTP06-1	5.73	16	-
KTP06-2	6.76	173	Water seepage
KTP06-3	6.30	45	Water seepage
KTP07-1	5.61	12	-
KTP07-2	5.55	15	-
KTP07-3	4.60	109	-
KTP10-1	6.25	13	Water seepage
KTP10-2	5.75	8.5	-
KTP11-1	6.32	7.2	-
KTP11-2	5.21	37	-



ERM

Sample ID	pH	EC ($\mu\text{S}/\text{cm}$)	Notes
KTP11-3	4.46	25	-
KTP11-4	4.36	457	-
KTP11-5	4.32	575	-
KTP12-1	4.98	33	-
KTP12-2	4.38	390	-
KTP12-3	4.40	319	-
KTP14-1	4.92	22	-
KTP14-2	5.29	39	-
KTP14-3	5.72	30	Water seepage
KTP15-1	5.35	7.7	-
KTP15-2	5.40	7.7	-
KTP15-3	4.86	24	-
KTP15-4	5.28	19	-
KTP15-5	4.87	54	-
KTP16-1	6.98	13	-
KTP16-2	6.87	11	-
KTP16-3	6.92	40	-
KTP17-1	6.47	10	-
KTP17-2	6.48	14	-
KTP17-3	5.31	53	-
KTP17-4	5.10	44	-
KTP17-5	4.84	44	-
KTP18-1	6.27	11	-
KTP18-2	5.81	11	-
KTP18-3	6.68	61	-
KTP19-1	6.26	9.2	-
KTP19-2	6.81	48	-



ERM

Sample ID	pH	EC ($\mu\text{S}/\text{cm}$)	Notes
KTP19-3	6.32	139	-
KTP19-4	5.80	134	-
KTP19-5	5.47	98	-
KTP20-1	6.58	1,840	-
KTP20-2	7.73	1,140	-
KTP20-3	8.91	739	-
KTP21-1	5.65	6	-
KTP21-2	5.37	11.4	-
KTP21-3	5.32	13	-
KTP22-1	5.13	164	-
KTP22-2	4.94	250	-
KTP22-3	4.92	152	-
KTP22-4	4.68	263	-
KTP23-1	6.83	16	-
KTP23-2	7.36	37	-
KTP23-3	7.68	61	-
KTP23-4	8.07	80	-
KTP23-5	9.14	177	-
KTP24-1	5.09	19	-
KTP24-2	4.75	44	-
KTP24-3	4.81	33	-
KTP25-1	8.27	34	-
KTP25-2	8.38	117	-
KTP25-3	8.71	67	-
KTP26-1	8.11	115	-
KTP26-2	8.84	298	-
KTP26-3	9.27	246	-



ERM

Sample ID	pH	EC ($\mu\text{S}/\text{cm}$)	Notes
KTP26-4	8.82	191	-
KTP27-1	5.23	24	-
KTP27-2	4.92	43	-
KTP30-1	6.10	5.0	-
KTP30-2	5.92	6.6	Wet
KTP31-1	5.32	16	-
KTP31-2	5.53	13	-
KTP31-3	5.28	29	-
KTP32-1	6.06	12	-
KTP32-2	5.93	11	-
KTP32-3	6.02	23	-
KTP32-4	5.59	66	-
KTP32-5	6.27	353	-
KTP32-6	4.99	315	-
KTP33-1	6.10	16	-
KTP34-1	5.25	25	-
KTP34-2	5.01	29	-
KTP34-3	4.27	349	-
KTP34-4	4.74	80	-
KTP34-5	4.25	528	-
KTP34-6	4.62	368	-
KTP35-1	7.28	225	-
KTP35-2	4.67	675	-
KTP35-3	4.47	838	-
KTP36-1	5.83	12	-
KTP36-2	5.72	31	-
KTP36-3	5.17	184	-



APPENDIX D 2 LABORATORY CERTIFICATES OF ANALYSIS



APPENDIX D 3 GAI DATA

ERM Queensland
PO Box 1400
Spring Hill
QLD 4004



NATA Accredited
Accreditation Number 1261
Site Number 20794 & 2780

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **Mifamy Press**

Report **1333769-S**
Project name **GLENCORE - COLLINSVILLE**
Received Date **Mar 11, 2026**

Client Sample ID			KTP35-3-T
Sample Matrix			Soil
Eurofins Sample No.			B26- Ma0034799
Date Sampled			Mar 05, 2026
Test/Reference	LOR	Unit	
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	1600
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	3.9
Sulphur	200	mg/kg	1500
Heavy Metals			
Aluminium	20	mg/kg	7800
Antimony	10	mg/kg	< 10
Arsenic	2	mg/kg	9.8
Barium	5	mg/kg	110
Beryllium	2	mg/kg	< 2
Boron	10	mg/kg	< 10
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	6.4
Cobalt	5	mg/kg	< 5
Copper	5	mg/kg	6.2
Iron	20	mg/kg	12000
Lead	5	mg/kg	22
Manganese	5	mg/kg	10.0
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	< 5
Nickel	5	mg/kg	8.0
Selenium	2	mg/kg	< 2
Silver	2	mg/kg	< 2
Strontium	10	mg/kg	47
Tin	10	mg/kg	< 10
Vanadium	10	mg/kg	< 10
Zinc	5	mg/kg	30
Eurofins Suite B11C: Na/K/Ca/Mg			
Calcium	5	mg/kg	1800
Magnesium	5	mg/kg	530
Potassium	5	mg/kg	800
Sodium	5	mg/kg	1600
Extraneous Material			
<2mm Fraction	0.005	g	84
>2mm Fraction	0.005	g	< 0.005
Analysed Material	0.1	%	100
Extraneous Material	0.1	%	< 0.1

Client Sample ID			KTP35-3-T
Sample Matrix			Soil
Eurofins Sample No.			B26-Ma0034799
Date Sampled			Mar 05, 2026
Test/Reference	LOR	Unit	
Net Acidity (Excluding ANC)			
s-CRS Suite - Net Acidity - NASSG (Excluding ANC)	0.02	% S	0.04
CRS Suite - Net Acidity - NASSG (Excluding ANC)	10	mol H+/t	25
CRS Suite - Liming Rate - NASSG (Excluding ANC)	1	kg CaCO ₃ /t	1.9
Actual Acidity (NLM-3.2)			
pH-KCL (NLM-3.1)	0.1	pH Units	4.8
Titrateable Actual Acidity (NLM-3.2)	0.003	% pyrite S	0.040
Titrateable Actual Acidity (NLM-3.2)	2	mol H+/t	22
Potential Acidity - Chromium Reducible Sulfur			
Chromium Reducible Sulfur (s-SCR) (NLM-2.1) ^{S04}	0.005	% S	0.005
Chromium Reducible Sulfur (a-SCR) (NLM-2.1)	3	mol H+/t	3.1
Extractable Sulfur			
Sulfur - KCl Extractable	0.005	% S	N/A
HCl Extractable Sulfur	0.005	% S	N/A
Retained Acidity (S-NAS)			
Net Acid soluble sulfur (SNAS) NLM-4.1	0.005	% S	N/A
Net Acid soluble sulfur (s-SNAS) NLM-4.1 ^{S02}	0.005	% S	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	2	mol H+/t	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0
Acid Neutralising Capacity (ANCbt)			
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO ₃	N/A
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2) ^{S03}	0.02	% S	N/A
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	N/A
ANC Fineness Factor		factor	1.5
Net Acidity (Including ANC)			
s-CRS Suite - Net Acidity - NASSG (including ANC)	0.02	% S	0.04
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	25
CRS Suite - Liming Rate - NASSG (Including ANC) ^{S01}	1	kg CaCO ₃ /t	1.9
Net Acid Production Potential (by CRS)			
Acid Neutralising Capacity (as CaCO ₃)*	0.1	% CaCO ₃	< 0.1
Acid Neutralising Capacity (as H ₂ SO ₄ /t)*	0.5	kgH ₂ SO ₄ /t	< 0.5
Acid Production Potential (by CRS)	0.15	kgH ₂ SO ₄ /t	0.15
Net Acid Production Potential (NAPP) by CRS*	0.1	kgH ₂ SO ₄ /t	0.2
Net Acid Generation			
Net Acid Generation: NAG (initial to pH 4.5)*	0.1	kgH ₂ SO ₄ /t	0.8
Net Acid Generation: NAG (pH 4.5 - pH 7.0)*	0.1	kgH ₂ SO ₄ /t	18
pH After Oxidation (pH NAG)*	0.1	pH Units	4.1
Sample Properties			
% Moisture	1	%	14

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Conductivity (1:5 aqueous extract at 25 °C as rec.) - Method: LTM-INO-4030 Conductivity	Brisbane	Mar 17, 2026	7 Days
pH (1:5 Aqueous extract at 25 °C as rec.) - Method: LTM-GEN-7090 pH in water by ISE	Brisbane	Mar 17, 2026	7 Days
Sulphur - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 13, 2026	7 Days
Heavy Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Brisbane	Mar 17, 2026	28 Days
Eurofins Suite B11C: Na/K/Ca/Mg - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Mar 13, 2026	180 Days
Net Acid Production Potential (by CRS)			
Chromium Reducible Sulfur (s-SCR) (NLM-2.1) - Method: Net Acid Production Potential (by CRS)	Brisbane	Mar 17, 2026	N/A
Acid Neutralising Capacity (as CaCO ₃)* - Method: Net Acid Production Potential (by CRS)	Brisbane	Mar 17, 2026	6 Week
Acid Production Potential (by CRS) - Method: Net Acid Production Potential (by CRS)	Brisbane	Mar 17, 2026	6 Week
Net Acid Generation - Method: Miller S.D (1998)	Brisbane	Mar 17, 2026	6 Week
Extraneous Material - Method: LTM-GEN-7050/7070	Brisbane	Mar 17, 2026	6 Week
Chromium Suite - NASSG (Excluding ANC) - Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite	Brisbane	Mar 17, 2026	6 Week
% Moisture - Method: LTM-GEN-7080 Moisture	Brisbane	Mar 12, 2026	14 Days



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+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Company Name: ERM Queensland
Address: PO Box 1400
Spring Hill
QLD 4004

Project Name: GLENCORE - COLLINSVILLE

Order No.:
Report #: 1333769
Phone: 07 3839 8393
Fax:

Received: Mar 11, 2026 11:15 AM
Due: Mar 18, 2026
Priority: 5 Day
Contact Name: Mifamy Press

Eurofins Analytical Services Manager : Paige Howarth

Sample Detail						Aluminium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Conductivity (1:5 aqueous extract at 25 °C as rec.)	Copper	Iron	Lead	Manganese	Mercury	Molybdenum	Nickel	pH (1:5 Aqueous extract at 25 °C as rec.)	Selenium	Silver	Strontium	Sulphur	Tin	Vanadium	Zinc	Moisture Set	Chromium Suite - NASSG (Excluding ANC)	Net Acid Production Potential (by CRS)	Net Acid Generation	Eurofins Suite B11C: Na/K/Ca/Mg	
Melbourne Laboratory - NATA # 1261 Site # 1254																											X									X
Brisbane Laboratory - NATA # 1261 Site # 20794 & 2780						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	
External Laboratory																																				
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID																															
1	KTP35-3-T	Mar 05, 2026		Soil	B26-Ma0034799	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Test Counts						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Sulphur	mg/kg	< 200			200	Pass	
Method Blank							
Heavy Metals							
Aluminium	mg/kg	< 20			20	Pass	
Antimony	mg/kg	< 10			10	Pass	
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 5			5	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Boron	mg/kg	< 10			10	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Iron	mg/kg	< 20			20	Pass	
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 2			2	Pass	
Strontium	mg/kg	< 10			10	Pass	
Tin	mg/kg	< 10			10	Pass	
Vanadium	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Eurofins Suite B11C: Na/K/Ca/Mg							
Calcium	mg/kg	< 5			5	Pass	
Magnesium	mg/kg	< 5			5	Pass	
Sodium	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Heavy Metals							
Aluminium	%	104			80-120	Pass	
Antimony	%	107			80-120	Pass	
Arsenic	%	101			80-120	Pass	
Barium	%	101			80-120	Pass	
Beryllium	%	108			80-120	Pass	
Boron	%	80			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	98			80-120	Pass	
Cobalt	%	99			80-120	Pass	
Copper	%	99			80-120	Pass	
Iron	%	100			80-120	Pass	
Lead	%	101			80-120	Pass	
Manganese	%	102			80-120	Pass	
Mercury	%	94			80-120	Pass	
Molybdenum	%	100			80-120	Pass	
Nickel	%	99			80-120	Pass	
Selenium	%	100			80-120	Pass	
Silver	%	102			80-120	Pass	
Strontium	%	104			80-120	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Tin			%	104			80-120	Pass	
Vanadium			%	100			80-120	Pass	
Zinc			%	103			80-120	Pass	
LCS - % Recovery									
Actual Acidity (NLM-3.2)									
pH-KCL (NLM-3.1)			%	100			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)			%	93			80-120	Pass	
LCS - % Recovery									
Potential Acidity - Chromium Reducible Sulfur									
Chromium Reducible Sulfur (s-SCR) (NLM-2.1)			%	110			80-120	Pass	
LCS - % Recovery									
Acid Neutralising Capacity (ANCbt)									
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)			%	96			80-120	Pass	
LCS - % Recovery									
Net Acid Production Potential (by CRS)									
Acid Neutralising Capacity (as CaCO3)*			%	96			70-130	Pass	
LCS - % Recovery									
Net Acid Generation									
Net Acid Generation: NAG (pH 4.5 - pH 7.0)*			%	84			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Antimony	B26-Ma0051398	NCP	%	84			75-125	Pass	
Arsenic	B26-Ma0051398	NCP	%	85			75-125	Pass	
Barium	B26-Ma0051398	NCP	%	87			75-125	Pass	
Beryllium	B26-Ma0051398	NCP	%	108			75-125	Pass	
Boron	B26-Ma0046256	NCP	%	118			75-125	Pass	
Cadmium	B26-Ma0051398	NCP	%	99			75-125	Pass	
Cobalt	B26-Ma0051398	NCP	%	97			75-125	Pass	
Copper	B26-Ma0051398	NCP	%	79			75-125	Pass	
Lead	B26-Ma0051398	NCP	%	78			75-125	Pass	
Manganese	B26-Ma0051398	NCP	%	76			75-125	Pass	
Mercury	B26-Ma0051398	NCP	%	105			75-125	Pass	
Molybdenum	B26-Ma0051398	NCP	%	100			75-125	Pass	
Nickel	B26-Ma0051398	NCP	%	80			75-125	Pass	
Selenium	B26-Ma0051398	NCP	%	92			75-125	Pass	
Silver	B26-Ma0051398	NCP	%	101			75-125	Pass	
Strontium	B26-Ma0051398	NCP	%	82			75-125	Pass	
Tin	B26-Ma0051398	NCP	%	96			75-125	Pass	
Vanadium	B26-Ma0051398	NCP	%	80			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	B26-Ma0034799	CP	uS/cm	1600	1600	2.0	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	B26-Ma0034799	CP	pH Units	3.9	3.9	<1	30%	Pass	
Sulphur	M26-Ma0044818	NCP	mg/kg	830	720	14	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Antimony	B26-Ma0039299	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Arsenic	B26-Ma0039299	NCP	mg/kg	8.5	8.1	5.0	30%	Pass	
Barium	B26-Ma0039299	NCP	mg/kg	63	62	2.0	30%	Pass	
Beryllium	B26-Ma0039299	NCP	mg/kg	< 2	< 2	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Boron	B26-Ma0046336	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Cadmium	B26-Ma0039299	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	B26-Ma0039299	NCP	mg/kg	56	53	4.0	30%	Pass
Cobalt	B26-Ma0039299	NCP	mg/kg	18	17	4.0	30%	Pass
Copper	B26-Ma0039299	NCP	mg/kg	27	25	5.0	30%	Pass
Iron	B26-Ma0039299	NCP	mg/kg	47000	45000	4.0	30%	Pass
Lead	B26-Ma0039299	NCP	mg/kg	14	13	6.0	30%	Pass
Manganese	B26-Ma0039299	NCP	mg/kg	370	350	4.0	30%	Pass
Mercury	B26-Ma0039299	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Molybdenum	B26-Ma0039299	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Nickel	B26-Ma0039299	NCP	mg/kg	33	32	4.0	30%	Pass
Selenium	B26-Ma0039299	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Silver	B26-Ma0039299	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Strontium	B26-Ma0039299	NCP	mg/kg	51	49	5.0	30%	Pass
Tin	B26-Ma0039299	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Vanadium	B26-Ma0039299	NCP	mg/kg	93	89	4.0	30%	Pass
Zinc	B26-Ma0039299	NCP	mg/kg	91	87	5.0	30%	Pass
Duplicate								
Eurofins Suite B11C: Na/K/Ca/Mg				Result 1	Result 2	RPD		
Calcium	M26-Ma0044818	NCP	mg/kg	63000	67000	6.0	30%	Pass
Magnesium	M26-Ma0044818	NCP	mg/kg	11000	13000	14	30%	Pass
Potassium	M26-Ma0044818	NCP	mg/kg	240	240	3.0	30%	Pass
Sodium	M26-Ma0044818	NCP	mg/kg	420	440	6.0	30%	Pass
Duplicate								
Net Acidity (Excluding ANC)				Result 1	Result 2	RPD		
s-CRS Suite - Net Acidity - NASSG (Excluding ANC)	S26-Ma0048087	NCP	% S	< 0.02	< 0.02	<1	30%	Pass
CRS Suite - Net Acidity - NASSG (Excluding ANC)	S26-Ma0048087	NCP	mol H+/t	< 10	< 10	<1	20%	Pass
CRS Suite - Liming Rate - NASSG (Excluding ANC)	S26-Ma0048087	NCP	kg CaCO3/t	< 1	< 1	<1	30%	Pass
Duplicate								
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD		
pH-KCL (NLM-3.1)	S26-Ma0048087	NCP	pH Units	7.0	7.1	<1	20%	Pass
Titrateable Actual Acidity (NLM-3.2)	S26-Ma0048087	NCP	% pyrite S	< 0.003	< 0.003	<1	30%	Pass
Titrateable Actual Acidity (NLM-3.2)	S26-Ma0048087	NCP	mol H+/t	< 2	< 2	<1	20%	Pass
Duplicate								
Potential Acidity - Chromium Reducible Sulfur				Result 1	Result 2	RPD		
Chromium Reducible Sulfur (s-SCR) (NLM-2.1)	R26-Ma0024140	NCP	% S	0.027	0.027	1.0	20%	Pass
Chromium Reducible Sulfur (a-SCR) (NLM-2.1)	S26-Ma0048087	NCP	mol H+/t	5.0	5.0	<1	20%	Pass
Duplicate								
Extractable Sulfur				Result 1	Result 2	RPD		
Sulfur - KCl Extractable	S26-Ma0048087	NCP	% S	N/A	N/A	N/A	30%	Pass
HCl Extractable Sulfur	S26-Ma0048087	NCP	% S	N/A	N/A	N/A	20%	Pass
Duplicate								
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD		
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	S26-Ma0048087	NCP	% CaCO3	0.99	0.96	3.0	20%	Pass
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)	S26-Ma0048087	NCP	% S	0.32	0.31	3.0	30%	Pass
ANC Fineness Factor	S26-Ma0048087	NCP	factor	1.5	1.5	<1	30%	Pass

Duplicate								
Net Acidity (Including ANC)				Result 1	Result 2	RPD		
S-CRS Suite - Net Acidity - NASSG (Including ANC)	S26-Ma0048087	NCP	% S	< 0.02	< 0.02	<1	30%	Pass
CRS Suite - Net Acidity - NASSG (Including ANC)	S26-Ma0048087	NCP	mol H+/t	< 10	< 10	<1	30%	Pass
CRS Suite - Liming Rate - NASSG (Including ANC)	S26-Ma0048087	NCP	kg CaCO ₃ /t	< 1	< 1	<1	30%	Pass
Duplicate								
Net Acid Production Potential (by CRS)				Result 1	Result 2	RPD		
Acid Neutralising Capacity (as CaCO ₃)*	R26-Ma0024140	NCP	% CaCO ₃	1.5	1.4	4.0	30%	Pass
Acid Production Potential (by CRS)	R26-Ma0024140	NCP	kgH ₂ SO ₄ /t	0.84	0.83	1.0	30%	Pass
Duplicate								
Net Acid Generation				Result 1	Result 2	RPD		
Net Acid Generation: NAG (initial to pH 4.5)*	R26-Ma0024140	NCP	kgH ₂ SO ₄ /t	< 0.1	< 0.1	<1	30%	Pass
Net Acid Generation: NAG (pH 4.5 - pH 7.0)*	R26-Ma0024140	NCP	kgH ₂ SO ₄ /t	< 0.1	< 0.1	<1	30%	Pass
pH After Oxidation (pH NAG)*	R26-Ma0024140	NCP	pH Units	11	11	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	B26-Ma0040092	NCP	%	9.9	11	8.0	30%	Pass

Comments

Eurofins Environment Testing Australia Pty Ltd accreditation number 1261, corporate sites 20794 & 2780 located in Brisbane, are currently in progress of a controlled transition to a new custom built location at 7 Smallwood Place, Murarrie, Queensland 4172. All results on this report denoted as being performed at 1/21 Smallwood Place, will have been performed at either site.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
S01	Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO ₃) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m ³ in-situ soil' multiply 'reported results' x 'wet bulk density of soil in t/m ³ '
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5
S03	Acid Neutralising Capacity is only required if the pHKCl is greater than or equal to pH 6.5
S04	Acid Sulfate Soil Samples have a 24 hour holding time unless frozen or dried within that period

Authorised by:

Jacinta Baker	Analytical Services Manager
Jonathon Angell	Senior Analyst-Inorganic
Jonathon Angell	Senior Analyst-Sample Properties
Emily Rosenberg	Senior Analyst-Metal
Jonathon Angell	Senior Analyst-SPOCAS
Jonathon Angell	Senior Analyst-Metal



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.



CERTIFICATE OF ANALYSIS

Work Order	: EB2608584	Page	: 1 of 55
Client	: ENVIRONMENTAL RESOURCES MANAGEMENT (ERM)	Laboratory	: Environmental Division Brisbane
Contact	: MIFANWY PRESS	Contact	: Jarret Venderley
Address	: LEVEL 9 260 QUEEN STREET BRISBANE CITY 4000	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: Glencore - Collinsville	Date Samples Received	: 10-Mar-2026 08:30
Order number	: 771288	Date Analysis Commenced	: 10-Mar-2026
C-O-C number	: ----	Issue Date	: 19-Mar-2026 16:39
Sampler	: MULLER RETIEF		
Site	: ----		
Quote number	: ERM MSA 2025		
No. of samples received	: 80		
No. of samples analysed	: 80		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Beatriz Llarinas	Senior Chemist	Brisbane Inorganics, Stafford, QLD
Beatriz Llarinas	Senior Chemist	Brisbane Soil Preparation, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD
Layla Hafner	Acid Sulphate Soils - Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- ASS: EA033 (CRS Suite): Analysis is performed as per the Acid Sulfate Soils Laboratory Methods Guidelines (2004) and the updated National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT (2018)
- EG005T (Total Metals by ICP-AES): Some samples shows poor duplicate results due to sample heterogeneity. This has been confirmed by visual inspection.
- EG005T (Total Metals by ICP-AES): Sample 'KTP26-2' (EB2608584-041) shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG020T (Total Metals by ICP-MS): Samples KTP1-1 (EB2608584-001) and KTP6-2 (EB2608584-011) show poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG020T (Total Metals by ICP-MS): Samples KTP17-3 (EB2608584-021) and KTP20-2 (EB2608584-031) show poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG020T (Total Metals by ICP-MS): Sample KTP25-1 (EB2608584-037) shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG020T (Total Metals by ICP-MS): Samples KTP34-4 (EB2608584-057) and KTP32-6 (EB2608584-067) show poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EG020-S (Soluble Metals by ICP-MS): Sample 'KTP1-1' (EB2608584-001) shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.
- EA011 (Net Acid Generation): EA011 and EA009 (Net Acid Production Potential) discrepancy for KTP4-4 (EB2608584-071) is likely due to metals interference. Both EA009 (NAPP) and EA011 (NAG) analyses have been repeated and confirmed.
- ASS: EA033 (CRS Suite): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- ASS: EA033 (CRS Suite): Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO₃) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m³ in-situ soil', multiply 'reported results' x 'wet bulk density of soil in t/m³'.
- ASS: EA013 (ANC) Fizz Rating: 0- None; 1- Slight; 2- Moderate; 3- Strong; 4- Very Strong; 5- Lime.



