



BUREAU VERITAS MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Fireweed Zinc Ltd.**
Suite 1020, 800 Pender Street
Vancouver British Columbia V5C 2V6 Canada

Submitted By: Confirmation & Email Distribution List
Receiving Lab: Canada-Whitehorse
Received: August 23, 2019
Report Date: September 11, 2019
Page: 1 of 2

CERTIFICATE OF ANALYSIS

WHI19000429.1

CLIENT JOB INFORMATION

Project: MacMillan Pass
Shipment ID: FWZ19-BV-021
P.O. Number
Number of Samples: 30

SAMPLE DISPOSAL

RTRN-PLP Return After 90 days
RTRN-RJT Return After 60 days

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

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-500	26	Crush, split and pulverize 500g rock to 200 mesh			WHI
SLBHP	4	Sort, label and box pulps			WHI
CRUBW	26	Extra clean rock wash between samples in crusher			WHI
PULSW	26	Extra Wash with Silica between each sample			WHI
AQ270	30	1:1:1 Aqua Regia digestion ICP-ES/ICP-MS analysis	1	Completed	VAN
LF725	30	Li2B4O7/LiBO2 fusion, analysis by XRF		Completed	VAN
TC000	30	Total C/S Analysis by Leco	0.1	Completed	VAN
TC007	30	Graphite and Organic C by Leco After Ignition	0.1	Completed	VAN
TC006	30	Inorganic Carbon	0.2	Completed	VAN
TC009	30	Sulfide and Sulfate	0.1	Completed	VAN
SHP01	30	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS

V205 from LF725 is Qualitative Data only.

Invoice To: Fireweed Zinc Ltd.
Suite 1020, 800 Pender Street
Vancouver British Columbia V5C 2V6
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. Bureau Veritas 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.



BUREAU MINERAL LABORATORIES
VERITAS Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

2 of 2

Part:

