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To: SIMON FRASER UNIVERSITY
 DEPARTMENT OF EARTH SCIENCES
 8888 UNIVERSITY DR
 BURNABY BC V5A 1S6

Page: 1
 Total # Pages: 2 (A - D)
 Plus Appendix Pages
 Finalized Date: 5-MAR-2022
 Account: SKP

CERTIFICATE VA22021181

Project: Steinke Granite Creek

This report is for 30 samples of Sediment submitted to our lab in Vancouver, BC, Canada on 27-JAN-2022.

The following have access to data associated with this certificate:

JEFF BOND	JESSI STEINKE	BRENT WARD
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-24	Pulp Login - Rcd w/o Barcode
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
AuME-TL44	50g Trace Au + Multi Element PKG	

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, Director, North Vancouver Operations



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Page: 2 - A
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CERTIFICATE OF ANALYSIS VA22021181

Sample Description	Method Analyte Units LOD	WEI-21	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
		0.02	0.001	0.01	0.01	0.1	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
21JS-ST1		0.02	0.006	0.18	1.95	121.5	<10	70	0.90	42.9	0.14	0.12	59.1	5.9	24	8.35
21JS-001		4.88	<0.001	0.24	1.08	30.4	<10	210	0.28	0.17	0.23	0.49	24.7	9.7	24	0.71
21JS-002		3.90	0.002	0.20	1.08	19.7	<10	270	0.26	0.13	0.30	0.38	24.1	8.2	24	0.79
21JS-005		3.36	<0.001	0.15	0.79	66.6	<10	30	0.13	0.14	0.10	0.23	23.5	3.6	18	2.30
21JS-005A		3.46	<0.001	0.17	0.76	71.4	<10	30	0.17	0.14	0.08	0.24	21.4	3.4	18	2.25
21JS-007		2.84	0.001	0.15	1.09	30.5	<10	160	0.32	0.16	0.18	0.61	24.3	11.2	22	0.69
21JS-007A		3.08	<0.001	0.14	1.10	28.3	<10	160	0.34	0.15	0.18	0.65	24.6	11.0	22	0.70
21JS-009		2.52	0.003	0.16	1.10	38.4	<10	130	0.30	0.14	0.14	0.32	27.5	7.9	25	0.86
21JS-09A		3.20	0.001	0.15	1.03	37.4	<10	130	0.26	0.14	0.13	0.32	25.6	7.5	24	0.83
21JS-012		6.82	0.002	0.23	1.41	21.3	<10	390	0.34	0.14	0.13	0.33	26.8	9.1	20	0.90
21JS-014		3.06	0.004	0.27	1.86	31.6	<10	230	0.53	0.23	0.20	0.50	32.2	16.8	29	0.81
21JS-016		2.32	0.001	0.16	0.88	40.0	<10	100	0.22	0.14	0.13	0.27	20.7	7.2	20	0.66
21JS-018		2.32	0.004	0.21	1.22	91.3	<10	140	0.26	0.12	0.25	0.42	28.3	13.4	23	1.28
21JS-020		2.80	0.007	0.37	1.90	152.0	<10	240	0.41	0.23	0.28	0.54	31.3	17.4	32	2.54
21JS-028		1.86	0.040	0.32	1.01	112.5	<10	70	0.33	0.14	0.16	0.62	29.7	10.7	17	0.83
21JS-030		1.20	0.001	0.22	1.07	114.5	<10	90	0.39	0.20	0.11	0.61	30.3	10.6	20	0.77
21JS-035		1.36	0.004	0.48	0.93	124.5	<10	40	0.30	0.19	0.13	0.35	35.1	7.5	19	0.77
21JS-037		1.34	0.006	0.65	1.06	147.5	<10	50	0.33	0.19	0.17	0.45	36.8	9.8	22	0.81
21JS-039		1.54	0.012	0.19	1.73	85.3	<10	80	0.33	0.22	0.09	0.20	23.9	7.4	28	1.23
21JS-041		1.20	0.008	0.04	1.34	108.5	<10	70	0.36	0.11	0.25	0.57	26.5	8.5	25	0.77
21JS-043		1.60	0.007	0.07	1.28	37.0	<10	120	0.44	0.11	0.25	0.47	29.6	9.3	22	0.74
21JS-045		2.10	0.005	0.05	1.37	31.0	<10	120	0.49	0.11	0.23	0.41	35.2	10.2	25	0.78
21JS-048		1.80	0.003	0.71	1.20	42.5	<10	80	0.43	0.24	0.15	0.60	37.1	13.6	26	3.43
21JS-049		1.92	0.035	0.57	1.09	46.4	<10	80	0.36	0.13	0.22	0.63	40.0	8.5	22	0.82
21JS-054		1.80	0.006	0.33	2.16	25.2	<10	170	0.69	0.20	0.15	0.15	32.4	11.3	31	1.15
21JS-055		1.48	0.010	0.39	1.25	104.5	<10	110	0.40	0.23	0.06	0.23	22.6	9.3	19	0.75
21JS-057		1.26	0.001	0.32	1.22	146.5	<10	100	0.35	0.24	0.13	0.45	30.9	12.2	24	1.16
21JS-058		2.06	0.003	0.33	0.95	237	<10	60	0.28	0.23	0.15	0.61	39.7	14.2	19	0.90
21JS-063		2.60	0.002	0.13	1.05	36.3	<10	80	0.28	0.14	0.14	0.32	25.6	8.5	24	0.79
21JS-ST2		0.02	0.002	0.26	2.78	25.2	<10	100	1.67	4.75	0.16	0.33	80.4	12.2	36	7.37



