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## Laboratory Data Report

### Client Information

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### Data-File Information

Date: March 15, 2023

Project name:

ODM batch number: 2850

Sample numbers: AER22TS-1029, AER22TS-1068, AER22TS-2026, AER22TS-3044, AER22TS-3063, AER22TS-3115, AER22TS-4077, AER22TS-5070, AER22TS-5087, AERCL227079, AERCL227082, AERCL227089, AERCL227093, AERCL227102, AERCL227103, AERCL227108, AERSR221112, AERSR221114, AERSR221116, AERSR221118, AERSR223002, AERSR223005, AERSR223008, AERSR223009, AERSR223011, AERSR223013, AERSR223016

Data file: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Number of samples in this report: 27

Number of samples processed to date: 246

Total number of samples in project: 299

Preliminary data:

Final data:

Revised data:

X

### Samples Processed For:

Gold, KIM, MMSIM, Apatite

### Processing Specifications:

1. Submitted by client: Till and sand/gravel samples mostly prescreened to -2.0 mm in the field.
2. One  $\pm 300$  g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. +0.25 mm table concentrates refined by heavy liquid separation at S.G. 3.0 and 3.2 to obtain mid-density and heavy mineral concentrates (MDCs and HMCs).
5. Nonferromagnetic mineral fractions of 0.25-2.0 mm MDCs and HMCs picked for apatite and indicator minerals.
6. 1.0-2.0 mm, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

### Notes

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Mike Crawford  
Laboratory Manager

## Primary Sample Processing Weights and Descriptions

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Weight (kg wet)					Screening and Shaking Table Sample Descriptions													Class
						Clasts (+2.0 mm)					Matrix (-2.0 mm)					Colour			
											Percentage								
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Size	V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY		
AER22TS-1029	9.9	0.3	9.6	<0.1	9.6	P	100	TR	0	0	U	-	Y	+	N	DOC	DOC	TILL	
AER22TS-1068	10.6	0.3	10.3	2.6	7.7	C	10	0	90	TR	U	Y	Y	Y	N	LOC	LOC	TILL	
AER22TS-2026	12.9	0.3	12.6	0.3	12.3	P	95	5	0	TR	U	Y	Y	Y	N	OC	OC	TILL	
AER22TS-3044	10.8	0.3	10.5	5.2	5.3	C	50	0	50	0	U	Y	Y	Y	N	OC	DOC	TILL	
AER22TS-3063	10.4	0.3	10.1	0.5	9.6	P	100	TR	0	0	U	-	Y	+	N	LOC	LOC	TILL	
AER22TS-3115	10.2	0.3	9.9	1.8	8.1	C	60	0	40	TR	U	Y	Y	Y	N	OC	OC	TILL	
AER22TS-4077	11.1	0.3	10.8	0.2	10.6	P	95	5	0	TR	U	-	Y	+	N	OC	OC	TILL	
AER22TS-5070	14.2	0.3	13.9	1.0	12.9	P	90	5	0	5	U	-	Y	+	N	LOC	OC	TILL	
AER22TS-5087	13.3	0.3	13.0	0.7	12.3	P	75	5	10	10	U	-	Y	+	N	OC	OC	TILL	
AERCL227079	10.4	0.3	10.1	0.0	10.1		No Clasts				S	FM	N	N	N	LOC	NA	SAND + GRAVEL	
AERCL227082	10.3	0.3	10.0	0.0	10.0		No Clasts				S	FM	N	N	N	LOC	NA	SAND + GRAVEL	
AERCL227089	7.8	0.3	7.5	0.0	7.5		No Clasts				S	FM	N	N	N	OC	NA	SAND + GRAVEL	
AERCL227093	8.7	0.3	8.4	0.0	8.4		No Clasts				S	MC	N	N	N	OC	NA	SAND + GRAVEL	
AERCL227102	12.2	0.3	11.9	0.0	11.9		No Clasts				S	MC	N	N	N	LOC	NA	SAND + GRAVEL	
AERCL227103	9.9	0.3	9.6	0.0	9.6		No Clasts				S	MC	N	N	N	GY	NA	SAND + GRAVEL	
AERCL227108	11.1	0.3	10.8	0.0	10.8		No Clasts				S	FM	N	N	N	OC	NA	SAND + GRAVEL	
AERSR221112	12.1	0.3	11.8	0.0	11.8		No Clasts				S	MC	N	N	N	OC	NA	SAND + GRAVEL	
AERSR221114	12.0	0.3	11.7	0.0	11.7		No Clasts				S	FM	N	N	N	DOC	NA	SAND + GRAVEL	
AERSR221116	10.3	0.3	10.0	0.0	10.0		No Clasts				S	MC	N	N	N	DOC	NA	SAND + GRAVEL	
AERSR221118	11.9	0.3	11.6	0.0	11.6		No Clasts				S	FM	N	N	N	OC	NA	SAND + GRAVEL	
AERSR223002	8.9	0.3	8.6	0.0	8.6		No Clasts				S	FM	N	N	N	LOC	NA	SAND + GRAVEL	
AERSR223005	11.1	0.3	10.8	0.0	10.8		No Clasts				S	FM	N	N	N	GY	NA	SAND + GRAVEL	
AERSR223008	10.9	0.3	10.6	0.0	10.6		No Clasts				S	FM	N	N	N	LOC	NA	SAND + GRAVEL	
AERSR223009	10.4	0.3	10.1	0.0	10.1		No Clasts				S	FM	N	N	N	GY	NA	SAND + GRAVEL	
AERSR223011	10.8	0.3	10.5	0.0	10.5		No Clasts				S	FM	N	N	N	GY	NA	SAND + GRAVEL	
AERSR223013	11.1	0.3	10.8	0.0	10.8		No Clasts				S	FM	N	N	N	GY	NA	SAND + GRAVEL	
AERSR223016	10.9	0.3	10.6	0.0	10.6		No Clasts				S	FM	N	N	N	GY	NA	SAND + GRAVEL	
*Clasts listed as OT are Quartz.																			

