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Acme Analytical Laboratories (Vancouver) Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

Client: **Richards, Gordon**  
6410 Holly Park Drive  
Delta BC V4K 4W6 Canada

Submitted By: Gordon Richards  
Receiving Lab: Canada-Vancouver  
Received: August 08, 2013  
Report Date: August 21, 2013  
Page: 1 of 4

## CERTIFICATE OF ANALYSIS

VAN13003074.1

### CLIENT JOB INFORMATION

Project: STOGGIE  
Shipment ID:  
P.O. Number  
Number of Samples: 62

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	62	Crush, split and pulverize 250 g rock to 200 mesh			VAN
1DX2	62	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN

### SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
DISP-RJT Dispose of Reject After 90 days

### ADDITIONAL COMMENTS

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Richards, Gordon  
6410 Holly Park Drive  
Delta BC V4K 4W6  
Canada

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

# CERTIFICATE OF ANALYSIS

VAN13003074.1

Method	Analyte	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit	MDL	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
U1	Rock	0.36	1.9	6.8	622.3	89	1.1	1.9	1.0	62	2.13	76.8	2.3	11.6	25	0.4	1.5	1.3	6	0.07	0.050
U2	Rock	0.52	1.3	2.7	288.0	175	1.0	1.0	1.1	98	2.78	85.0	6.1	11.0	18	<0.1	1.1	1.8	8	0.03	0.061
U3	Rock	0.26	1.2	10.8	439.1	350	0.4	2.3	11.0	1152	2.13	75.5	<0.5	13.3	9	0.8	1.7	0.4	13	0.09	0.069
U4	Rock	0.15	1.3	14.6	475.2	403	0.2	4.5	18.4	1705	1.72	99.7	<0.5	13.3	11	1.9	2.9	0.4	16	0.08	0.046
U5	Rock	0.12	0.7	5.4	16.7	67	<0.1	3.7	12.3	669	1.68	24.5	<0.5	12.9	13	0.2	0.4	0.1	15	0.10	0.055
U6	Rock	0.17	0.7	6.8	6.2	34	<0.1	4.3	8.4	1614	1.72	19.2	<0.5	12.2	14	0.4	0.5	<0.1	11	0.16	0.075
U7	Rock	0.13	1.6	9.3	9.1	24	<0.1	6.2	19.0	1749	2.26	18.9	<0.5	11.7	27	0.1	0.5	<0.1	27	0.19	0.070
U8	Rock	0.21	2.2	14.7	99.0	105	0.5	6.9	2.6	137	1.35	18.4	12.4	9.1	45	0.2	1.9	<0.1	8	0.14	0.036
U9	Rock	0.15	1.5	11.0	33.0	131	<0.1	10.8	9.5	638	3.18	33.6	<0.5	10.0	27	0.3	0.7	<0.1	49	0.25	0.074
