



www.acmelab.com

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

Client: **Pacific Ridge Exploration Ltd.**
Suite 1100, 1111 Melville St,
Vancouver BC V6E 3V6 CANADA

Submitted By: Gerry Carlson
Receiving Lab: Canada-Whitehorse
Received: September 18, 2013
Report Date: October 03, 2013
Page: 1 of 4

CERTIFICATE OF ANALYSIS

WHI13000433.1

CLIENT JOB INFORMATION

Project: MPA
Shipment ID: MPAGP13-001
P.O. Number
Number of Samples: 63

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

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

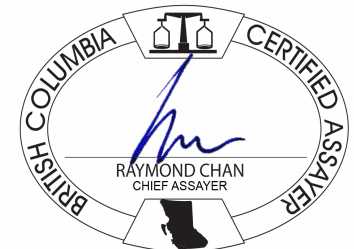
Invoice To: Pacific Ridge Exploration Ltd.
Suite 1100, 1111 Melville St,
Vancouver BC V6E 3V6
CANADA

CC: John Brock

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	63	Crush, split and pulverize 250 g rock to 200 mesh			WHI
G601	63	Fire Assay Fusion Au - AAS Finish	30	Completed	VAN
1DX1	63	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS



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

WHI13000433.1

Method	WGHT	G6	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	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	
1374335	Rock	0.70	0.076	0.2	2.2	5.4	34	<0.1	2.0	3.0	587	1.54	1.0	53.3	2.8	34	<0.1	0.3	<0.1	18	1.31
1374336	Rock	0.68	0.549	0.3	6.8	7.6	38	<0.1	1.7	3.2	465	1.57	1.1	239.2	3.6	42	<0.1	0.1	<0.1	20	1.09
1374337	Rock	0.67	0.266	0.4	3.2	7.0	33	<0.1	1.8	3.0	529	1.57	1.5	209.4	3.5	47	<0.1	0.3	<0.1	15	1.29
1374338	Rock	0.44	0.420	0.2	4.3	6.3	40	0.1	3.2	3.7	578	1.91	2.0	418.0	4.5	31	<0.1	0.3	<0.1	28	0.32
1374339	Rock	0.70	0.327	0.2	3.5	3.6	37	0.1	2.7	3.3	526	1.77	1.5	288.6	3.3	24	<0.1	0.1	<0.1	24	0.29
1374340	Rock	0.62	0.909	0.5	7.3	5.4	40	0.3	2.3	5.4	838	2.06	1.1	927.5	3.7	38	<0.1	0.8	<0.1	20	0.64
1374341	Rock	0.47	0.015	0.2	2.5	2.1	71	<0.1	3.7	8.6	962	3.02	1.1	9.2	1.0	54	<0.1	0.2	<0.1	62	0.94
1374342	Rock	0.60	0.361	0.4	6.1	9.2	59	<0.1	5.3	7.1	767	2.51	2.3	977.9	2.4	38	<0.1	0.4	<0.1	46	0.53
1374343	Rock	0.55	0.035	0.3	3.6	3.1	41	<0.1	4.4	4.7	523	1.81	2.0	34.6	1.9	31	<0.1	0.2	<0.1	32	0.29