\*Clasts listed as OT are Quartz.

### Gold Grain Summary

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
AER22TS-1029	0	0	0	0	38.4	0	0	0	0
AER22TS-1068	3	3	0	0	30.8	98	98	0	0
AER22TS-2026	0	0	0	0	49.2	0	0	0	0
AER22TS-3044	1	1	0	0	21.2	9	9	0	0
AER22TS-3063	0	0	0	0	38.4	0	0	0	0
AER22TS-3115	0	0	0	0	32.4	0	0	0	0
AER22TS-4077	0	0	0	0	42.4	0	0	0	0
AER22TS-5070	2	0	2	0	51.6	30	0	30	0
AER22TS-5087	0	0	0	0	49.2	0	0	0	0
AERCL227079	0	0	0	0	40.4	0	0	0	0
AERCL227082	0	0	0	0	40.0	0	0	0	0
AERCL227089	0	0	0	0	30.0	0	0	0	0
AERCL227093	0	0	0	0	33.6	0	0	0	0
AERCL227102	0	0	0	0	47.6	0	0	0	0
AERCL227103	0	0	0	0	38.4	0	0	0	0
AERCL227108	0	0	0	0	43.2	0	0	0	0
AERSR221112	0	0	0	0	47.2	0	0	0	0
AERSR221114	0	0	0	0	46.8	0	0	0	0
AERSR221116	0	0	0	0	40.0	0	0	0	0
AERSR221118	0	0	0	0	46.4	0	0	0	0
AERSR223002	0	0	0	0	34.4	0	0	0	0
AERSR223005	1	1	0	0	43.2	2	2	0	0
AERSR223008	0	0	0	0	42.4	0	0	0	0
AERSR223009	2	0	2	0	40.4	14	0	14	0
AERSR223011	1	0	1	0	42.0	15	0	15	0
AERSR223013	2	1	1	0	43.2	8	8	<1	0
AERSR223016	3	0	3	0	42.4	4	0	4	0

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

**Detailed Gold Grain Data**

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate	
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total				
AER22TS-1029	No Visible Gold										No sulphides.
AER22TS-1068	10	C	50	50	1		1		6	No sulphides.	
	20	C	75	125	2		2		91		
								3	30.8		98
AER22TS-2026	No Visible Gold										No sulphides.
AER22TS-3044	10	C	50	50	1		1		9	No sulphides.	
								1	21.2		9
AER22TS-3063	No Visible Gold										No sulphides.
AER22TS-3115	No Visible Gold										No sulphides.
AER22TS-4077	No Visible Gold										Tr (~10,000 grains) marcasite (25-100 µm).
AER22TS-5070	10	C	25	75		1	1		3	No sulphides.	
	20	C	75	125		1	1		27		
								2	51.6		30
AER22TS-5087	No Visible Gold										No sulphides.
AERCL227079	No Visible Gold										No sulphides.
AERCL227082	No Visible Gold										No sulphides.
AERCL227089	No Visible Gold										Tr (~50 grains) marcasite (25 µm).
AERCL227093	No Visible Gold										Tr (~500 grains) marcasite (25-100 µm).
AERCL227102	No Visible Gold										No sulphides.
AERCL227103	No Visible Gold										Tr (~3000 grains) marcasite (25-100 µm).
AERCL227108	No Visible Gold										No sulphides.
AERSR221112	No Visible Gold										Tr (~500 grains) marcasite (25-100 µm).
AERSR221114	No Visible Gold										No sulphides.
AERSR221116	No Visible Gold										No sulphides.
AERSR221118	No Visible Gold										No sulphides.