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CERTIFICATE OF ANALYSIS VA22021181

Sample Description	Method Analyte Units LOD	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	
		Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
		ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
		0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
21JS-ST1		243	3.41	6.20	0.12	0.05	0.07	0.315	0.29	30.9	19.8	0.49	281	15.00	0.06	2.69
21JS-001		45.1	2.41	2.93	0.09	<0.02	0.06	0.021	0.05	12.4	11.8	0.32	252	2.16	0.01	0.15
21JS-002		35.5	2.47	3.19	0.08	0.08	0.05	0.019	0.06	12.2	9.5	0.42	278	1.05	0.01	0.12
21JS-005		39.1	2.06	2.14	0.08	0.07	0.01	0.021	0.02	11.8	9.2	0.29	89	1.38	0.01	0.06
21JS-005A		38.9	2.16	2.06	0.08	0.08	0.01	0.021	0.02	10.8	8.5	0.27	88	1.28	0.01	0.06
21JS-007		46.5	2.15	2.91	0.08	0.05	0.04	0.020	0.04	11.5	13.3	0.31	281	1.52	0.01	0.14
21JS-007A		46.9	2.19	2.93	0.08	0.04	0.04	0.019	0.05	11.8	13.5	0.31	294	1.54	0.01	0.14
21JS-009		52.7	1.97	2.98	0.08	0.05	0.02	0.020	0.03	13.0	11.5	0.31	205	1.08	0.01	0.08
21JS-09A		49.5	1.91	2.78	0.07	0.06	0.03	0.017	0.03	12.1	10.8	0.30	195	1.03	0.01	0.08
21JS-012		26.4	2.06	3.76	0.06	<0.02	0.04	0.020	0.04	12.4	15.2	0.31	246	1.40	0.01	0.26
21JS-014		50.7	3.01	4.98	0.08	0.05	0.04	0.033	0.05	15.5	19.9	0.54	482	1.59	0.01	0.38
21JS-016		30.2	1.78	2.48	0.07	0.06	0.03	0.017	0.03	9.7	8.9	0.25	127	1.10	0.01	0.11
21JS-018		56.9	2.54	3.16	0.09	0.12	0.03	0.018	0.04	13.7	13.0	0.41	376	0.79	0.01	0.06
21JS-020		104.5	3.70	4.63	0.09	0.11	0.05	0.031	0.08	16.2	25.2	0.53	564	1.60	0.01	0.05
21JS-028		45.0	2.28	2.54	0.08	0.03	0.04	0.019	0.03	14.3	12.6	0.30	295	1.21	0.02	0.25
21JS-030		45.2	2.70	2.89	0.09	0.06	0.03	0.019	0.06	17.7	15.5	0.32	311	1.23	0.02	0.08
21JS-035		26.0	2.23	2.61	0.11	0.03	0.02	0.020	0.03	18.5	11.4	0.21	186	1.04	0.02	0.15
21JS-037		35.1	2.61	2.90	0.12	0.02	0.03	0.021	0.03	19.6	15.1	0.29	266	1.29	0.02	0.24
21JS-039		21.0	2.80	5.60	0.06	<0.02	0.03	0.025	0.04	12.0	15.7	0.41	219	1.65	0.01	0.50
21JS-041		19.8	2.24	3.04	0.07	0.04	0.03	0.022	0.04	13.1	11.3	0.37	262	0.64	0.02	0.68
21JS-043		31.7	2.18	3.34	0.07	0.03	0.03	0.020	0.05	13.0	9.7	0.41	336	0.74	0.02	0.43
21JS-045		38.3	2.41	3.70	0.08	0.03	0.04	0.020	0.05	15.0	10.6	0.44	371	0.76	0.02	0.37
21JS-048		48.9	2.82	3.25	0.09	0.02	0.03	0.029	0.03	18.4	15.6	0.33	389	1.48	0.02	0.10
21JS-049		34.3	2.36	3.29	0.11	0.03	0.04	0.020	0.04	19.3	9.2	0.29	306	1.11	0.02	0.38
21JS-054		31.1	2.87	5.24	0.07	0.06	0.08	0.026	0.06	15.3	16.4	0.51	407	1.57	0.02	0.61
21JS-055		22.3	2.21	3.34	0.06	<0.02	0.05	0.022	0.03	10.5	11.8	0.26	279	1.30	0.01	0.23
21JS-057		52.8	2.99	3.22	0.09	0.02	0.03	0.023	0.06	15.3	15.9	0.31	344	1.56	0.02	0.08
21JS-058		41.7	2.92	2.57	0.11	<0.02	0.03	0.025	0.03	19.6	9.8	0.19	251	1.22	0.02	0.11
21JS-063		39.3	2.02	2.98	0.08	0.05	0.03	0.019	0.04	12.3	11.9	0.31	206	0.98	0.02	0.12
21JS-ST2		151.0	3.36	8.30	0.13	0.04	0.06	0.068	0.34	34.7	36.9	0.67	607	13.05	0.06	2.80