1374344	Rock	0.71	0.242	0.3	4.5	4.3	61	<0.1	4.4	7.9	841	2.59	1.8	173.9	1.7	60	<0.1	0.2	<0.1	55	0.89
1374345	Rock	0.74	0.120	0.1	5.4	3.8	75	<0.1	3.6	9.5	957	3.09	1.5	95.4	1.5	94	<0.1	1.0	<0.1	56	1.99
1374346	Rock	0.65	0.171	0.3	11.3	3.5	46	0.1	2.5	5.1	613	1.99	1.1	149.9	2.6	28	<0.1	0.7	0.2	34	0.46
1374347	Rock	0.22	2.922	0.2	4.1	7.6	68	0.7	3.1	8.6	1049	3.18	0.9	5472	1.4	69	<0.1	0.1	0.1	41	1.86
1374348	Rock	0.90	0.195	0.2	3.9	5.2	75	<0.1	3.5	10.1	1073	3.30	1.0	175.0	1.3	60	<0.1	0.2	<0.1	65	1.89
1374349	Rock	0.56	0.070	0.2	3.3	3.2	63	<0.1	3.1	7.9	878	2.75	1.6	81.6	2.0	47	<0.1	0.4	<0.1	54	0.99
1374350	Rock	0.74	0.118	0.2	3.4	2.7	68	<0.1	3.3	8.2	856	2.72	1.3	92.0	1.9	63	<0.1	0.3	<0.1	57	0.73
1374351	Rock	0.67	0.040	0.1	1.8	2.1	41	<0.1	2.0	4.7	529	1.92	0.6	43.9	1.8	43	<0.1	0.1	<0.1	31	0.71
1374352	Rock	0.62	0.045	0.1	2.1	2.1	39	<0.1	1.8	4.0	530	1.71	0.6	55.1	3.4	33	<0.1	<0.1	<0.1	26	0.59
1374353	Rock	0.75	0.042	0.2	2.2	3.4	36	<0.1	1.8	3.7	549	1.71	0.6	36.6	4.6	47	<0.1	0.2	<0.1	22	1.82
1374354	Rock	0.49	0.062	0.3	3.9	4.0	43	<0.1	3.7	5.1	562	1.94	1.3	61.2	4.1	24	<0.1	0.3	<0.1	29	0.32
1374355	Rock	0.95	0.031	0.3	2.7	4.8	33	<0.1	2.7	3.9	645	1.85	1.4	26.3	4.3	52	<0.1	0.3	<0.1	19	0.82
1374356	Rock	0.89	0.009	0.1	2.1	2.9	40	<0.1	2.7	3.7	555	1.73	0.8	13.0	3.0	25	<0.1	<0.1	<0.1	23	0.80
1374357	Rock	0.79	0.025	0.7	37.4	3.8	54	<0.1	127.8	19.9	1018	3.27	1.5	24.8	7.7	204	<0.1	<0.1	<0.1	85	4.28
1374358	Rock	0.82	0.012	0.2	2.8	3.4	40	<0.1	1.7	3.4	492	1.72	1.1	13.1	3.4	28	<0.1	<0.1	<0.1	26	1.04
1374359	Rock	0.79	0.021	0.3	3.6	3.3	33	<0.1	2.7	3.3	507	1.59	0.6	16.1	3.1	31	<0.1	<0.1	<0.1	22	0.96
1374360	Rock	0.71	0.035	1.4	2.7	4.7	33	<0.1	1.4	3.0	478	1.52	1.5	38.8	3.3	34	<0.1	0.2	<0.1	20	1.79
1374361	Rock	0.73	0.006	0.7	2.0	2.8	41	<0.1	1.8	3.3	566	1.82	1.4	5.9	4.1	28	<0.1	0.4	<0.1	23	0.61
1374362	Rock	0.84	0.021	0.2	1.4	6.4	26	<0.1	1.2	2.7	547	1.31	1.0	55.8	2.9	63	<0.1	0.2	<0.1	8	1.17
1374363	Rock	0.76	0.009	0.3	2.5	3.5	33	<0.1	2.5	3.3	582	1.68	0.6	14.4	3.8	39	<0.1	0.4	<0.1	20	0.62
1374364	Rock	0.74	0.010	0.4	6.0	7.5	152	0.1	16.5	5.4	669	2.18	1.9	10.6	3.7	86	0.1	5.2	<0.1	22	2.02