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

**Detailed Gold Grain Data**

Client: Alberta Geological Survey

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Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
AERSR223002	No Visible Gold									Tr (~20 grains) marcasite (25 µm).
AERSR223005	8	C	25	50	1		1	2		Tr (~100 grains) marcasite (25 µm).
							1	43.2	2	
AERSR223008	No Visible Gold									Tr (~200 grains) marcasite (25-50 µm).
AERSR223009	10	C	50	50	1		1	5		Tr (~200 grains) marcasite (25-50 µm).
	13	C	50	75	1		1	9		
							2	40.4	14	
AERSR223011	15	C	75	75		1	1	15		Tr (~20 grains) marcasite (25 µm).
							1	42.0	15	
AERSR223013	3	C	15	15		1	1	<1		Tr (~20 grains) marcasite (25 µm).
	13	C	50	75	1		1	8		
							2	43.2	8	
AERSR223016	5	C	25	25		1	1	1		Tr (~20 grains) marcasite (25 µm).
	8	C	25	50		2	2	3		
							3	42.4	4	

\* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

## Heavy Mineral Concentrate Processing Weights

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Weight of -2.0 mm Table Concentrate (g)													
	Total	-0.25 mm	0.25-2.0 mm Heavy Liquid Separation at S.G. 3.0 and 3.2											
			Total	Lights S.G. <3.0	Total S.G. >3.0 HMC	-0.25 mm (wash)	Mag HMC	Nonferromagnetic Fractions						
								S.G. 3.0 to 3.2 Total	S.G. >3.2					
									Total	Processed Split				
										%	Weight	0.25 to 0.5	0.5 to 1.0 mm	1.0 to 2.0 mm
AER22TS-1029	897.2	608.9	288.3	286.8	1.5	0.6	0.1	0.5	0.3	100.0	0.3	0.1	0.1	0.1
AER22TS-1068	668.8	523.2	145.6	139.9	5.7	1.3	0.02	2.2	2.2	100.0	2.2	1.4	0.6	0.2
AER22TS-2026	1079.7	828.6	251.1	246.9	4.2	0.8	0.1	1.2	2.1	100.0	2.1	1.4	0.5	0.2
AER22TS-3044	609.0	367.9	241.1	240.5	0.6	0.3	<0.01	0.1	0.2	100.0	0.2	0.1	0.06	0.04
AER22TS-3063	791.7	549.8	241.9	241.3	0.6	0.1	0.01	0.2	0.3	100.0	0.3	0.1	0.1	0.1
AER22TS-3115	441.4	300.0	141.4	141.3	0.1	0.1	<0.01	0.02	0.02	100.0	0.0	0.02	0.0	0.0
AER22TS-4077	1433.7	935.6	498.1	489.6	8.5	2.5	0.2	1.3	4.5	100.0	4.5	2.1	1.3	1.1
AER22TS-5070	849.8	668.1	181.7	174.9	6.8	1.2	0.2	1.9	3.5	100.0	3.5	2.5	0.9	0.1
AER22TS-5087	798.2	514.6	283.6	274.0	9.6	1.3	0.3	3.5	4.5	100.0	4.5	2.7	1.4	0.4
AERCL227079	1262.1	1224.5	37.6	37.0	0.6	0.2	0.01	0.1	0.3	100.0	0.3	0.3	<0.01	<0.01
AERCL227082	1493.9	1051.1	442.8	440.1	2.7	0.5	0.03	0.7	1.5	100.0	1.5	1.4	0.1	<0.01
AERCL227089	1486.1	891.7	594.4	570.5	23.9	3.3	1.4	4.2	15.0	100.0	15.0	6.0	5.8	3.2
AERCL227093	914.2	532.7	381.5	316.8	64.7	5.2	3.3	3.5	52.7	38.0	20.0	8.2	9.8	2.0
AERCL227102	482.2	218.9	263.3	251.8	11.5	2.0	0.3	1.2	8.0	100.0	8.0	7.0	0.9	0.1
AERCL227103	1290.9	892.4	398.5	350.9	47.6	5.0	1.1	3.0	38.5	51.9	20.0	15.1	4.3	0.6
AERCL227108	924.6	889.1	35.5	30.0	5.5	1.5	0.08	0.9	3.0	100.0	3.0	2.8	0.2	<0.01
AERSR221112	921.6	463.5	458.1	444.0	14.1	2.0	0.05	4.0	8.1	100.0	8.1	2.4	4.2	1.5
AERSR221114	774.2	514.4	259.8	236.5	23.3	3.1	0.1	7.4	12.7	100.0	12.7	3.9	4.9	3.9
AERSR221116	798.6	610.6	188.0	169.8	18.2	1.7	0.06	3.0	13.4	100.0	13.4	3.7	5.1	4.6
AERSR221118	1020.2	702.0	318.2	315.5	2.7	0.7	0.01	0.7	1.3	100.0	1.3	0.5	0.5	0.3
AERSR223002	687.5	459.3	228.2	224.9	3.3	0.8	0.02	0.6	1.9	100.0	1.9	1.0	0.7	0.2
AERSR223005	1141.0	744.8	396.2	366.1	30.1	5.3	1.2	2.3	21.3	100.0	21.3	12.0	7.8	1.5
AERSR223008	918.8	484.1	434.7	418.4	16.3	2.7	0.2	2.8	10.6	100.0	10.6	3.9	4.6	2.1
AERSR223009	535.0	468.6	66.4	60.0	6.4	1.8	0.04	1.1	3.5	100.0	3.5	1.8	1.4	0.3
AERSR223011	937.2	573.8	363.4	340.0	23.4	2.6	0.2	8.6	12.0	100.0	12.0	4.4	5.1	2.5
AERSR223013	949.9	788.1	161.8	155.7	6.1	2.2	0.5	1.0	2.4	100.0	2.4	1.2	1.0	0.2
AERSR223016	991.2	743.5	247.7	237.3	10.4	2.3	0.05	1.1	7.0	100.0	7.0	1.6	3.6	1.8