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP1-1	KTP1-2	KTP2-1	KTP2-2	KTP2-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-001	EB2608584-002	EB2608584-003	EB2608584-004	EB2608584-005
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.17	0.07	0.04	0.03	0.10
Net Acidity (acidity units)	----	10	mole H+ / t		106	45	24	20	65
Liming Rate	----	1	kg CaCO3/t		8	3	2	1	5
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.17	0.07	0.04	0.03	0.10
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		106	45	24	20	65
Liming Rate excluding ANC	----	1	kg CaCO3/t		8	3	2	1	5
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		11.2	11.2	4.5	5.4	13.8
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.02	0.03	0.03	0.03	0.02
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		<1	----	----	<1	----
Iron	7439-89-6	1	mg/kg		1	----	----	2	----
Tin	7440-31-5	0.1	mg/kg		<0.1	----	----	<0.1	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		5340	5170	2370	2370	4470
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		3250	2950	5800	2990	9540
Calcium	7440-70-2	50	mg/kg		50	<50	250	300	360
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		<0.01	----	----	<0.01	----
Barium	7440-39-3	0.01	mg/kg		0.07	----	----	0.04	----
Beryllium	7440-41-7	0.01	mg/kg		<0.01	----	----	<0.01	----
Cadmium	7440-43-9	0.01	mg/kg		<0.01	----	----	<0.01	----
Bismuth	7440-69-9	0.01	mg/kg		<0.01	----	----	<0.01	----
Cobalt	7440-48-4	0.01	mg/kg		<0.01	----	----	<0.01	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP1-1	KTP1-2	KTP2-1	KTP2-2	KTP2-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-001	EB2608584-002	EB2608584-003	EB2608584-004	EB2608584-005
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Chromium	7440-47-3	0.01	mg/kg	<0.01	----	----	<0.01	----
Copper	7440-50-8	0.01	mg/kg	<0.01	----	----	<0.01	----
Manganese	7439-96-5	0.01	mg/kg	0.12	----	----	0.24	----
Nickel	7440-02-0	0.01	mg/kg	0.01	----	----	<0.01	----
Lead	7439-92-1	0.01	mg/kg	<0.01	----	----	<0.01	----
Zinc	7440-66-6	0.05	mg/kg	<0.05	----	----	<0.05	----
Lithium	7439-93-2	0.01	mg/kg	<0.01	----	----	<0.01	----
Vanadium	7440-62-2	0.1	mg/kg	<0.1	----	----	<0.1	----
Aluminium	7429-90-5	0.1	mg/kg	2.5	----	----	13.2	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.8	3.3	1.1	1.2	3.6
Barium	7440-39-3	0.1	mg/kg	41.0	233	23.0	16.9	21.4
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.2	0.1	<0.1	<0.1
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.5	0.8	0.6	0.5	0.4
Chromium	7440-47-3	0.1	mg/kg	3.5	2.5	2.3	2.0	3.7
Copper	7440-50-8	0.1	mg/kg	1.3	0.9	1.9	1.8	2.6
Manganese	7439-96-5	0.1	mg/kg	4.2	3.8	24.5	25.2	11.8
Nickel	7440-02-0	0.1	mg/kg	1.1	1.4	1.0	1.0	1.1
Lead	7439-92-1	0.1	mg/kg	7.7	6.7	4.8	3.7	7.0
Zinc	7440-66-6	0.5	mg/kg	1.3	2.3	2.1	2.4	1.8
Lithium	7439-93-2	0.1	mg/kg	0.8	0.7	0.2	0.2	0.4
Vanadium	7440-62-2	1	mg/kg	12	10	5	6	10
Tin	7440-31-5	0.1	mg/kg	0.2	0.2	<0.1	0.1	0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-006	EB2608584-007	EB2608584-008	EB2608584-009	EB2608584-010
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	----	7.9	5.1
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		12.9	-9.9	-10.5	-6.9	-0.4
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	----	490	12
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		4.8	10.2	10.2	9.8	4.4
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		3.7	<0.1	<0.1	<0.1	8.4
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		<0.5	16.6	16.9	14.2	1.3
ANC as CaCO3	----	0.1	% CaCO3		<0.1	1.7	1.7	1.4	0.1
Fizz Rating	----	0	Fizz Unit		0	1	1	1	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		4.1	8.7	8.8	8.7	5.2
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		110	<2	<2	<2	12
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		0.18	<0.02	<0.02	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.011	0.015	0.012	0.013	0.007
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	1.78	2.11	1.40	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	356	422	280	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	0.57	0.68	0.45	----
EA033-D: Retained Acidity									
KCl Extractable Sulfur (23Ce)	----	0.02	% S		<0.02	----	----	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-006	EB2608584-007	EB2608584-008	EB2608584-009	EB2608584-010
					Result	Result	Result	Result	Result
EA033-D: Retained Acidity - Continued									
HCl Extractable Sulfur (20Be)	----	0.02	% S		0.07	----	----	----	----
Net Acid Soluble Sulfur (20Je)	----	0.02	% S		0.14	----	----	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		65	----	----	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S		0.10	----	----	----	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.29	<0.02	<0.02	<0.02	0.03
Net Acidity (acidity units)	----	10	mole H+ / t		182	<10	<10	<10	16
Liming Rate	----	1	kg CaCO3/t		14	<1	<1	<1	1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.29	<0.02	<0.02	<0.02	0.03
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		182	<10	<10	<10	16
Liming Rate excluding ANC	----	1	kg CaCO3/t		14	<1	<1	<1	1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		11.2	7.0	6.9	9.9	9.9
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.42	0.22	0.21	0.24	0.03
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	----	<1	<1
Iron	7439-89-6	1	mg/kg		----	----	----	<1	11
Tin	7440-31-5	0.1	mg/kg		----	----	----	<0.1	<0.1
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		4360	2570	2820	2720	3440
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		29500	21500	20800	15800	5690
Calcium	7440-70-2	50	mg/kg		250	5120	6600	4290	330
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	----	<0.01	<0.01



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-006	EB2608584-007	EB2608584-008	EB2608584-009	EB2608584-010
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Barium	7440-39-3	0.01	mg/kg	----	----	----	0.18	<0.01
Beryllium	7440-41-7	0.01	mg/kg	----	----	----	<0.01	<0.01
Cadmium	7440-43-9	0.01	mg/kg	----	----	----	<0.01	<0.01
Bismuth	7440-69-9	0.01	mg/kg	----	----	----	<0.01	<0.01
Cobalt	7440-48-4	0.01	mg/kg	----	----	----	<0.01	<0.01
Chromium	7440-47-3	0.01	mg/kg	----	----	----	<0.01	<0.01
Copper	7440-50-8	0.01	mg/kg	----	----	----	<0.01	<0.01
Manganese	7439-96-5	0.01	mg/kg	----	----	----	<0.01	<0.01
Nickel	7440-02-0	0.01	mg/kg	----	----	----	<0.01	<0.01
Lead	7439-92-1	0.01	mg/kg	----	----	----	<0.01	<0.01
Zinc	7440-66-6	0.05	mg/kg	----	----	----	<0.05	<0.05
Lithium	7439-93-2	0.01	mg/kg	----	----	----	<0.01	<0.01
Vanadium	7440-62-2	0.1	mg/kg	----	----	----	<0.1	<0.1
Aluminium	7429-90-5	0.1	mg/kg	----	----	----	<0.1	<0.1
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	4.0	2.5	2.5	2.6	2.5
Barium	7440-39-3	0.1	mg/kg	119	142	138	131	43.1
Beryllium	7440-41-7	0.1	mg/kg	<0.1	0.3	0.3	0.4	0.1
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.3	5.6	6.4	8.2	0.8
Chromium	7440-47-3	0.1	mg/kg	9.1	2.8	2.9	3.5	2.9
Copper	7440-50-8	0.1	mg/kg	6.2	3.5	3.9	4.0	2.2
Manganese	7439-96-5	0.1	mg/kg	11.0	317	373	386	14.8
Nickel	7440-02-0	0.1	mg/kg	0.8	9.5	12.6	13.6	1.5
Lead	7439-92-1	0.1	mg/kg	30.0	17.0	16.1	16.4	6.5
Zinc	7440-66-6	0.5	mg/kg	3.5	26.3	28.7	34.3	4.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-006	EB2608584-007	EB2608584-008	EB2608584-009	EB2608584-010
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Lithium	7439-93-2	0.1	mg/kg		0.2	1.0	2.0	1.2	0.3
Vanadium	7440-62-2	1	mg/kg		14	5	4	4	7
Tin	7440-31-5	0.1	mg/kg		0.3	0.2	0.2	0.2	0.2
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-011	EB2608584-012	EB2608584-013	EB2608584-014	EB2608584-015
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	----	4.6	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		-17.8	-3.3	0.6	0.6	0.6
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	----	43	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		9.1	7.9	5.3	4.6	5.1
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		<0.1	<0.1	3.7	9.2	6.0
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		19.3	4.5	<0.5	<0.5	<0.5
ANC as CaCO3	----	0.1	% CaCO3		2.0	0.5	<0.1	<0.1	<0.1
Fizz Rating	----	0	Fizz Unit		1	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		8.5	6.7	5.1	4.4	4.3
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		<2	<2	18	84	89
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	0.03	0.13	0.14
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.015	0.014	0.008	0.012	0.007
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		2.27	0.52	----	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		454	104	----	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		0.73	0.17	----	----	----
EA033-D: Retained Acidity									
KCl Extractable Sulfur (23Ce)	----	0.02	% S		----	----	----	<0.02	<0.02



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-011	EB2608584-012	EB2608584-013	EB2608584-014	EB2608584-015
					Result	Result	Result	Result	Result
EA033-D: Retained Acidity - Continued									
HCl Extractable Sulfur (20Be)	----	0.02	% S	----	----	----	----	<0.02	<0.02
Net Acid Soluble Sulfur (20Je)	----	0.02	% S	----	----	----	----	<0.02	<0.02
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	----	----	----	<10	<10
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S	----	----	----	----	<0.02	<0.02
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-	1.5	1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	0.04	0.15	0.15	0.15
Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	23	94	95	95
Liming Rate	----	1	kg CaCO3/t	<1	<1	2	7	7	7
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	<0.02	0.04	0.15	0.15	0.15
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	<10	23	94	95	95
Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	<1	2	7	7	7
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%	23.8	13.5	12.2	17.2	6.0	6.0
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%	0.05	0.04	0.02	0.02	0.02	0.02
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg	----	----	----	<1	----	----
Iron	7439-89-6	1	mg/kg	----	----	----	1	----	----
Tin	7440-31-5	0.1	mg/kg	----	----	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg	5830	4310	3300	7050	2810	2810
Boron	7440-42-8	50	mg/kg	<50	<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg	10900	4130	3860	13000	5650	5650
Calcium	7440-70-2	50	mg/kg	6260	920	210	170	<50	<50
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg	----	----	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-011	EB2608584-012	EB2608584-013	EB2608584-014	EB2608584-015
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Barium	7440-39-3	0.01	mg/kg	----	----	----	0.17	----
Beryllium	7440-41-7	0.01	mg/kg	----	----	----	<0.01	----
Cadmium	7440-43-9	0.01	mg/kg	----	----	----	<0.01	----
Bismuth	7440-69-9	0.01	mg/kg	----	----	----	<0.01	----
Cobalt	7440-48-4	0.01	mg/kg	----	----	----	<0.01	----
Chromium	7440-47-3	0.01	mg/kg	----	----	----	<0.01	----
Copper	7440-50-8	0.01	mg/kg	----	----	----	<0.01	----
Manganese	7439-96-5	0.01	mg/kg	----	----	----	0.29	----
Nickel	7440-02-0	0.01	mg/kg	----	----	----	<0.01	----
Lead	7439-92-1	0.01	mg/kg	----	----	----	<0.01	----
Zinc	7440-66-6	0.05	mg/kg	----	----	----	<0.05	----
Lithium	7439-93-2	0.01	mg/kg	----	----	----	0.01	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	----	<0.1	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	----	1.0	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.8	2.2	3.9	4.7	4.7
Barium	7440-39-3	0.1	mg/kg	56.7	86.7	19.5	36.5	77.4
Beryllium	7440-41-7	0.1	mg/kg	1.3	0.1	0.1	0.2	0.1
Cadmium	7440-43-9	0.1	mg/kg	0.3	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	32.1	1.0	0.2	0.4	0.2
Chromium	7440-47-3	0.1	mg/kg	3.2	2.7	3.2	4.7	1.5
Copper	7440-50-8	0.1	mg/kg	4.2	1.8	1.0	1.1	0.4
Manganese	7439-96-5	0.1	mg/kg	1260	29.3	9.3	11.9	0.4
Nickel	7440-02-0	0.1	mg/kg	64.9	2.3	0.6	1.0	0.4
Lead	7439-92-1	0.1	mg/kg	5.2	7.0	6.8	8.6	10.0
Zinc	7440-66-6	0.5	mg/kg	155	7.1	1.1	1.3	0.6



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-011	EB2608584-012	EB2608584-013	EB2608584-014	EB2608584-015
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Lithium	7439-93-2	0.1	mg/kg		0.9	0.3	0.2	0.9	0.1
Vanadium	7440-62-2	1	mg/kg		7	7	9	16	7
Tin	7440-31-5	0.1	mg/kg		0.2	0.2	0.1	0.2	0.1
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-016	EB2608584-017	EB2608584-018	EB2608584-019	EB2608584-020
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	4.1	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		0.6	1.2	1.8	-2.3	-4.6
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	293	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		5.1	4.7	4.6	7.5	8.5
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		4.2	5.8	7.0	<0.1	<0.1
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		<0.5	<0.5	<0.5	2.9	4.9
ANC as CaCO3	----	0.1	% CaCO3		<0.1	<0.1	<0.1	0.3	0.5
Fizz Rating	----	0	Fizz Unit		0	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		4.3	4.4	4.4	6.5	7.6
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		89	84	76	<2	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		0.14	0.13	0.12	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.013	0.015	0.014	0.017	0.006
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	11	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	----	----	0.25	0.45
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	----	----	50	89
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	----	----	0.08	0.14
EA033-D: Retained Acidity									
KCl Extractable Sulfur (23Ce)	----	0.02	% S		<0.02	<0.02	<0.02	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-016	EB2608584-017	EB2608584-018	EB2608584-019	EB2608584-020
					Result	Result	Result	Result	Result
EA033-D: Retained Acidity - Continued									
HCl Extractable Sulfur (20Be)	----	0.02	% S		<0.02	0.02	0.03	----	----
Net Acid Soluble Sulfur (20Je)	----	0.02	% S		<0.02	0.02	0.04	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		<10	<10	19	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S		<0.02	<0.02	0.03	----	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.16	0.17	0.17	<0.02	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		101	103	104	<10	<10
Liming Rate	----	1	kg CaCO3/t		8	8	8	<1	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.16	0.17	0.17	<0.02	<0.02
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		101	103	104	11	<10
Liming Rate excluding ANC	----	1	kg CaCO3/t		8	8	8	<1	<1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		6.8	13.3	4.3	5.6	7.2
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.02	0.04	0.06	0.02	0.01
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	----	----
Iron	7439-89-6	1	mg/kg		----	----	<1	----	----
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		4970	5300	4090	2390	1930
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		6340	24800	8320	7840	14600
Calcium	7440-70-2	50	mg/kg		<50	<50	<50	410	520
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-016	EB2608584-017	EB2608584-018	EB2608584-019	EB2608584-020
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Barium	7440-39-3	0.01	mg/kg	----	----	0.24	----	----
Beryllium	7440-41-7	0.01	mg/kg	----	----	<0.01	----	----
Cadmium	7440-43-9	0.01	mg/kg	----	----	<0.01	----	----
Bismuth	7440-69-9	0.01	mg/kg	----	----	<0.01	----	----
Cobalt	7440-48-4	0.01	mg/kg	----	----	0.08	----	----
Chromium	7440-47-3	0.01	mg/kg	----	----	<0.01	----	----
Copper	7440-50-8	0.01	mg/kg	----	----	<0.01	----	----
Manganese	7439-96-5	0.01	mg/kg	----	----	0.06	----	----
Nickel	7440-02-0	0.01	mg/kg	----	----	0.15	----	----
Lead	7439-92-1	0.01	mg/kg	----	----	<0.01	----	----
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	----	----
Lithium	7439-93-2	0.01	mg/kg	----	----	0.08	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	2.6	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.8	8.7	4.4	1.1	1.2
Barium	7440-39-3	0.1	mg/kg	80.0	190	313	24.2	18.6
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.3	0.1	0.2	0.2
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.8	1.6	0.8	3.7	1.6
Chromium	7440-47-3	0.1	mg/kg	3.7	7.4	2.8	3.4	4.3
Copper	7440-50-8	0.1	mg/kg	1.5	2.1	1.2	1.7	2.3
Manganese	7439-96-5	0.1	mg/kg	1.8	4.3	2.6	155	49.9
Nickel	7440-02-0	0.1	mg/kg	1.6	3.4	1.7	3.6	4.0
Lead	7439-92-1	0.1	mg/kg	7.4	11.6	8.0	6.7	6.6
Zinc	7440-66-6	0.5	mg/kg	1.1	3.8	2.3	9.7	10.2