U10	Rock	0.07	0.9	10.6	140.8	165	0.4	3.4	7.5	329	1.97	83.1	<0.5	12.3	20	0.3	1.6	0.1	11	0.15	0.060
U11	Rock	0.16	1.9	10.2	168.1	112	0.5	4.3	6.4	836	2.43	58.6	<0.5	11.8	12	0.4	1.6	0.1	13	0.22	0.074
U12	Rock	0.10	3.4	28.2	717.1	274	2.3	2.1	2.6	739	1.96	133.8	<0.5	10.8	13	0.7	6.0	0.2	7	0.24	0.073
U13	Rock	0.11	3.0	13.6	423.5	202	1.0	7.0	5.4	1103	2.50	153.7	<0.5	13.1	13	1.4	4.0	0.1	6	0.25	0.071
U14	Rock	0.06	2.9	5.9	54.0	61	0.1	5.2	6.1	1668	1.62	35.9	<0.5	11.4	12	1.5	3.5	<0.1	12	0.19	0.060
U15	Rock	0.10	2.2	4.6	210.8	471	0.1	3.1	9.8	712	1.84	537.4	<0.5	12.1	18	1.8	1.7	<0.1	8	0.18	0.069
U16	Rock	0.14	1.7	19.0	270.2	450	0.7	1.5	4.1	338	1.49	415.6	6.3	10.5	10	1.1	4.1	0.6	5	0.15	0.059
U17	Rock	0.13	2.6	37.7	275.0	379	0.5	3.3	10.0	1757	2.07	35.0	<0.5	11.5	12	2.0	9.2	<0.1	7	0.15	0.063
U18	Rock	0.09	2.1	18.9	333.1	425	0.7	3.4	17.8	887	2.26	31.1	<0.5	11.2	10	1.1	2.6	<0.1	9	0.15	0.065
U19	Rock	0.05	2.9	38.5	486.5	755	3.5	5.6	4.5	768	3.49	183.8	0.8	12.6	24	1.4	14.5	0.2	12	0.25	0.074
U20	Rock	0.15	1.7	15.1	61.7	124	0.7	5.2	2.5	94	2.42	112.5	<0.5	6.0	42	0.2	2.2	3.1	14	0.09	0.051
U21	Rock	0.25	2.5	41.8	347.2	378	2.1	1.5	0.7	95	5.31	39.7	1.1	9.0	30	0.4	2.5	3.7	7	0.02	0.081
U22	Rock	0.11	6.8	38.7	78.2	126	1.9	5.6	1.6	47	2.68	81.5	1.3	8.6	35	0.2	55.2	4.3	10	0.03	0.071
U23	Rock	0.07	2.2	27.4	156.0	262	0.5	11.2	23.6	1291	4.56	9.7	<0.5	8.8	27	1.8	2.4	0.4	98	0.34	0.150
U24	Rock	0.27	1.6	3.7	143.8	54	0.8	1.1	0.7	71	1.60	3.0	4.6	10.8	21	0.1	1.0	1.3	5	0.03	0.051
U25	Rock	0.17	1.7	4.0	70.4	33	0.3	1.5	1.2	62	1.38	2.0	3.0	12.8	7	<0.1	0.5	1.0	4	0.08	0.076
U26	Rock	0.21	1.6	10.9	24.5	67	0.3	1.5	4.2	112	1.97	10.7	26.7	11.9	62	0.2	0.2	1.6	6	0.10	0.050
U27	Rock	0.12	2.9	30.6	599.3	131	0.4	1.8	1.4	225	3.93	53.7	2.6	12.9	23	0.8	1.5	3.2	64	0.08	0.110
U28	Rock	0.16	3.4	6.2	43.3	21	1.2	1.1	0.9	52	1.72	32.3	2.2	9.2	26	<0.1	0.5	11.7	10	0.04	0.068
U29	Rock	0.22	1.7	41.9	126.2	337	0.4	4.8	12.1	1423	4.26	12.1	<0.5	11.8	15	1.5	3.2	1.0	53	0.19	0.095
U30	Rock	0.14	1.6	17.8	86.9	103	0.2	5.7	9.2	1108	3.06	33.4	<0.5	9.9	17	0.3	0.8	1.7	15	0.07	0.087