### 0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
	Total	Paramagnetic			Nonparamagnetic	
		Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
AER22TS-1029	0.11		0.09		0.02	NA
AER22TS-1068	1.41	0.03	0.16	1.02	0.16	0.04
AER22TS-2026	1.43	0.06	0.39	0.45	0.52	0.01
AER22TS-3044	0.14		0.14		<0.01	NA
AER22TS-3063	0.08		0.08		<0.01	NA
AER22TS-3115	0.02	Undersized concentrate therefore not electromagnetically separated.				
AER22TS-4077	2.06	0.19	0.69	0.27	0.88	0.03
AER22TS-5070	2.49	0.02	0.60	1.61	0.22	0.04
AER22TS-5087	2.74	0.10	0.54	1.81	0.27	0.02
AERCL227079	0.27	0.05	0.14	0.06	0.02	NA
AERCL227082	1.41	0.08	0.98	0.24	0.08	0.03
AERCL227089	6.03	1.45	3.70	0.63	0.22	0.03
AERCL227093	8.18	1.82	5.36	0.25	0.73	0.02
AERCL227102	6.96	2.02	4.25	0.40	0.28	0.01
AERCL227103	15.09	5.87	8.26	0.57	0.38	0.01
AERCL227108	2.83	0.26	1.96	0.48	0.12	0.01
AERSR221112	2.44	0.01	0.53	1.74	0.16	<0.01
AERSR221114	3.92	0.01	0.92	2.79	0.19	0.01
AERSR221116	3.69	0.01	0.83	2.77	0.07	0.01
AERSR221118	0.53	<0.01	0.15	0.32	0.05	0.01
AERSR223002	0.97	0.05	0.18	0.73	0.01	NA
AERSR223005	11.99	3.66	5.78	2.00	0.52	0.03
AERSR223008	3.88	0.13	1.34	2.14	0.25	0.02
AERSR223009	1.78	0.09	0.84	0.76	0.08	0.01
AERSR223011	4.40	0.08	0.71	3.50	0.10	0.01
AERSR223013	1.17	0.01	0.20	0.93	0.02	0.01
AERSR223016	1.64	0.01	0.03	1.59	0.01	NA