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Page: 2 - C
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CERTIFICATE OF ANALYSIS VA22021181

Sample Description	Method Analyte Units LOD	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	
		Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	
		ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.2	0.01	0.01	0.2	0.005
21JS-ST1		13.6	740	36.8	38.6	0.004	0.10	0.72	4.6	0.9	5.8	9.9	<0.01	0.21	12.3	0.133	
21JS-001		28.8	1000	11.5	3.5	<0.001	0.02	2.16	2.6	0.7	0.2	24.3	<0.01	0.06	5.8	0.029	
21JS-002		22.3	930	7.3	6.6	<0.001	0.01	1.24	4.0	0.3	0.3	25.4	<0.01	0.03	4.6	0.054	
21JS-005		15.9	620	18.3	2.2	<0.001	0.01	2.77	2.7	1.1	<0.2	6.0	<0.01	0.04	4.8	0.036	
21JS-005A		15.8	610	15.0	2.1	<0.001	0.01	2.68	2.4	1.3	<0.2	5.3	<0.01	0.05	5.0	0.038	
21JS-007		37.7	790	10.9	3.6	<0.001	0.02	1.92	2.7	0.6	0.2	17.1	<0.01	0.05	5.4	0.027	
21JS-007A		38.1	800	11.0	3.8	<0.001	0.02	1.85	2.7	0.4	0.2	17.6	<0.01	0.05	5.3	0.029	
21JS-009		21.2	670	11.4	2.9	<0.001	0.02	1.70	2.8	0.5	0.2	14.6	<0.01	0.04	5.8	0.023	
21JS-09A		19.9	640	11.4	2.7	<0.001	0.02	1.65	2.6	0.5	0.2	13.4	<0.01	0.03	5.6	0.022	
21JS-012		29.1	580	9.2	7.1	<0.001	0.02	1.00	3.6	0.3	0.3	12.8	<0.01	0.04	3.1	0.027	
21JS-014		34.0	880	12.5	7.9	<0.001	0.02	1.33	5.6	0.4	0.4	15.5	<0.01	0.04	4.8	0.049	
21JS-016		18.6	610	9.2	2.5	<0.001	0.01	1.91	2.5	0.4	0.2	13.5	<0.01	0.03	5.3	0.021	
21JS-018		32.4	680	10.9	4.3	<0.001	0.01	1.99	3.4	0.3	0.2	11.7	<0.01	0.03	4.9	0.060	
21JS-020		62.2	800	23.3	7.7	<0.001	0.02	3.21	4.9	0.5	0.3	19.2	<0.01	0.07	7.0	0.053	
21JS-028		30.7	770	31.4	4.0	<0.001	0.02	2.62	2.5	0.5	0.2	11.2	<0.01	0.04	5.3	0.027	
21JS-030		33.3	780	20.4	4.6	<0.001	0.02	3.24	2.6	0.4	0.2	12.5	<0.01	0.06	7.5	0.014	
21JS-035		26.9	890	17.3	2.3	<0.001	0.02	4.15	2.2	0.4	<0.2	9.7	<0.01	0.05	7.8	0.013	
21JS-037		34.8	1080	18.2	2.5	<0.001	0.02	4.81	2.6	0.5	0.2	10.3	<0.01	0.05	7.9	0.021	
21JS-039		19.9	940	18.8	7.4	<0.001	0.04	2.77	1.4	1.0	0.4	9.3	<0.01	0.09	0.6	0.017	
21JS-041		20.5	940	9.6	6.1	<0.001	0.02	0.85	2.5	0.5	0.3	15.0	<0.01	0.05	3.2	0.046	
21JS-043		26.2	820	7.5	6.8	<0.001	0.02	0.85	2.9	0.5	0.3	17.9	<0.01	0.03	3.3	0.052	
21JS-045		27.4	800	7.1	6.4	<0.001	0.02	0.83	3.8	0.3	0.3	17.8	<0.01	0.03	4.3	0.059	
21JS-048		41.7	840	32.6	3.9	<0.001	0.03	2.48	2.4	0.5	0.4	11.4	<0.01	0.06	3.7	0.008	
21JS-049		29.4	950	29.5	5.2	<0.001	0.02	1.76	3.4	0.5	0.4	15.1	<0.01	0.04	6.1	0.051	
21JS-054		22.7	870	13.4	11.2	<0.001	0.03	1.89	4.2	1.0	0.5	14.1	<0.01	0.07	3.8	0.036	
21JS-055		21.1	440	24.4	4.6	<0.001	0.02	7.32	2.3	0.6	0.3	9.1	<0.01	0.06	4.3	0.017	
21JS-057		40.2	890	19.2	3.9	<0.001	0.02	3.87	2.9	0.6	0.2	13.5	<0.01	0.06	8.1	0.016	
21JS-058		43.4	1010	21.4	1.9	<0.001	0.02	4.60	2.4	0.8	0.2	10.0	<0.01	0.06	9.1	0.010	
21JS-063		24.5	680	9.7	3.7	<0.001	0.02	1.53	3.0	0.4	0.2	14.1	<0.01	0.04	5.4	0.032	
21JS-ST2		32.0	570	22.4	42.2	<0.001	0.07	0.46	5.0	0.8	2.2	14.8	<0.01	0.07	10.6	0.127	