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Method	Analyte	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.01	0.1	0.01	0.05	1	0.5	0.2	
U1	Rock	23	2	0.09	284	0.001	13	0.46	0.037	0.35	<0.1	<0.01	1.0	0.3	0.38	1	<0.5	<0.2
U2	Rock	27	2	0.04	156	0.002	12	0.42	0.030	0.30	0.1	<0.01	1.2	0.3	0.27	1	<0.5	0.5
U3	Rock	34	2	0.08	86	0.001	12	0.63	0.028	0.16	<0.1	<0.01	1.8	0.4	<0.05	1	<0.5	<0.2
U4	Rock	34	4	0.11	115	0.002	15	0.99	0.043	0.19	<0.1	<0.01	2.2	0.4	<0.05	2	<0.5	<0.2
U5	Rock	31	5	0.06	83	0.002	16	0.73	0.047	0.21	<0.1	<0.01	1.1	0.3	<0.05	2	<0.5	<0.2
U6	Rock	30	3	0.04	325	0.002	16	0.55	0.032	0.23	<0.1	<0.01	1.8	0.5	<0.05	1	<0.5	<0.2
U7	Rock	35	5	0.12	272	0.003	20	0.94	0.034	0.25	<0.1	0.01	3.5	0.6	<0.05	3	<0.5	<0.2
U8	Rock	25	3	0.09	164	<0.001	10	0.46	0.022	0.24	<0.1	<0.01	0.8	0.2	0.10	1	0.7	<0.2
U9	Rock	25	10	0.51	315	0.005	12	1.17	0.042	0.15	<0.1	<0.01	3.2	0.2	<0.05	5	0.6	<0.2
U10	Rock	32	3	0.07	190	0.002	28	0.88	0.043	0.42	<0.1	<0.01	1.2	0.5	<0.05	2	<0.5	<0.2
U11	Rock	34	3	0.06	138	0.001	13	0.52	0.032	0.21	<0.1	<0.01	1.4	0.3	<0.05	1	0.7	<0.2
U12	Rock	39	2	0.08	106	0.001	22	0.75	0.020	0.33	0.1	<0.01	1.6	0.5	<0.05	2	1.0	<0.2
U13	Rock	36	2	0.09	136	0.001	15	0.80	0.018	0.30	<0.1	0.01	1.1	0.4	<0.05	1	0.6	<0.2
U14	Rock	34	4	0.10	183	0.002	30	1.04	0.016	0.54	0.1	<0.01	1.9	0.9	<0.05	3	<0.5	<0.2
U15	Rock	41	3	0.09	148	0.002	23	0.94	0.008	0.34	0.1	<0.01	1.2	0.4	<0.05	2	<0.5	<0.2
U16	Rock	34	2	0.07	74	<0.001	18	0.52	0.011	0.26	<0.1	<0.01	0.9	0.3	<0.05	1	0.9	0.4
U17	Rock	34	2	0.07	172	0.001	21	0.55	0.009	0.32	<0.1	<0.01	1.2	0.6	<0.05	2	0.6	<0.2
U18	Rock	35	3	0.08	128	0.001	25	0.78	0.008	0.38	<0.1	<0.01	1.6	0.5	<0.05	2	1.1	<0.2
U19	Rock	41	3	0.17	171	0.002	45	1.45	0.011	0.59	0.1	0.01	1.7	0.7	<0.05	3	1.3	<0.2
U20	Rock	19	4	0.07	202	0.003	16	0.76	0.035	0.26	<0.1	<0.01	1.4	0.4	0.12	1	1.1	0.3
U21	Rock	16	3	0.03	279	<0.001	14	0.50	0.039	0.45	<0.1	<0.01	2.0	0.6	0.66	1	0.9	<0.2
U22	Rock	20	3	0.11	151	0.002	25	0.97	0.030	0.33	0.1	0.01	2.5	0.9	0.17	1	1.4	0.8
U23	Rock	31	28	1.18	178	0.006	27	1.76	0.063	0.33	<0.1	<0.01	8.7	0.3	<0.05	7	0.9	<0.2
U24	Rock	12	1	0.03	105	0.001	21	0.32	0.005	0.28	0.1	<0.01	1.3	0.5	0.11	<1	<0.5	<0.2
U25	Rock	11	2	0.03	104	0.001	25	0.40	0.005	0.28	<0.1	<0.01	1.9	0.5	<0.05	<1	<0.5	<0.2
U26	Rock	15	2	0.17	223	0.001	11	0.81	0.040	0.25	<0.1	<0.01	1.5	0.3	0.12	2	2.0	<0.2
U27	Rock	21	5	0.56	102	0.017	5	0.98	0.090	0.12	<0.1	<0.01	3.6	0.1	0.09	5	1.3	0.3
U28	Rock	29	2	0.03	175	0.002	13	0.42	0.046	0.29	<0.1	<0.01	1.2	0.3	0.15	1	<0.5	<0.2
U29	Rock	16	4	2.02	101	0.008	2	2.32	0.035	0.08	<0.1	<0.01	4.2	0.2	<0.05	12	<0.5	<0.2
U30	Rock	24	4	0.05	172	0.002	24	0.57	0.027	0.29	<0.1	0.01	1.6	0.5	0.10	1	<0.5	<0.2