CERTIFICATE OF ANALYSIS

WHI13000433.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	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	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1374335	Rock	0.053	17	4	0.35	148	0.005	<20	0.71	0.050	0.17	<0.1	0.01	2.0	<0.1	<0.05	4	<0.5	0.3
1374336	Rock	0.056	18	3	0.34	152	0.007	<20	0.72	0.053	0.17	<0.1	<0.01	2.6	<0.1	<0.05	4	<0.5	0.5
1374337	Rock	0.069	25	4	0.17	409	0.002	<20	0.71	0.029	0.21	<0.1	0.02	2.8	<0.1	<0.05	3	<0.5	0.3
1374338	Rock	0.069	23	5	0.41	221	0.013	<20	0.91	0.058	0.16	<0.1	0.02	4.0	<0.1	<0.05	5	<0.5	0.3
1374339	Rock	0.056	16	5	0.41	153	0.013	<20	0.80	0.047	0.15	<0.1	0.02	2.6	<0.1	<0.05	4	<0.5	0.3
1374340	Rock	0.085	23	3	0.11	228	0.003	<20	0.57	0.027	0.26	<0.1	0.18	3.1	<0.1	<0.05	2	<0.5	1.7
1374341	Rock	0.118	9	5	1.01	239	0.064	<20	1.45	0.087	0.13	<0.1	<0.01	5.2	<0.1	<0.05	7	<0.5	<0.2
1374342	Rock	0.100	15	8	0.64	227	0.058	<20	1.17	0.062	0.14	0.1	0.05	4.2	<0.1	<0.05	6	<0.5	0.6
1374343	Rock	0.057	7	8	0.48	164	0.047	<20	0.87	0.055	0.10	<0.1	0.01	2.4	<0.1	<0.05	4	<0.5	<0.2
1374344	Rock	0.103	10	7	0.91	197	0.068	<20	1.34	0.052	0.12	0.1	0.02	4.8	<0.1	<0.05	7	<0.5	0.3
1374345	Rock	0.135	11	5	0.91	256	0.018	<20	1.37	0.048	0.16	<0.1	0.02	6.2	<0.1	<0.05	7	<0.5	<0.2
1374346	Rock	0.078	14	4	0.53	155	0.015	<20	0.93	0.048	0.14	<0.1	0.02	3.1	0.1	<0.05	5	<0.5	0.3
1374347	Rock	0.118	16	5	0.91	212	0.005	<20	1.58	0.043	0.27	<0.1	0.11	5.1	<0.1	<0.05	6	<0.5	4.6
1374348	Rock	0.133	15	5	0.98	295	0.008	<20	1.57	0.047	0.15	<0.1	0.02	6.2	<0.1	<0.05	9	<0.5	0.3
1374349	Rock	0.120	12	5	0.80	156	0.036	<20	1.26	0.059	0.13	0.1	0.02	5.7	<0.1	<0.05	6	<0.5	<0.2
1374350	Rock	0.120	10	5	0.89	155	0.043	<20	1.37	0.058	0.11	<0.1	0.02	5.2	<0.1	<0.05	7	<0.5	<0.2
1374351	Rock	0.078	10	4	0.54	147	0.020	<20	0.90	0.056	0.14	<0.1	0.01	2.9	<0.1	<0.05	4	<0.5	<0.2
1374352	Rock	0.058	12	3	0.45	202	0.019	<20	0.80	0.054	0.20	<0.1	<0.01	2.1	<0.1	<0.05	4	<0.5	<0.2
1374353	Rock	0.062	19	4	0.36	165	0.005	<20	0.80	0.041	0.19	<0.1	0.01	2.4	<0.1	<0.05	4	<0.5	<0.2
1374354	Rock	0.069	13	6	0.39	188	0.010	<20	0.92	0.044	0.16	<0.1	0.02	3.0	<0.1	<0.05	4	<0.5	<0.2
1374355	Rock	0.067	17	5	0.14	895	0.004	<20	0.66	0.033	0.24	<0.1	0.04	2.8	<0.1	<0.05	2	<0.5	<0.2
1374356	Rock	0.056	16	4	0.45	203	0.005	<20	0.81	0.053	0.14	<0.1	<0.01	2.5	<0.1	<0.05	5	<0.5	<0.2
1374357	Rock	0.318	52	274	2.57	900	0.064	<20	2.34	0.029	0.35	<0.1	0.01	7.9	<0.1	<0.05	8	0.6	0.3
1374358	Rock	0.055	14	4	0.48	141	0.005	<20	0.82	0.054	0.11	<0.1	<0.01	2.2	<0.1	<0.05	5	<0.5	<0.2
1374359	Rock	0.056	15	6	0.39	162	0.005	<20	0.78	0.060	0.18	<0.1	<0.01	2.1	<0.1	<0.05	4	<0.5	<0.2
1374360	Rock	0.054	15	3	0.30	218	0.002	<20	0.76	0.039	0.16	<0.1	<0.01	2.4	<0.1	<0.05	4	<0.5	<0.2
1374361	Rock	0.053	15	6	0.46	160	0.006	<20	0.83	0.066	0.10	<0.1	<0.01	2.3	<0.1	<0.05	5	<0.5	<0.2
1374362	Rock	0.060	8	2	0.05	449	0.002	<20	0.47	0.031	0.26	<0.1	0.01	1.9	<0.1	<0.05	1	<0.5	<0.2
1374363	Rock	0.057	16	4	0.16	433	0.015	<20	0.57	0.043	0.26	<0.1	0.01	2.7	<0.1	<0.05	2	<0.5	<0.2
1374364	Rock	0.072	17	11	0.37	528	0.013	<20	0.68	0.044	0.27	<0.1	0.02	2.7	<0.1	<0.05	3	<0.5	<0.2