1 of 3

CERTIFICATE OF ANALYSIS

WHI19000429.1

	Method	Analyte	Unit	MDL	WGHT	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270			
					Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
					kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
					0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001
3201045	Drill Core	3.51	<0.5	15.4	8.4	114	<0.5	43.1	16.1	285	4.36	6	1.6	20.3	18	<0.5	<0.5	<0.5	15	0.18	0.068			
3201046	Drill Core	3.19	0.7	37.8	61.0	352	<0.5	43.9	30.9	348	6.70	12	1.7	24.4	15	<0.5	0.8	<0.5	16	0.14	0.062			
3201047	Drill Core	3.01	0.6	23.9	13.1	159	<0.5	40.8	22.2	236	4.77	8	1.6	24.1	18	<0.5	0.9	<0.5	14	0.15	0.077			
3201048	Drill Core	2.87	0.6	28.6	24.7	105	<0.5	45.5	27.7	183	4.27	13	1.4	22.5	13	<0.5	1.2	<0.5	14	0.08	0.042			
3201049	Drill Core	3.76	<0.5	37.4	678.9	494	<0.5	44.3	22.5	231	5.48	7	1.2	22.1	13	<0.5	2.2	1.2	16	0.30	0.053			
3201050	Rock	1.26	1.5	47.4	3.2	39	<0.5	4.7	10.4	440	3.02	<5	1.0	4.0	102	<0.5	<0.5	<0.5	104	1.18	0.061			
3201051	Drill Core	4.21	<0.5	34.7	24.3	97	<0.5	47.7	23.4	186	4.46	8	1.3	21.1	15	<0.5	1.1	<0.5	13	0.12	0.053			
3201052	Rock Pulp	0.04	2.7	237.5	17741.6	30112	34.6	25.8	19.5	1827	5.46	85	1.7	10.2	24	94.9	51.3	<0.5	15	5.22	0.054			
3201053	Drill Core	2.99	<0.5	31.6	16.3	156	<0.5	41.4	18.2	451	4.82	130	1.4	20.9	18	<0.5	1.3	<0.5	15	0.11	0.060			
3201054	Drill Core	3.32	<0.5	39.8	56.0	191	<0.5	41.9	18.6	474	5.04	141	1.4	22.1	20	<0.5	1.4	0.6	15	0.14	0.056			
3201092	Drill Core	4.41	3.5	87.7	1037.6	42	2.2	55.6	16.9	2817	7.45	47	1.4	8.3	12	<0.5	4.1	<0.5	33	0.17	0.058			
3201093	Rock Pulp	0.06	2.7	250.0	17570.9	29832	34.8	27.5	20.9	1827	5.41	88	1.7	9.1	24	96.8	52.8	<0.5	17	5.16	0.051			
3201094	Drill Core	3.72	3.8	85.7	455.3	30	1.1	49.4	17.5	1031	3.75	44	1.1	8.0	13	<0.5	3.4	<0.5	29	0.12	0.049			
3201095	Drill Core	2.77	3.6	152.7	289.9	38	1.2	36.8	17.6	1149	3.65	64	1.5	8.1	13	<0.5	2.6	<0.5	24	0.13	0.058			
3201096	Drill Core	3.93	3.4	110.4	570.0	33	1.9	66.6	19.3	2617	7.07	46	1.5	7.3	14	<0.5	3.4	<0.5	29	0.17	0.066			
3201097	Rock	1.15	2.4	56.5	3.2	38	<0.5	4.2	9.4	461	3.04	<5	0.9	3.3	105	<0.5	<0.5	<0.5	108	1.19	0.062			
3201098	Drill Core	1.84	2.9	77.5	113.2	21	0.6	43.2	13.2	1750	4.84	38	1.3	6.9	16	<0.5	2.5	<0.5	25	0.18	0.052			
3201099	Drill Core	1.97	3.3	77.2	100.7	20	<0.5	46.2	14.7	1762	4.92	42	1.2	7.7	17	<0.5	2.4	<0.5	26	0.17	0.048			
3201100	Drill Core	8.43	5.2	87.7	441.4	43	1.3	75.6	17.6	1445	4.95	40	1.5	7.1	36	<0.5	7.7	<0.5	33	0.36	0.063			
3201101	Drill Core	6.20	5.3	68.8	515.9	50	1.3	62.5	19.0	1708	4.52	33	1.1	6.7	15	<0.5	7.8	<0.5	39	0.16	0.065			
3201102	Rock Pulp	0.05	3.0	242.6	17698.0	30095	35.4	28.7	20.3	1874	5.44	89	1.7	8.5	24	100.1	54.6	<0.5	15	5.19	0.053			
3201103	Drill Core	2.12	5.0	104.2	3141.1	26	4.3	63.6	25.3	3862	8.90	36	0.8	5.8	13	<0.5	9.4	<0.5	37	0.18	0.047			
3201104	Drill Core	2.05	5.1	109.0	4065.4	37	5.7	64.7	24.7	3313	7.69	25	0.9	6.0	13	0.6	11.1	<0.5	35	0.17	0.042			
3201105	Drill Core	4.38	4.2	122.1	226.0	19	0.8	57.9	27.3	1837	4.74	59	1.2	8.4	13	<0.5	2.8	<0.5	25	0.13	0.048			
3201106	Rock	1.40	1.7	60.7	3.3	40	<0.5	4.8	10.5	503	3.20	<5	1.0	3.2	118	<0.5	<0.5	<0.5	107	1.26	0.064			
3201107	Drill Core	3.97	3.8	66.7	185.5	22	0.6	50.5	22.1	1590	4.21	43	1.1	8.8	11	<0.5	2.8	<0.5	23	0.13	0.044			
3201108	Drill Core	1.78	16.2	161.5	45.4	65	1.1	58.6	12.8	1139	5.72	35	6.0	7.9	320	<0.5	11.1	<0.5	61	5.06	0.274			
3201109	Drill Core	1.78	15.7	128.0	40.7	55	0.9	56.4	11.5	1083	5.37	28	5.8	7.4	298	<0.5	9.3	<0.5	55	4.92	0.244			
3201110	Drill Core	2.41	39.9	81.1	63.3	58	1.9	57.1	8.7	277	2.48	28	5.7	5.9	68	<0.5	9.2	<0.5	96	2.99	0.178			
3201111	Rock Pulp	0.05	2.7	245.5	17713.4	30106	34.4	25.2	20.8	1758	5.42	86	1.8	8.0	22	95.0	49.8	<0.5	16	5.17	0.050			