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Method	Analyte	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MDL	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
U31	Rock	0.20	1.2	3.1	273.3	53	0.3	0.6	0.5	100	2.61	37.2	6.3	12.6	26	0.3	0.5	0.5	4	0.06	0.074	
U32	Rock	0.26	1.0	3.5	344.6	137	0.4	1.0	0.6	90	3.09	54.6	2.2	12.7	39	0.3	0.8	0.6	6	0.06	0.105	
U33	Rock	0.19	1.7	10.9	509.5	428	0.6	1.7	0.9	89	4.50	103.5	1.2	12.3	11	0.2	2.7	1.9	12	0.05	0.127	
U34	Rock	0.10	2.2	14.0	517.4	1080	0.3	3.4	5.8	543	2.18	138.6	6.3	11.5	29	1.1	1.4	0.4	19	0.31	0.105	
U35	Rock	0.14	1.6	21.9	12.8	73	<0.1	5.2	14.2	770	2.81	5.7	4.9	11.5	15	0.1	0.6	0.1	33	0.16	0.067	
U36	Rock	0.09	1.1	2.7	13.8	41	<0.1	4.9	7.5	929	1.89	4.0	1.3	11.4	29	0.2	0.4	0.2	27	0.24	0.084	
U37	Rock	0.24	2.7	13.2	136.0	227	0.3	2.3	4.4	767	2.23	170.3	4.9	13.5	12	1.0	1.5	0.2	12	0.09	0.058	
U38	Rock	0.08	2.5	19.3	377.2	778	0.2	5.1	27.1	2338	2.89	150.2	7.9	14.0	15	1.9	1.0	0.1	34	0.08	0.059	
U39	Rock	0.10	0.9	3.0	88.2	103	0.1	1.5	10.6	774	1.14	49.5	2.2	13.7	18	0.5	0.3	<0.1	10	0.11	0.030	
U40	Rock	0.20	3.4	15.8	258.4	316	0.6	4.7	9.8	1254	3.07	40.1	9.0	11.8	23	0.6	1.3	<0.1	55	0.21	0.108	
U41	Rock	0.16	14.2	25.9	1239	239	2.4	2.8	4.7	197	3.39	421.1	11.2	12.9	19	0.5	4.7	2.2	34	0.04	0.097	
U42	Rock	0.14	18.9	14.7	767.4	254	0.4	2.1	3.2	185	2.68	63.4	3.9	13.4	20	0.1	0.6	0.4	18	0.03	0.078	
U43	Rock	0.22	6.5	0.8	18.1	17	0.3	0.8	0.1	42	0.58	21.0	2.7	6.8	9	<0.1	0.3	0.5	<2	0.02	0.024	
U44	Rock	0.16	1.8	9.3	11.8	161	0.1	1.8	8.6	173	4.88	12.0	4.4	14.0	48	<0.1	0.2	0.9	12	0.03	0.118	