CERTIFICATE OF ANALYSIS

WHI13000433.1

Method	WGHT	G6	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	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	
1374365	Rock	0.48	0.018	0.4	4.1	22.3	32	<0.1	7.6	4.0	549	1.57	2.5	17.4	5.2	24	<0.1	0.3	1.0	19	0.32
1374366	Rock	0.70	0.029	0.4	5.0	36.7	33	<0.1	4.4	3.7	527	1.72	2.1	15.8	5.8	22	<0.1	0.4	1.6	19	0.28
1374367	Rock	0.85	0.011	0.3	43.6	10.5	78	<0.1	153.0	25.7	1173	4.12	1.0	9.8	10.5	350	0.2	<0.1	0.2	92	4.31
1374368	Rock	0.94	0.071	0.4	15.4	5.7	47	<0.1	62.4	11.7	604	2.55	<0.5	36.8	4.2	70	<0.1	<0.1	<0.1	44	1.37
1374369	Rock	0.67	0.011	0.2	4.8	2.9	66	<0.1	5.2	9.2	960	3.01	<0.5	11.7	1.9	34	<0.1	<0.1	<0.1	43	0.71
1374370	Rock	0.82	0.006	<0.1	7.8	2.6	75	<0.1	4.3	10.9	853	3.06	0.9	2.4	0.6	132	<0.1	<0.1	<0.1	63	1.16
1374371	Rock	0.84	0.027	0.1	47.1	3.2	74	<0.1	219.0	32.5	1154	4.29	0.9	14.9	4.8	235	0.1	<0.1	<0.1	122	3.99
1374372	Rock	0.76	0.008	0.2	16.0	3.7	75	<0.1	6.5	10.2	828	3.13	2.1	18.0	0.7	144	<0.1	0.1	<0.1	72	1.15
1374373	Rock	0.79	0.017	<0.1	7.1	2.9	54	<0.1	5.2	7.5	598	2.41	0.8	9.8	0.8	80	<0.1	<0.1	<0.1	54	0.79
1374374	Rock	0.91	0.014	<0.1	8.2	3.2	66	<0.1	4.6	8.8	751	2.76	0.7	12.9	0.5	99	<0.1	<0.1	<0.1	58	0.78
1374375	Rock	0.71	<0.005	0.2	5.1	3.5	77	<0.1	3.3	10.9	793	3.18	2.4	1.1	0.4	295	<0.1	0.3	<0.1	55	1.29
1374376	Rock	0.90	0.007	<0.1	10.9	2.9	65	<0.1	3.9	8.7	647	2.58	2.1	2.9	0.6	120	<0.1	<0.1	<0.1	59	0.84
1374377	Rock	0.66	0.005	0.2	10.4	3.6	70	<0.1	4.2	10.0	826	3.10	1.1	3.0	0.7	73	<0.1	0.4	<0.1	58	0.56
1374378	Rock	0.67	0.082	0.2	6.1	2.8	59	<0.1	3.4	8.2	663	2.79	1.7	58.8	0.4	86	<0.1	0.2	<0.1	61	0.78
1374379	Rock	0.82	0.008	0.1	8.2	2.9	60	<0.1	3.2	8.2	733	2.87	1.5	1.4	0.6	40	<0.1	0.2	<0.1	57	0.52
1374380	Rock	0.74	0.005	<0.1	5.6	2.4	68	<0.1	3.2	9.5	814	3.11	0.5	<0.5	0.5	39	<0.1	0.2	<0.1	60	1.05
1374381	Rock	0.85	<0.005	0.1	4.2	2.3	57	<0.1	2.2	7.8	628	2.73	2.2	0.5	0.5	59	<0.1	1.0	<0.1	58	1.52
1374382	Rock	0.69	0.006	<0.1	6.7	2.1	54	<0.1	2.8	6.8	551	2.34	<0.5	0.6	0.3	50	<0.1	0.2	<0.1	54	0.85
1374383	Rock	0.70	0.009	0.3	5.9	2.4	66	<0.1	4.1	9.8	808	3.21	0.9	3.3	0.6	45	<0.1	0.3	<0.1	66	0.62
1374384	Rock	0.46	0.187	0.2	8.7	3.1	73	<0.1	3.4	9.8	773	3.20	1.8	210.9	0.5	69	<0.1	0.2	<0.1	74	0.67
1374385	Rock	0.69	0.021	0.2	5.6	1.7	48	<0.1	2.0	5.6	617	2.33	0.8	13.4	0.9	44	<0.1	0.2	<0.1	42	1.01
1374386	Rock	0.64	0.007	0.2	7.8	1.8	62	<0.1	2.6	8.5	778	2.74	0.7	3.5	0.3	51	<0.1	0.2	<0.1	56	1.56
1374387	Rock	0.69	0.013	0.2	7.8	8.1	33	<0.1	2.7	4.1	726	1.98	1.5	4.9	0.6	64	<0.1	0.4	0.6	12	2.35
1374388	Rock	0.71	0.263	0.2	4.5	15.8	58	<0.1	2.7	8.8	1018	3.06	0.8	192.5	0.9	114	<0.1	0.6	0.2	37	2.45
1374389	Rock	0.61	0.012	<0.1	6.9	2.8	57	<0.1	2.9	7.8	733	2.77	<0.5	10.3	0.6	62	<0.1	0.3	0.5	50	1.48
1374390	Rock	0.55	0.078	<0.1	8.0	3.2	66	<0.1	2.9	9.8	906	3.15	<0.5	41.6	0.5	65	<0.1	1.2	0.4	67	1.75
1374391	Rock	0.47	0.425	0.2	5.9	13.8	41	<0.1	2.8	5.7	684	2.23	1.3	216.3	3.4	38	0.1	0.3	1.1	40	0.93
1374392	Rock	0.67	0.072	0.1	4.3	2.0	71	<0.1	2.8	10.1	949	3.23	<0.5	66.7	0.4	74	<0.1	<0.1	<0.1	69	2.25
1374393	Rock	0.65	0.226	0.7	10.3	3.2	56	<0.1	4.4	8.1	941	2.77	<0.5	180.4	0.8	153	<0.1	0.2	<0.1	44	4.22
1374394	Rock	0.59	0.403	0.3	5.6	2.9	56	<0.1	3.5	7.7	832	2.90	<0.5	330.6	0.5	86	<0.1	<0.1	<0.1	68	2.10