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Sample Description	Method Analyte Units LOD	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	AuME-TL44	
		Tl	U	V	W	Y	Zn	Zr
		ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.05	1	0.05	0.05	2	0.5
21JS-ST1		0.35	2.45	41	163.5	9.21	59	2.7
21JS-001		0.04	1.20	30	0.11	5.68	83	1.2
21JS-002		0.06	0.94	41	0.18	6.60	70	4.0
21JS-005		0.03	0.55	26	0.10	2.62	47	2.6
21JS-005A		0.02	0.52	25	0.10	2.53	48	2.8
21JS-007		0.04	1.21	28	0.11	6.95	91	2.9
21JS-007A		0.04	1.19	29	0.11	6.86	95	2.9
21JS-009		0.03	0.77	29	0.19	4.45	49	2.8
21JS-09A		0.03	0.75	27	0.19	4.30	48	2.9
21JS-012		0.07	1.02	36	0.15	4.92	67	0.5
21JS-014		0.09	1.10	52	0.23	9.89	126	1.7
21JS-016		0.03	0.83	26	0.09	4.18	45	3.2
21JS-018		0.05	1.27	35	0.12	5.62	70	4.5
21JS-020		0.09	2.67	48	0.18	7.64	118	6.4
21JS-028		0.06	0.92	27	0.19	5.06	84	1.6
21JS-030		0.04	0.79	22	0.11	8.02	83	4.2
21JS-035		0.03	0.96	18	0.29	6.71	65	1.8
21JS-037		0.03	1.27	22	1.49	7.91	80	1.6
21JS-039		0.11	0.88	47	0.37	3.76	64	<0.5
21JS-041		0.06	0.64	40	0.49	5.35	53	1.3
21JS-043		0.08	0.64	40	0.33	5.89	64	0.9
21JS-045		0.08	0.92	45	0.20	6.17	64	1.5
21JS-048		0.07	1.26	28	0.10	6.34	96	0.6
21JS-049		0.07	1.13	39	0.28	6.60	90	2.0
21JS-054		0.12	1.48	52	0.20	6.23	78	1.6
21JS-055		0.04	0.79	32	0.12	2.66	61	0.6
21JS-057		0.04	0.78	25	0.35	5.82	89	1.4
21JS-058		0.04	0.74	18	0.11	5.75	90	1.2
21JS-063		0.04	0.82	31	0.24	5.63	56	2.8
21JS-ST2		0.32	3.07	42	2.02	13.15	111	2.2



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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 5-MAR-2022
Account: SKP

Project: Steinke Granite Creek

CERTIFICATE OF ANALYSIS VA22021181

CERTIFICATE COMMENTS									
Applies to Method:	<p style="text-align: center;">LABORATORY ADDRESSES</p> <p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.</p> <table><tr><td>AuME-TL44</td><td>LOG-22</td><td>LOG-24</td><td>SCR-41</td></tr><tr><td>WEI-21</td><td></td><td></td><td></td></tr></table>	AuME-TL44	LOG-22	LOG-24	SCR-41	WEI-21			
AuME-TL44	LOG-22	LOG-24	SCR-41						
WEI-21									