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-016	EB2608584-017	EB2608584-018	EB2608584-019	EB2608584-020
				Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued								
Lithium	7439-93-2	0.1	mg/kg	0.8	1.1	0.5	0.2	0.2
Vanadium	7440-62-2	1	mg/kg	14	22	7	6	7
Tin	7440-31-5	0.1	mg/kg	0.2	0.3	0.2	0.2	0.2
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP17-3	KTP17-4	KTP17-5	KTP16-1	KTP16-2
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-021	EB2608584-022	EB2608584-023	EB2608584-024	EB2608584-025
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.09	0.17	0.18	0.02	0.03
Net Acidity (acidity units)	----	10	mole H+ / t		54	107	115	15	16
Liming Rate	----	1	kg CaCO3/t		4	8	9	1	1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.09	0.17	0.18	0.02	0.03
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		54	107	115	15	16
Liming Rate excluding ANC	----	1	kg CaCO3/t		4	8	9	1	1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		13.2	18.2	14.1	19.6	17.6
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.05	0.05	0.05	0.02	0.01
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	<1	----
Iron	7439-89-6	1	mg/kg		----	----	<1	48	----
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	<0.1	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		5840	7060	5980	7290	4520
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		15400	18800	22900	17000	11200
Calcium	7440-70-2	50	mg/kg		670	140	70	2490	1170
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	<0.01	<0.01	----
Barium	7440-39-3	0.01	mg/kg		----	----	0.27	0.12	----
Beryllium	7440-41-7	0.01	mg/kg		----	----	<0.01	<0.01	----
Cadmium	7440-43-9	0.01	mg/kg		----	----	<0.01	<0.01	----
Bismuth	7440-69-9	0.01	mg/kg		----	----	<0.01	<0.01	----
Cobalt	7440-48-4	0.01	mg/kg		----	----	0.01	<0.01	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP17-3	KTP17-4	KTP17-5	KTP16-1	KTP16-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-021	EB2608584-022	EB2608584-023	EB2608584-024	EB2608584-025
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Chromium	7440-47-3	0.01	mg/kg	----	----	<0.01	0.02	----
Copper	7440-50-8	0.01	mg/kg	----	----	<0.01	<0.01	----
Manganese	7439-96-5	0.01	mg/kg	----	----	0.02	0.02	----
Nickel	7440-02-0	0.01	mg/kg	----	----	0.03	0.01	----
Lead	7439-92-1	0.01	mg/kg	----	----	<0.01	<0.01	----
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	<0.05	----
Lithium	7439-93-2	0.01	mg/kg	----	----	0.01	0.02	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	<0.1	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	0.8	28.4	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.8	4.6	2.9	2.7	2.6
Barium	7440-39-3	0.1	mg/kg	88.6	56.1	74.0	118	169
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.2	0.2	0.5	0.6
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	0.2	0.2	0.2	0.1	0.1
Cobalt	7440-48-4	0.1	mg/kg	0.8	0.7	0.8	5.8	6.2
Chromium	7440-47-3	0.1	mg/kg	19.8	18.2	10.3	8.7	8.6
Copper	7440-50-8	0.1	mg/kg	7.2	6.1	6.2	5.1	6.0
Manganese	7439-96-5	0.1	mg/kg	8.1	4.9	3.8	107	135
Nickel	7440-02-0	0.1	mg/kg	2.2	2.2	2.4	6.8	8.8
Lead	7439-92-1	0.1	mg/kg	14.4	14.9	14.2	9.4	10.0
Zinc	7440-66-6	0.5	mg/kg	6.0	5.1	8.3	10.8	17.2
Lithium	7439-93-2	0.1	mg/kg	0.8	0.7	0.8	1.6	1.9
Vanadium	7440-62-2	1	mg/kg	28	32	20	17	16
Tin	7440-31-5	0.1	mg/kg	0.4	0.6	0.4	0.4	0.4
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-026	EB2608584-027	EB2608584-028	EB2608584-029	EB2608584-030
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	6.8	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		-0.2	-0.9	-1.0	-2.5	-2.6
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	74	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		5.7	6.1	6.0	6.6	8.3
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		1.9	1.3	2.7	0.8	<0.1
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		1.1	1.5	2.2	3.1	3.8
ANC as CaCO3	----	0.1	% CaCO3		0.1	0.1	0.2	0.3	0.4
Fizz Rating	----	0	Fizz Unit		0	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.2	5.5	6.0	6.7	7.8
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		10	5	3	<2	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	<0.02	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.010	0.012	0.011	0.014	0.010
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	----	----	0.70	0.76
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	----	----	139	152
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	----	----	0.22	0.24
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-026	EB2608584-027	EB2608584-028	EB2608584-029	EB2608584-030
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity (sulfur units)	----	0.02	% S		0.03	0.02	<0.02	<0.02	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		16	13	<10	<10	<10
Liming Rate	----	1	kg CaCO3/t		1	<1	<1	<1	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.03	0.02	<0.02	<0.02	<0.02
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		16	13	<10	<10	<10
Liming Rate excluding ANC	----	1	kg CaCO3/t		1	<1	<1	<1	<1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		12.7	9.9	11.0	10.5	10.4
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.03	0.02	0.04	0.02	0.04
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	----	----
Iron	7439-89-6	1	mg/kg		----	----	4	----	----
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		3560	1990	3590	2450	6950
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		8950	3580	3970	5580	22400
Calcium	7440-70-2	50	mg/kg		930	180	1130	940	1520
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	<0.01	----	----
Barium	7440-39-3	0.01	mg/kg		----	----	0.27	----	----
Beryllium	7440-41-7	0.01	mg/kg		----	----	<0.01	----	----
Cadmium	7440-43-9	0.01	mg/kg		----	----	<0.01	----	----
Bismuth	7440-69-9	0.01	mg/kg		----	----	<0.01	----	----
Cobalt	7440-48-4	0.01	mg/kg		----	----	<0.01	----	----
Chromium	7440-47-3	0.01	mg/kg		----	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-026	EB2608584-027	EB2608584-028	EB2608584-029	EB2608584-030
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Copper	7440-50-8	0.01	mg/kg	----	----	<0.01	----	----
Manganese	7439-96-5	0.01	mg/kg	----	----	<0.01	----	----
Nickel	7440-02-0	0.01	mg/kg	----	----	<0.01	----	----
Lead	7439-92-1	0.01	mg/kg	----	----	<0.01	----	----
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	----	----
Lithium	7439-93-2	0.01	mg/kg	----	----	<0.01	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	4.5	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	14.4	1.3	1.7	0.9	2.3
Barium	7440-39-3	0.1	mg/kg	325	23.3	684	340	85.0
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.2	0.4	0.2	0.6
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Cobalt	7440-48-4	0.1	mg/kg	1.1	2.5	6.2	2.9	6.4
Chromium	7440-47-3	0.1	mg/kg	8.0	3.5	2.8	1.0	8.5
Copper	7440-50-8	0.1	mg/kg	4.8	1.8	1.5	0.9	6.5
Manganese	7439-96-5	0.1	mg/kg	2.5	31.0	72.2	39.1	78.9
Nickel	7440-02-0	0.1	mg/kg	2.9	3.4	8.3	4.1	9.6
Lead	7439-92-1	0.1	mg/kg	21.7	4.4	10.8	6.7	11.3
Zinc	7440-66-6	0.5	mg/kg	8.5	7.8	6.0	5.5	12.1
Lithium	7439-93-2	0.1	mg/kg	0.4	0.2	1.0	0.3	1.6
Vanadium	7440-62-2	1	mg/kg	27	5	7	2	17
Tin	7440-31-5	0.1	mg/kg	0.2	0.1	0.2	<0.1	0.4
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-031	EB2608584-032	EB2608584-033	EB2608584-034	EB2608584-035
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	9.7	----	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		-39.7	-24.1	-2.0	-3.1	0.02
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	465	----	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		11.0	10.9	9.1	7.4	6.7
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		41.2	25.3	3.5	4.3	1.2
ANC as CaCO3	----	0.1	% CaCO3		4.2	2.6	0.4	0.4	0.1
Fizz Rating	----	0	Fizz Unit		2	1	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		8.9	9.0	8.7	7.6	5.2
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		<2	<2	<2	<2	16
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	<0.02	<0.02	0.03
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.012	0.008	0.011	0.009	0.007
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		4.35	2.83	0.48	0.39	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		869	565	95	78	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		1.39	0.91	0.15	0.12	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-031	EB2608584-032	EB2608584-033	EB2608584-034	EB2608584-035
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity (sulfur units)	----	0.02	% S		<0.02	<0.02	<0.02	<0.02	0.03
Net Acidity (acidity units)	----	10	mole H+ / t		<10	<10	<10	<10	20
Liming Rate	----	1	kg CaCO3/t		<1	<1	<1	<1	2
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		<0.02	<0.02	<0.02	<0.02	0.03
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		<10	<10	<10	<10	20
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	<1	<1	<1	2
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		4.8	4.6	5.9	<1.0	13.3
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.05	0.04	0.05	0.04	0.04
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	<1	----	----	----
Iron	7439-89-6	1	mg/kg		----	1	----	----	----
Tin	7440-31-5	0.1	mg/kg		----	<0.1	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		3590	1660	1470	1520	3260
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		7490	3810	5380	3810	3980
Calcium	7440-70-2	50	mg/kg		6030	2650	450	250	450
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	0.03	----	----	----
Barium	7440-39-3	0.01	mg/kg		----	0.11	----	----	----
Beryllium	7440-41-7	0.01	mg/kg		----	<0.01	----	----	----
Cadmium	7440-43-9	0.01	mg/kg		----	<0.01	----	----	----
Bismuth	7440-69-9	0.01	mg/kg		----	<0.01	----	----	----
Cobalt	7440-48-4	0.01	mg/kg		----	<0.01	----	----	----
Chromium	7440-47-3	0.01	mg/kg		----	<0.01	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-031	EB2608584-032	EB2608584-033	EB2608584-034	EB2608584-035
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Copper	7440-50-8	0.01	mg/kg	----	<0.01	----	----	----
Manganese	7439-96-5	0.01	mg/kg	----	<0.01	----	----	----
Nickel	7440-02-0	0.01	mg/kg	----	<0.01	----	----	----
Lead	7439-92-1	0.01	mg/kg	----	<0.01	----	----	----
Zinc	7440-66-6	0.05	mg/kg	----	<0.05	----	----	----
Lithium	7439-93-2	0.01	mg/kg	----	<0.01	----	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	<0.1	----	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	0.2	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	1.8	3.9	1.2	1.1	2.5
Barium	7440-39-3	0.1	mg/kg	441	639	17.5	17.8	18.4
Beryllium	7440-41-7	0.1	mg/kg	0.5	0.3	0.2	0.2	0.2
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	7.7	3.5	15.6	2.6	2.4
Chromium	7440-47-3	0.1	mg/kg	5.0	1.5	3.5	2.9	4.3
Copper	7440-50-8	0.1	mg/kg	4.2	4.2	2.1	1.8	2.2
Manganese	7439-96-5	0.1	mg/kg	98.4	54.3	197	52.8	70.0
Nickel	7440-02-0	0.1	mg/kg	7.3	7.4	9.8	3.5	2.1
Lead	7439-92-1	0.1	mg/kg	8.3	10.4	5.3	4.7	7.9
Zinc	7440-66-6	0.5	mg/kg	10.8	18.5	7.2	5.5	2.8
Lithium	7439-93-2	0.1	mg/kg	1.1	0.4	0.3	0.2	0.3
Vanadium	7440-62-2	1	mg/kg	10	4	6	5	10
Tin	7440-31-5	0.1	mg/kg	0.3	0.1	0.1	0.1	0.3
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-036	EB2608584-037	EB2608584-038	EB2608584-039	EB2608584-040
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		4.2	8.5	----	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		2.4	-17.4	-32.4	-15.7	-4.2
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		607	69	----	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		6.0	10.6	10.9	9.0	8.0
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		0.3	<0.1	<0.1	<0.1	<0.1
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		<0.5	18.0	33.3	17.2	5.4
ANC as CaCO3	----	0.1	% CaCO3		<0.1	1.8	3.4	1.8	0.6
Fizz Rating	----	0	Fizz Unit		0	1	2	1	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.0	8.7	8.8	8.9	7.5
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		20	<2	<2	<2	<2
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		0.03	<0.02	<0.02	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.011	0.008	0.010	0.011	0.009
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	1.82	3.86	1.85	0.77
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	364	772	370	154
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	0.58	1.24	0.59	0.25
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-036	EB2608584-037	EB2608584-038	EB2608584-039	EB2608584-040
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity (sulfur units)	----	0.02	% S		0.04	<0.02	<0.02	<0.02	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		27	<10	<10	<10	<10
Liming Rate	----	1	kg CaCO3/t		2	<1	<1	<1	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.04	<0.02	<0.02	<0.02	<0.02
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		27	<10	<10	<10	<10
Liming Rate excluding ANC	----	1	kg CaCO3/t		2	<1	<1	<1	<1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		12.4	4.2	2.4	1.1	13.4
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.08	0.02	0.03	0.05	0.04
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		<1	<1	----	----	----
Iron	7439-89-6	1	mg/kg		<1	<1	----	----	----
Tin	7440-31-5	0.1	mg/kg		<0.1	<0.1	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		3010	3160	2240	2270	6190
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		8920	5220	5520	6250	9800
Calcium	7440-70-2	50	mg/kg		2470	5640	5600	6100	1110
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		<0.01	<0.01	----	----	----
Barium	7440-39-3	0.01	mg/kg		0.19	0.47	----	----	----
Beryllium	7440-41-7	0.01	mg/kg		<0.01	<0.01	----	----	----
Cadmium	7440-43-9	0.01	mg/kg		<0.01	<0.01	----	----	----
Bismuth	7440-69-9	0.01	mg/kg		<0.01	<0.01	----	----	----
Cobalt	7440-48-4	0.01	mg/kg		0.25	<0.01	----	----	----
Chromium	7440-47-3	0.01	mg/kg		<0.01	<0.01	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-036	EB2608584-037	EB2608584-038	EB2608584-039	EB2608584-040
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Copper	7440-50-8	0.01	mg/kg	<0.01	<0.01	----	----	----
Manganese	7439-96-5	0.01	mg/kg	14.9	<0.01	----	----	----
Nickel	7440-02-0	0.01	mg/kg	0.17	<0.01	----	----	----
Lead	7439-92-1	0.01	mg/kg	<0.01	<0.01	----	----	----
Zinc	7440-66-6	0.05	mg/kg	<0.05	<0.05	----	----	----
Lithium	7439-93-2	0.01	mg/kg	0.04	<0.01	----	----	----
Vanadium	7440-62-2	0.1	mg/kg	<0.1	<0.1	----	----	----
Aluminium	7429-90-5	0.1	mg/kg	0.2	0.7	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.3	2.9	6.5	13.9	1.9
Barium	7440-39-3	0.1	mg/kg	22.0	139	233	550	147
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.8	0.7	1.4	0.6
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	2.2	6.6	3.2	5.5	4.4
Chromium	7440-47-3	0.1	mg/kg	3.3	2.3	1.2	3.3	6.2
Copper	7440-50-8	0.1	mg/kg	2.2	6.5	3.5	4.3	3.8
Manganese	7439-96-5	0.1	mg/kg	70.4	122	39.5	83.8	78.2
Nickel	7440-02-0	0.1	mg/kg	1.8	5.5	6.2	22.2	7.0
Lead	7439-92-1	0.1	mg/kg	7.0	12.4	13.6	30.5	10.0
Zinc	7440-66-6	0.5	mg/kg	2.8	10.1	18.8	58.2	6.4
Lithium	7439-93-2	0.1	mg/kg	0.3	0.8	0.5	0.4	2.1
Vanadium	7440-62-2	1	mg/kg	11	6	5	11	15
Tin	7440-31-5	0.1	mg/kg	0.2	0.3	0.2	0.1	0.3
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-041	EB2608584-042	EB2608584-043	EB2608584-044	EB2608584-045
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	9.2	----	5.3
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		-22.5	-23.7	-3.5	-4.5	-0.3
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	444	----	4
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		10.3	10.4	7.7	7.4	6.3
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	0.3
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		25.3	24.6	5.3	5.1	0.9
ANC as CaCO3	----	0.1	% CaCO3		2.6	2.5	0.5	0.5	<0.1
Fizz Rating	----	0	Fizz Unit		1	1	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		8.9	9.0	7.5	6.4	4.6
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		<2	<2	<2	<2	51
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	<0.02	<0.02	0.08
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.008	0.006	0.010	0.006	0.007
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		2.50	2.33	0.62	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		499	466	124	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		0.80	0.75	0.20	----	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-041	EB2608584-042	EB2608584-043	EB2608584-044	EB2608584-045
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity (sulfur units)	----	0.02	% S		<0.02	<0.02	<0.02	<0.02	0.09
Net Acidity (acidity units)	----	10	mole H+ / t		<10	<10	<10	<10	56
Liming Rate	----	1	kg CaCO3/t		<1	<1	<1	<1	4
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		<0.02	<0.02	<0.02	<0.02	0.09
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		<10	<10	<10	<10	56
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	<1	<1	<1	4
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		7.0	5.9	3.6	4.4	11.2
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.09	0.03	0.06	0.02	0.02
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	----	<1
Iron	7439-89-6	1	mg/kg		----	----	<1	----	7
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	----	<0.1
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		4190	3030	1900	1500	3150
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		6880	6030	15100	2600	4220
Calcium	7440-70-2	50	mg/kg		19200	1510	960	70	<50
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	0.02	----	<0.01
Barium	7440-39-3	0.01	mg/kg		----	----	0.05	----	<0.01
Beryllium	7440-41-7	0.01	mg/kg		----	----	<0.01	----	<0.01
Cadmium	7440-43-9	0.01	mg/kg		----	----	<0.01	----	<0.01
Bismuth	7440-69-9	0.01	mg/kg		----	----	<0.01	----	<0.01
Cobalt	7440-48-4	0.01	mg/kg		----	----	<0.01	----	<0.01
Chromium	7440-47-3	0.01	mg/kg		----	----	<0.01	----	<0.01



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-041	EB2608584-042	EB2608584-043	EB2608584-044	EB2608584-045
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Copper	7440-50-8	0.01	mg/kg	----	----	<0.01	----	<0.01
Manganese	7439-96-5	0.01	mg/kg	----	----	<0.01	----	<0.01
Nickel	7440-02-0	0.01	mg/kg	----	----	<0.01	----	<0.01
Lead	7439-92-1	0.01	mg/kg	----	----	<0.01	----	<0.01
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	----	<0.05
Lithium	7439-93-2	0.01	mg/kg	----	----	<0.01	----	<0.01
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	----	<0.1
Aluminium	7429-90-5	0.1	mg/kg	----	----	0.7	----	5.4
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	1.9	2.0	7.2	2.1	3.5
Barium	7440-39-3	0.1	mg/kg	298	84.6	109	21.4	28.3
Beryllium	7440-41-7	0.1	mg/kg	0.5	0.4	0.7	0.1	0.3
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	5.9	3.6	9.7	0.5	0.6
Chromium	7440-47-3	0.1	mg/kg	5.3	4.1	3.6	1.0	1.8
Copper	7440-50-8	0.1	mg/kg	4.1	3.2	3.9	0.8	0.6
Manganese	7439-96-5	0.1	mg/kg	99.9	73.1	152	6.7	3.7
Nickel	7440-02-0	0.1	mg/kg	8.1	7.3	23.3	1.1	1.6
Lead	7439-92-1	0.1	mg/kg	7.0	8.0	11.1	4.5	7.9
Zinc	7440-66-6	0.5	mg/kg	7.7	10.5	38.0	1.9	2.8
Lithium	7439-93-2	0.1	mg/kg	2.2	1.5	0.7	0.2	0.7
Vanadium	7440-62-2	1	mg/kg	14	12	12	5	8
Tin	7440-31-5	0.1	mg/kg	0.3	0.2	0.2	<0.1	0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP27-1	KTP27-1-D	KTP272	KTP33-1	KTP31-1
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-046	EB2608584-047	EB2608584-048	EB2608584-049	EB2608584-050
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.09	0.09	0.17	0.03	0.06
Net Acidity (acidity units)	----	10	mole H+ / t		59	56	105	21	34
Liming Rate	----	1	kg CaCO3/t		4	4	8	2	3
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.09	0.09	0.17	0.03	0.06
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		59	56	105	21	34
Liming Rate excluding ANC	----	1	kg CaCO3/t		4	4	8	2	3
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		18.7	17.2	21.3	14.1	13.5
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.03	0.03	0.04	0.03	0.15
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		<1	----	----	<1	----
Iron	7439-89-6	1	mg/kg		4	----	----	13	----
Tin	7440-31-5	0.1	mg/kg		<0.1	----	----	<0.1	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		2840	3360	6560	2360	1550
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		6980	8460	5040	5250	6900
Calcium	7440-70-2	50	mg/kg		<50	<50	<50	60	110
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		<0.01	----	----	<0.01	----
Barium	7440-39-3	0.01	mg/kg		0.06	----	----	0.09	----
Beryllium	7440-41-7	0.01	mg/kg		<0.01	----	----	<0.01	----
Cadmium	7440-43-9	0.01	mg/kg		<0.01	----	----	<0.01	----
Bismuth	7440-69-9	0.01	mg/kg		<0.01	----	----	<0.01	----
Cobalt	7440-48-4	0.01	mg/kg		<0.01	----	----	<0.01	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP27-1	KTP27-1-D	KTP272	KTP33-1	KTP31-1
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-046	EB2608584-047	EB2608584-048	EB2608584-049	EB2608584-050
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Chromium	7440-47-3	0.01	mg/kg	<0.01	----	----	0.02	----
Copper	7440-50-8	0.01	mg/kg	<0.01	----	----	<0.01	----
Manganese	7439-96-5	0.01	mg/kg	0.14	----	----	<0.01	----
Nickel	7440-02-0	0.01	mg/kg	<0.01	----	----	0.02	----
Lead	7439-92-1	0.01	mg/kg	<0.01	----	----	<0.01	----
Zinc	7440-66-6	0.05	mg/kg	<0.05	----	----	<0.05	----
Lithium	7439-93-2	0.01	mg/kg	0.01	----	----	0.02	----
Vanadium	7440-62-2	0.1	mg/kg	<0.1	----	----	<0.1	----
Aluminium	7429-90-5	0.1	mg/kg	2.0	----	----	48.7	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	3.0	2.6	3.5	3.5	2.7
Barium	7440-39-3	0.1	mg/kg	39.6	43.3	49.9	127	36.2
Beryllium	7440-41-7	0.1	mg/kg	<0.1	<0.1	<0.1	0.4	<0.1
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.2	0.2	0.2	1.9	0.6
Chromium	7440-47-3	0.1	mg/kg	3.8	3.9	3.6	1.4	2.3
Copper	7440-50-8	0.1	mg/kg	2.5	2.6	3.2	1.2	1.7
Manganese	7439-96-5	0.1	mg/kg	4.6	4.6	3.5	6.2	8.6
Nickel	7440-02-0	0.1	mg/kg	0.5	0.5	0.7	3.9	0.7
Lead	7439-92-1	0.1	mg/kg	11.1	11.9	17.2	6.0	7.9
Zinc	7440-66-6	0.5	mg/kg	0.8	0.8	1.0	10.5	3.6
Lithium	7439-93-2	0.1	mg/kg	0.3	0.3	0.3	0.3	0.2
Vanadium	7440-62-2	1	mg/kg	8	8	9	4	6
Tin	7440-31-5	0.1	mg/kg	0.2	0.2	0.2	0.1	0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-051	EB2608584-052	EB2608584-053	EB2608584-054	EB2608584-055
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	4.8	----	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		0.6	-0.7	0.01	4.3	1.4
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	20	----	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		6.2	5.8	5.9	6.0	6.4
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		0.9	1.0	0.9	0.6	0.3
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		<0.5	1.3	0.6	1.5	1.0
ANC as CaCO3	----	0.1	% CaCO3		<0.1	0.1	<0.1	0.2	<0.1
Fizz Rating	----	0	Fizz Unit		0	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.5	4.6	4.6	4.6	4.7
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		8	58	52	52	33
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	0.09	0.08	0.08	0.05
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.008	0.007	0.010	0.010	0.013
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.02	0.10	0.09	0.09	0.07
Net Acidity (acidity units)	----	10	mole H+ / t		14	62	59	58	41
Liming Rate	----	1	kg CaCO3/t		1	5	4	4	3
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.02	0.10	0.09	0.09	0.07



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-051	EB2608584-052	EB2608584-053	EB2608584-054	EB2608584-055
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		14	62	59	58	41
Liming Rate excluding ANC	----	1	kg CaCO3/t		1	5	4	4	3
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		10.5	21.0	17.3	12.0	17.3
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.02	0.02	0.02	0.19	0.08
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	<1	----	----	----
Iron	7439-89-6	1	mg/kg		----	5	----	----	----
Tin	7440-31-5	0.1	mg/kg		----	<0.1	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		1600	4270	3580	2160	3200
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		2910	5580	14300	11500	11200
Calcium	7440-70-2	50	mg/kg		120	270	270	360	710
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	<0.01	----	----	----
Barium	7440-39-3	0.01	mg/kg		----	0.03	----	----	----
Beryllium	7440-41-7	0.01	mg/kg		----	<0.01	----	----	----
Cadmium	7440-43-9	0.01	mg/kg		----	<0.01	----	----	----
Bismuth	7440-69-9	0.01	mg/kg		----	<0.01	----	----	----
Cobalt	7440-48-4	0.01	mg/kg		----	<0.01	----	----	----
Chromium	7440-47-3	0.01	mg/kg		----	<0.01	----	----	----
Copper	7440-50-8	0.01	mg/kg		----	<0.01	----	----	----
Manganese	7439-96-5	0.01	mg/kg		----	0.02	----	----	----
Nickel	7440-02-0	0.01	mg/kg		----	<0.01	----	----	----
Lead	7439-92-1	0.01	mg/kg		----	<0.01	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-051	EB2608584-052	EB2608584-053	EB2608584-054	EB2608584-055
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Zinc	7440-66-6	0.05	mg/kg	----	<0.05	----	----	----
Lithium	7439-93-2	0.01	mg/kg	----	0.01	----	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	<0.1	----	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	12.1	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.3	6.7	5.0	2.6	2.3
Barium	7440-39-3	0.1	mg/kg	19.5	28.9	19.7	87.7	77.6
Beryllium	7440-41-7	0.1	mg/kg	0.1	0.2	0.2	0.2	0.3
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.5	0.8	0.7	1.1	2.0
Chromium	7440-47-3	0.1	mg/kg	1.3	2.2	1.9	4.6	5.0
Copper	7440-50-8	0.1	mg/kg	0.6	0.5	0.6	4.5	3.7
Manganese	7439-96-5	0.1	mg/kg	3.7	5.7	5.2	22.0	18.0
Nickel	7440-02-0	0.1	mg/kg	0.8	1.5	1.2	2.5	4.4
Lead	7439-92-1	0.1	mg/kg	4.8	6.3	6.1	8.5	9.8
Zinc	7440-66-6	0.5	mg/kg	0.7	1.1	1.5	11.5	14.9
Lithium	7439-93-2	0.1	mg/kg	0.2	0.5	0.5	0.2	0.9
Vanadium	7440-62-2	1	mg/kg	6	12	9	8	10
Tin	7440-31-5	0.1	mg/kg	<0.1	0.1	0.1	0.2	0.2
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP34-3	KTP34-4	KTP34-5	KTP34-4-D	KTP34-6
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-056	EB2608584-057	EB2608584-058	EB2608584-059	EB2608584-060
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.20	0.06	0.06	0.04	0.03
Net Acidity (acidity units)	----	10	mole H+ / t		123	37	40	25	21
Liming Rate	----	1	kg CaCO3/t		9	3	3	2	2
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.20	0.06	0.06	0.04	0.03
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		123	37	40	25	21
Liming Rate excluding ANC	----	1	kg CaCO3/t		9	3	3	2	2
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		16.8	16.7	14.1	17.0	12.4
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.39	0.09	0.22	0.07	0.08
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	<1	----	----	----
Iron	7439-89-6	1	mg/kg		----	<1	----	----	----
Tin	7440-31-5	0.1	mg/kg		----	<0.1	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		2580	2700	1800	3430	1390
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		17100	18100	22000	16500	6480
Calcium	7440-70-2	50	mg/kg		740	600	560	750	2290
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	<0.01	----	----	----
Barium	7440-39-3	0.01	mg/kg		----	0.11	----	----	----
Beryllium	7440-41-7	0.01	mg/kg		----	<0.01	----	----	----
Cadmium	7440-43-9	0.01	mg/kg		----	<0.01	----	----	----
Bismuth	7440-69-9	0.01	mg/kg		----	<0.01	----	----	----
Cobalt	7440-48-4	0.01	mg/kg		----	<0.01	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP34-3	KTP34-4	KTP34-5	KTP34-4-D	KTP34-6
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-056	EB2608584-057	EB2608584-058	EB2608584-059	EB2608584-060
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Chromium	7440-47-3	0.01	mg/kg	----	<0.01	----	----	----
Copper	7440-50-8	0.01	mg/kg	----	<0.01	----	----	----
Manganese	7439-96-5	0.01	mg/kg	----	0.12	----	----	----
Nickel	7440-02-0	0.01	mg/kg	----	0.02	----	----	----
Lead	7439-92-1	0.01	mg/kg	----	<0.01	----	----	----
Zinc	7440-66-6	0.05	mg/kg	----	<0.05	----	----	----
Lithium	7439-93-2	0.01	mg/kg	----	0.09	----	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	<0.1	----	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	0.1	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	5.0	3.8	3.6	2.6	1.8
Barium	7440-39-3	0.1	mg/kg	130	78.6	37.7	58.4	30.3
Beryllium	7440-41-7	0.1	mg/kg	0.2	0.2	0.1	0.2	<0.1
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.6	1.1	0.7	1.7	0.3
Chromium	7440-47-3	0.1	mg/kg	3.8	8.0	6.4	5.9	2.0
Copper	7440-50-8	0.1	mg/kg	6.8	6.4	2.9	4.1	1.5
Manganese	7439-96-5	0.1	mg/kg	7.8	12.5	17.7	14.9	3.4
Nickel	7440-02-0	0.1	mg/kg	1.0	3.4	2.0	4.2	0.8
Lead	7439-92-1	0.1	mg/kg	16.3	15.4	9.7	8.4	4.0
Zinc	7440-66-6	0.5	mg/kg	5.4	16.5	8.3	17.5	3.1
Lithium	7439-93-2	0.1	mg/kg	0.2	0.4	0.3	0.6	0.2
Vanadium	7440-62-2	1	mg/kg	7	16	11	13	7
Tin	7440-31-5	0.1	mg/kg	0.2	0.3	0.1	0.2	0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-061	EB2608584-062	EB2608584-063	EB2608584-064	EB2608584-065
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		4.4	----	----	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		0.9	-0.8	-1.5	-1.1	-1.2
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		149	----	----	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		5.3	5.8	5.6	6.0	6.0
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		3.8	2.9	3.0	2.0	1.5
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		0.6	2.0	2.1	1.7	2.1
ANC as CaCO3	----	0.1	% CaCO3		<0.1	0.2	0.2	0.2	0.2
Fizz Rating	----	0	Fizz Unit		0	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.5	8.8	5.5	5.5	5.5
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		7	<2	5	5	4
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	<0.02	<0.02	<0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.011	0.007	0.009	0.007	0.015
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	0.31	----	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	61	----	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	0.10	----	----	----
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-061	EB2608584-062	EB2608584-063	EB2608584-064	EB2608584-065
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity (sulfur units)	----	0.02	% S		0.02	<0.02	<0.02	<0.02	0.02
Net Acidity (acidity units)	----	10	mole H+ / t		14	<10	11	<10	14
Liming Rate	----	1	kg CaCO3/t		1	<1	<1	<1	1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.02	<0.02	<0.02	<0.02	0.02
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		14	<10	11	<10	14
Liming Rate excluding ANC	----	1	kg CaCO3/t		1	<1	<1	<1	1
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		13.7	19.9	10.8	11.0	12.2
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.05	0.04	0.02	0.02	0.03
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		<1	----	----	----	----
Iron	7439-89-6	1	mg/kg		<1	----	----	----	----
Tin	7440-31-5	0.1	mg/kg		<0.1	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		1260	1380	1100	1400	1680
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		5750	5550	2850	3770	3720
Calcium	7440-70-2	50	mg/kg		240	310	180	300	520
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		<0.01	----	----	----	----
Barium	7440-39-3	0.01	mg/kg		0.11	----	----	----	----
Beryllium	7440-41-7	0.01	mg/kg		<0.01	----	----	----	----
Cadmium	7440-43-9	0.01	mg/kg		<0.01	----	----	----	----
Bismuth	7440-69-9	0.01	mg/kg		<0.01	----	----	----	----
Cobalt	7440-48-4	0.01	mg/kg		0.01	----	----	----	----
Chromium	7440-47-3	0.01	mg/kg		<0.01	----	----	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-061	EB2608584-062	EB2608584-063	EB2608584-064	EB2608584-065
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Copper	7440-50-8	0.01	mg/kg	<0.01	----	----	----	----
Manganese	7439-96-5	0.01	mg/kg	0.28	----	----	----	----
Nickel	7440-02-0	0.01	mg/kg	0.03	----	----	----	----
Lead	7439-92-1	0.01	mg/kg	<0.01	----	----	----	----
Zinc	7440-66-6	0.05	mg/kg	0.06	----	----	----	----
Lithium	7439-93-2	0.01	mg/kg	0.06	----	----	----	----
Vanadium	7440-62-2	0.1	mg/kg	<0.1	----	----	----	----
Aluminium	7429-90-5	0.1	mg/kg	0.3	----	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.5	1.2	1.5	1.4	1.5
Barium	7440-39-3	0.1	mg/kg	41.3	38.1	43.2	29.5	45.8
Beryllium	7440-41-7	0.1	mg/kg	<0.1	0.1	<0.1	0.1	0.2
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.5	1.9	0.9	1.1	3.0
Chromium	7440-47-3	0.1	mg/kg	3.1	3.2	1.6	2.0	2.5
Copper	7440-50-8	0.1	mg/kg	1.9	2.2	1.1	1.5	2.6
Manganese	7439-96-5	0.1	mg/kg	5.1	37.4	10.9	15.0	31.8
Nickel	7440-02-0	0.1	mg/kg	1.2	2.9	1.1	1.5	3.2
Lead	7439-92-1	0.1	mg/kg	5.7	5.1	3.3	3.9	5.8
Zinc	7440-66-6	0.5	mg/kg	5.5	7.3	3.2	4.5	9.4
Lithium	7439-93-2	0.1	mg/kg	0.3	0.2	0.2	0.2	0.3
Vanadium	7440-62-2	1	mg/kg	9	6	6	6	6
Tin	7440-31-5	0.1	mg/kg	0.1	0.2	0.1	0.1	0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-066	EB2608584-067	EB2608584-068	EB2608584-069	EB2608584-070
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		4.4	----	7.6	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		0.6	1.3	-6.9	22.7	96.7
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		710	----	409	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		6.2	6.9	8.3	6.2	3.4
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	5.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		1.0	<0.1	<0.1	5.9	34.1
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		0.9	2.4	11.8	5.1	<0.5
ANC as CaCO3	----	0.1	% CaCO3		<0.1	0.2	1.2	0.5	<0.1
Fizz Rating	----	0	Fizz Unit		0	0	1	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.5	6.4	8.8	7.0	4.3
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		5	<2	<2	<2	71
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	<0.02	<0.02	<0.02	0.11
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.013	0.010	0.007	0.011	0.020
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	<10	12
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		----	----	0.96	0.65	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		----	----	192	130	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		----	----	0.31	0.21	----
EA033-D: Retained Acidity									
KCl Extractable Sulfur (23Ce)	----	0.02	% S		----	----	----	----	2.11