CERTIFICATE OF ANALYSIS

WHI13000433.1

Method Analyte Unit MDL	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1374365	Rock	0.050	11	6	0.22	222	0.008	<20	0.70	0.030	0.23	<0.1	0.02	2.4	0.1	<0.05	3	<0.5	<0.2
1374366	Rock	0.055	11	6	0.18	217	0.009	<20	0.69	0.037	0.22	<0.1	0.03	2.5	0.1	<0.05	3	<0.5	<0.2
1374367	Rock	0.545	88	161	3.27	2972	0.013	<20	3.11	0.024	0.17	<0.1	0.02	8.4	<0.1	0.06	10	<0.5	<0.2
1374368	Rock	0.175	31	49	1.58	737	0.009	<20	1.63	0.032	0.17	<0.1	0.02	3.6	<0.1	<0.05	6	1.2	0.5
1374369	Rock	0.118	17	4	0.88	1026	0.008	<20	1.46	0.039	0.24	<0.1	0.02	4.1	<0.1	<0.05	6	1.3	0.2
1374370	Rock	0.128	8	5	1.25	220	0.122	<20	1.65	0.051	0.09	0.1	<0.01	5.3	<0.1	<0.05	9	<0.5	<0.2
1374371	Rock	0.414	53	478	4.47	1016	0.091	<20	3.26	0.029	0.28	<0.1	<0.01	12.4	<0.1	<0.05	11	1.3	0.3
1374372	Rock	0.126	8	10	1.13	227	0.142	<20	1.87	0.061	0.09	0.1	0.01	5.8	<0.1	<0.05	9	<0.5	<0.2
1374373	Rock	0.104	7	10	0.85	184	0.101	<20	1.35	0.076	0.09	<0.1	0.02	4.6	<0.1	<0.05	6	0.6	<0.2
1374374	Rock	0.114	7	6	0.98	207	0.048	<20	1.53	0.052	0.10	<0.1	0.02	4.9	<0.1	<0.05	7	0.6	<0.2
1374375	Rock	0.128	5	5	1.20	151	0.047	<20	1.91	0.056	0.12	<0.1	<0.01	5.3	<0.1	<0.05	9	0.7	<0.2
1374376	Rock	0.103	6	6	1.03	169	0.099	<20	1.54	0.066	0.11	<0.1	0.02	4.6	<0.1	<0.05	7	0.8	<0.2
1374377	Rock	0.115	7	6	1.07	202	0.026	<20	1.56	0.049	0.10	<0.1	<0.01	5.2	<0.1	<0.05	8	0.6	<0.2
1374378	Rock	0.117	8	5	0.86	203	0.063	<20	1.39	0.068	0.11	<0.1	0.01	6.0	<0.1	<0.05	7	<0.5	<0.2
1374379	Rock	0.098	8	6	0.86	162	0.011	<20	1.31	0.052	0.11	<0.1	0.01	5.1	<0.1	<0.05	7	<0.5	<0.2
1374380	Rock	0.119	7	5	1.06	132	0.008	<20	1.49	0.048	0.10	<0.1	0.01	6.1	<0.1	<0.05	7	<0.5	<0.2
1374381	Rock	0.111	7	4	0.60	168	0.009	<20	1.14	0.047	0.10	<0.1	0.01	6.0	<0.1	<0.05	6	1.0	<0.2
1374382	Rock	0.108	4	4	0.85	110	0.102	<20	1.13	0.120	0.12	<0.1	<0.01	4.2	<0.1	<0.05	5	0.9	<0.2
1374383	Rock	0.128	7	6	1.04	183	0.067	<20	1.48	0.065	0.16	0.2	0.02	5.8	<0.1	<0.05	7	0.8	<0.2