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

2 of 2

Part: 2 of 3

CERTIFICATE OF ANALYSIS

WHI19000429.1

	Method	Analyte	Unit	MDL	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	LF725	LF725	LF725	LF725	LF725			
					La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	SiO2	Al2O3	Fe2O3	CaO	MgO
					ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	%	%	%
					0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.01	0.5	0.05	0.5	0.5	0.05	5	2	0.01	0.01	0.01	0.01
3201045	Drill Core	61.1	26.8	0.75	70	0.005	2.43	0.01	0.29	<0.5	0.06	2.9	<0.5	0.46	7	<2	56.39	23.31	6.74	0.38	1.44			
3201046	Drill Core	58.0	30.3	0.94	63	0.002	3.06	<0.01	0.27	<0.5	<0.05	3.6	<0.5	1.57	8	<2	55.68	20.85	10.10	0.21	1.72			
3201047	Drill Core	65.5	28.5	0.77	77	0.002	2.64	0.01	0.37	<0.5	<0.05	3.0	<0.5	0.70	7	<2	55.93	22.90	7.26	0.24	1.48			
3201048	Drill Core	59.5	28.6	0.79	68	0.002	2.44	0.01	0.31	<0.5	<0.05	3.1	<0.5	0.76	6	<2	55.77	24.15	6.60	0.14	1.55			
3201049	Drill Core	55.7	28.7	0.92	72	0.002	2.68	0.01	0.31	<0.5	<0.05	2.9	<0.5	1.45	7	<2	51.67	23.42	8.22	0.45	1.74			
3201050	Rock	7.7	5.3	0.89	185	0.194	2.14	0.29	0.30	<0.5	<0.05	4.1	<0.5	<0.05	5	<2	60.46	16.79	6.34	6.23	2.90			
3201051	Drill Core	60.1	29.6	0.83	71	0.003	2.60	0.01	0.32	<0.5	<0.05	3.6	<0.5	0.75	7	<2	54.66	23.72	6.83	0.19	1.60			
3201052	Rock Pulp	26.5	16.2	2.89	145	0.020	1.06	0.01	0.76	0.8	0.99	2.9	28.1	4.88	<5	<2	43.34	8.58	8.23	7.40	5.37			
3201053	Drill Core	66.0	31.8	1.01	71	0.002	2.79	0.01	0.28	<0.5	<0.05	3.0	<0.5	0.48	7	<2	57.52	21.89	7.39	0.19	1.91			
3201054	Drill Core	65.3	28.9	1.06	85	0.003	2.73	0.01	0.32	<0.5	<0.05	3.1	<0.5	0.51	7	<2	56.45	21.93	7.74	0.23	1.98			
3201092	Drill Core	27.3	11.2	0.33	230	0.002	0.64	<0.01	0.24	<0.5	0.07	4.3	<0.5	0.90	<5	3	64.83	10.56	11.49	0.26	0.75			
3201093	Rock Pulp	27.3	16.0	2.85	147	0.021	1.07	0.01	0.76	0.7	1.08	3.3	27.8	4.83	<5	<2	43.67	8.60	8.30	7.39	5.33			
3201094	Drill Core	33.0	13.6	0.19	267	0.003	0.82	<0.01	0.32	<0.5	0.07	2.7	<0.5	0.89	<5	<2	71.76	11.77	5.96	0.20	0.51			
3201095	Drill Core	34.1	9.2	0.10	239	0.002	0.49	<0.01	0.30	<0.5	<0.05	3.8	<0.5	0.51	<5	<2	71.90	11.64	5.97	0.20	0.39			
3201096	Drill Core	27.4	10.8	0.26	238	0.002	0.59	<0.01	0.29	<0.5	0.05	4.2	<0.5	0.93	<5	3	64.99	10.92	10.70	0.27	0.64			
3201097	Rock	8.2	6.7	0.88	183	0.196	2.13	0.27	0.31	<0.5	<0.05	3.5	<0.5	<0.05	6	<2	60.44	16.77	6.35	6.30	2.81			
3201098	Drill Core	27.2	7.6	0.26	192	0.003	0.39	<0.01	0.24	<0.5	<0.05	3.4	<0.5	0.65	<5	<2	71.17	9.93	7.35	0.27	0.62			
3201099	Drill Core	27.2	10.5	0.25	236	0.002	0.47	<0.01	0.27	<0.5	0.11	3.4	<0.5	0.83	<5	<2	71.08	10.27	7.54	0.28	0.62			
3201100	Drill Core	19.6	8.8	0.32	246	0.003	0.45	<0.01	0.24	<0.5	0.10	3.6	<0.5	1.31	<5	4	69.71	10.16	7.54	0.53	0.75			
3201101	Drill Core	22.5	11.7	0.24	254	0.002	0.56	<0.01	0.30	<0.5	0.07	2.8	<0.5	1.00	<5	4	71.66	10.09	6.96	0.25	0.58			
3201102	Rock Pulp	27.6	15.9	2.87	153	0.020	1.03	0.01	0.75	0.6	1.07	3.6	27.7	4.86	<5	<2	43.46	8.59	8.26	7.36	5.32			
3201103	Drill Core	16.3	9.0	0.39	196	0.002	0.37	<0.01	0.23	<0.5	0.13	4.4	<0.5	1.45	<5	5	63.54	8.69	13.49	0.27	0.81			
3201104	Drill Core	18.0	8.6	0.34	213	0.002	0.36	<0.01	0.25	<0.5	0.07	4.2	<0.5	1.11	<5	3	65.53	8.75	11.53	0.25	0.75			
3201105	Drill Core	35.2	9.5	0.21	234	0.002	0.57	<0.01	0.30	<0.5	<0.05	4.2	<0.5	0.94	<5	<2	68.96	11.94	7.41	0.20	0.55			
3201106	Rock	8.6	6.7	0.91	198	0.205	2.26	0.32	0.35	<0.5	<0.05	4.3	<0.5	<0.05	7	<2	60.32	16.66	6.47	6.20	2.84			
3201107	Drill Core	33.9	9.9	0.18	232	0.002	0.59	<0.01	0.32	<0.5	0.07	3.2	<0.5	0.83	<5	<2	68.49	13.20	6.72	0.20	0.57			
3201108	Drill Core	9.4	8.9	1.73	501	0.005	0.53	<0.01	0.30	<0.5	0.12	3.3	<0.5	3.31	<5	8	48.88	10.12	8.79	7.24	3.36			
3201109	Drill Core	9.4	7.5	1.69	457	0.004	0.47	<0.01	0.30	<0.5	0.17	3.0	<0.5	3.12	<5	8	50.56	10.22	8.58	7.16	3.45			
3201110	Drill Core	17.5	8.2	1.37	526	0.005	0.42	<0.01	0.26	<0.5	0.41	2.7	<0.5	2.24	<5	4	63.09	8.68	3.78	4.35	2.71			
3201111	Rock Pulp	26.2	15.1	2.86	144	0.020	1.06	0.01	0.76	0.6	1.01	3.1	27.8	4.85	<5	<2	43.44	8.60	8.23	7.34	5.32			