U45	Rock	0.22	1.8	3.3	15.0	67	0.1	0.7	1.0	81	3.35	5.9	4.2	9.9	76	0.1	0.3	1.4	14	0.05	0.087	
U46	Rock	0.09	2.0	2.7	184.9	256	1.0	2.0	2.0	76	4.05	133.8	5.1	13.1	22	<0.1	0.3	4.1	13	0.03	0.095	
U49	Rock	0.24	<0.1	1.9	0.8	<1	<0.1	1.6	0.5	540	0.37	1.9	5.0	<0.1	90	<0.1	<0.1	<0.1	<2	5.38	0.003	
X9	Rock	0.24	2.0	11.5	92.5	132	0.3	6.8	10.6	476	3.47	25.5	1.8	10.8	16	0.6	0.9	6.8	15	0.13	0.064	
X56	Rock	0.38	2.4	24.0	173.5	284	0.5	12.1	10.3	850	5.55	21.0	3.4	7.4	51	0.6	1.3	0.1	108	0.43	0.144	
X64	Rock	0.17	2.4	23.9	23.9	208	0.2	22.5	4.5	255	1.42	24.3	1.3	0.2	2	0.4	0.4	0.6	14	0.03	0.004	
X73	Rock	0.24	0.9	11.3	120.2	70	2.7	1.8	1.8	89	3.10	16.5	9.0	9.6	15	0.1	0.5	8.8	8	0.07	0.089	
X74	Rock	0.30	1.5	22.4	385.3	721	1.4	4.1	7.6	342	2.38	37.6	4.7	8.9	14	0.7	1.4	4.7	8	0.14	0.081	
X75	Rock	0.21	1.6	40.6	515.4	352	0.6	5.6	10.6	707	1.84	2.1	2.0	9.0	10	0.4	4.8	3.6	6	0.16	0.087	
X78	Rock	0.34	1.4	5.4	73.8	68	0.1	5.5	4.0	247	2.45	26.6	4.8	9.6	7	<0.1	1.4	0.2	7	0.02	0.061	
X89	Rock	0.18	0.4	112.0	49.5	35	0.7	62.8	18.9	143	2.58	7.6	3.6	0.7	130	0.9	0.8	3.2	39	1.16	0.081	
X96	Rock	0.23	12.6	0.8	11.9	22	<0.1	0.8	0.7	67	1.21	14.4	11.8	11.6	17	<0.1	0.5	0.7	6	0.04	0.021	
X97	Rock	0.27	4.8	4.4	17.2	47	<0.1	5.1	5.9	138	2.95	3.3	33.4	10.7	21	0.1	0.3	3.1	11	0.07	0.079	
X99	Rock	0.21	2.8	17.9	280.1	140	1.3	1.7	2.2	73	3.50	230.2	7.8	12.5	52	0.2	2.0	3.1	22	0.05	0.087	
X100	Rock	0.18	2.4	39.1	86.5	86	0.8	1.0	1.8	35	2.15	7.0	14.4	14.0	21	0.2	0.2	2.7	15	0.04	0.125	
X101	Rock	0.37	1.8	8.2	7.7	100	<0.1	1.0	5.7	103	4.88	6.4	3.7	10.3	102	<0.1	0.2	1.0	8	0.03	0.121	