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-066	EB2608584-067	EB2608584-068	EB2608584-069	EB2608584-070
					Result	Result	Result	Result	Result
EA033-D: Retained Acidity - Continued									
HCl Extractable Sulfur (20Be)	----	0.02	% S		----	----	----	----	3.19
Net Acid Soluble Sulfur (20Je)	----	0.02	% S		----	----	----	----	2.16
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		----	----	----	----	1010
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S		----	----	----	----	1.62
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.02	<0.02	<0.02	<0.02	1.75
Net Acidity (acidity units)	----	10	mole H+ / t		13	<10	<10	<10	1090
Liming Rate	----	1	kg CaCO3/t		<1	<1	<1	<1	82
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.02	<0.02	<0.02	<0.02	1.75
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		13	<10	<10	<10	1090
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	<1	<1	<1	82
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		12.8	12.8	20.3	34.1	23.6
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.05	0.12	0.16	0.91	3.16
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		<1	----	<1	----	----
Iron	7439-89-6	1	mg/kg		<1	----	<1	----	----
Tin	7440-31-5	0.1	mg/kg		<0.1	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		1640	1210	1580	1720	3080
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		4350	6200	9500	5330	75100
Calcium	7440-70-2	50	mg/kg		1020	590	6670	920	20500
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		<0.01	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-066	EB2608584-067	EB2608584-068	EB2608584-069	EB2608584-070
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Barium	7440-39-3	0.01	mg/kg	0.10	----	0.37	----	----
Beryllium	7440-41-7	0.01	mg/kg	<0.01	----	<0.01	----	----
Cadmium	7440-43-9	0.01	mg/kg	<0.01	----	<0.01	----	----
Bismuth	7440-69-9	0.01	mg/kg	<0.01	----	<0.01	----	----
Cobalt	7440-48-4	0.01	mg/kg	0.13	----	<0.01	----	----
Chromium	7440-47-3	0.01	mg/kg	<0.01	----	<0.01	----	----
Copper	7440-50-8	0.01	mg/kg	<0.01	----	<0.01	----	----
Manganese	7439-96-5	0.01	mg/kg	2.38	----	<0.01	----	----
Nickel	7440-02-0	0.01	mg/kg	0.18	----	<0.01	----	----
Lead	7439-92-1	0.01	mg/kg	<0.01	----	<0.01	----	----
Zinc	7440-66-6	0.05	mg/kg	0.24	----	<0.05	----	----
Lithium	7439-93-2	0.01	mg/kg	0.03	----	<0.01	----	----
Vanadium	7440-62-2	0.1	mg/kg	<0.1	----	<0.1	----	----
Aluminium	7429-90-5	0.1	mg/kg	1.1	----	<0.1	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	0.8	1.2	2.0	1.8	6.6
Barium	7440-39-3	0.1	mg/kg	40.3	38.2	53.9	76.5	101
Beryllium	7440-41-7	0.1	mg/kg	0.1	0.1	0.3	0.4	0.3
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	0.1	0.1	0.3
Cobalt	7440-48-4	0.1	mg/kg	1.2	1.9	2.9	3.8	1.9
Chromium	7440-47-3	0.1	mg/kg	1.3	2.8	2.7	2.7	5.8
Copper	7440-50-8	0.1	mg/kg	2.2	2.3	2.8	3.4	13.7
Manganese	7439-96-5	0.1	mg/kg	10.7	31.9	91.1	45.3	24.5
Nickel	7440-02-0	0.1	mg/kg	1.7	2.4	6.6	7.9	4.7
Lead	7439-92-1	0.1	mg/kg	5.0	5.5	6.0	6.9	27.0
Zinc	7440-66-6	0.5	mg/kg	7.4	7.5	23.1	28.3	26.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-066	EB2608584-067	EB2608584-068	EB2608584-069	EB2608584-070
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Lithium	7439-93-2	0.1	mg/kg		0.2	0.1	0.4	0.4	0.7
Vanadium	7440-62-2	1	mg/kg		3	5	5	7	14
Tin	7440-31-5	0.1	mg/kg		<0.1	0.1	0.2	0.3	0.5
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-071	EB2608584-072	EB2608584-073	EB2608584-074	EB2608584-075
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	4.7	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		70.2	2.1	4.9	0.2	1.8
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	18	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		9.1	5.7	6.7	5.3	5.3
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		<0.1	1.6	0.2	2.2	2.0
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		31.7	<0.5	<0.5	1.6	<0.5
ANC as CaCO3	----	0.1	% CaCO3		3.2	<0.1	<0.1	0.2	<0.1
Fizz Rating	----	0	Fizz Unit		2	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		8.4	4.5	4.8	4.4	4.4
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		<2	61	41	75	72
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	0.10	0.07	0.12	0.11
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.017	0.021	0.019	0.017	0.015
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		11	13	12	10	<10
EA033-C: Acid Neutralising Capacity									
Acid Neutralising Capacity (19A2)	----	0.01	% CaCO3		3.48	----	----	----	----
acidity - Acid Neutralising Capacity (a-19A2)	----	10	mole H+ / t		696	----	----	----	----
sulfidic - Acid Neutralising Capacity (s-19A2)	----	0.01	% pyrite S		1.12	----	----	----	----
EA033-D: Retained Acidity									
KCl Extractable Sulfur (23Ce)	----	0.02	% S		----	----	----	<0.02	<0.02



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-071	EB2608584-072	EB2608584-073	EB2608584-074	EB2608584-075
					Result	Result	Result	Result	Result
EA033-D: Retained Acidity - Continued									
HCl Extractable Sulfur (20Be)	----	0.02	% S		----	----	----	0.03	0.03
Net Acid Soluble Sulfur (20Je)	----	0.02	% S		----	----	----	0.06	0.06
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		----	----	----	26	27
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S		----	----	----	0.04	0.04
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		<0.02	0.12	0.08	0.18	0.17
Net Acidity (acidity units)	----	10	mole H+ / t		<10	74	52	112	108
Liming Rate	----	1	kg CaCO3/t		<1	6	4	8	8
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		<0.02	0.12	0.08	0.18	0.17
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		11	74	52	112	108
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	6	4	8	8
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		43.7	15.2	13.5	21.5	16.0
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		3.33	0.07	0.16	0.06	0.06
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	----	----
Iron	7439-89-6	1	mg/kg		----	----	11	----	----
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		14200	3680	3030	6180	4630
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		85600	16400	12100	22500	12000
Calcium	7440-70-2	50	mg/kg		104000	280	110	90	<50
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-071	EB2608584-072	EB2608584-073	EB2608584-074	EB2608584-075
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Barium	7440-39-3	0.01	mg/kg	----	----	0.09	----	----
Beryllium	7440-41-7	0.01	mg/kg	----	----	<0.01	----	----
Cadmium	7440-43-9	0.01	mg/kg	----	----	<0.01	----	----
Bismuth	7440-69-9	0.01	mg/kg	----	----	<0.01	----	----
Cobalt	7440-48-4	0.01	mg/kg	----	----	<0.01	----	----
Chromium	7440-47-3	0.01	mg/kg	----	----	0.01	----	----
Copper	7440-50-8	0.01	mg/kg	----	----	<0.01	----	----
Manganese	7439-96-5	0.01	mg/kg	----	----	0.04	----	----
Nickel	7440-02-0	0.01	mg/kg	----	----	<0.01	----	----
Lead	7439-92-1	0.01	mg/kg	----	----	<0.01	----	----
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	----	----
Lithium	7439-93-2	0.01	mg/kg	----	----	0.02	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	16.4	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	2.8	2.9	2.6	4.0	3.5
Barium	7440-39-3	0.1	mg/kg	34.9	84.2	77.3	518	99.8
Beryllium	7440-41-7	0.1	mg/kg	6.7	<0.1	<0.1	<0.1	<0.1
Cadmium	7440-43-9	0.1	mg/kg	1.3	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	0.1	0.1
Cobalt	7440-48-4	0.1	mg/kg	122	0.3	0.2	0.3	0.3
Chromium	7440-47-3	0.1	mg/kg	6.3	5.6	5.5	9.1	5.5
Copper	7440-50-8	0.1	mg/kg	14.4	3.0	2.9	2.5	2.4
Manganese	7439-96-5	0.1	mg/kg	5200	8.3	6.0	4.8	3.0
Nickel	7440-02-0	0.1	mg/kg	262	0.7	0.9	1.1	0.9
Lead	7439-92-1	0.1	mg/kg	5.8	12.0	11.2	14.4	13.1
Zinc	7440-66-6	0.5	mg/kg	869	2.0	1.3	1.7	1.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-071	EB2608584-072	EB2608584-073	EB2608584-074	EB2608584-075
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Lithium	7439-93-2	0.1	mg/kg		2.0	0.2	0.3	0.6	0.7
Vanadium	7440-62-2	1	mg/kg		6	11	10	15	13
Tin	7440-31-5	0.1	mg/kg		0.3	0.2	0.2	0.3	0.2
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-076	EB2608584-077	EB2608584-078	EB2608584-079	EB2608584-080
					Result	Result	Result	Result	Result
EA002: pH 1:5 (Soils)									
pH Value	----	0.1	pH Unit		----	----	4.5	----	----
EA009: Net Acid Production Potential									
Net Acid Production Potential	----	0.5	kg H2SO4/t		-0.5	0.6	0.9	-0.08	-0.2
EA010: Conductivity (1:5)									
Electrical Conductivity @ 25°C	----	1	µS/cm		----	----	141	----	----
EA011: Net Acid Generation									
pH (OX)	----	0.1	pH Unit		6.3	5.4	5.3	5.5	5.2
NAG (pH 4.5)	----	0.1	kg H2SO4/t		<0.1	<0.1	<0.1	<0.1	<0.1
NAG (pH 7.0)	----	0.1	kg H2SO4/t		0.7	2.7	3.1	2.1	8.0
EA013: Acid Neutralising Capacity									
ANC as H2SO4	----	0.5	kg H2SO4 equiv./t		1.4	<0.5	<0.5	1.0	0.8
ANC as CaCO3	----	0.1	% CaCO3		0.1	<0.1	<0.1	0.1	<0.1
Fizz Rating	----	0	Fizz Unit		0	0	0	0	0
EA033-A: Actual Acidity									
pH KCl (23A)	----	0.1	pH Unit		5.3	4.6	4.8	4.9	5.0
Titrateable Actual Acidity (23F)	----	2	mole H+ / t		8	38	26	20	14
sulfidic - Titrateable Actual Acidity (s-23F)	----	0.02	% pyrite S		<0.02	0.06	0.04	0.03	0.02
EA033-B: Potential Acidity									
Chromium Reducible Sulfur (22B)	----	0.005	% S		0.015	0.009	0.015	0.018	0.016
acidity - Chromium Reducible Sulfur (a-22B)	----	10	mole H+ / t		<10	<10	<10	11	<10
EA033-E: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		1.5	1.5	1.5	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S		0.03	0.07	0.06	0.05	0.04
Net Acidity (acidity units)	----	10	mole H+ / t		17	44	36	31	24
Liming Rate	----	1	kg CaCO3/t		1	3	3	2	2
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		0.03	0.07	0.06	0.05	0.04



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608584-076	EB2608584-077	EB2608584-078	EB2608584-079	EB2608584-080
					Result	Result	Result	Result	Result
EA033-E: Acid Base Accounting - Continued									
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		17	44	36	31	24
Liming Rate excluding ANC	----	1	kg CaCO3/t		1	3	3	2	2
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		8.7	17.5	10.5	9.7	9.5
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%		0.03	0.02	0.03	0.03	0.02
EG005(ED093)S : Soluble Metals by ICPAES									
Boron	7440-42-8	1	mg/kg		----	----	<1	----	----
Iron	7439-89-6	1	mg/kg		----	----	<1	----	----
Tin	7440-31-5	0.1	mg/kg		----	----	<0.1	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Aluminium	7429-90-5	50	mg/kg		1020	4210	2650	2040	2050
Boron	7440-42-8	50	mg/kg		<50	<50	<50	<50	<50
Iron	7439-89-6	50	mg/kg		2690	7220	5020	6720	4120
Calcium	7440-70-2	50	mg/kg		130	160	100	<50	<50
EG020S: Soluble Metals by ICPMS									
Arsenic	7440-38-2	0.01	mg/kg		----	----	<0.01	----	----
Barium	7440-39-3	0.01	mg/kg		----	----	0.15	----	----
Beryllium	7440-41-7	0.01	mg/kg		----	----	<0.01	----	----
Cadmium	7440-43-9	0.01	mg/kg		----	----	<0.01	----	----
Bismuth	7440-69-9	0.01	mg/kg		----	----	<0.01	----	----
Cobalt	7440-48-4	0.01	mg/kg		----	----	<0.01	----	----
Chromium	7440-47-3	0.01	mg/kg		----	----	<0.01	----	----
Copper	7440-50-8	0.01	mg/kg		----	----	<0.01	----	----
Manganese	7439-96-5	0.01	mg/kg		----	----	0.19	----	----
Nickel	7440-02-0	0.01	mg/kg		----	----	0.03	----	----
Lead	7439-92-1	0.01	mg/kg		----	----	<0.01	----	----



Analytical Results

Sub-Matrix: SOIL
 (Matrix: SOIL)

Sample ID

				KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608584-076	EB2608584-077	EB2608584-078	EB2608584-079	EB2608584-080
				Result	Result	Result	Result	Result
EG020S: Soluble Metals by ICPMS - Continued								
Zinc	7440-66-6	0.05	mg/kg	----	----	<0.05	----	----
Lithium	7439-93-2	0.01	mg/kg	----	----	0.03	----	----
Vanadium	7440-62-2	0.1	mg/kg	----	----	<0.1	----	----
Aluminium	7429-90-5	0.1	mg/kg	----	----	0.5	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.1	mg/kg	1.6	5.6	2.6	1.8	2.5
Barium	7440-39-3	0.1	mg/kg	10.8	20.0	75.3	110	31.8
Beryllium	7440-41-7	0.1	mg/kg	<0.1	0.1	0.1	<0.1	<0.1
Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	7440-69-9	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	7440-48-4	0.1	mg/kg	0.4	1.0	0.6	0.3	0.4
Chromium	7440-47-3	0.1	mg/kg	2.0	6.4	3.7	2.9	2.9
Copper	7440-50-8	0.1	mg/kg	2.0	4.9	2.9	2.2	2.3
Manganese	7439-96-5	0.1	mg/kg	15.0	6.0	11.0	1.8	1.5
Nickel	7440-02-0	0.1	mg/kg	0.7	2.1	1.5	0.9	1.0
Lead	7439-92-1	0.1	mg/kg	3.5	12.0	7.1	5.8	5.6
Zinc	7440-66-6	0.5	mg/kg	1.2	1.1	1.4	1.4	1.1
Lithium	7439-93-2	0.1	mg/kg	0.2	0.5	0.5	0.5	0.4
Vanadium	7440-62-2	1	mg/kg	7	23	11	7	9
Tin	7440-31-5	0.1	mg/kg	<0.1	0.2	0.1	<0.1	<0.1
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1



CERTIFICATE OF ANALYSIS

Work Order	: EB2608926	Page	: 1 of 50
Client	: ENVIRONMENTAL RESOURCES MANAGEMENT (ERM)	Laboratory	: Environmental Division Brisbane
Contact	: MIFANWY PRESS	Contact	: Jarret Venderley
Address	: LEVEL 9 260 QUEEN STREET BRISBANE CITY 4000	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: Glencore - Collinsville	Date Samples Received	: 11-Mar-2026 12:00
Order number	: 771288	Date Analysis Commenced	: 13-Mar-2026
C-O-C number	: ----	Issue Date	: 19-Mar-2026 16:36
Sampler	: MULLER RETIEF		
Site	: ----		
Quote number	: ERM MSA 2025		
No. of samples received	: 80		
No. of samples analysed	: 80		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Kim McCabe	Senior Inorganic Chemist	Brisbane Inorganics, Stafford, QLD
Kim McCabe	Senior Inorganic Chemist	Brisbane Soil Preparation, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- ED045G (Chloride): Sample KTP2-3 (EB2608926-005) was diluted due to matrix interference. LOR adjusted accordingly.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP1-1	KTP1-2	KTP2-1	KTP2-2	KTP2-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-001	EB2608926-002	EB2608926-003	EB2608926-004	EB2608926-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.73	6.47	6.28	6.27	6.35
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	21	32	14	14	17
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	3	2	2	2	2
Total Alkalinity as CaCO3	----	1	mg/L	3	2	2	2	2
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	4	7	2	2	5
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	1	<1	<1	<5
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	4	6	3	3	4
Potassium	7440-09-7	1	mg/L	2	1	<1	<1	2
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	3.50	2.83	1.41	2.40	2.64
Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	<0.001	<0.001	0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.255	0.265	0.162	0.161	0.232
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.003	0.002	0.002	0.002	0.002



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP1-1	KTP1-2	KTP2-1	KTP2-2	KTP2-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-001	EB2608926-002	EB2608926-003	EB2608926-004	EB2608926-005
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.001	<0.001	0.011	0.002	0.001
Lead	7439-92-1	0.001	mg/L	0.003	0.003	0.001	0.001	0.003
Lithium	7439-93-2	0.001	mg/L	0.002	0.002	<0.001	0.001	0.001
Manganese	7439-96-5	0.001	mg/L	0.002	0.001	0.017	0.017	0.003
Nickel	7440-02-0	0.001	mg/L	0.001	<0.001	0.001	0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.265	0.225	0.152	0.121	0.260
Boron	7440-42-8	0.05	mg/L	0.38	0.43	0.23	0.24	0.46
Iron	7439-89-6	0.05	mg/L	1.79	1.02	0.97	1.14	3.59
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.1	0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO3	----	1	mg/L	2	2	2	2	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-006	EB2608926-007	EB2608926-008	EB2608926-009	EB2608926-010
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.45	7.56	7.60	7.46	6.68
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	34	52	55	209	14
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	3	22	25	18	4
Total Alkalinity as CaCO3	----	1	mg/L	3	22	25	18	4
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	4	2	3	70	2
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	3	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	<1	17	20	77	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	7	9	32	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	1	<1
Sodium	7440-23-5	1	mg/L	5	3	2	3	3
Potassium	7440-09-7	1	mg/L	2	<1	<1	<1	2
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.38	0.46	0.40	0.17	3.85
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.002
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.225	0.220	0.221	0.248	0.226
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.002	<0.001	<0.001	<0.001	0.003



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-006	EB2608926-007	EB2608926-008	EB2608926-009	EB2608926-010
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.001	<0.001	0.002
Lead	7439-92-1	0.001	mg/L	0.004	<0.001	<0.001	<0.001	0.004
Lithium	7439-93-2	0.001	mg/L	0.005	<0.001	<0.001	0.001	0.001
Manganese	7439-96-5	0.001	mg/L	0.003	0.011	0.013	<0.001	0.007
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.001	<0.001	0.002
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.195	0.027	0.021	0.020	0.189
Boron	7440-42-8	0.05	mg/L	0.33	0.16	0.15	0.20	0.36
Iron	7439-89-6	0.05	mg/L	1.93	0.39	0.46	0.08	3.99
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.2	0.3	0.5	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	<1	<1	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-011	EB2608926-012	EB2608926-013	EB2608926-014	EB2608926-015
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	8.04	6.73	6.61	6.57	6.57
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	161	17	14	21	26
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	63	4	3	3	3
Total Alkalinity as CaCO ₃	----	1	mg/L	63	4	3	3	3
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	13	3	2	4	4
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	71	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	28	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	2	3	3	4	5
Potassium	7440-09-7	1	mg/L	<1	1	1	2	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.55	1.94	2.44	3.86	2.05
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.001	0.001	0.002
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.193	0.187	0.161	0.260	0.230
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.001	0.002	0.003	0.002



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-011	EB2608926-012	EB2608926-013	EB2608926-014	EB2608926-015
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	0.002	0.003	0.004	0.005
Lithium	7439-93-2	0.001	mg/L	<0.001	<0.001	0.001	0.002	<0.001
Manganese	7439-96-5	0.001	mg/L	0.001	0.005	0.004	0.004	<0.001
Nickel	7440-02-0	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	0.002	<0.001	<0.001	0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.043	0.109	0.186	0.303	0.181
Boron	7440-42-8	0.05	mg/L	0.14	0.27	0.36	0.45	0.37
Iron	7439-89-6	0.05	mg/L	0.25	1.34	2.05	2.68	3.41
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.7	<0.1	<0.1	0.1	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	1	1	2	2	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-016	EB2608926-017	EB2608926-018	EB2608926-019	EB2608926-020
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.24	5.58	5.55	6.78	6.82
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	21	116	86	12	13
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	1	1	4	4
Total Alkalinity as CaCO ₃	----	1	mg/L	2	1	1	4	4
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	4	14	10	1	1
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	2	21	16	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	16	12	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	3	2	<1	<1
Sodium	7440-23-5	1	mg/L	3	14	11	3	3
Potassium	7440-09-7	1	mg/L	<1	<1	<1	1	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.30	0.24	0.12	2.21	2.41
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.062	0.348	0.325	0.173	0.208
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	0.002	0.002