BUREAU MINERAL LABORATORIES
VERITAS Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client: **Fireweed Zinc Ltd.**
Suite 1020, 800 Pender Street
Vancouver British Columbia V5C 2V6 Canada

Project: MacMillan Pass
Report Date: September 11, 2019

Page: 2 of 2

Part: 3 of 3

CERTIFICATE OF ANALYSIS

WHI19000429.1

Method Analyte Unit MDL		LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	TC000	TC000	TC005	TC005	TC006	TC008	TC008
		K2O	MnO	TiO2	P2O5	Cr2O3	Ba	Cu	Pb	Zn	LOI	SUM_T	V2O5	TOT/C	TOT/S	C/ORG	C/GRA	CO2	S/S-	SO4
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-5.11	0.01	0.01	0.02	0.02	0.02	0.02	0.08	0.05
3201045	Drill Core	5.25	0.04	0.83	0.16	0.02	0.10	<0.01	<0.01	0.01	4.15	99.48	0.02	0.28	0.40	0.13	0.14	<0.08	0.35	0.14
3201046	Drill Core	4.41	0.05	0.81	0.15	0.01	0.09	<0.01	<0.01	0.03	4.85	99.21	0.01	0.27	1.40	0.18	0.05	0.15	1.28	0.37
3201047	Drill Core	5.20	0.04	0.84	0.17	0.01	0.10	<0.01	<0.01	0.02	4.42	98.83	0.02	0.29	0.61	0.07	0.21	<0.08	0.55	0.17
3201048	Drill Core	5.58	0.03	0.88	0.09	0.01	0.10	<0.01	<0.01	0.01	4.67	99.86	0.02	0.38	0.65	0.21	0.16	<0.08	0.59	0.18
3201049	Drill Core	5.26	0.04	0.85	0.12	0.02	0.11	<0.01	0.05	0.05	5.31	97.60	0.02	0.42	1.32	0.20	0.17	0.18	1.18	0.40
3201050	Rock	1.50	0.14	0.57	0.13	<0.01	0.06	<0.01	<0.01	<0.01	1.13	99.58	0.02	0.04	<0.02	<0.02	<0.02	0.13	<0.05	0.10
3201051	Drill Core	5.42	0.03	0.90	0.14	0.02	0.10	<0.01	<0.01	0.02	4.71	98.60	0.02	0.34	0.68	0.18	0.15	<0.08	0.62	0.18
3201052	Rock Pulp	4.14	0.24	0.30	0.12	<0.01	0.07	0.02	1.79	3.08	15.43	99.21	<0.01	3.46	4.92	0.56	<0.02	10.60	2.77	6.46
3201053	Drill Core	4.67	0.07	0.82	0.14	0.01	0.10	<0.01	<0.01	0.01	4.40	99.38	0.01	0.24	0.44	0.10	0.11	0.11	0.38	0.16
3201054	Drill Core	4.70	0.07	0.82	0.16	0.02	0.08	<0.01	<0.01	0.02	4.94	99.42	0.01	0.39	0.45	0.15	0.10	0.49	0.36	0.27
3201092	Drill Core	2.65	0.37	0.56	0.13	0.02	0.18	<0.01	0.09	<0.01	7.47	99.50	0.04	2.20	0.84	0.77	0.32	4.07	0.51	0.99
3201093	Rock Pulp	4.15	0.24	0.29	0.13	<0.01	0.08	0.02	1.80	3.09	15.53	99.74	<0.01	3.45	4.60	0.69	<0.02	10.11	2.29	6.95