www.acmelab.com

Acme Analytical Laboratories (Vancouver) Ltd.  
 9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
 PHONE (604) 253-3158

Client: **Richards, Gordon**  
 6410 Holly Park Drive  
 Delta BC V4K 4W6 Canada

Project: STOGGIE  
 Report Date: August 21, 2013

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# CERTIFICATE OF ANALYSIS

VAN13003074.1

Method	Analyte	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.01	0.1	0.01	0.05	1	0.5	0.2	
U31	Rock	29	1	0.07	238	0.001	15	0.44	0.049	0.41	<0.1	<0.01	0.9	0.3	0.55	1	0.5	<0.2
U32	Rock	30	2	0.07	219	0.001	11	0.45	0.040	0.36	0.1	<0.01	1.2	0.3	0.48	1	<0.5	<0.2
U33	Rock	26	3	0.06	128	0.001	16	0.57	0.029	0.24	<0.1	<0.01	2.3	0.2	0.13	1	<0.5	0.7
U34	Rock	42	3	0.11	238	0.001	17	1.03	0.062	0.28	0.1	0.02	3.2	<0.1	<0.05	2	<0.5	0.2
U35	Rock	11	4	0.19	137	0.006	11	1.21	0.045	0.18	<0.1	<0.01	2.6	0.3	<0.05	4	<0.5	<0.2
U36	Rock	33	4	0.15	235	0.003	22	1.19	0.065	0.32	<0.1	<0.01	2.8	0.4	<0.05	3	1.1	<0.2
U37	Rock	36	2	0.07	87	0.002	15	0.62	0.008	0.17	<0.1	0.01	1.7	0.5	<0.05	<1	<0.5	0.2
U38	Rock	36	6	0.13	158	0.002	27	1.25	0.061	0.27	<0.1	<0.01	2.9	0.7	<0.05	3	<0.5	0.2
U39	Rock	39	3	0.10	117	0.001	20	0.98	0.035	0.29	<0.1	<0.01	1.7	0.5	<0.05	1	<0.5	0.2
U40	Rock	36	5	0.55	143	0.003	10	1.42	0.047	0.14	<0.1	<0.01	4.0	0.2	<0.05	8	<0.5	<0.2
U41	Rock	37	3	0.03	124	0.002	16	0.68	0.043	0.18	<0.1	<0.01	5.2	0.2	0.06	2	<0.5	<0.2
U42	Rock	36	3	0.04	113	0.002	16	0.53	0.051	0.20	<0.1	<0.01	2.6	0.2	<0.05	2	0.9	<0.2
U43	Rock	12	2	0.02	48	0.003	35	0.21	0.007	0.15	<0.1	<0.01	0.3	0.2	<0.05	<1	<0.5	<0.2
U44	Rock	32	2	0.05	152	0.001	20	0.70	0.048	0.25	<0.1	<0.01	3.4	0.3	0.13	1	4.8	<0.2
U45	Rock	30	1	0.07	198	0.001	20	0.48	0.079	0.27	<0.1	<0.01	2.8	0.4	0.36	1	4.8	<0.2
U46	Rock	33	2	0.04	166	0.002	31	0.59	0.058	0.35	<0.1	<0.01	2.6	0.4	0.19	1	2.9	0.2
U49	Rock	<1	2	0.05	10	0.002	3	0.05	0.002	<0.01	<0.1	<0.01	1.5	<0.1	<0.05	<1	<0.5	<0.2
X9	Rock	25	4	0.06	137	0.002	13	0.62	0.030	0.17	<0.1	<0.01	3.3	0.2	<0.05	1	0.6	<0.2
X56	Rock	20	27	2.11	726	0.008	8	2.39	0.026	0.11	<0.1	<0.01	8.6	0.1	0.17	9	0.7	<0.2
X64	Rock	<1	11	0.22	18	0.004	1	0.26	0.005	0.01	<0.1	<0.01	1.2	<0.1	<0.05	<1	1.0	<0.2
X73	Rock	20	2	0.16	401	0.002	19	0.77	0.014	0.30	<0.1	<0.01	1.2	0.7	0.17	2	4.9	0.5
X74	Rock	18	2	0.06	671	0.001	22	0.51	0.021	0.22	<0.1	<0.01	2.8	0.3	0.11	1	1.4	<0.2
X75	Rock	21	2	0.10	105	<0.001	19	0.69	0.017	0.24	<0.1	<0.01	1.6	0.5	<0.05	1	1.0	<0.2
X78	Rock	16	3	0.05	62	<0.001	12	0.40	0.024	0.16	<0.1	<0.01	2.8	0.3	<0.05	<1	0.9	<0.2
X89	Rock	5	40	0.33	190	0.158	8	2.44	0.246	0.05	0.2	<0.01	3.5	0.3	0.77	6	4.0	<0.2
X96	Rock	17	2	0.08	117	0.002	17	0.60	0.008	0.35	<0.1	<0.01	0.8	0.7	0.10	1	<0.5	<0.2
X97	Rock	20	2	0.10	88	0.002	9	0.71	0.026	0.24	<0.1	<0.01	1.6	0.4	0.07	1	3.7	<0.2
X99	Rock	37	3	0.05	351	0.005	17	0.57	0.063	0.34	0.2	<0.01	3.3	0.3	0.46	2	1.1	<0.2
X100	Rock	28	2	0.14	120	0.002	14	0.87	0.035	0.20	<0.1	<0.01	4.4	0.2	<0.05	2	1.3	<0.2
X101	Rock	31	2	0.05	205	0.001	19	0.58	0.065	0.26	<0.1	<0.01	2.4	0.3	0.31	<1	5.6	<0.2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