\*SG &lt;3.20 heavy liquid separation clean-up of &gt;1.0 amp fraction.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp				>1.0 amp					
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
% Fo*	% Fay													% Ap	% Mz							
AER22TS-1029	0	0	0	0	15 (~100 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Hematite-black andradite-goethite/titanite-leucoxene-epidote assemblage.	
AER22TS-1068	0	0	90 barite (~1000 gr)	0	90 (~10.000 gr)	0	0	0	0.5 (6 gr)	0	0	0	0	0	0	0	0	0	0	0	Goethite/barite assemblage. 0.5-1.0 mm fraction contains 12% (~100 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite
AER22TS-2026	0	0	0	0	15 (~1200 gr)	1 blue-green	Tr ruby corundum (1 gr)	Tr (17 gr)	50 (~2500 gr)	Tr (~10 gr)	Tr (4 gr)	40 (~2000 gr)	0	0	0	0	0	Tr (4 gr)	Tr (1 gr)	Tr florencite (3 gr)	Almandine-goethite-hornblende/kyanite-staurolite assemblage. SEM checks from 0.25-0.5 mm fraction: 1 blue-green gahnite versus spinel candidate = 1 spinel; and 1 ruby corundum candidate = 1 ruby corundum.	0.25-0.5 mm fraction: 1 spinel 1 ruby corundum 17 red rutile 4 tourmaline 4 apatite 1 monazite 3 florencite
AER22TS-3044	0	0	0	70 (~30 gr)	60 (~800 gr)	0	0	0	10 (4 gr)	0	0	0	0	0	0	0	0	0	0	0	Goethite-hematite/marcasite assemblage.	
AER22TS-3063	0	0	0	10 (3 gr)	97 (~800 gr)	0	0	0	20 (6 gr)	0	0	3 (1 gr)	0	0	0	0	0	0	0	0	Goethite/leucoxene-kyanite assemblage.	
AER22TS-3115	0	0	0	0	30 (~60 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Undersized concentrate therefore not electromagnetically separated and mineral assemblage not listed. Main minerals are goethite, augite and rutile.	

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.



Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains			
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																			
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp									>1.0 amp		
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals					
													% Fo*	% Fay			% Ap	% Mz							
AER22TS-4077	0	0	0.2 barite (~20 gr)	95 (~10,000 gr)	0	1 blue-green	Tr low-Cr diopside (1 gr)	0	0.5 (~40 gr)	0	0	0	0	0	0	0	0	0	0	Tr (6 gr)	Tr (1 gr)	Tr florencite (1 gr)	Almandine-siderite-hornblende/marcasite assemblage. SEM check from 0.25-0.5 mm fraction: 1 blue-green gahnite versus spinel candidate = 1 spinel. 0.5-1.0 mm fraction contains 1% (~30 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.25-0.5 mm fraction: 10 representative barite 1 low-Cr diopside 1 spinel 6 apatite 1 monazite 1 florencite	
AER22TS-5070	0	0	8 barite (~150 gr)	1 (~20 gr)	70 (~15,000 gr)	1 green	0	0	25 (~500 gr)	2 (~40 gr)	0	5 (~100 gr)	0	0	0	0	0	0	0	0	0	0	Goethite-almandine/epidote-kyanite-leucoxene assemblage. SEM check from 0.25-0.5 mm fraction: 1 green gahnite versus spinel candidate = 1 spinel. "Pyrite" is mostly marcasite. 0.5-1.0 mm fraction contains 4% (~40 grains) barite.	1.0-2.0 mm fraction: 6 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 1 spinel 2 staurolite (see KIM notes)	
AER22TS-5087	0	0	10 barite (~250 gr)	Tr (2 gr)	60 (~1500 gr)	1 blue	Tr low-Cr diopside (3 gr)	Tr (3 gr)	20 (~500 gr)	2 (~50 gr)	0	5 (~120 gr)	0	0	0	0	0	0	0	0	0	0	Goethite-almandine/epidote-kyanite-leucoxene assemblage. 0.5-1.0 mm fraction contains 2% (~30 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 1 spinel 3 low-Cr diopside 3 red rutile	
AERCL227079	0	0	0	10 (25 gr)	0	2 blue-green, colourless	0	0	60 (~150 gr)	0	1 (2 gr)	0	0	0	0	0	0	0	0	0	0	0	Almandine-hornblende/kyanite-leucoxene assemblage. SEM checks from 0.25-0.5 mm fraction: 1 blue-green gahnite versus spinel candidate = 1 spinel; and 1 colourless spinel versus topaz candidate = 1 spinel.	0.25-0.5 mm fraction: 2 spinel 2 tourmaline	