1374384	Rock	0.132	6	6	1.23	175	0.100	<20	1.53	0.066	0.10	<0.1	0.09	7.2	<0.1	<0.05	8	<0.5	0.5
1374385	Rock	0.085	8	4	0.60	128	0.021	<20	0.96	0.064	0.12	<0.1	0.02	3.9	<0.1	<0.05	5	<0.5	0.2
1374386	Rock	0.111	4	4	0.86	170	0.015	<20	1.26	0.053	0.09	<0.1	<0.01	5.7	<0.1	<0.05	6	0.5	<0.2
1374387	Rock	0.114	3	3	0.10	1915	0.001	<20	0.49	0.004	0.29	<0.1	0.02	5.5	0.1	<0.05	1	<0.5	<0.2
1374388	Rock	0.116	12	2	0.37	956	0.008	<20	0.56	0.031	0.25	0.1	0.11	6.4	<0.1	<0.05	2	0.8	0.3
1374389	Rock	0.117	6	4	0.50	621	0.047	<20	0.96	0.046	0.46	0.4	0.02	5.4	0.1	<0.05	4	1.2	<0.2
1374390	Rock	0.130	7	4	0.64	563	0.073	<20	1.21	0.059	0.52	0.3	0.02	7.5	0.2	<0.05	5	<0.5	0.3
1374391	Rock	0.076	6	4	0.43	190	0.015	<20	0.96	0.049	0.19	0.1	0.02	4.2	<0.1	<0.05	5	0.9	0.4
1374392	Rock	0.117	6	5	1.02	144	0.014	<20	1.41	0.049	0.11	<0.1	<0.01	6.3	<0.1	<0.05	7	0.8	0.4
1374393	Rock	0.104	12	4	0.65	469	0.008	<20	1.12	0.039	0.22	<0.1	0.13	5.1	<0.1	<0.05	5	0.9	0.5
1374394	Rock	0.109	6	4	0.86	150	0.032	<20	1.22	0.064	0.15	0.1	0.02	6.6	<0.1	<0.05	6	<0.5	<0.2



www.acmelab.com

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

Client: **Pacific Ridge Exploration Ltd.**
 Suite 1100, 1111 Melville St,
 Vancouver BC V6E 3V6 CANADA

Project: MPA
 Report Date: October 03, 2013

Page: 4 of 4

Part: 1 of 2

CERTIFICATE OF ANALYSIS

WHI13000433.1

Method	WGHT	G6	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	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	
1374395	Rock	0.52	0.007	0.1	3.4	1.5	56	<0.1	1.7	8.5	788	2.89	<0.5	25.8	0.4	69	<0.1	<0.1	<0.1	58	2.01
1374396	Rock	0.41	0.014	0.6	7.2	11.3	49	<0.1	8.0	8.7	803	2.75	1.7	18.7	2.8	35	0.1	0.2	0.5	44	0.84
1374397	Rock	0.76	0.013	0.1	6.2	1.1	55	<0.1	3.0	8.3	710	2.73	<0.5	15.6	0.4	47	<0.1	<0.1	<0.1	61	1.10



www.acmelab.com

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

Client: **Pacific Ridge Exploration Ltd.**
 Suite 1100, 1111 Melville St,
 Vancouver BC V6E 3V6 CANADA