www.acmelab.com

Acme Analytical Laboratories (Vancouver) Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Richards, Gordon**

6410 Holly Park Drive  
Delta BC V4K 4W6 Canada

Project: STOGGIE

Report Date: August 21, 2013

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# CERTIFICATE OF ANALYSIS

VAN13003074.1

Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
X102	Rock	0.22	1.2	2.1	182.8	47	1.4	0.6	0.6	70	2.19	141.6	4.0	12.6	41	0.1	0.2	8.2	8	0.05	0.088
X104	Rock	0.34	4.4	3.2	103.0	46	0.8	0.8	1.6	59	2.43	108.1	4.7	12.6	26	0.2	0.6	1.9	6	0.04	0.066



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VAN13003074.1

Method	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	
Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
X102	Rock	34	2	0.06	253	0.001	12	0.45	0.069	0.31	<0.1	<0.01	2.5	0.3	0.40	1	<0.5	<0.2
X104	Rock	34	2	0.05	206	0.001	14	0.43	0.027	0.28	<0.1	<0.01	1.3	0.3	0.28	<1	0.7	<0.2

## QUALITY CONTROL REPORT

VAN13003074.1

Method	WGHT	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	
MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	
Pulp Duplicates																					
U10	Rock	0.07	0.9	10.6	140.8	165	0.4	3.4	7.5	329	1.97	83.1	<0.5	12.3	20	0.3	1.6	0.1	11	0.15	0.060
REP U10	QC		0.9	10.2	141.2	164	0.4	3.7	7.9	332	1.97	82.1	<0.5	12.0	19	0.3	1.5	0.1	11	0.16	0.060
U15	Rock	0.10	2.2	4.6	210.8	471	0.1	3.1	9.8	712	1.84	537.4	<0.5	12.1	18	1.8	1.7	<0.1	8	0.18	0.069
REP U15	QC		2.2	4.2	196.0	424	0.1	3.3	9.1	655	1.70	476.1	<0.5	11.3	17	1.7	1.6	<0.1	7	0.16	0.067
REP U35	QC		1.4	21.9	14.6	75	<0.1	5.8	14.0	772	2.84	5.6	0.6	11.1	16	0.2	0.6	<0.1	33	0.16	0.067
U49	Rock	0.24	<0.1	1.9	0.8	<1	<0.1	1.6	0.5	540	0.37	1.9	5.0	<0.1	90	<0.1	<0.1	<0.1	<2	5.38	0.003
REP U49	QC		0.1	1.8	1.4	2	<0.1	1.5	0.5	539	0.37	1.2	0.7	<0.1	89	<0.1	<0.1	<0.1	<2	5.39	0.004
Core Reject Duplicates																					
U1	Rock	0.36	1.9	6.8	622.3	89	1.1	1.9	1.0	62	2.13	76.8	2.3	11.6	25	0.4	1.5	1.3	6	0.07	0.050
DUP U1	QC		1.9	7.3	630.4	86	1.4	2.0	1.0	63	2.11	78.2	3.5	11.3	27	0.5	1.5	1.2	5	0.07	0.054
U35	Rock	0.14	1.6	21.9	12.8	73	<0.1	5.2	14.2	770	2.81	5.7	4.9	11.5	15	0.1	0.6	0.1	33	0.16	0.067
DUP U35	QC		1.4	21.7	14.4	77	<0.1	6.1	13.5	763	2.79	5.4	2.3	11.5	15	0.2	0.5	<0.1	33	0.15	0.068
Reference Materials																					
STD DS9	Standard		12.9	108.1	128.0	309	1.9	40.7	7.4	584	2.40	25.5	120.8	6.4	80	2.4	5.9	7.0	41	0.75	0.080
STD DS9	Standard		13.7	107.2	134.3	311	1.8	39.5	7.8	585	2.31	25.4	113.5	7.1	76	2.5	6.5	6.7	40	0.75	0.080
STD DS9 Expected			12.84	108	126	317	1.83	40.3	7.6	575	2.33	25.5	118	6.38	69.6	2.4	4.94	6.32	40	0.7201	0.0819
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1	Prep Blank		<0.1	5.0	3.6	43	<0.1	14.2	4.6	586	1.97	<0.5	<0.5	5.6	63	<0.1	<0.1	0.4	37	0.48	0.073
G1	Prep Blank		<0.1	7.8	3.4	42	<0.1	12.1	4.5	569	1.93	<0.5	0.8	5.4	58	<0.1	<0.1	0.2	36	0.48	0.069