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine			% Opx	% Cr*	Phosphates			
													% Fo*	% Fay				% Ap	% Mz			
AERCL227082	0	0	0.1 fluorite (1 gr)	0	Tr (~30 gr)	4 blue-green, purple	Tr ruby corundum (2 gr); Tr low-Cr diopside (1 gr)	0	50 (~500 gr)	2 (~20 gr)	1 (9 gr)	2 (~20 gr)	0	0	0	0	0	3 (~30 gr)	Tr (2 gr)	Tr florencite (4 gr)	Almandine-hornblende-augite/kyanite-diopside-leucoxene assemblage. SEM checks from 0.25-0.5 mm fraction: 3 blue-green gahnite versus spinel candidates = 3 spinel; and 1 pink spinel versus ruby corundum candidate = 1 ruby corundum.	0.25-0.5 mm fraction: 1 fluorite 4 spinel 2 ruby corundum 1 low-Cr diopside 9 tourmaline 20 representative apatite 2 monazite 4 florencite
AERCL227089	0	Tr (1 gr)	8 barite (~200 gr)	12 (~300 gr)	2 (~1200 gr)	2 blue	Tr green Cr-garnet (1 gr)	Tr (1 gr)	25 (~600 gr)	0.5 (~10 gr)	Tr (7 gr)	0.5 (~10 gr)	0	0	0	0	0	2 (~50 gr)	0.5 (~15 gr)	Tr florencite (2 gr)	Almandine-hornblende/diopside-kyanite assemblage. "Pyrite" is mostly marcasite. 0.5-1.0 fraction contains 0.5% (~40 grains) barite.	1.0-2.0 mm fraction: 2 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 1 chalcopyrite 10 representative barite 2 spinel 1 green Cr-garnet 1 red rutile 7 tourmaline 20 representative apatite 5 representative monazite 2 florencite
AERCL227093	0	0	15 barite (~1200 gr)	70 (~6000 gr)	Tr (~50 gr)	0	0	Tr (3 gr)	Tr (5 gr)	Tr (1 gr)	Tr (~15 gr)	Tr (5 gr)	0	0	0	0	0	0	1 (~80 gr)	Tr florencite (4 gr)	Almandine/marcasite-barite assemblage. 1.0-2.0 mm and 0.5-1.0 mm fractions contain 4% (~25 grains and ~500 grains, respectively) barite.	1.0-2.0 mm fraction: 10 representative barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 3 red rutile 10 representative tourmaline 5 representative monazite 4 florencite

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains	
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																	
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp				>1.0 amp						
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine			% Opx	% Cr*	Phosphates				% REE Bearing Minerals
													% Fo*	% Fay				% Ap	% Mz				
AERCL227102	0	0	Tr scheelite (2 gr); 0.1 barite (3 gr)	0.5 (~15 gr)	Tr (~80 gr)	6 purple, blue	Tr ruby corundum (2 gr); Tr sapphire corundum (1 gr)	Tr (5 gr)	60 (~2000 gr)	0	Tr (~20 gr)	2 (~60 gr)	0	0	0	0	0	0	1 (~30 gr)	0	0	Almandine-hornblende/kyanite-diopside assemblage.	0.25-0.5 mm fraction: 2 scheelite 3 barite 6 spinel 2 ruby corundum 1 sapphire corundum 5 red rutile 5 representative tourmaline 20 representative apatite
AERCL227103	0	Tr (3 gr)	Tr sphalerite (1 gr); Tr scheelite (1 gr); 1 barite (~40 gr)	40 (~1500 gr)	0	8 pink, blue, blue-green	Tr low-Cr diopside (1 gr)	Tr (2 gr)	15 (~600 gr)	0.5 (~20 gr)	0.5 (~25 gr)	0	0	0	0	0	0	1 (~30 gr)	4 (~150 gr)	Tr florencite (~10 gr)	Almandine/marcasite-rutile-kyanite-zircon assemblage.	0.5-1.0 mm fraction: 7 barite 1 purple spinel 0.25-0.5 mm fraction: 3 chalcopyrite 1 sphalerite 1 scheelite 10 representative barite 8 spinel 1 low-Cr diopside 2 red rutile 10 representative tourmaline 5 representative monazite 5 representative florencite	
AERCL227108	0	0	0	0	2 (~800 gr)	1 blue-green gahnite; 10 purple, grey-green, blue, grey, blue-green spinel	0	Tr (3 gr)	50 (~500 gr)	0	0	0.5 (5 gr)	0	0	0	0	0	0	1 (9 gr)	0	Tr florencite (1 gr)	Almandine-hornblende/kyanite-epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 2 blue-green gahnite versus spinel candidates = 1 gahnite and 1 spinel.	0.25-0.5 mm fraction: 1 gahnite 10 spinel 3 red rutile 9 apatite 1 florencite