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time				02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-016	EB2608926-017	EB2608926-018	EB2608926-019	EB2608926-020
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.008	0.005	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.001	0.002
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	0.002	0.003
Lithium	7439-93-2	0.001	mg/L	0.003	0.007	0.005	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.001	0.006	0.004	0.036	0.028
Nickel	7440-02-0	0.001	mg/L	0.002	0.014	0.009	0.002	0.003
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.046	0.342	0.225	0.092	0.080
Boron	7440-42-8	0.05	mg/L	0.24	0.18	0.11	0.27	0.24
Iron	7439-89-6	0.05	mg/L	0.27	<0.05	<0.05	2.30	3.46
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.1	<0.1	<0.1	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO3	----	1	mg/L	2	2	2	1	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP17-3	KTP17-4	KTP17-5	KTP16-1	KTP16-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-021	EB2608926-022	EB2608926-023	EB2608926-024	EB2608926-025
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.15	5.97	6.21	7.22	6.86
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	32	27	24	31	35
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	2	2	8	5
Total Alkalinity as CaCO ₃	----	1	mg/L	2	2	2	8	5
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	8	7	5	4	6
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	2	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	1	<1	<1	3	3
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	1
Sodium	7440-23-5	1	mg/L	2	3	3	6	9
Potassium	7440-09-7	1	mg/L	<1	<1	<1	2	3
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.41	0.04	0.03	10.6	13.9
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	0.001	0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.001
Barium	7440-39-3	0.001	mg/L	0.160	0.172	0.187	0.886	1.29
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	0.011	0.015



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP17-3	KTP17-4	KTP17-5	KTP16-1	KTP16-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-021	EB2608926-022	EB2608926-023	EB2608926-024	EB2608926-025
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	0.003	0.004
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.005	0.009
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	0.009	0.012
Lithium	7439-93-2	0.001	mg/L	0.001	0.001	0.001	0.006	0.008
Manganese	7439-96-5	0.001	mg/L	0.004	0.007	0.001	0.041	0.027
Nickel	7440-02-0	0.001	mg/L	<0.001	0.002	0.002	0.009	0.013
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	0.02	0.02
Zinc	7440-66-6	0.005	mg/L	0.045	0.073	0.076	0.409	0.660
Boron	7440-42-8	0.05	mg/L	0.20	0.11	0.15	0.57	0.83
Iron	7439-89-6	0.05	mg/L	0.44	<0.05	<0.05	6.48	10.6
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	0.2	0.2
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	1	1	1	2	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-026	EB2608926-027	EB2608926-028	EB2608926-029	EB2608926-030
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.73	6.56	6.91	7.28	7.66
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	71	11	40	43	443
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	4	3	6	12	29
Total Alkalinity as CaCO ₃	----	1	mg/L	4	3	6	12	29
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	16	2	8	5	20
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	2	<1	<1	<1	102
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	2	2	56
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	1	<1	1	2	14
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	5
Sodium	7440-23-5	1	mg/L	13	2	6	7	63
Potassium	7440-09-7	1	mg/L	2	<1	1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	4.49	1.54	2.91	0.74	0.36
Arsenic	7440-38-2	0.001	mg/L	0.002	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.499	0.127	0.375	0.237	0.423
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.003	0.001	0.002	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-026	EB2608926-027	EB2608926-028	EB2608926-029	EB2608926-030
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.004	0.001	<0.001	<0.001	0.001
Lead	7439-92-1	0.001	mg/L	0.008	0.002	0.005	0.002	<0.001
Lithium	7439-93-2	0.001	mg/L	0.003	<0.001	0.002	0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.002	0.024	0.006	0.003	<0.001
Nickel	7440-02-0	0.001	mg/L	0.001	0.003	0.003	0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.347	0.087	0.092	0.036	0.035
Boron	7440-42-8	0.05	mg/L	0.59	0.25	0.37	0.23	0.22
Iron	7439-89-6	0.05	mg/L	3.75	1.16	1.47	0.72	0.14
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.2	<0.1	0.3	0.4	0.6
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	1	1	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-031	EB2608926-032	EB2608926-033	EB2608926-034	EB2608926-035
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.87	8.82	6.15	6.07	6.17
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	234	188	153	79	92
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	8	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	34	39	2	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	34	46	2	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	15	12	57	26	31
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	36	19	2	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	14	<1	57	26	22
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	4	<1	13	7	5
Magnesium	7439-95-4	1	mg/L	1	<1	5	1	4
Sodium	7440-23-5	1	mg/L	40	38	4	3	4
Potassium	7440-09-7	1	mg/L	1	1	<1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.25	1.31	0.12	0.19	0.30
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.006	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.452	0.332	0.214	0.208	0.244
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-031	EB2608926-032	EB2608926-033	EB2608926-034	EB2608926-035
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.005	0.015	0.008
Copper	7440-50-8	0.001	mg/L	0.001	0.002	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	0.001	0.002	<0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.001	0.002	0.002	0.001	0.002
Manganese	7439-96-5	0.001	mg/L	0.002	0.006	0.221	0.744	0.479
Nickel	7440-02-0	0.001	mg/L	0.001	0.003	0.081	0.021	0.008
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.040	0.045	0.102	0.071	0.063
Boron	7440-42-8	0.05	mg/L	0.29	0.26	0.11	0.11	0.16
Iron	7439-89-6	0.05	mg/L	0.78	0.94	<0.05	0.09	0.28
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.6	0.5	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	<1	<1	1	1	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-036	EB2608926-037	EB2608926-038	EB2608926-039	EB2608926-040
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	5.92	7.69	7.65	7.64	7.75
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	369	59	82	69	171
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	26	22	22	36
Total Alkalinity as CaCO ₃	----	1	mg/L	2	26	22	22	36
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	166	2	10	7	33
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1	<1	<1	<1	3
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	153	17	22	17	22
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	44	8	9	9	6
Magnesium	7439-95-4	1	mg/L	13	<1	<1	<1	3
Sodium	7440-23-5	1	mg/L	6	3	4	4	25
Potassium	7440-09-7	1	mg/L	<1	<1	<1	<1	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.16	0.79	0.57	0.47	2.39
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.370	0.280	0.287	0.305	0.540
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.002



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-036	EB2608926-037	EB2608926-038	EB2608926-039	EB2608926-040
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.035	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.002	<0.001	0.001	<0.001	0.002
Manganese	7439-96-5	0.001	mg/L	1.88	0.009	0.008	0.002	0.004
Nickel	7440-02-0	0.001	mg/L	0.024	0.001	<0.001	<0.001	0.002
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.182	0.035	0.028	0.024	0.074
Boron	7440-42-8	0.05	mg/L	0.18	0.23	0.22	0.21	0.35
Iron	7439-89-6	0.05	mg/L	0.12	0.38	0.33	0.28	0.92
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.4	0.3	0.4	0.9
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	1	1	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-041	EB2608926-042	EB2608926-043	EB2608926-044	EB2608926-045
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.49	7.67	7.73	6.49	6.46
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	217	164	168	7	10
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	32	35	29	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	32	35	29	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	57	28	32	1	1
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	5	4	6	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	27	9	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	6	3	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	3	1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	35	31	35	1	2
Potassium	7440-09-7	1	mg/L	1	1	1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.77	2.53	1.58	1.07	1.87
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.003	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.432	0.430	0.378	0.065	0.179
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.002	0.002	0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-041	EB2608926-042	EB2608926-043	EB2608926-044	EB2608926-045
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.004	0.004	0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	0.002	0.002	<0.001	0.002
Lithium	7439-93-2	0.001	mg/L	0.001	0.003	0.003	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.001	0.005	0.010	<0.001	0.001
Nickel	7440-02-0	0.001	mg/L	<0.001	0.002	0.004	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.114	0.144	0.077	0.053	0.148
Boron	7440-42-8	0.05	mg/L	0.86	0.61	0.35	0.19	0.32
Iron	7439-89-6	0.05	mg/L	0.18	1.31	1.34	0.40	0.93
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	1.2	0.9	0.7	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO3	----	1	mg/L	2	<1	<1	1	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP27-1	KTP27-1-D	KTP272	KTP33-1	KTP31-1
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-046	EB2608926-047	EB2608926-048	EB2608926-049	EB2608926-050
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.32	6.24	6.26	6.61	6.48
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	15	16	26	18	13
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	1	1	1	3	2
Total Alkalinity as CaCO ₃	----	1	mg/L	1	1	1	3	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	3	3	6	3	2
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	3	3	5	4	3
Potassium	7440-09-7	1	mg/L	<1	<1	<1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.43	1.18	1.03	1.68	1.45
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.100	0.120	0.130	0.252	0.155
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP27-1	KTP27-1-D	KTP272	KTP33-1	KTP31-1
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-046	EB2608926-047	EB2608926-048	EB2608926-049	EB2608926-050
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.001	0.001
Lead	7439-92-1	0.001	mg/L	0.001	<0.001	0.002	0.002	0.001
Lithium	7439-93-2	0.001	mg/L	<0.001	0.001	0.005	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.001	0.002	<0.001	<0.001	0.002
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.101	0.074	0.090	0.141	0.110
Boron	7440-42-8	0.05	mg/L	0.27	0.25	0.26	0.38	0.28
Iron	7439-89-6	0.05	mg/L	1.19	1.15	0.57	0.93	0.80
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	0.2	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO3	----	1	mg/L	2	2	2	2	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-051	EB2608926-052	EB2608926-053	EB2608926-054	EB2608926-055
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.35	6.53	6.44	6.42	6.40
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	10	18	16	16	22
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	1	3	2	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	1	3	2	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	2	3	3	3	4
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	2	4	3	3	4
Potassium	7440-09-7	1	mg/L	<1	2	2	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.17	3.44	3.64	0.81	0.75
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.003	0.002	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.098	0.286	0.287	0.118	0.115
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.002	0.002	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-051	EB2608926-052	EB2608926-053	EB2608926-054	EB2608926-055
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	0.001	<0.001	0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	0.003	0.003	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	<0.001	0.001	0.002	<0.001	0.003
Manganese	7439-96-5	0.001	mg/L	<0.001	0.002	0.002	0.002	0.002
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.001	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.065	0.198	0.214	0.079	0.037
Boron	7440-42-8	0.05	mg/L	0.20	0.38	0.40	0.29	0.31
Iron	7439-89-6	0.05	mg/L	1.05	4.34	3.88	0.43	0.27
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	1	2	2	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP34-3	KTP34-4	KTP34-5	KTP34-4-D	KTP34-6
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-056	EB2608926-057	EB2608926-058	EB2608926-059	EB2608926-060
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.10	6.21	6.22	6.45	6.05
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	76	36	52	26	53
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	<1	<1	1	2	<1
Total Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	1	2	<1
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	24	10	16	6	16
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	21	2	7	<1	5
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	5	1	3	<1	2
Magnesium	7439-95-4	1	mg/L	2	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	5	4	5	4	6
Potassium	7440-09-7	1	mg/L	<1	<1	<1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.09	0.63	0.41	0.71	0.46
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.276	0.180	0.195	0.117	0.149
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP34-3	KTP34-4	KTP34-5	KTP34-4-D	KTP34-6
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-056	EB2608926-057	EB2608926-058	EB2608926-059	EB2608926-060
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.002	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.006	0.005	0.004	0.004	0.005
Manganese	7439-96-5	0.001	mg/L	0.041	0.005	0.014	0.002	0.010
Nickel	7440-02-0	0.001	mg/L	0.004	0.001	0.002	0.006	0.002
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.111	0.045	0.035	0.036	0.040
Boron	7440-42-8	0.05	mg/L	0.15	0.18	0.19	0.28	0.12
Iron	7439-89-6	0.05	mg/L	<0.05	0.23	0.10	0.25	0.11
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	1	1	2	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-061	EB2608926-062	EB2608926-063	EB2608926-064	EB2608926-065
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	5.88	6.67	6.53	6.42	6.45
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	70	14	12	17	29
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	<1	3	2	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	<1	3	2	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	23	2	2	3	6
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	14	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	4	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	7	3	3	3	6
Potassium	7440-09-7	1	mg/L	<1	2	1	1	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.51	6.63	3.06	2.84	1.88
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.234	0.314	0.203	0.246	0.222
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.006	0.002	0.002	0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-061	EB2608926-062	EB2608926-063	EB2608926-064	EB2608926-065
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.001	0.003	0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	0.004	0.002	0.002	0.002
Lead	7439-92-1	0.001	mg/L	<0.001	0.007	0.003	0.003	0.002
Lithium	7439-93-2	0.001	mg/L	0.005	0.003	0.002	0.002	0.002
Manganese	7439-96-5	0.001	mg/L	0.020	0.032	0.012	0.010	0.004
Nickel	7440-02-0	0.001	mg/L	0.003	0.010	0.002	0.002	0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.051	0.180	0.128	0.142	0.102
Boron	7440-42-8	0.05	mg/L	0.23	0.27	0.31	0.31	0.32
Iron	7439-89-6	0.05	mg/L	0.12	7.44	1.82	1.90	1.26
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.1	0.1	<0.1	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	2	2	2	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-066	EB2608926-067	EB2608926-068	EB2608926-069	EB2608926-070
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	5.87	6.64	7.34	6.97	5.07
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	185	143	208	300	2560
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	<1	3	16	6	<1
Total Alkalinity as CaCO ₃	----	1	mg/L	<1	3	16	6	<1
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	66	40	73	127	1540
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	6	7	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	45	28	94	120	1640
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	13	9	31	7	593
Magnesium	7439-95-4	1	mg/L	4	2	4	27	85
Sodium	7440-23-5	1	mg/L	15	15	3	9	15
Potassium	7440-09-7	1	mg/L	1	1	<1	1	3
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.53	1.26	0.54	0.90	0.67
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.422	0.426	0.278	0.414	0.590
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Chromium	7440-47-3	0.001	mg/L	<0.001	0.001	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-066	EB2608926-067	EB2608926-068	EB2608926-069	EB2608926-070
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.005	<0.001	<0.001	<0.001	0.007
Copper	7440-50-8	0.001	mg/L	0.002	0.002	0.003	<0.001	0.002
Lead	7439-92-1	0.001	mg/L	<0.001	0.002	<0.001	0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.002	<0.001	<0.001	<0.001	0.004
Manganese	7439-96-5	0.001	mg/L	0.093	0.022	0.002	0.004	0.110
Nickel	7440-02-0	0.001	mg/L	0.007	0.002	<0.001	0.003	0.024
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.068	0.074	0.020	0.048	0.832
Boron	7440-42-8	0.05	mg/L	0.21	0.21	0.13	0.20	0.52
Iron	7439-89-6	0.05	mg/L	0.18	1.38	0.37	0.89	<0.05
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.1	0.2	0.3	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	2	1	1	7



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-071	EB2608926-072	EB2608926-073	EB2608926-074	EB2608926-075
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.54	6.47	6.65	6.11	6.11
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	2620	18	23	40	42
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	42	2	3	<1	<1
Total Alkalinity as CaCO ₃	----	1	mg/L	42	2	3	<1	<1
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	1520	3	3	3	4
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	8	7
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	1680	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	573	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	82	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	9	3	5	4	5
Potassium	7440-09-7	1	mg/L	1	<1	1	1	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.02	1.56	1.58	0.36	0.39
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.284	0.230	0.278	0.313	0.351
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.001	0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-071	EB2608926-072	EB2608926-073	EB2608926-074	EB2608926-075
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	0.001	0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	0.002	0.003	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.004	<0.001	0.002	0.002	0.002
Manganese	7439-96-5	0.001	mg/L	<0.001	0.002	0.001	0.013	0.011
Nickel	7440-02-0	0.001	mg/L	0.003	<0.001	<0.001	0.001	0.002
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.186	0.188	0.216	0.060	0.088
Boron	7440-42-8	0.05	mg/L	0.19	0.35	0.36	0.19	0.20
Iron	7439-89-6	0.05	mg/L	<0.05	1.40	1.51	0.21	0.27
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.6	<0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	3	2	2	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-076	EB2608926-077	EB2608926-078	EB2608926-079	EB2608926-080
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.52	6.36	6.16	6.05	5.99
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	9	28	50	141	127
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	2	<1	<1	<1
Total Alkalinity as CaCO ₃	----	1	mg/L	2	2	<1	<1	<1
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	1	3	4	9	8
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	3	9	31	29
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	4	4
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	1	1
Sodium	7440-23-5	1	mg/L	2	5	7	24	21
Potassium	7440-09-7	1	mg/L	<1	1	<1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.19	2.01	0.53	0.54	0.52
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.107	0.253	0.219	0.326	0.255
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-076	EB2608926-077	EB2608926-078	EB2608926-079	EB2608926-080
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.001	0.002	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	0.001	0.003	<0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	<0.001	0.002	0.003	0.008	0.007
Manganese	7439-96-5	0.001	mg/L	0.004	<0.001	0.003	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.002	0.002	0.002
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.077	0.173	0.048	0.127	0.093
Boron	7440-42-8	0.05	mg/L	0.22	0.43	0.26	0.23	0.20
Iron	7439-89-6	0.05	mg/L	0.81	1.28	0.19	0.14	0.18
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	1	2	1	2	2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP1-1	KTP1-2	KTP2-1	KTP2-2	KTP2-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-001	EB2608926-002	EB2608926-003	EB2608926-004	EB2608926-005
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.7	4.8	5.0	5.1	4.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP2-4	KTP3-1	KTP3-2	KTP3-3	KTP6-1
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-006	EB2608926-007	EB2608926-008	EB2608926-009	EB2608926-010
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.5	9.1	9.1	8.8	7.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP6-2	KTP6-3	KTP14-1	KTP14-2	KTP14-3
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-011	EB2608926-012	EB2608926-013	EB2608926-014	EB2608926-015
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		8.3	6.3	5.5	5.0	5.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP12-1	KTP12-2	KTP12-3	KTP17-1	KTP17-2
Sampling date / time					02-Mar-2026 00:00	02-Mar-2026 00:00	02-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-016	EB2608926-017	EB2608926-018	EB2608926-019	EB2608926-020
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.7	4.2	4.3	6.0	6.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP17-3	KTP17-4	KTP17-5	KTP16-1	KTP16-2
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-021	EB2608926-022	EB2608926-023	EB2608926-024	EB2608926-025
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.9	4.6	4.6	6.5	5.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	KTP16-3	KTP18-1	KTP18-2	KTP18-3	KTP20-1
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608926-026	EB2608926-027	EB2608926-028	EB2608926-029	EB2608926-030
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)								
Final pH	----	0.1	pH Unit	5.3	5.5	6.8	7.7	8.4



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP20-2	KTP20-3	KTP22-1	KTP22-2	KTP22-3
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-031	EB2608926-032	EB2608926-033	EB2608926-034	EB2608926-035
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		9.5	10.0	7.2	6.5	5.2



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP22-4	KTP25-1	KTP25-2	KTP25-3	KTP26-1
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-036	EB2608926-037	EB2608926-038	EB2608926-039	EB2608926-040
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.5	8.6	9.2	9.4	9.1



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP26-2	KTP26-3	KTP26-4	KTP30-1	KTP30-2
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-041	EB2608926-042	EB2608926-043	EB2608926-044	EB2608926-045
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		9.1	9.6	9.5	5.3	5.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP27-1	KTP27-1-D	KTP272	KTP33-1	KTP31-1
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-046	EB2608926-047	EB2608926-048	EB2608926-049	EB2608926-050
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.8	4.7	4.8	6.2	5.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP31-2	KTP31-3	KTP31-3-D	KTP34-1	KTP34-2
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-051	EB2608926-052	EB2608926-053	EB2608926-054	EB2608926-055
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		5.3	5.2	5.2	5.0	4.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP34-3	KTP34-4	KTP34-5	KTP34-4-D	KTP34-6
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-056	EB2608926-057	EB2608926-058	EB2608926-059	EB2608926-060
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.5	4.6	4.6	4.8	4.8



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP34-6-D	KTP32-1	KTP32-2	KTP32-3	KTP32-4
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-061	EB2608926-062	EB2608926-063	EB2608926-064	EB2608926-065
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.6	6.2	5.6	5.6	5.7



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP32-5	KTP32-6	KTP4-1	KTP4-2	KTP4-3
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-066	EB2608926-067	EB2608926-068	EB2608926-069	EB2608926-070
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.8	6.6	8.1	7.4	4.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP4-4	KTP7-1	KTP7-2	KTP7-3	KTP7-3-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-071	EB2608926-072	EB2608926-073	EB2608926-074	EB2608926-075
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		7.8	4.9	4.9	4.5	4.4



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP11-1	KTP11-2	KTP11-3	KTP11-4	KTP11-4-D
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608926-076	EB2608926-077	EB2608926-078	EB2608926-079	EB2608926-080
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		5.6	4.9	4.6	4.6	4.6



CERTIFICATE OF ANALYSIS

Work Order	: EB2608987	Page	: 1 of 23
Client	: ENVIRONMENTAL RESOURCES MANAGEMENT (ERM)	Laboratory	: Environmental Division Brisbane
Contact	: MIFANWY PRESS	Contact	: Jarret Venderley
Address	: LEVEL 9 260 QUEEN STREET BRISBANE CITY 4000	Address	: 2 Byth Street Stafford QLD Australia 4053
Telephone	: ----	Telephone	: +61-7-3552-8685
Project	: Glencore - Collinsville	Date Samples Received	: 11-Mar-2026 12:00
Order number	: 771288	Date Analysis Commenced	: 12-Mar-2026
C-O-C number	: ----	Issue Date	: 18-Mar-2026 16:59
Sampler	: MULLER RETIEF		
Site	: ----		
Quote number	: ERM MSA 2025		
No. of samples received	: 33		
No. of samples analysed	: 33		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Beatriz Llarinas	Senior Chemist	Brisbane Inorganics, Stafford, QLD
Beatriz Llarinas	Senior Chemist	Brisbane Soil Preparation, Stafford, QLD



General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- ED045G (Chloride): Some samples were diluted due to matrix interference. LOR adjusted accordingly.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP11-5	KTP15-1	KTP15-2	KTP15-3	KTP15-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-001	EB2608987-002	EB2608987-003	EB2608987-004	EB2608987-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	5.22	6.51	6.91	6.42	6.37
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	207	11	11	13	16
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	1	2	3	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	1	2	3	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	17	1	1	3	2
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	42	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	8	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	2	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	34	3	2	3	4
Potassium	7440-09-7	1	mg/L	1	1	1	1	3
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.01	2.99	3.86	2.67	5.88
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.002
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.504	0.125	0.118	0.141	0.335
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.002	0.003	0.003	0.005



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP11-5	KTP15-1	KTP15-2	KTP15-3	KTP15-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-001	EB2608987-002	EB2608987-003	EB2608987-004	EB2608987-005
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	0.002	0.002	0.002	0.003
Lead	7439-92-1	0.001	mg/L	<0.001	0.002	0.003	0.002	0.007
Lithium	7439-93-2	0.001	mg/L	0.010	<0.001	<0.001	<0.001	0.002
Manganese	7439-96-5	0.001	mg/L	0.003	0.002	0.002	0.001	0.002
Nickel	7440-02-0	0.001	mg/L	0.003	<0.001	<0.001	<0.001	0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.574	0.103	0.102	0.129	0.422
Boron	7440-42-8	0.05	mg/L	0.28	0.25	0.22	0.33	0.53
Iron	7439-89-6	0.05	mg/L	<0.05	1.89	3.14	3.20	3.69
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	6	2	2	2	3



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP15-5	KTP19-1	KTP19-2	KTP19-3	KTP19-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-006	EB2608987-007	EB2608987-008	EB2608987-009	EB2608987-010
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.39	6.55	6.66	6.61	6.49
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	25	12	43	62	60
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	2	4	3	3
Total Alkalinity as CaCO ₃	----	1	mg/L	2	2	4	3	3
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	2	1	13	20	18
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	4	<1	<5	<5	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	2	2	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	1	<1	<1
Sodium	7440-23-5	1	mg/L	5	3	8	11	11
Potassium	7440-09-7	1	mg/L	2	1	3	2	2
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	3.16	3.90	10.6	6.86	6.12
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.002	0.002	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.268	0.161	0.615	0.485	0.350
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.002	0.004	0.015	0.009	0.005