## QUALITY CONTROL REPORT

VAN13003074.1

Method		1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15	1DX15
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
U10	Rock	32	3	0.07	190	0.002	28	0.88	0.043	0.42	<0.1	<0.01	1.2	0.5	<0.05	2	<0.5	<0.2
REP U10	QC	33	3	0.06	195	0.002	27	0.87	0.043	0.42	<0.1	<0.01	1.2	0.5	<0.05	3	1.0	<0.2
U15	Rock	41	3	0.09	148	0.002	23	0.94	0.008	0.34	0.1	<0.01	1.2	0.4	<0.05	2	<0.5	<0.2
REP U15	QC	38	3	0.08	134	0.002	22	0.87	0.007	0.31	<0.1	<0.01	1.2	0.4	<0.05	2	<0.5	<0.2
REP U35	QC	11	4	0.20	139	0.006	15	1.22	0.047	0.18	<0.1	<0.01	2.7	0.3	<0.05	4	0.6	<0.2
U49	Rock	<1	2	0.05	10	0.002	3	0.05	0.002	<0.01	<0.1	<0.01	1.5	<0.1	<0.05	<1	<0.5	<0.2
REP U49	QC	<1	2	0.05	10	0.001	2	0.05	0.005	<0.01	<0.1	<0.01	1.3	<0.1	<0.05	<1	<0.5	<0.2
Core Reject Duplicates																		
U1	Rock	23	2	0.09	284	0.001	13	0.46	0.037	0.35	<0.1	<0.01	1.0	0.3	0.38	1	<0.5	<0.2
DUP U1	QC	24	3	0.10	299	0.001	13	0.48	0.037	0.35	<0.1	<0.01	1.1	0.3	0.38	1	<0.5	<0.2
U35	Rock	11	4	0.19	137	0.006	11	1.21	0.045	0.18	<0.1	<0.01	2.6	0.3	<0.05	4	<0.5	<0.2
DUP U35	QC	11	4	0.19	140	0.006	13	1.21	0.046	0.18	<0.1	<0.01	2.6	0.3	<0.05	4	<0.5	<0.2
Reference Materials																		
STD DS9	Standard	14	122	0.63	308	0.119	3	0.98	0.086	0.40	3.1	0.20	2.3	5.3	0.17	5	5.3	4.4
STD DS9	Standard	14	121	0.61	314	0.124	3	0.92	0.081	0.39	3.3	0.20	2.2	4.9	0.17	5	6.3	5.1
STD DS9 Expected		13.3	121	0.6165	295	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
G1	Prep Blank	12	10	0.60	165	0.129	3	0.96	0.096	0.49	<0.1	<0.01	1.8	0.3	<0.05	5	<0.5	<0.2
G1	Prep Blank	13	9	0.57	163	0.131	2	0.93	0.086	0.46	<0.1	<0.01	2.0	0.3	<0.05	5	<0.5	<0.2