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp				>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
													% Fo*	% Fay			% Ap	% Mz				
AERSR221112	0	0	Tr sphalerite (1 gr); 50 barite (~800 gr)	40 (~600 gr)	90 (~20,000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/barite-marcasite assemblage.	0.5-1.0 mm fraction: 9 barite 0.25-0.5 mm fraction: 1 sphalerite 10 representative barite
AERSR221114	0	0	50 barite (~600 gr)	50 (~800 gr)	60 (~20,000 gr)	0	0	0	Tr (1 gr)	0	0	0	0	0	0	0	0	0	0	0	Goethite-hematite/barite-marcasite assemblage. 0.5-1.0 mm fraction contains 1% (~60 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite
AERSR221116	0	0	0.2 sphalerite (2 gr); 80 barite (~600 gr)	15 (~120 gr)	95 (~30,000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/barite-marcasite assemblage. 0.5-1.0 mm fraction contains trace (~30 grains) barite.	0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 2 sphalerite 10 representative barite
AERSR221118	0	0	0.2 sphalerite (1 gr); 40 barite (~200 gr)	25 (~120 gr)	15 (~600 gr)	0	0	0	0	0	Tr (1 gr)	0	0	0	0	0	0	0	Tr (2 gr)	0	Hematite-goethite/barite-leucoxene-marcasite assemblage. 0.5-1.0 mm fraction contains 3% (~20 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 1 sphalerite 10 representative barite 1 tourmaline 2 monazite
AERSR223002	0	0	8 barite (4 gr); 50 fluorite (22 gr)	4 (2 gr)	50 (~5000 gr)	0	0	0	2 (1 gr)	0	0	0	0	0	0	0	0	0	0	0	Goethite-black andradite/fluorite-titanite assemblage.	0.25-0.5 mm fraction: 4 barite 22 fluorite

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains
		Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals																
		>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp				
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals		
													% Fo*	% Fay			% Ap	% Mz				
AERSR223005	0	0	20 barite (~1200 gr)	0.2 (10 gr)	5 (700 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Black andradite/titanite-barite assemblage. 0.5-1.0 mm fraction: contains 0.5% (~500 grains) barite	0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite
AERSR223008	0	Tr (1 gr)	30 barite (~700 gr); Tr fluorite (1 gr)	50 (~1200 gr)	70 (~25,000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite-black andradite/marcasite-barite assemblage. 0.5-1.0 mm fraction contains trace (~30 grains) barite.	1.0-2.0 mm fraction: 7 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 1 chalcopyrite 10 representative barite 1 fluorite
AERSR223009	0	0	15 barite (~120 gr)	3 (~25 gr)	12 (~2000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	5 (~40 gr)	0	0	Black andradite-hematite/titanite-barite assemblage.	0.5-1.0 mm fraction: 7 barite 0.25-0.5 mm fraction: 10 representative barite 20 representative apatite
AERSR223011	0	0	50 barite (~400 gr); 0.5 fluorite (4 gr)	25 (~200 gr)	60 (~25,000 gr)	0	0	0	0	0	Tr (1 gr)	0	0	0	0	0	0	0	0	0	Goethite-hematite/barite-marcasite assemblage. 0.5-1.0 mm fraction contains trace (~20 grains) barite.	1.0-2.0 mm fraction: 1 barite 0.5-1.0 mm fraction: 10 representative barite 0.25-0.5 mm fraction: 10 representative barite 4 fluorite 1 tourmaline

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Alberta Geological Survey  
File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023  
Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Sample Number	Gold Grains	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																			Remarks	Picked Grains			
		Sulphide/Arsenide + Related Minerals					Mg/Mn/Al/Cr Minerals																		
		>1.0 amp			<1.0	>1.0 amp								<1.0 amp						>1.0 amp					
		% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs*	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps	Olivine		% Opx	% Cr*	Phosphates		% REE Bearing Minerals					
														% Fo*	% Fay			% Ap	% Mz						
AERSR223013	0	0	80 barite (~150 gr); Tr fluorite (1 gr)	Tr (1 gr)	80 (~8000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite-black andradite/barite-titanite assemblage.	0.25-0.5 mm fraction: 10 representative barite 1 fluorite		
AERSR223016	0	0	15 barite (~15 gr)	6 (6 gr)	95 (~20,000 gr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Goethite/epidote-barite assemblage.	0.5-1.0 mm fraction: 1 barite 0.25-0.5 mm fraction: 10 representative barite		

\*Low-Cr diopside, forsteritic olivine and chromite are referenced on KIM data.