Project: MPA
 Report Date: October 03, 2013

Page: 4 of 4

Part: 2 of 2

CERTIFICATE OF ANALYSIS

WHI13000433.1

Method	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	P	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	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
1374395	Rock	0.114	5	1	0.89	152	0.018	<20	1.33	0.052	0.15	<0.1	0.02	6.4	<0.1	<0.05	6	<0.5	<0.2
1374396	Rock	0.079	11	9	0.44	346	0.018	<20	1.10	0.039	0.17	<0.1	0.01	4.7	<0.1	<0.05	4	0.8	<0.2
1374397	Rock	0.109	5	4	0.78	262	0.072	<20	1.14	0.076	0.32	<0.1	<0.01	5.8	<0.1	<0.05	5	<0.5	<0.2



www.acmelab.com

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

Client: **Pacific Ridge Exploration Ltd.**
 Suite 1100, 1111 Melville St,
 Vancouver BC V6E 3V6 CANADA

Project: MPA
 Report Date: October 03, 2013

Page: 1 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI13000433.1

Method	WGHT	G6	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.005	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	
Pulp Duplicates																					
1374339	Rock	0.70	0.327	0.2	3.5	3.6	37	0.1	2.7	3.3	526	1.77	1.5	288.6	3.3	24	<0.1	0.1	<0.1	24	0.29
REP 1374339	QC			0.2	3.5	3.7	37	0.1	2.8	3.3	545	1.78	1.1	283.0	3.2	24	<0.1	0.1	<0.1	24	0.29
1374367	Rock	0.85	0.011	0.3	43.6	10.5	78	<0.1	153.0	25.7	1173	4.12	1.0	9.8	10.5	350	0.2	<0.1	0.2	92	4.31
REP 1374367	QC		0.011																		
1374397	Rock	0.76	0.013	0.1	6.2	1.1	55	<0.1	3.0	8.3	710	2.73	<0.5	15.6	0.4	47	<0.1	<0.1	<0.1	61	1.10
REP 1374397	QC			<0.1	6.7	1.3	57	<0.1	2.7	8.3	743	2.81	<0.5	4.4	0.4	45	<0.1	0.1	<0.1	63	1.15
Core Reject Duplicates																					
1374363	Rock	0.76	0.009	0.3	2.5	3.5	33	<0.1	2.5	3.3	582	1.68	0.6	14.4	3.8	39	<0.1	0.4	<0.1	20	0.62
DUP 1374363	QC		0.007	0.3	2.6	3.7	33	<0.1	2.4	3.4	592	1.62	0.7	6.6	4.0	38	<0.1	0.4	<0.1	20	0.63
Reference Materials																					
STD DS9	Standard			11.4	108.7	133.1	324	1.9	38.0	7.3	591	2.33	27.1	120.9	6.0	72	2.4	5.2	5.9	41	0.71
STD DS9	Standard			13.3	105.3	129.4	305	1.7	40.3	7.3	573	2.39	26.3	109.4	6.1	74	2.1	5.2	6.4	41	0.73
STD OREAS45EA	Standard			1.6	670.0	13.7	31	0.3	374.1	48.2	382	23.74	11.1	63.7	9.9	4	<0.1	0.3	0.2	300	0.04
STD OREAS45EA	Standard			1.1	642.4	13.9	29	0.2	355.3	47.5	360	22.52	8.9	46.5	9.8	4	<0.1	0.2	0.2	272	0.03
STD OXC109	Standard		0.201																		
STD OXC109	Standard		0.204																		
STD OXI96	Standard		1.727																		
STD OXI96	Standard		1.776																		
STD OXL93	Standard		5.454																		
STD OXL93	Standard		5.693																		
STD OXC109 Expected			0.201																		
STD OXI96 Expected			1.802																		
STD OXL93 Expected			5.841																		
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	
STD OREAS45EA Expected			1.39	709	14.3	28.9	0.26	381	52	400	23.51	9.1	53	10.7	3.5	0.02	0.2	0.26	303	0.036	
BLK	Blank		<0.005																		
BLK	Blank		<0.005																		
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	

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.