3201094	Drill Core	2.92	0.13	0.65	0.13	0.02	0.19	<0.01	0.03	<0.01	4.86	99.26	0.05	1.35	0.83	0.62	0.38	1.27	0.64	0.55
3201095	Drill Core	3.01	0.15	0.64	0.13	0.02	0.20	<0.01	0.02	<0.01	4.74	99.14	0.04	1.37	0.48	0.70	0.30	1.35	0.31	0.51
3201096	Drill Core	2.80	0.33	0.60	0.16	0.01	0.18	<0.01	0.05	<0.01	7.11	98.87	0.04	2.07	0.86	0.76	0.29	3.74	0.52	1.02
3201097	Rock	1.50	0.13	0.54	0.14	<0.01	0.06	<0.01	<0.01	<0.01	1.02	99.36	0.03	0.03	<0.02	0.03	<0.02	<0.08	<0.05	0.08
3201098	Drill Core	2.61	0.23	0.57	0.11	0.01	0.18	<0.01	0.01	<0.01	5.78	98.95	0.04	1.80	0.59	0.73	0.30	2.83	0.38	0.61
3201099	Drill Core	2.68	0.23	0.57	0.13	0.02	0.18	<0.01	<0.01	<0.01	5.75	99.45	0.04	1.80	0.75	0.75	0.31	2.73	0.51	0.71
3201100	Drill Core	2.64	0.18	0.55	0.13	0.01	0.20	<0.01	0.04	<0.01	6.50	99.04	0.05	2.06	1.24	0.92	0.41	2.69	0.94	0.90
3201101	Drill Core	2.57	0.22	0.56	0.15	0.02	0.19	<0.01	0.05	<0.01	6.11	99.52	0.06	2.13	0.94	0.97	0.49	2.47	0.70	0.73
3201102	Rock Pulp	4.17	0.25	0.29	0.12	0.01	0.07	0.01	1.82	3.09	15.17	99.13	<0.01	3.42	4.82	1.01	<0.02	8.84	2.30	7.56
3201103	Drill Core	2.23	0.49	0.47	0.12	0.02	0.15	<0.01	0.30	<0.01	9.08	99.79	0.05	2.97	1.39	1.02	0.34	5.90	0.89	1.49
3201104	Drill Core	2.25	0.43	0.48	0.11	0.02	0.16	<0.01	0.39	<0.01	8.25	99.02	0.05	2.72	1.06	0.86	0.41	5.30	0.67	1.17
3201105	Drill Core	3.07	0.24	0.66	0.11	0.01	0.21	<0.01	0.02	<0.01	6.15	99.66	0.04	1.26	0.56	0.08	0.44	2.71	0.33	0.68
3201106	Rock	1.48	0.14	0.54	0.13	<0.01	0.07	<0.01	<0.01	<0.01	0.99	99.16	0.03	0.04	<0.02	0.03	<0.02	<0.08	<0.05	0.11
3201107	Drill Core	3.32	0.20	0.71	0.11	0.02	0.23	<0.01	0.01	<0.01	5.91	99.83	0.04	1.69	0.78	0.56	0.47	2.39	0.59	0.56
3201108	Drill Core	2.98	0.15	0.40	0.65	0.01	0.37	<0.01	<0.01	<0.01	13.80	96.85	0.08	4.73	3.26	1.73	0.42	9.42	2.67	1.77
3201109	Drill Core	3.02	0.15	0.42	0.60	0.01	0.38	<0.01	<0.01	<0.01	13.52	98.15	0.08	4.65	3.01	1.57	0.53	9.34	2.46	1.67
3201110	Drill Core	2.57	0.04	0.52	0.44	<0.01	0.46	<0.01	<0.01	<0.01	11.48	98.20	0.15	5.79	2.27	2.28	2.09	5.21	1.94	0.96
3201111	Rock Pulp	4.18	0.24	0.28	0.13	<0.01	0.07	0.01	1.82	3.08	11.39	95.25	<0.01	3.37	4.70	0.48	<0.02	10.55	2.29	7.23