Client: Alberta Geological Survey  
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Total Number of Samples in this Report: 27  
ODM Batch Number(s): 2850

Kimberlite Indicator Mineral Counts

Sample Number	Number of Grains																																													
	Pseudo-KIMs						KIMs																																							
	1.0 to 2.0 mm		0.5 to 1.0 mm		0.25 to 0.5 mm		1.0 to 2.0 mm										0.5 to 1.0 mm										0.25 to 0.5 mm								Total (KIMs)											
	Low-Cr diopside*		Low-Cr diopside*		Low-Cr diopside*		GP		GO		DC		IM		CR*		FO*		GP		GO		DC		IM		CR*		FO*		GP		GO				DC		IM		CR*		FO*			
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P				
AER22TS-1029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
AER22TS-1068	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-3044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-3063	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-3115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-4077	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-5070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AER22TS-5087	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	8	8
AERCL227079	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227082	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227089	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227103	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERCL227108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR221112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR221114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR221116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR221118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AERSR223016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

T = Total number of grains in sample. Total is estimated if number is greater than number of picked grains.  
P = Number of picked grains in sample.  
\* Low-Cr diopside, forsteritic olivine and chromite also referenced on MMSIMs data.

### Kimberlite Indicator Mineral Remarks

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Remarks
AER22TS-1029	No KIM remarks.
AER22TS-1068	No KIM remarks.
AER22TS-2026	No KIM remarks.
AER22TS-3044	No KIM remarks.
AER22TS-3063	No KIM remarks.
AER22TS-3115	No KIM remarks.
AER22TS-4077	No KIM remarks.
AER22TS-5070	SEM checks from 0.25-0.5 mm fraction: 2 GO versus staurolite candidates = 2 staurolite.
AER22TS-5087	SEM checks from 0.25-0.5 mm fraction: 3 FO versus epidote candidates = 3 epidote. 1 GP from 0.5-1.0 mm fraction has partial alteration mantle.
AERCL227079	No KIM remarks.
AERCL227082	No KIM remarks.
AERCL227089	No KIM remarks.
AERCL227093	No KIM remarks.
AERCL227102	No KIM remarks.
AERCL227103	No KIM remarks.
AERCL227108	No KIM remarks.
AERSR221112	No KIM remarks.
AERSR221114	No KIM remarks.
AERSR221116	No KIM remarks.
AERSR221118	No KIM remarks.
AERSR223002	No KIM remarks.
AERSR223005	No KIM remarks.
AERSR223008	No KIM remarks.
AERSR223009	No KIM remarks.
AERSR223011	No KIM remarks.
AERSR223013	No KIM remarks.
AERSR223016	No KIM remarks.



### Apatite Separates

Client: Alberta Geological Survey

File Name: 20232820 - AER - Alberta Geological Survey - (KIM, MMISM) - Jan 2023

Total Number of Samples in this Report: 27

ODM Batch Number(s): 2850

Sample Number	Apatite Grains in S.G. 3.0-3.2, 0.25-2.0 mm Concentrates			Remarks
	Estimated Total %	Number		
		Estimated Total	Picked	
AER22TS-1029	0	0	0	
AER22TS-1068	Tr	1	1	
AER22TS-2026	0.5	25	16	
AER22TS-3044	0	0	0	
AER22TS-3063	Tr	3	3	
AER22TS-3115	Tr	1	1	
AER22TS-4077	Tr	2	2	
AER22TS-5070	0	0	0	
AER22TS-5087	Tr	5	5	
AERCL227079	0	0	0	
AERCL227082	3	100	0	
AERCL227089	Tr	25	0	
AERCL227093	Tr	50	20	
AERCL227102	Tr	20	0	
AERCL227103	3	400	20	
AERCL227108	Tr	5	5	
AERSR221112	0	0	0	
AERSR221114	Tr	2	2	
AERSR221116	0	0	0	
AERSR221118	0	0	0	
AERSR223002	0	0	0	
AERSR223005	1	150	20	
AERSR223008	0	0	0	
AERSR223009	2	60	0	
AERSR223011	Tr	8	8	
AERSR223013	0	0	0	
AERSR223016	0	0	0	