QUALITY CONTROL REPORT

WHI13000433.1

Method		1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX
Analyte		P	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		0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																			
1374339	Rock	0.056	16	5	0.41	153	0.013	<20	0.80	0.047	0.15	<0.1	0.02	2.6	<0.1	<0.05	4	<0.5	0.3
REP 1374339	QC	0.059	17	5	0.42	157	0.012	<20	0.82	0.047	0.15	<0.1	0.02	2.7	<0.1	<0.05	4	<0.5	0.3
1374367	Rock	0.545	88	161	3.27	2972	0.013	<20	3.11	0.024	0.17	<0.1	0.02	8.4	<0.1	0.06	10	<0.5	<0.2
REP 1374367	QC																		
1374397	Rock	0.109	5	4	0.78	262	0.072	<20	1.14	0.076	0.32	<0.1	<0.01	5.8	<0.1	<0.05	5	<0.5	<0.2
REP 1374397	QC	0.119	5	4	0.82	270	0.072	<20	1.19	0.078	0.33	0.1	<0.01	5.9	<0.1	<0.05	5	<0.5	<0.2
Core Reject Duplicates																			
1374363	Rock	0.057	16	4	0.16	433	0.015	<20	0.57	0.043	0.26	<0.1	0.01	2.7	<0.1	<0.05	2	<0.5	<0.2
DUP 1374363	QC	0.061	17	4	0.17	457	0.015	<20	0.57	0.040	0.26	0.1	0.01	2.9	<0.1	<0.05	3	<0.5	<0.2
Reference Materials																			
STD DS9	Standard	0.089	12	118	0.62	347	0.098	<20	0.96	0.084	0.40	3.0	0.23	2.4	5.6	0.16	5	5.4	5.7
STD DS9	Standard	0.088	13	117	0.62	310	0.107	<20	0.96	0.087	0.40	2.7	0.21	2.4	5.1	0.17	5	5.2	4.5
STD OREAS45EA	Standard	0.029	6	842	0.10	144	0.081	<20	3.04	0.020	0.05	<0.1	0.02	84.3	<0.1	<0.05	13	1.2	<0.2
STD OREAS45EA	Standard	0.026	7	777	0.10	137	0.086	<20	2.96	0.022	0.05	<0.1	<0.01	77.8	<0.1	<0.05	12	1.2	<0.2
STD OXC109	Standard																		
STD OXC109	Standard																		
STD OXI96	Standard																		
STD OXI96	Standard																		
STD OXL93	Standard																		
STD OXL93	Standard																		
STD OXC109 Expected																			
STD OXI96 Expected																			
STD OXL93 Expected																			
STD DS9 Expected		0.0819	13.3	121	0.6165	330	0.1108		0.9577	0.0853	0.395	2.89	0.2	2.5	5.3	0.1615	4.59	5.2	5.02
STD OREAS45EA Expected		0.029	6.57	849	0.095	148	0.0875		3.13	0.02	0.053			78	0.072	0.036	11.7	0.6	0.07
BLK	Blank																		
BLK	Blank																		
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2



www.acmelab.com

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

Client: Pacific Ridge Exploration Ltd.
 Suite 1100, 1111 Melville St,
 Vancouver BC V6E 3V6 CANADA

Project: MPA
Report Date: October 03, 2013

Page: 2 of 2

Part: 1 of 2

QUALITY CONTROL REPORT

WHI13000433.1

		WGHT	G6	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
		0.01	0.005	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
BLK	Blank	0.006																			
BLK	Blank	<0.005																			
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																			
Prep Wash																					
G1-WHI	Prep Blank	<0.005	0.1	3.8	9.9	54	<0.1	5.0	4.2	565	2.05	1.9	1.8	5.2	59	<0.1	0.1	0.1	35	0.47	
G1-WHI	Prep Blank	<0.005	<0.1	3.3	4.2	44	<0.1	2.7	3.7	539	1.93	0.6	0.6	6.3	64	<0.1	<0.1	<0.1	35	0.50	



www.acmelab.com

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

Client: **Pacific Ridge Exploration Ltd.**
 Suite 1100, 1111 Melville St,
 Vancouver BC V6E 3V6 CANADA

Project: MPA
 Report Date: October 03, 2013

Page: 2 of 2

Part: 2 of 2

QUALITY CONTROL REPORT

WHI13000433.1

		1DX P %	1DX La ppm	1DX Cr ppm	1DX Mg %	1DX Ba ppm	1DX Ti %	1DX B ppm	1DX Al %	1DX Na %	1DX K %	1DX W ppm	1DX Hg ppm	1DX Sc ppm	1DX Tl ppm	1DX S %	1DX Ga ppm	1DX Se ppm	1DX Te ppm
BLK	Blank	0.001	1	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
BLK	Blank																		
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	1.1	0.2
	Prep Wash																		
G1-WHI	Prep Blank	0.071	11	8	0.49	179	0.106	<20	0.93	0.104	0.50	<0.1	<0.01	2.3	0.4	0.09	5	<0.5	<0.2
G1-WHI	Prep Blank	0.076	15	6	0.48	170	0.109	<20	0.99	0.111	0.50	<0.1	<0.01	2.1	0.3	<0.05	5	<0.5	<0.2