Quality Analysis ... *Innovative Technologies*

Report No.: **A23-00287**
Report Date: **27-Feb-23**
Date Submitted: **09-Jan-23**
Your Reference: **SHEEP CREEK**

U.S. CRITICAL MATERIALS
4190 SOUTH HIGHLANDS DRIVE, SUITE 230, S
SALT LAKE CITY UTAH
United States

CERTIFICATE OF ANALYSIS

6 Concentrate samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
8-Nb2O5 - XRF Option	QOP XRF Fusion (XRF)	2023-02-09 12:18:46
8-REE Assay Package + F	QOP WRA/ QOP WRA 4B2/QOP Fluorine ISE (/Major/Trace Elements Fusion ICPOES/ICPMS/ISE-F)	2023-01-28 15:23:23

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Notes:

Total includes all elements in % oxide to the left of total.

SCC Accredited LAB Accrédité CCN TM

LabID: 266

CERTIFIED BY:

Mark Vandergeest
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Nb2O5	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.003	0.01	0.01	0.01	0.005	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1
Method Code	FUS-XRF	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
TM 2-1	0.171	7.23	0.29	1.26	0.078	0.11	13.21	0.09	0.19	0.033	0.71	23.80	46.99	62	9	18	< 20	10	< 20	20	< 30	115	< 1
TM 2-2	0.014	8.42	0.21	1.10	0.192	0.35	32.99	0.05	0.11	0.010	0.09	34.25	77.78	38	5	9	< 20	1	< 20	< 10	< 30	55	< 1
TM 2-3	0.041	8.84	0.77	0.96	0.143	0.22	25.68	0.30	0.24	0.011	0.12	30.21	67.49	41	7	10	< 20	< 1	< 20	20	< 30	78	< 1
TM 2-4	0.086	4.94	0.24	1.23	0.062	0.11	10.41	0.07	0.18	0.020	1.24	22.79	41.30	57	8	19	< 20	7	< 20	10	< 30	104	< 1
TM 2-5	0.009	9.47	0.33	1.30	0.210	0.44	34.00	0.10	0.12	0.020	0.17	34.18	80.35	32	5	11	< 20	2	< 20	< 10	< 30	46	< 1
TM 2-6	0.007	5.62	0.30	1.72	0.177	0.42	29.56	0.05	0.13	0.070	0.22	33.61	71.87	37	6	13	< 20	5	< 20	70	< 30	60	< 1

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
TM 2-1	16	< 2	59450	97	16	95	5	< 0.5	< 0.2	1	< 0.5	< 0.5	83500	< 0.4	80500	104000	8670	22900	1390	227	545	46.3	53.8
TM 2-2	10	< 2	35310	117	8	81	3	< 0.5	< 0.2	2	< 0.5	< 0.5	9406	< 0.4	46500	59800	4950	13000	827	140	320	28.8	46.9
TM 2-3	12	2	42670	95	10	120	5	< 0.5	< 0.2	1	< 0.5	< 0.5	38810	< 0.4	57800	74500	6270	16100	966	162	379	32.3	44.6
TM 2-4	22	< 2	55660	77	12	51	14	< 0.5	< 0.2	1	< 0.5	< 0.5	91170	< 0.4	84500	109000	9080	23800	1370	227	549	45.5	50.0
TM 2-5	13	< 2	31690	99	6	64	7	< 0.5	< 0.2	1	< 0.5	< 0.5	15100	< 0.4	38400	49700	4110	10800	678	116	267	24.1	39.7
TM 2-6	21	< 2	37070	99	10	54	14	< 0.5	< 0.2	7	< 0.5	< 0.5	29250	< 0.4	50700	64700	5360	14100	867	150	341	30.5	44.8

Analyte Symbol	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Th	U	F
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	0.1	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1	
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ISE
TM 2-1	4.9	8.1	0.76	5.2	0.72	1.2	5.8	13	< 0.1	139	672	23.8	
TM 2-2	5.1	8.6	0.90	6.1	0.91	0.6	8.1	16	< 0.1	167	281	24.2	
TM 2-3	4.5	7.4	0.74	4.1	0.52	0.7	0.5	8	< 0.1	150	351	5.7	
TM 2-4	4.5	4.6	0.45	2.8	0.44	0.9	0.2	8	< 0.1	145	811	5.0	
TM 2-5	4.4	6.7	0.66	3.9	0.50	0.5	2.8	5	< 0.1	155	252	1.7	
TM 2-6	4.7	5.9	0.62	3.2	0.53	0.7	1.0	7	< 0.1	223	319	0.5	