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP15-5	KTP19-1	KTP19-2	KTP19-3	KTP19-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-006	EB2608987-007	EB2608987-008	EB2608987-009	EB2608987-010
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.003	0.015	0.004	0.003
Copper	7440-50-8	0.001	mg/L	0.001	0.004	0.010	0.007	0.004
Lead	7439-92-1	0.001	mg/L	0.003	0.004	0.014	0.010	0.005
Lithium	7439-93-2	0.001	mg/L	0.003	0.002	0.008	0.006	0.004
Manganese	7439-96-5	0.001	mg/L	<0.001	0.065	0.023	0.014	0.013
Nickel	7440-02-0	0.001	mg/L	<0.001	0.004	0.024	0.012	0.005
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.02	0.02	<0.01
Zinc	7440-66-6	0.005	mg/L	0.259	0.115	0.324	0.296	0.242
Boron	7440-42-8	0.05	mg/L	0.43	0.27	0.45	0.40	0.37
Iron	7439-89-6	0.05	mg/L	1.61	4.10	14.8	10.7	9.42
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.1	<0.1	0.2	0.1	0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	2	2	2	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP19-4-D	KTP19-5	KTP21-1	KTP21-2	KTP21-3
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-011	EB2608987-012	EB2608987-013	EB2608987-014	EB2608987-015
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.52	6.43	6.40	6.33	6.39
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	55	56	10	20	22
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	3	3	2	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	3	3	2	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	16	17	1	4	4
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	10	10	2	3	4
Potassium	7440-09-7	1	mg/L	2	1	1	2	3
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	8.93	2.56	2.42	3.49	4.10
Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.383	0.252	0.113	0.257	0.338
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.006	0.003	0.002	0.004	0.004



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP19-4-D	KTP19-5	KTP21-1	KTP21-2	KTP21-3
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-011	EB2608987-012	EB2608987-013	EB2608987-014	EB2608987-015
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.004	0.002	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	0.005	0.003	0.003	0.001	0.002
Lead	7439-92-1	0.001	mg/L	0.007	0.003	0.002	0.004	0.006
Lithium	7439-93-2	0.001	mg/L	0.004	0.004	<0.001	<0.001	0.002
Manganese	7439-96-5	0.001	mg/L	0.022	0.004	0.023	0.011	0.002
Nickel	7440-02-0	0.001	mg/L	0.006	0.003	<0.001	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.294	0.190	0.082	0.172	0.281
Boron	7440-42-8	0.05	mg/L	0.38	0.40	0.19	0.27	0.35
Iron	7439-89-6	0.05	mg/L	6.13	2.65	3.54	5.32	2.42
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.1	0.1	<0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	2	2	2	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP24-1	KTP24-1-D	KTP24-2	KTP24-3	KTP35-1
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-016	EB2608987-017	EB2608987-018	EB2608987-019	EB2608987-020
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.68	6.49	6.21	6.10	7.14
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	16	13	30	22	401
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	2	<1	<1	13
Total Alkalinity as CaCO ₃	----	1	mg/L	2	2	<1	<1	13
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	3	2	8	6	172
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	<1	<1	<1	3
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	2	<1	160
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	1	<1	58
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	5
Sodium	7440-23-5	1	mg/L	3	2	3	3	8
Potassium	7440-09-7	1	mg/L	<1	<1	<1	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	1.53	1.81	1.11	0.48	0.94
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.066	0.078	0.152	0.094	0.423
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.002	0.002	0.001	<0.001	0.001



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP24-1	KTP24-1-D	KTP24-2	KTP24-3	KTP35-1
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-016	EB2608987-017	EB2608987-018	EB2608987-019	EB2608987-020
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	<0.001	0.001	0.001	<0.001	0.003
Manganese	7439-96-5	0.001	mg/L	0.008	0.009	0.054	0.012	0.002
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.001	<0.001	0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.083	0.107	0.035	0.029	0.047
Boron	7440-42-8	0.05	mg/L	0.33	0.35	0.21	0.18	0.24
Iron	7439-89-6	0.05	mg/L	0.94	1.62	0.49	0.14	0.71
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	<0.1	<0.1	<0.1	0.2
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	2	2	1	2



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP35-2	KTP35-3	KTP35-3-D	KTP10-1	KTP10-2
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-021	EB2608987-022	EB2608987-023	EB2608987-024	EB2608987-025
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.07	5.26	5.50	6.46	6.49
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	256	505	463	9	10
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	<1	<1	<1	2	2
Total Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	2	2
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	80	200	161	1	1
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	16	21	23	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	39	125	76	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	9	36	20	<1	<1
Magnesium	7439-95-4	1	mg/L	4	8	7	<1	<1
Sodium	7440-23-5	1	mg/L	32	45	53	2	2
Potassium	7440-09-7	1	mg/L	1	2	2	<1	<1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.64	0.34	0.31	1.72	0.95
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	0.002	0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.430	0.458	0.571	0.089	0.057
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.001	<0.001	<0.001	0.002	0.003



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP35-2	KTP35-3	KTP35-3-D	KTP10-1	KTP10-2
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-021	EB2608987-022	EB2608987-023	EB2608987-024	EB2608987-025
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.002	0.006	0.004	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.001	<0.001	<0.001
Lithium	7439-93-2	0.001	mg/L	0.010	0.015	0.016	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.013	0.097	0.032	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L	0.011	0.028	0.023	<0.001	<0.001
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.215	0.454	0.439	0.089	0.038
Boron	7440-42-8	0.05	mg/L	0.21	0.22	0.28	0.21	0.20
Iron	7439-89-6	0.05	mg/L	0.34	<0.05	0.07	0.48	0.86
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.1	0.1	<0.1	<0.1
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	4	3	2	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP36-1	KTP36-2	KTP36-3	KTP23-1	KTP23-2
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-026	EB2608987-027	EB2608987-028	EB2608987-029	EB2608987-030
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.57	6.26	6.39	6.83	6.90
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	14	43	73	14	18
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	2	<1	2	4	5
Total Alkalinity as CaCO ₃	----	1	mg/L	2	<1	2	4	5
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	2	10	12	1	2
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	<1	2	9	<1	<1
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	<1	<1	<1	<1	<1
Magnesium	7439-95-4	1	mg/L	<1	<1	<1	<1	<1
Sodium	7440-23-5	1	mg/L	3	7	13	3	3
Potassium	7440-09-7	1	mg/L	1	<1	<1	1	1
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	3.09	1.22	1.13	3.28	3.51
Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.207	0.129	0.119	0.165	0.286
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	0.003	0.001	0.001	0.003	0.004



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP36-1	KTP36-2	KTP36-3	KTP23-1	KTP23-2
Sampling date / time				05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-026	EB2608987-027	EB2608987-028	EB2608987-029	EB2608987-030
				Result	Result	Result	Result	Result
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	0.002
Copper	7440-50-8	0.001	mg/L	0.002	<0.001	<0.001	0.001	0.002
Lead	7439-92-1	0.001	mg/L	0.003	<0.001	<0.001	0.002	0.003
Lithium	7439-93-2	0.001	mg/L	0.001	<0.001	0.001	0.002	0.001
Manganese	7439-96-5	0.001	mg/L	0.002	<0.001	<0.001	0.029	0.052
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	0.003	0.003
Tin	7440-31-5	0.001	mg/L	<0.001	0.004	<0.001	<0.001	<0.001
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	7440-66-6	0.005	mg/L	0.170	0.054	0.055	0.072	0.112
Boron	7440-42-8	0.05	mg/L	0.35	0.25	0.32	0.23	0.25
Iron	7439-89-6	0.05	mg/L	2.16	0.34	0.29	3.55	3.65
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	0.1	0.1	0.1	0.2	0.2
ED038P: Acidity by Auto Titrator								
Acidity as CaCO3	----	1	mg/L	2	2	2	1	1



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP23-3	KTP23-4	KTP23-5	----	----
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	----	----
Compound	CAS Number	LOR	Unit	EB2608987-031	EB2608987-032	EB2608987-033	-----	-----
				Result	Result	Result	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.13	8.20	9.34	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	79	87	123	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	11	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	8	30	21	----	----
Total Alkalinity as CaCO3	----	1	mg/L	8	30	33	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	14	8	16	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	2	<1	2	----	----
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	<1	7	<1	----	----
ED093W: Water Leachable Major Cations								
Calcium	7440-70-2	1	mg/L	2	3	1	----	----
Magnesium	7439-95-4	1	mg/L	1	1	<1	----	----
Sodium	7440-23-5	1	mg/L	16	14	24	----	----
Potassium	7440-09-7	1	mg/L	3	<1	<1	----	----
EG020W: Water Leachable Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	10.6	1.33	1.04	----	----
Arsenic	7440-38-2	0.001	mg/L	0.003	0.002	0.002	----	----
Beryllium	7440-41-7	0.001	mg/L	0.002	<0.001	0.001	----	----
Barium	7440-39-3	0.001	mg/L	0.818	0.297	0.225	----	----
Bismuth	7440-69-9	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	----	----
Chromium	7440-47-3	0.001	mg/L	0.004	0.001	0.004	----	----



Analytical Results

Sub-Matrix: DI WATER LEACHATE
 (Matrix: WATER)

Sample ID

				KTP23-3	KTP23-4	KTP23-5	----	----
Sampling date / time				03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	----	----
Compound	CAS Number	LOR	Unit	EB2608987-031	EB2608987-032	EB2608987-033	-----	-----
				Result	Result	Result	----	----
EG020W: Water Leachable Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	0.003	<0.001	0.002	----	----
Copper	7440-50-8	0.001	mg/L	0.005	0.001	0.096	----	----
Lead	7439-92-1	0.001	mg/L	0.009	0.001	0.001	----	----
Lithium	7439-93-2	0.001	mg/L	0.004	0.002	0.006	----	----
Manganese	7439-96-5	0.001	mg/L	0.022	0.007	0.026	----	----
Nickel	7440-02-0	0.001	mg/L	0.026	0.003	0.006	----	----
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	----	----
Zinc	7440-66-6	0.005	mg/L	0.279	0.042	0.078	----	----
Boron	7440-42-8	0.05	mg/L	0.63	0.22	0.17	----	----
Iron	7439-89-6	0.05	mg/L	10.8	0.91	0.79	----	----
EG035W: Water Leachable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	----	----
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	1.1	0.4	0.4	----	----
ED038P: Acidity by Auto Titrator								
Acidity as CaCO ₃	----	1	mg/L	2	<1	<1	----	----



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	KTP11-5	KTP15-1	KTP15-2	KTP15-3	KTP15-4
Sampling date / time				04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit	EB2608987-001	EB2608987-002	EB2608987-003	EB2608987-004	EB2608987-005
				Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)								
Final pH	----	0.1	pH Unit	4.4	5.1	5.3	4.7	4.9



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP15-5	KTP19-1	KTP19-2	KTP19-3	KTP19-4
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00	04-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608987-006	EB2608987-007	EB2608987-008	EB2608987-009	EB2608987-010
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.9	5.5	6.4	6.2	5.5



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP19-4-D	KTP19-5	KTP21-1	KTP21-2	KTP21-3
Sampling date / time					04-Mar-2026 00:00	04-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608987-011	EB2608987-012	EB2608987-013	EB2608987-014	EB2608987-015
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		5.6	5.3	5.3	4.8	4.6



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP24-1	KTP24-1-D	KTP24-2	KTP24-3	KTP35-1
Sampling date / time					05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608987-016	EB2608987-017	EB2608987-018	EB2608987-019	EB2608987-020
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.6	4.7	4.4	4.5	7.0



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP35-2	KTP35-3	KTP35-3-D	KTP10-1	KTP10-2
Sampling date / time					05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608987-021	EB2608987-022	EB2608987-023	EB2608987-024	EB2608987-025
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		4.4	4.2	4.2	5.2	5.3



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP36-1	KTP36-2	KTP36-3	KTP23-1	KTP23-2
Sampling date / time					05-Mar-2026 00:00	05-Mar-2026 00:00	05-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00
Compound	CAS Number	LOR	Unit		EB2608987-026	EB2608987-027	EB2608987-028	EB2608987-029	EB2608987-030
					Result	Result	Result	Result	Result
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	-----	0.1	pH Unit		5.2	5.0	5.2	6.7	7.4



Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	KTP23-3	KTP23-4	KTP23-5	----	----
Sampling date / time					03-Mar-2026 00:00	03-Mar-2026 00:00	03-Mar-2026 00:00	----	----
Compound	CAS Number	LOR	Unit		EB2608987-031	EB2608987-032	EB2608987-033	-----	-----
					Result	Result	Result	----	----
EN60-DI: Bottle Leaching Procedure - Inorganics/Non-Volatile Organics (Glass Vessel)									
Final pH	----	0.1	pH Unit		8.5	9.3	9.6	----	----



TABLE D3-1 TOTAL METALS AND METALLOIDS GAI VALUES (SOIL) COMPARED TO Q1 AVERAGE CONCENTRATIONS

Sample ID	Al	Fe	Ca	As	Ba	Be	Co	Cr	Cu	Mn	Ni	Pb	Zn	Li	V
KTP01-1	1.8	-0.2	0	1.2	1	1	0.7	0.9	0.1	0.5	0.7	0.6	0.2	2	1.3
KTP01-2	1.7	-0.4	0	1.5	3.5	1	1.4	0.4	-0.4	0.4	1	0.4	1.1	1.8	1
KTP02-1	0.6	0.6	2.3	-0.1	0.2	0	1	0.3	0.7	3.1	0.5	-0.1	0.9	0	0
KTP02-2	0.6	-0.3	2.6	0	-0.2	0	0.7	0.1	0.6	3.1	0.5	-0.5	1.1	0	0.3
KTP02-3	1.5	1.3	2.8	1.6	0.1	0	0.4	1	1.1	2	0.7	0.5	0.7	1	1
KTP02-4	1.5	3	2.3	1.7	2.6	0	0	2.3	2.4	1.9	0.2	2.6	1.7	0	1.5
KTP03-1	0.7	2.5	6.7	1.1	2.8	1.6	4.2	0.6	1.5	6.8	3.8	1.7	4.6	2.3	0
KTP03-2	0.9	2.4	7	1.1	2.8	1.6	4.4	0.6	1.7	7	4.2	1.7	4.7	3.3	-0.3
KTP03-3	0.8	2.1	6.4	1.1	2.7	2	4.8	0.9	1.7	7.1	4.3	1.7	5	2.6	-0.3
KTP04-1	0	1.3	7.1	0.7	1.4	1.6	3.3	0.5	1.2	5	3.2	0.2	4.4	1	0
KTP04-2	0.1	0.5	4.2	0.6	1.9	2	3.7	0.5	1.5	4	3.5	0.4	4.7	1	0.5
KTP04-3	1	4.3	8.7	2.5	2.3	1.6	2.7	1.6	3.5	3.1	2.7	2.4	4.6	1.8	1.5
KTP04-4	3.2	4.5	11	1.2	0.8	6.1	8.7	1.7	3.6	10.8	8.5	0.2	9.6	3.3	0.3
KTP06-1	1.1	0.6	2.7	1.1	1.1	0	1.4	0.6	0.9	2.4	1.1	0.3	1.9	0.6	0.5
KTP06-2	1.9	1.5	7	1.2	1.5	3.7	6.7	0.8	1.8	8.8	6.5	0	7.1	2.2	0.5
KTP06-3	1.5	0.1	4.2	0.9	2.1	0	1.7	0.5	0.6	3.3	1.7	0.5	2.7	0.6	0.5
KTP07-1	1.2	2.1	2.5	1.3	2.1	0	0	1.6	1.3	1.5	0	1.2	0.9	0	1.1
KTP07-2	1	1.7	1.1	1.1	2	0	-0.6	1.5	1.3	1	0.4	1.1	0.2	0.6	1
KTP07-3	1.8	2.2	0.5	1.6	3.9	0	0	1.9	1	0.4	0.5	1.4	0.4	1.7	1.5
KTP10-1	0.1	-0.4	1	0	-0.6	0	-1.6	-0.4	-0.4	-0.3	-1.2	-0.6	-0.7	-1	0.5
KTP10-2	-0.4	-0.6	0	1.1	-0.6	0	-0.6	-0.1	-0.6	-0.3	-0.8	-0.1	-0.9	-1	0.3
KTP11-1	-0.6	-0.5	1.4	0.4	-0.9	0	0.4	0.1	0.7	2.4	0	-0.5	0.1	0	0.5



Sample ID	Al	Fe	Ca	As	Ba	Be	Co	Cr	Cu	Mn	Ni	Pb	Zn	Li	V
KTP11-2	1.4	0.9	1.7	2.2	0	0	1.7	1.8	2	1	1.6	1.2	0	1.3	2.2
KTP11-3	0.8	0.4	1	1.1	1.9	0	1	1	1.3	1.9	1.1	0.5	0.3	1.3	1.1
KTP11-4	0.4	0.5	0	0.8	1.8	0	0.2	0.6	0.9	-0.8	0.4	0.2	0.2	1.2	0.7
KTP11-5	0.5	1	0	0.9	-0.1	0	1	1.4	1	0	0.8	0.3	0.7	1.8	1
KTP12-1	1.7	0.7	0	1.2	2	1	1.4	1	0.3	-0.7	1.2	0.5	0	2	1.5
KTP12-2	1.8	2.7	0	2.9	3.2	1.6	2.4	2	0.8	0.6	2.3	1.2	1.8	2.5	2.1
KTP12-3	1.4	1.1	0	1.9	4	0	1.4	0.6	0	-0.2	1.3	0.6	1.1	1.3	0.5
KTP14-1	1.1	0	2.1	1.7	0	0	-0.6	0.8	-0.3	1.7	-0.2	0.4	0	0	0.8
KTP14-2	2.2	1.8	1.8	2	0.9	1	0.4	1.3	-0.1	2	0.5	0.8	0.2	2.2	1.7
KTP14-3	0.8	0.6	0	2	2	0	-0.6	-0.3	-1.6	-2.9	-0.8	1	-0.9	-1	0.5
KTP15-1	0	0.8	0	0.1	-0.9	0	0	0.7	0.6	0.3	-0.5	-0.2	0.2	-1	0.7
KTP15-2	-0.2	0.1	0	1	-0.1	0	0.4	1.8	1	0.3	0	0.4	0.2	0	1.5
KTP15-3	1.1	2.1	0	1.2	1.8	0	0.4	2	1.5	-0.1	0	0.8	0.2	0	1.8
KTP15-4	1.5	2.1	0	1.7	1.3	0	1.2	1.8	1.3	-0.7	0.9	1.2	0.3	1	2.1
KTP15-5	1.2	1.7	0	2	2.8	0	1.2	1.8	0.9	-1.7	1.1	1	0.1	1	1.7
KTP16-1	2.2	2.2	5.6	1.2	2.6	2.3	4.3	2.2	2.1	5.2	3.3	0.9	3.3	3	1.8
KTP16-2	1.5	1.6	4.5	1.1	3.1	2.6	4.4	2.2	2.3	5.5	3.7	1	4	3.2	1.7
KTP16-3	1.2	1.2	4.2	3.6	4	1	1.9	2.1	2	-0.2	2.1	2.1	2.9	1	2.4
KTP17-1	0.6	1	3	-0.1	0.3	1	3.6	0.8	0.5	5.7	2.4	0.4	3.1	0	0.3
KTP17-2	0.3	1.9	3.4	0	-0.1	1	2.4	1.2	0.9	4.1	2.5	0.4	3.2	0	0.5
KTP17-3	1.9	2	3.7	1.2	2.1	1	1.4	3.4	2.6	1.5	1.7	1.5	2.4	2	2.5
KTP17-4	2.2	2.3	1.5	1.9	1.5	1	1.2	3.3	2.3	0.8	1.7	1.5	2.2	1.8	2.7
KTP17-5	1.9	2.6	0.5	1.3	1.9	1	1.4	2.4	2.4	0.4	1.8	1.5	2.9	2	2
KTP18-1	0.4	-0.1	1.8	0.1	0.2	1	3.1	0.9	0.6	3.4	2.3	-0.2	2.8	0	0



ERM

Sample ID	Al	Fe	Ca	As	Ba	Be	Co	Cr	Cu	Mn	Ni	Pb	Zn	Li	V
KTP18-2	1.2	0.1	4.5	0.5	5.1	2	4.4	0.6	0.3	4.6	3.6	1.1	2.4	2.3	0.5
KTP18-3	0.7	0.6	4.2	-0.4	4.1	1	3.3	-0.9	-0.4	3.8	2.6	0.4	2.3	0.6	-1.3
KTP19-1	0.7	1.5	4	0.6	1.1	1.6	4.8	2.2	2.5	6.4	3.2	1.3	3.9	1.3	1.6
KTP19-2	1.5	2.5	4.3	1.1	3.8	2	4.4	2.5	2.6	4	3.6	1.5	3.4	2.2	2
KTP19-3	1.4	2.5	4.4	1.1	1.7	2.3	5.3	2.5	2.8	4.2	3.9	1.3	3.5	2.5	2.1
KTP19-4	1.2	2.3	3.6	1	2.1	2.2	5.1	2.5	2.7	4.9	3.7	1.4	3.6	1.9	1.9
KTP19-5	1.3	2.6	3.3	1	2.3	2	4	2.5	2.7	3.1	3.2	1.3	3.5	2	2.1
KTP20-1	2.2	2.6	4.9	0.9	2.1	2.6	4.4	2.2	2.4	4.8	3.8	1.1	3.5	3	1.8
KTP20-2	1.2	1	6.9	0.6	4.5	2.3	4.7	1.4	1.8	5.1	3.4	0.7	3.3	2.5	1
KTP20-3	0.1	0	5.7	1.7	5	1.6	3.5	-0.3	1.8	4.2	3.4	1	4.1	1	-0.3
KTP21-1	0.5	1.1	1.8	-0.4	1.6	0	1.6	1.6	1.3	3.9	0	0.5	0.5	-1	0.5
KTP21-2	0.7	1.6	2.1	0.8	2.6	0	0.7	1.7	1.3	2.9	0.2	0.8	-0.3	-1	0.5
KTP21-3	0.5	1.3	0	-0.6	4.6	0	0	1.6	1.5	1.1	0	2.1	-0.7	0	-0.3
KTP22-1	-0.1	0.5	3.2	0	-0.2	1	5.7	0.9	0.8	6.1	3.8	0.1	2.7	0.6	0.3
KTP22-2	0	0	2.3	-0.1	-0.2	1	3.1	0.6	0.6	4.2	2.3	-0.1	2.3	0	0
KTP22-3	1.1	0.1	3.2	1.1	-0.1	1	3	1.2	0.9	4.6	1.6	0.6	1.3	0.6	1
KTP22-4	0.9	1.2	5.6	0.9	0.1	1	2.9	0.8	0.9	4.6	1.4	0.5	1.3	0.6	1.1
KTP23-1	-0.2	2	3	-0.3	-0.1	0	3.6	1.1	0.1	5.8	2.3	0	2.9	0	0.3
KTP23-2	0.3	1	3.6	-0.1	0.5	1	3.9	1.1	0.9	5.9	2.2	0.1	3.1	0.6	0.5
KTP23-3	0.8	1.4	4.9	1.7	3.3	3.2	4.3	0.4	2	3.1	3.6	0.6	5.1	1.3	0.5
KTP23-4	0.7	1.7	5	1.5	4.6	5	5.4	0.1	2.5	6.2	5.7	1.5	5.4	2.9	0.5
KTP23-5	1.1	0.8	5.4	1.4	3	6.7	9.9	-0.2	2.7	9.3	8.3	2	8.1	4.8	0
KTP24-1	0.9	2.7	2.1	0.7	1.4	0	0.7	2.2	1.7	2.7	0.8	1	0.7	0	1
KTP24-2	2.5	3.3	2.8	1.1	2.2	0	1.4	3.1	2	3.3	1.7	1.8	1.1	2.6	2.2



ERM

Sample ID	Al	Fe	Ca	As	Ba	Be	Co	Cr	Cu	Mn	Ni	Pb	Zn	Li	V
KTP24-3	1.7	3.1	0.5	1.1	2.9	0	0	2.4	1.3	1.3	0.5	1.4	-0.7	0	1.5
KTP25-1	1	0.5	6.8	1.3	2.8	3	4.5	0.3	2.4	5.4	3	1.3	3.2	2	0.3
KTP25-2	0.5	0.5	6.8	2.4	3.5	2.8	3.4	-0.7	1.5	3.8	3.1	1.4	4.1	1.3	0
KTP25-3	0.5	0.7	6.9	3.5	4.8	3.8	4.2	0.8	1.8	4.9	5	2.6	5.7	1	1.1
KTP26-1	2	1.4	4.5	0.7	2.9	2.6	3.9	1.7	1.7	4.8	3.3	1	2.5	3.4	1.6
KTP26-2	1.4	0.9	8.6	0.7	3.9	2.3	4.3	1.5	1.8	5.1	3.5	0.5	2.8	3.5	1.5
KTP26-3	1	0.7	4.9	0.7	2.1	2	3.6	1.1	1.4	4.7	3.4	0.6	3.3	2.9	1.3
KTP26-4	0.3	2	4.3	2.6	2.4	2.8	5	0.9	1.7	5.7	5.1	1.1	5.1	1.8	1.3
KTP27-1	1	1	0	1.2	1.1	0	-0.6	1	1.1	0.7	-0.5	1.2	-0.5	0.6	0.7
KTP27-2	2.1	0.4	0	1.5	1.3	0	-0.6	0.9	1.4	0.3	0	1.8	-0.1	0.6	0.8
KTP30-1	-0.1	-0.6	0.5	0.8	0.1	0	0.7	-0.9	-0.6	1.2	0.7	-0.2	0.8	0	0
KTP30-2	1	0.1	0	1.5	0.5	1.6	1	-0.1	-1	0.4	1.2	0.6	1.3	1.8	0.7
KTP31-1	0	0.9	1.1	1.2	0.9	0	1	0.3	0.5	1.6	0	0.6	1.7	0	0.3
KTP31-2	0	-0.4	1.3	0.9	0	0	0.7	-0.5	-1	0.4	0.2	-0.1	-0.7	0	0.3
KTP31-3	1.3	1.4	2.4	2.3	0.3	1	1.3	0.1	-1.1	0.9	0.9	0.3	0.2	1.3	1.1
KTP32-1	-0.2	0.5	2.6	0	0.9	0	2.7	0.8	0.9	3.7	2.1	0	2.7	0	0.3
KTP32-2	-0.5	-0.4	1.8	0.3	1.1	0	1.6	-0.2	-0.1	1.9	0.7	-0.6	1.5	0	0.3
KTP32-3	-0.2	0	2.6	0.2	0.6	0	1.9	0.1	0.3	2.4	1.1	-0.4	2	0	0.3
KTP32-4	0.1	0	3.4	0.3	1.2	1	3.3	0.4	1.1	3.5	2.2	0.2	3.1	0.6	0.3
KTP32-5	0.1	0.2	4.4	-0.6	1	0	2	-0.5	0.9	1.9	1.3	0	2.8	0	-0.7
KTP32-6	-0.4	0.7	3.6	0	0.9	0	2.7	0.6	0.9	3.5	1.8	0.1	2.8	-1	0
KTP33-1	0.6	0.5	0.3	1.5	2.7	2	2.7	-0.4	0	1.1	2.5	0.2	3.3	0.6	-0.3
KTP34-1	0.5	1.6	2.8	1.1	2.1	1	1.9	1.3	1.9	2.9	1.8	0.7	3.4	0	0.7
KTP34-2	1	1.6	3.8	0.9	2	1.6	2.7	1.4	1.6	2.6	2.7	0.9	3.8	2.2	1



ERM

Sample ID	Al	Fe	Ca	As	Ba	Be	Co	Cr	Cu	Mn	Ni	Pb	Zn	Li	V
KTP34-3	0.7	2.2	3.9	2.1	2.7	1	1	1	2.5	1.4	0.5	1.7	2.3	0	0.5
KTP34-4	1	2.2	3.8	1.4	1.8	1	2.2	1.9	2.1	2.2	2.4	1.2	3.9	1.3	1.5
KTP34-5	0.2	2.5	3.5	1.6	0.9	0	1.2	1.8	1.3	2.6	1.5	0.9	2.9	0.6	1.1
KTP34-6	-0.2	0.7	4.7	0.8	0.8	0	0.4	0.4	0.5	0.6	0.5	-0.1	2	0.3	0.7
KTP35-1	0.6	1.1	4.6	0.8	-0.4	1	2.6	1.1	0.9	3.5	2.4	0.2	3.1	1.8	0.8
KTP35-2	0.3	1.3	2.7	1.9	0.3	1	0.4	0.9	1.1	-0.1	1.3	0.2	3	1.8	1
KTP35-3	0.5	1.1	5.7	3.1	3.8	1	1.1	0.3	1.7	1	1.8	2.4	3.5	1.3	-0.3
KTP36-1	0.5	0.2	1.8	0.8	0.5	0	0.7	0.7	0.7	2	0.2	0.3	0.9	0	0.7
KTP36-2	1.6	1.3	1.7	2.5	4.6	2	1.6	1.8	1.5	-0.7	1.8	1.3	1.1	2	1.9
KTP36-3	0.1	0.2	1.4	1.5	5.9	0	-0.6	-0.2	0.3	-3.9	-0.5	0.5	0.2	-1	-0.7



APPENDIX D 4 XRD RESULTS



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP02-4**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: **B2423 SOW#90 KTP02-4 (ALS 1)_2911, B2423 SOW#90 KTP02-4 (ALS 1)_10pc.Ai2O3_2925**

Comments:

Table 1 - Phase Quantification

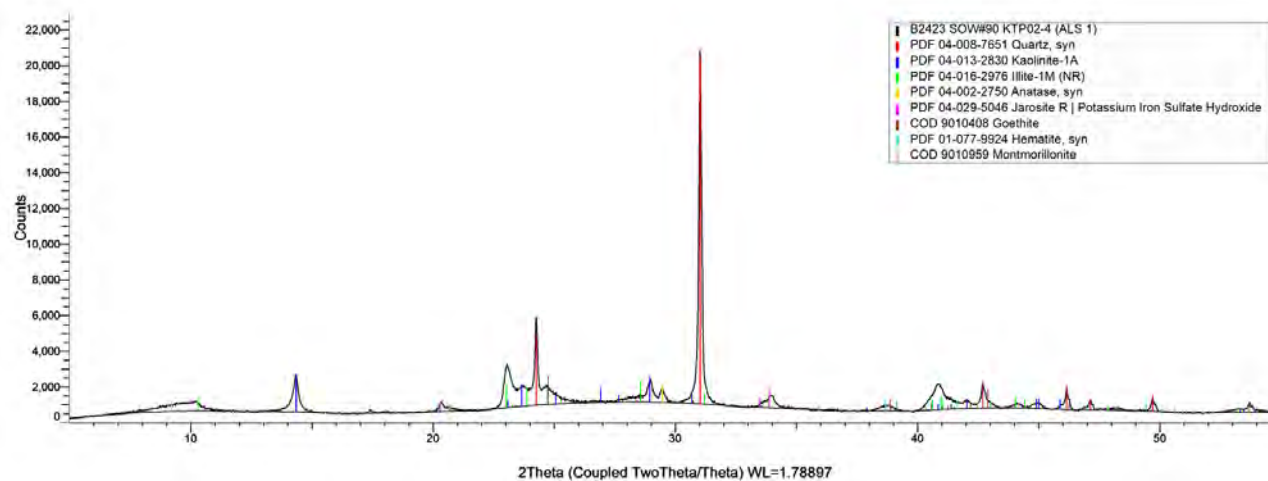
Phase		Chemical Composition	Abundance
Amorphous	4	N/A	Minor
Kaolinite	35	Al ₂ Si ₂ O ₅ (OH) ₄	Major
Illite	24	(K,H ₃ O)[Al,Mg,Fe] ₂ (Si,Al) ₄ O ₁₀ [(OH) ₂ .(H ₂ O)]	Moderate
Quartz	22	SiO ₂	Moderate
Montmorillonite	7	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Minor
Goethite	3	FeO(OH)	Minor
Anatase	2	TiO ₂	Minor
Jarosite	2	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Hematite	<1	Fe ₂ O ₃	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP03-2**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP03-2 (ALS 2)_2912, B2423 SOW#90 KTP03-2 (ALS 2)_10pc.Ai2O3_2926

Comments:

Table 1 - Phase Quantification

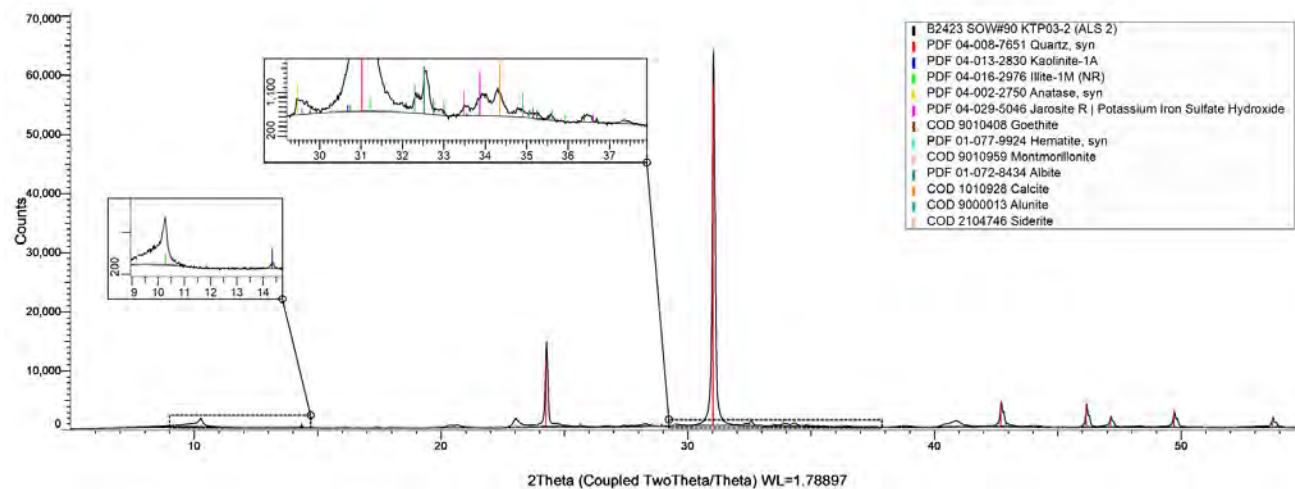
Phase		Chemical Composition	Abundance
Amorphous	7	N/A	Minor
Quartz	62	SiO ₂	Major
Illite	13	(K,H3O)[Al,Mg,Fe]2(Si,Al)4O10[(OH)2,(H2O)]	Moderate
Plagioclase	4	NaAl(Si3O8 - CaAl2Si2O8	Minor
Montmorillonite	4	(Na,Ca)0.33(Al,Mg)2(Si4O10)(OH)2.nH2O	Minor
Goethite	2	FeO(OH)	Minor
Jarosite	2	KFe3(SO4)2(OH)6	Minor
Kaolinite	2	Al2Si2O5(OH)4	Trace
* Calcite	1	CaCO3	Trace
* Alunite	<1	KAl3(SO4)2(OH)6	Trace
* Anatase	<1	TiO2	Trace
* Hematite	<1	Fe2O3	Trace
* Siderite	<1	FeCO3	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP04-1**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: **B2423 SOW#90 KTP04-1 (ALS 3)_2913, B2423 SOW#90 KTP04-1 (ALS 3)_10pc.AI2O3_2927**

Comments:

Table 1 - Phase Quantification

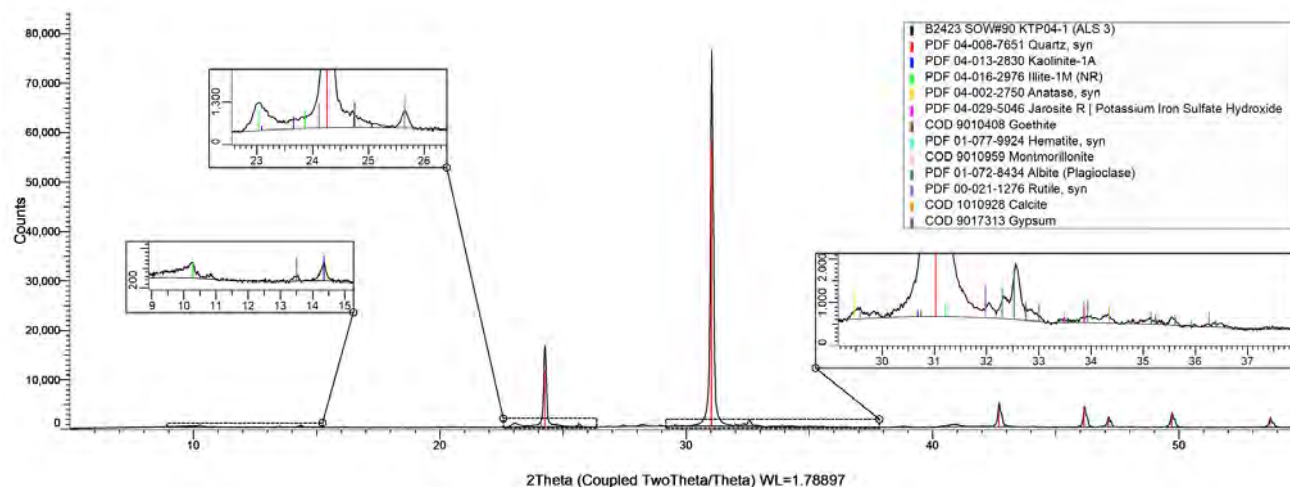
Phase		Chemical Composition	Abundance
Amorphous	5	N/A	Minor
Quartz	69	SiO ₂	Major
Plagioclase	8	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Minor
Illite	7	(K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀ [(OH) ₂ .(H ₂ O)]	Minor
Montmorillonite	3	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Minor
Kaolinite	2	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Anatase	2	TiO ₂	Trace
* Goethite	1	FeO(OH)	Trace
* Gypsum	1	CaSO ₄ (H ₂ O)	Trace
* Jarosite	<1	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Hematite	<1	Fe ₂ O ₃	Trace
* Calcite	<1	CaCO ₃	Trace
* Rutile	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10



Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP04-3**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: **B2423 SOW#90 KTP04-3 (ALS 4)_2914, B2423 SOW#90 KTP04-3 (ALS 4)_10pc.AI2O3_2928**

Comments:

Table 1 - Phase Quantification

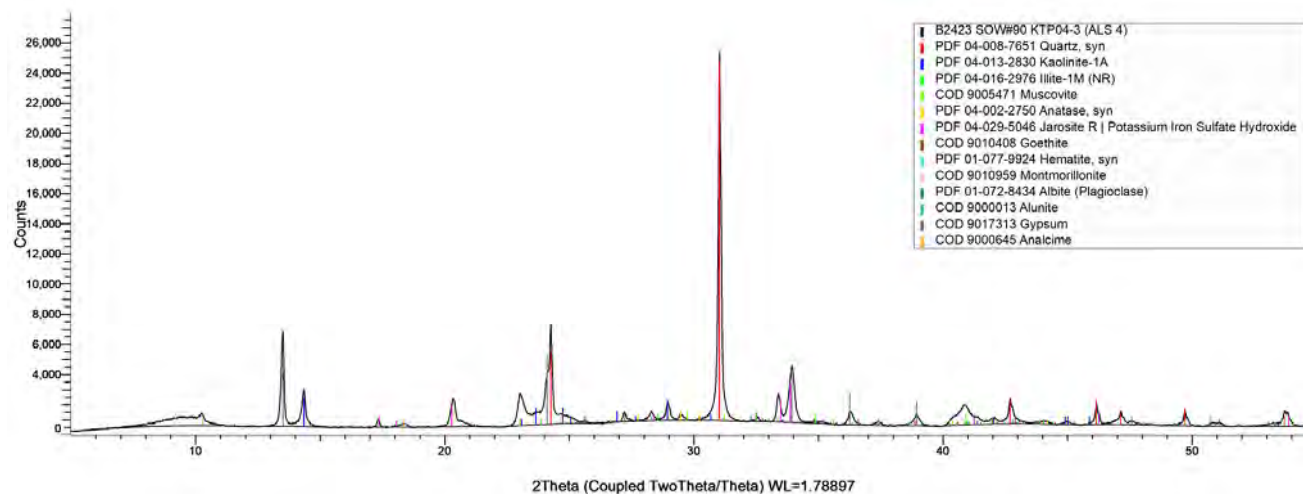
Phase		Chemical Composition	Abundance
Amorphous	5	N/A	Minor
Muscovite/illite	23	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₁	Moderate
Quartz	22	SiO ₂	Moderate
Montmorillonite	17	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Moderate
Gypsum	12	CaSO ₄ (H ₂ O)	Moderate
Jarosite	6	KFe ₃ (SO ₄) ₂ (OH) ₆	Minor
Kaolinite	5	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Analcime	5	NaAlSi ₂ O ₆ .H ₂ O	Minor
Goethite	3	FeO(OH)	Minor
* Hematite	<1	Fe ₂ O ₃	Trace
* Plagioclase	<1	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Trace
* Rutile	<1	TiO ₂	Trace
* Anatase	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP04-4**

Comments:

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP04-4 (ALS 5)_2915, B2423 SOW#90 KTP04-4 (ALS 5)_10pc.AI2O3_2929

Table 1 - Phase Quantification

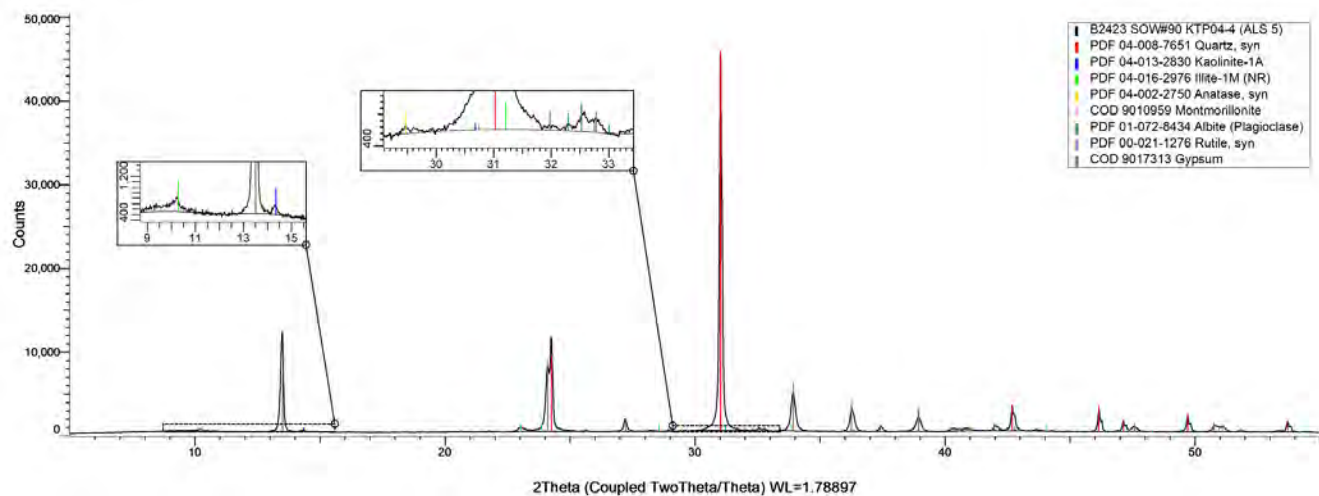
Phase		Chemical Composition	Abundance
Amorphous	7	N/A	Minor
Quartz	49	SiO ₂	Major
Gypsum	29	CaSO ₄ (H ₂ O)	Moderate
Illite	10	(K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀ [(OH) ₂ .(H ₂ O)]	Moderate
Montmorillonite	2	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Minor
Kaolinite	2	Al ₂ Si ₂ O ₅ (OH) ₄	Trace
* Plagioclase	1	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Trace
* Anatase	<1	TiO ₂	Trace
* Rutile	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, λ = 1.79 Å) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP06-2**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP06-2 (ALS 6)_2916, B2423 SOW#90 KTP06-2 (ALS 6)_10pc.AI2O3_2930

Comments:

Table 1 - Phase Quantification

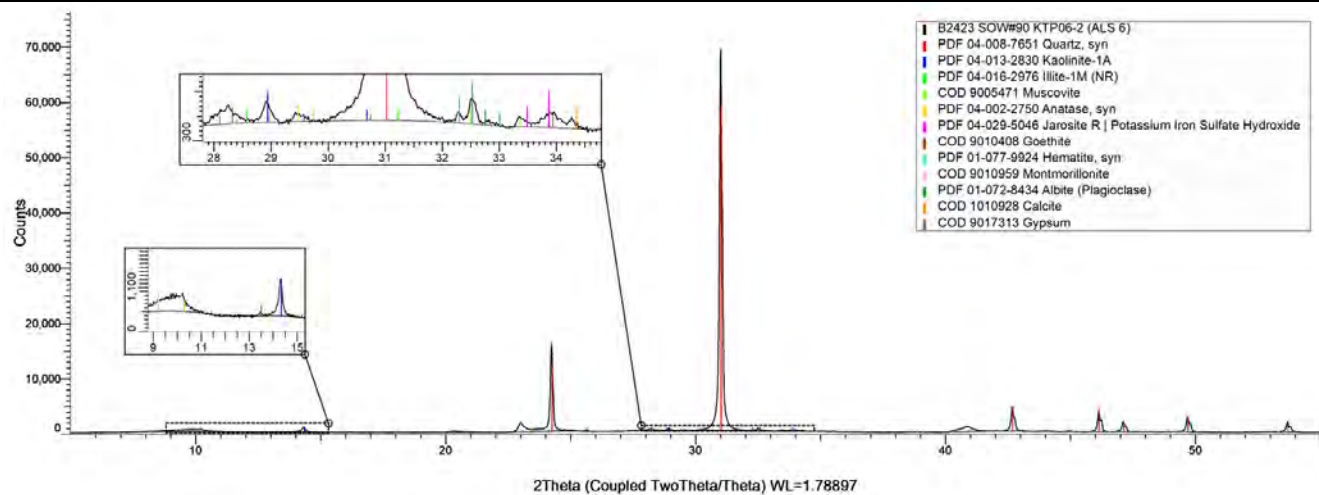
Phase		Chemical Composition	Abundance
Amorphous	4	N/A	Minor
Quartz	60	SiO ₂	Major
Muscovite/Illite	18	KAl ₂ (Si ₃ AlSi ₆ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀	Moderate
Kaolinite	6	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Montmorillonite	4	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Minor
Plagioclase	3	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Minor
Goethite	2	FeO(OH)	Trace
* Jarosite	1	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Calcite	<1	CaCO ₃	Trace
* Hematite	<1	Fe ₂ O ₃	Trace
* Gypsum	<1	CaSO ₄ (H ₂ O)	Trace
* Anatase	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP07-3**

Comments:

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP07-3 (ALS 7)_2917, B2423 SOW#90 KTP07-3 (ALS 7)_10pc.AI2O3_2931

Table 1 - Phase Quantification

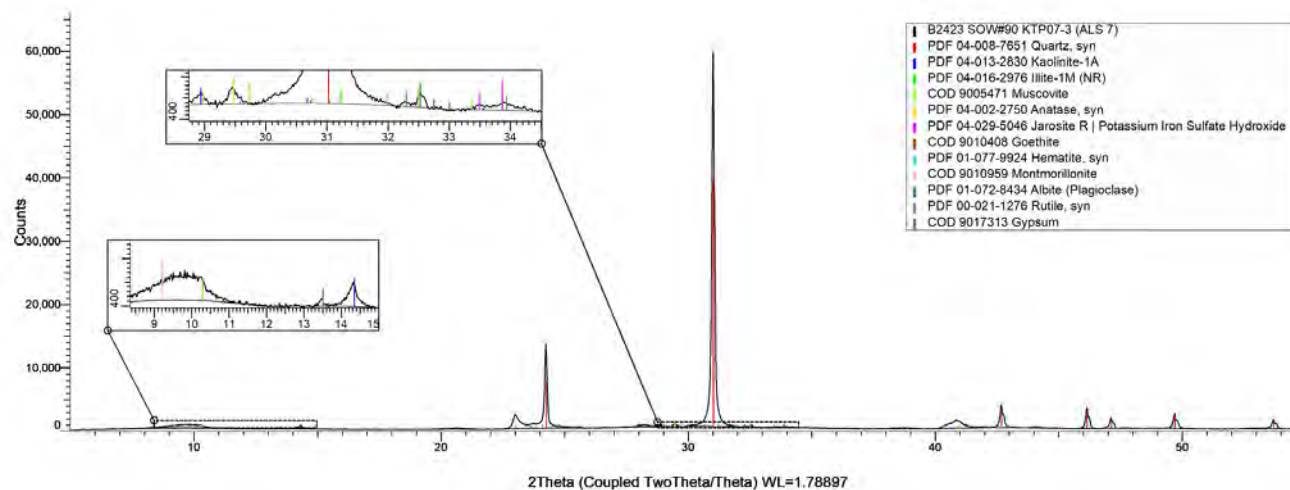
Phase		Chemical Composition	Abundance
Amorphous	3	N/A	Minor
Quartz	49	SiO ₂	Major
Muscovite/Illite	22	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀	Moderate
Montmorillonite	10	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Moderate
Kaolinite	10	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Hematite	2	Fe ₂ O ₃	Trace
Plagioclase	2	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Trace
* Gypsum	<1	CaSO ₄ (H ₂ O)	Trace
* Goethite	<1	FeO(OH)	Trace
* Jarosite	<1	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Anatase	<1	TiO ₂	Trace
* Rutile	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP19-2**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP19-2 (ALS 8)_2918, B2423 SOW#90 KTP19-2 (ALS 8)_10pc.AI2O3_2932

Comments:

Table 1 - Phase Quantification

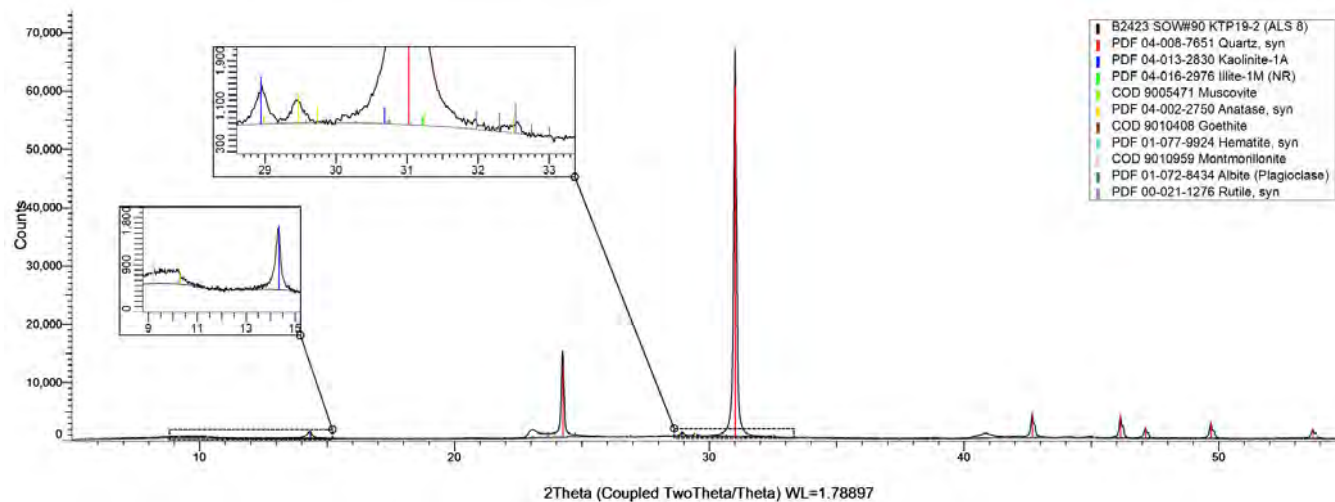
Phase		Chemical Composition	Abundance
Amorphous	6	N/A	Minor
Quartz	56	SiO ₂	Major
Montmorillonite	15	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Moderate
Muscovite/Illite	11	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₁	Moderate
Kaolinite	8	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Goethite	3	FeO(OH)	Minor
* Plagioclase	<1	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Trace
* Rutile	<1	TiO ₂	Trace
* Anatase	<1	TiO ₂	Trace
* Hematite	<1	Fe ₂ O ₃	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP20-2**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP20-2 (ALS 9)_2919, B2423 SOW#90 KTP20-2 (ALS 9)_10pc.AI2O3_2933

Comments:

Table 1 - Phase Quantification

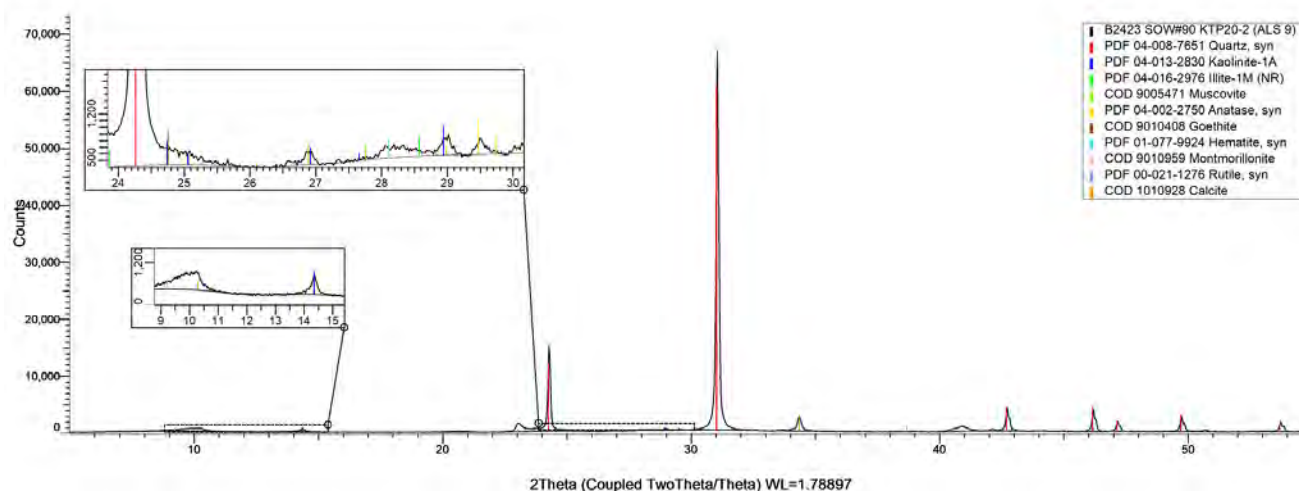
Phase		Chemical Composition	Abundance
Amorphous	4	N/A	Minor
Quartz	57	SiO ₂	Major
Muscovite/illite	18	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀	Moderate
Montmorillonite	11	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Moderate
Kaolinite	5	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Calcite	2	CaCO ₃	Minor
* Goethite	1	FeO(OH)	Trace
* Hematite	<1	Fe ₂ O ₃	Trace
* Anatase	<1	TiO ₂	Trace
* Rutile	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP24-2**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: **B2423 SOW#90 KTP24-2 (ALS 10)_2920, B2423 SOW#90 KTP24-2 (ALS 10)_10pc.AI2O3_2934**

Comments:

Table 1 - Phase Quantification

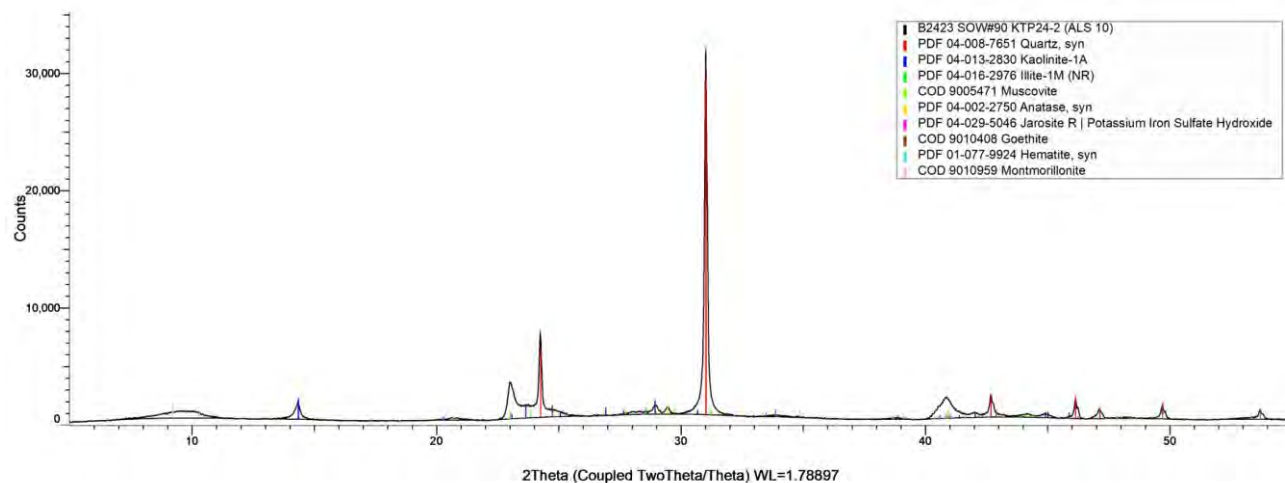
Phase		Chemical Composition	Abundance
Amorphous	6	N/A	Minor
Quartz	30	SiO ₂	Major
Montmorillonite	24	(Na,Ca) _{0.33} (Al,Mg) ₂ [Si ₄ O ₁₀](OH) ₂ .nH ₂ O	Moderate
Muscovite/illite	21	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ [Si ₄ AlO ₁₀]	Moderate
Kaolinite	13	Al ₂ Si ₂ O ₅ (OH) ₄	Moderate
Goethite	3	FeO(OH)	Minor
* Jarosite	1	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Anatase	<1	TiO ₂	Trace
* Hematite	<1	Fe ₂ O ₃	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP34-3**

Comments:

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP34-3 (ALS 11)_2921, B2423 SOW#90 KTP34-3 (ALS 11)_10pc.AI2O3_2935

Table 1 - Phase Quantification

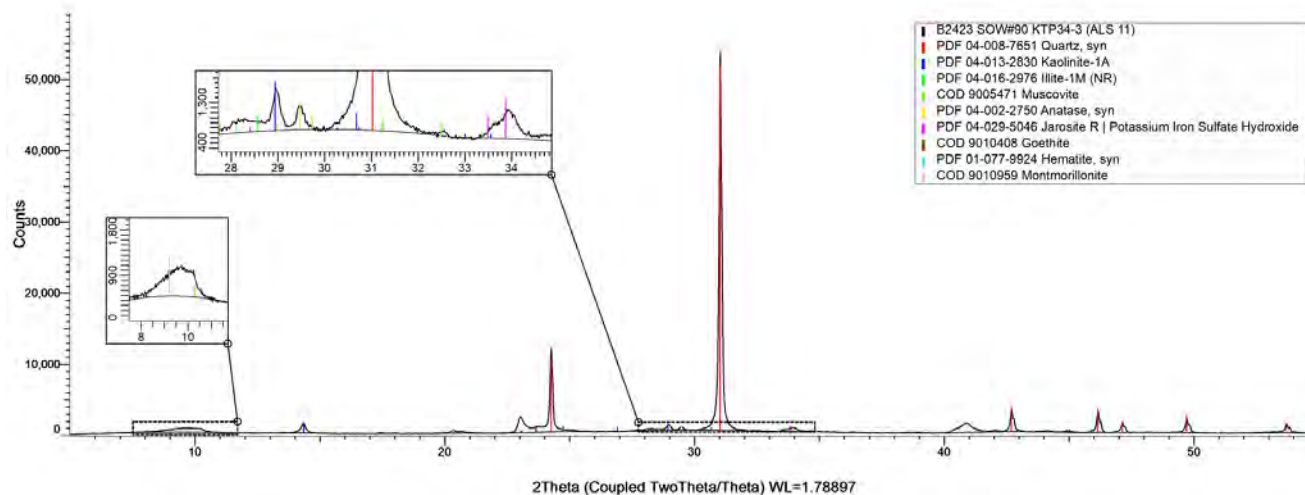
Phase		Chemical Composition	Abundance
Amorphous	4	N/A	Minor
Quartz	46	SiO ₂	Major
Montmorillonite	20	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Moderate
Muscovite/Illite	18	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀	Moderate
Kaolinite	7	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Jarosite	3	KFe ₃ (SO ₄) ₂ (OH) ₆	Minor
* Goethite	1	FeO(OH)	Trace
* Anatase	<1	TiO ₂	Trace
* Hematite	<1	Fe ₂ O ₃	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.



QXRD Report

Report issued date: 2026-05-08

Report by: S. Stoy

Sample ID: **B2423 SOW#90 KTP35-3**

BML Internal Reports: ICP: B2423-B204

XRD Data Set: B2423 SOW#90 KTP35-3 (ALS 12)_2922, B2423 SOW#90 KTP35-3 (ALS 12)_10pc.AI2O3_2936

Comments:

Table 1 - Phase Quantification

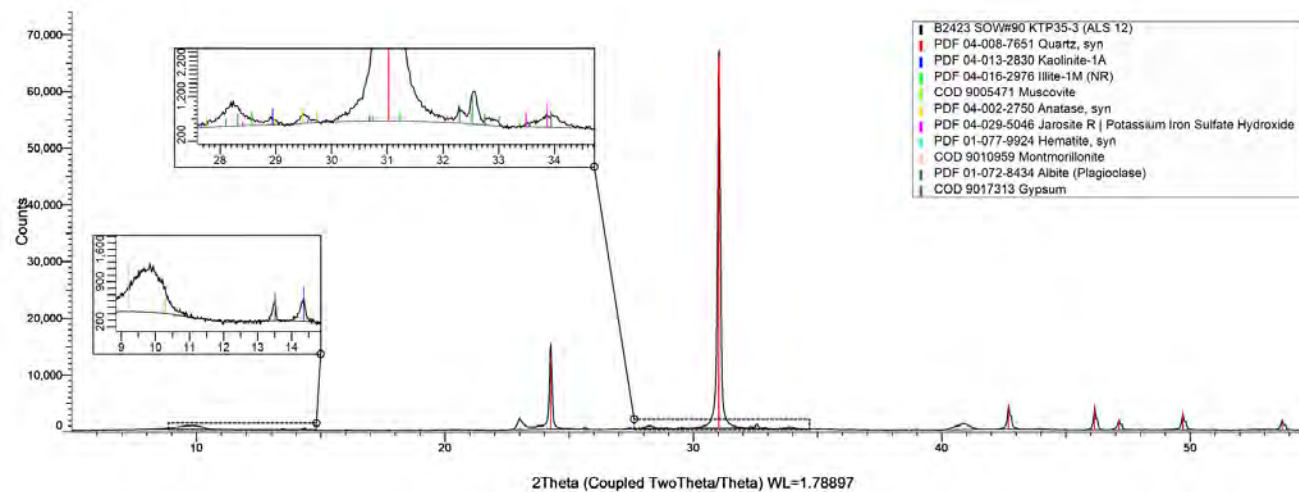
Phase		Chemical Composition	Abundance
Amorphous	5	N/A	Minor
Quartz	60	SiO ₂	Major
Muscovite/Illite	19	KAl ₂ AlSi ₃ O ₁₀ (OH) ₂ , (K,H ₃ O)(Al,Mg,Fe) ₂ (Si,Al) ₄ O ₁₀	Moderate
Montmorillonite	7	(Na,Ca) _{0.33} (Al,Mg) ₂ (Si ₄ O ₁₀)(OH) ₂ .nH ₂ O	Minor
Kaolinite	3	Al ₂ Si ₂ O ₅ (OH) ₄	Minor
Plagioclase	3	NaAlSi ₃ O ₈ - CaAl ₂ Si ₂ O ₈	Minor
* Jarosite	1	KFe ₃ (SO ₄) ₂ (OH) ₆	Trace
* Gypsum	1	CaSO ₄ (H ₂ O)	Trace
* Hematite	<1	Fe ₂ O ₃	Trace
* Anatase	<1	TiO ₂	Trace

* at or near detection limit

Abundance: Major (>30%), Moderate (10-30%), Minor (2-10%), Trace (<2%)

Table 2 - Elemental Composition Results

Element	Assay %	Phase Totals %	phase 1	phase 2	phase 3	phase 4	phase 5	phase 6	phase 7	phase 8	phase 9	phase 10
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Sample Preparation and Analysis:

The sample was prepared by micronising in ethanol for 15min using the XRD Mill-McCrone and oven dried at 60°C. The sample was loaded into a Bruker D6 Phaser XRD instrument (CoK α radiation, $\lambda = 1.79 \text{ \AA}$) for analysis. The resulting XRD pattern was analysed with the program DIFFRAC.EVA V7; which identifies phases in a sample by comparing them against known minerals from the American Mineralogist Crystal Structure Database (AMCSD), and other sources. Supplementary information such as location specific data, geological description, analytical chemistry etc. supplied by the client will also be used to identify the minerals present. Subsequent to this, quantification of the minerals present is determined by Rietveld refinement using TOPAS V7 software.

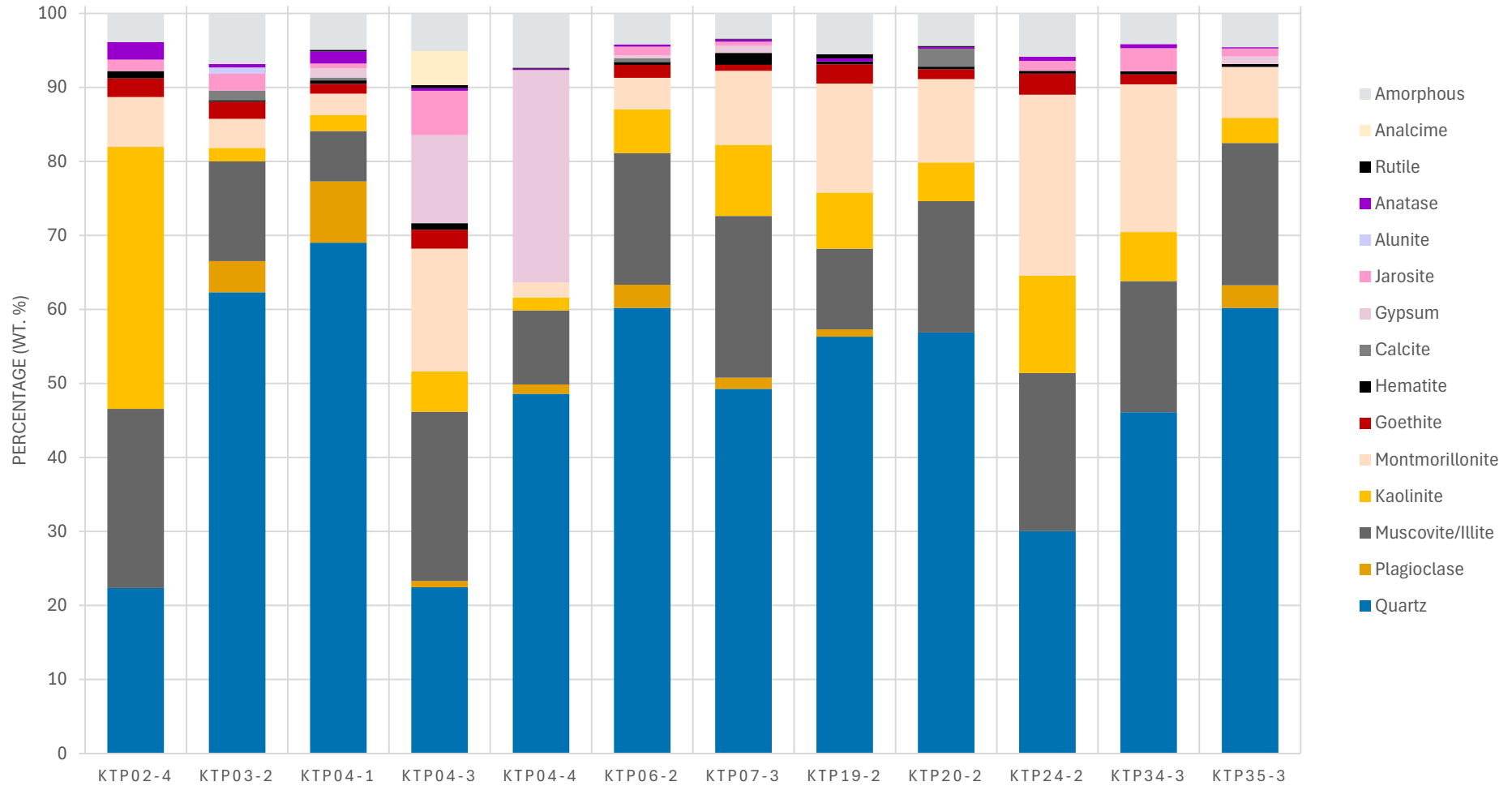
The internal standard method was applied to estimate the amorphous fraction by adding a known amount of a highly crystalline spike phase (Corundum, 10%). The previously identified phases are rescaled to the standards known quantity, with the difference to 100 wt% constituting the amorphous content.

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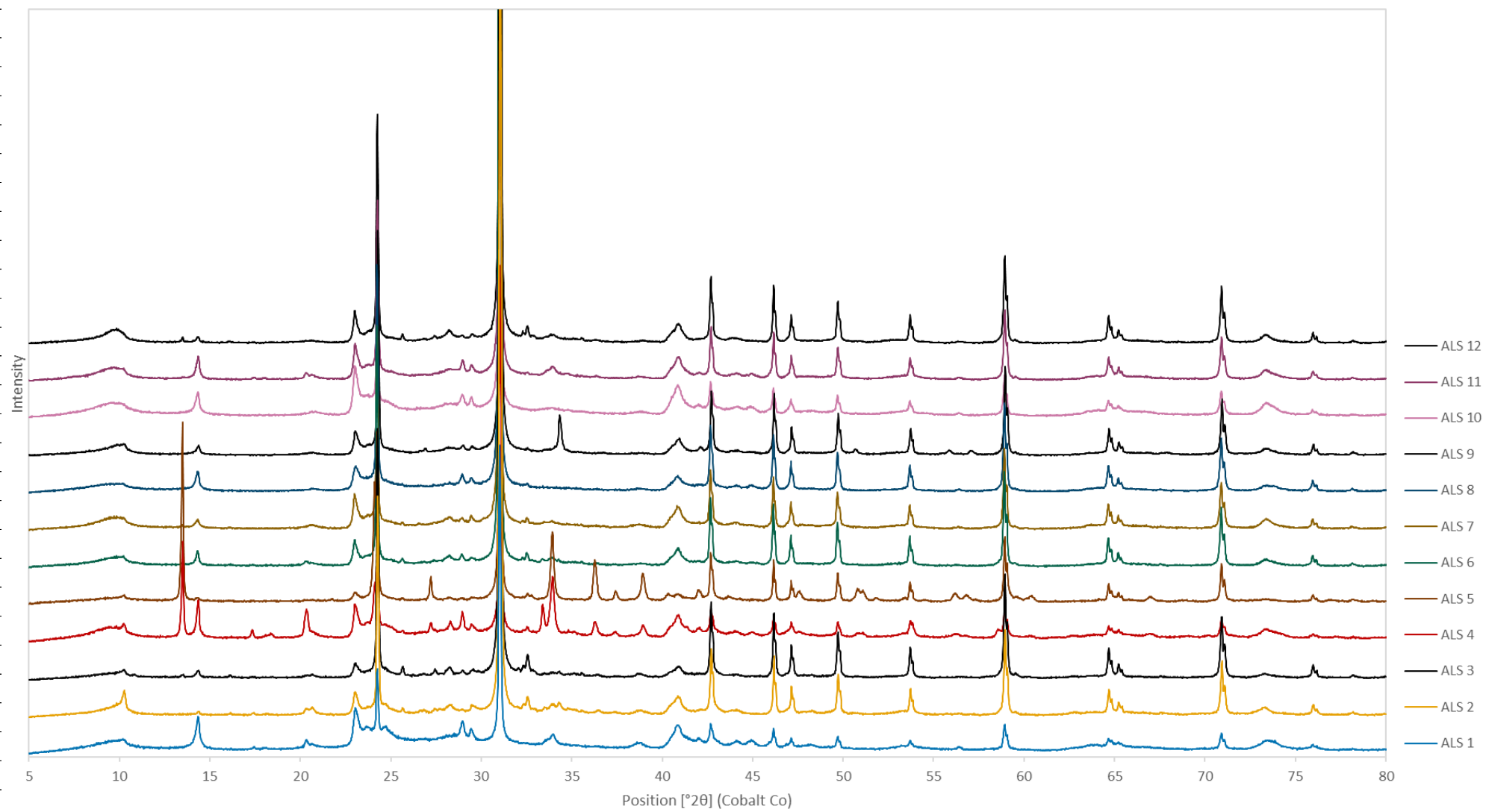
[illegible]

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QXRD Summary



B2423 SOW#90 - Stacked XRD Patterns





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