**BUREAU
VERITAS**

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

1 of 2

Part:

1 of 3

QUALITY CONTROL REPORT

WHI19000429.1

	Method Analyte Unit MDL	WGHT	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001
3201100	Drill Core	8.43	5.2	87.7	441.4	43	1.3	75.6	17.6	1445	4.95	40	1.5	7.1	36	<0.5	7.7	<0.5	33	0.36	0.063
Pulp Duplicates																					
3201046	Drill Core	3.19	0.7	37.8	61.0	352	<0.5	43.9	30.9	348	6.70	12	1.7	24.4	15	<0.5	0.8	<0.5	16	0.14	0.062
REP 3201046	QC																				
3201051	Drill Core	4.21	<0.5	34.7	24.3	97	<0.5	47.7	23.4	186	4.46	8	1.3	21.1	15	<0.5	1.1	<0.5	13	0.12	0.053
REP 3201051	QC																				
3201054	Drill Core	3.32	<0.5	39.8	56.0	191	<0.5	41.9	18.6	474	5.04	141	1.4	22.1	20	<0.5	1.4	0.6	15	0.14	0.056
REP 3201054	QC																				
3201092	Drill Core	4.41	3.5	87.7	1037.6	42	2.2	55.6	16.9	2817	7.45	47	1.4	8.3	12	<0.5	4.1	<0.5	33	0.17	0.058
REP 3201092	QC																				
3201103	Drill Core	2.12	5.0	104.2	3141.1	26	4.3	63.6	25.3	3862	8.90	36	0.8	5.8	13	<0.5	9.4	<0.5	37	0.18	0.047
REP 3201103	QC																				
3201108	Drill Core	1.78	16.2	161.5	45.4	65	1.1	58.6	12.8	1139	5.72	35	6.0	7.9	320	<0.5	11.1	<0.5	61	5.06	0.274
REP 3201108	QC																				
3201111	Rock Pulp	0.05	2.7	245.5	17713.4	30106	34.4	25.2	20.8	1758	5.42	86	1.8	8.0	22	95.0	49.8	<0.5	16	5.17	0.050
REP 3201111	QC		2.7	243.5	17668.8	30141	34.4	27.3	20.6	1809	5.43	86	1.7	8.1	23	96.8	52.2	<0.5	17	5.17	0.049
Reference Materials																					
STD COO1	Standard																				
STD COO1	Standard																				
STD GGC-10	Standard																				
STD GGC-10	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS133B(D)	Standard																				
STD OREAS605	Standard		4.6	48285.2	855.2	2133	955.5	1602.0	103.0	87	3.67	1689	1.0	3.4	54	14.1	302.5	19.5	<10	0.18	0.009
STD OREAS72B	Standard																				
STD OREAS927-AR	Standard		1.3	10431.1	214.0	708	3.8	29.5	28.7	1021	7.93	12	1.7	13.6	13	1.0	1.2	65.5	36	0.30	0.050
STD RTS-3A	Standard																				
STD RTS-3A	Standard																				



Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Project: MacMillan Pass
Report Date: September 11, 2019

Page: 1 of 2

Part: 2 of 3

QUALITY CONTROL REPORT

WHI19000429.1

	Method Analyte Unit MDL	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	LF725	LF725	LF725	LF725	LF725
		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Ti	S	Ga	Se	SiO2	Al2O3	Fe2O3	CaO	MgO
		ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	%	%	%
		0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.5	0.05	0.5	0.5	0.05	5	2	0.01	0.01	0.01	0.01	0.01
3201100	Drill Core	19.6	8.8	0.32	246	0.003	0.45	<0.01	0.24	<0.5	0.10	3.6	<0.5	1.31	<5	4	69.71	10.16	7.54	0.53	0.75
Pulp Duplicates																					
3201046	Drill Core	58.0	30.3	0.94	63	0.002	3.06	<0.01	0.27	<0.5	<0.05	3.6	<0.5	1.57	8	<2	55.68	20.85	10.10	0.21	1.72
REP 3201046	QC																55.72	20.92	10.15	0.22	1.73
3201051	Drill Core	60.1	29.6	0.83	71	0.003	2.60	0.01	0.32	<0.5	<0.05	3.6	<0.5	0.75	7	<2	54.66	23.72	6.83	0.19	1.60
REP 3201051	QC																				
3201054	Drill Core	65.3	28.9	1.06	85	0.003	2.73	0.01	0.32	<0.5	<0.05	3.1	<0.5	0.51	7	<2	56.45	21.93	7.74	0.23	1.98
REP 3201054	QC																				
3201092	Drill Core	27.3	11.2	0.33	230	0.002	0.64	<0.01	0.24	<0.5	0.07	4.3	<0.5	0.90	<5	3	64.83	10.56	11.49	0.26	0.75
REP 3201092	QC																64.87	10.56	11.43	0.26	0.76
3201103	Drill Core	16.3	9.0	0.39	196	0.002	0.37	<0.01	0.23	<0.5	0.13	4.4	<0.5	1.45	<5	5	63.54	8.69	13.49	0.27	0.81
REP 3201103	QC																				
3201108	Drill Core	9.4	8.9	1.73	501	0.005	0.53	<0.01	0.30	<0.5	0.12	3.3	<0.5	3.31	<5	8	48.88	10.12	8.79	7.24	3.36
REP 3201108	QC																				
3201111	Rock Pulp	26.2	15.1	2.86	144	0.020	1.06	0.01	0.76	0.6	1.01	3.1	27.8	4.85	<5	<2	43.44	8.60	8.23	7.34	5.32
REP 3201111	QC	27.4	14.5	2.87	150	0.019	1.05	0.01	0.76	0.9	1.03	3.5	27.7	4.85	<5	<2					
Reference Materials																					
STD COO1	Standard																				
STD COO1	Standard																				
STD GGC-10	Standard																				
STD GGC-10	Standard																				
STD GS311-1	Standard																				
STD GS910-4	Standard																				
STD OREAS133B(D)	Standard																34.59	6.89	11.50	5.28	3.82
STD OREAS605	Standard	8.4	28.9	0.03	192	0.012	0.83	0.03	0.15	6.9	1.55	1.4	15.5	7.76	7	76					
STD OREAS72B	Standard																51.01	8.86	9.86	3.99	16.07
STD OREAS927-AR	Standard	28.3	41.7	1.90	50	0.101	3.32	<0.01	0.28	5.4	0.16	4.4	<0.5	1.72	9	13					
STD RTS-3A	Standard																				
STD RTS-3A	Standard																				



**BUREAU
VERITAS**

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

1 of 2

Part:

3 of 3

QUALITY CONTROL REPORT

WHI19000429.1

	Method Analyte Unit MDL	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	LF725	TC000	TC000	TC005	TC005	TC006	TC008	TC008		
		K2O	MnO	TiO2	P2O5	Cr2O3	Ba	Cu	Pb	Zn	LOI	SUM_T	V2O5	TOT/C	TOT/S	C/ORG	C/GRA	CO2	S/S-	SO4		
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-5.11	0.01	0.01	0.02	0.02	0.02	0.02	0.08	0.05	0.05	
3201100	Drill Core	2.64	0.18	0.55	0.13	0.01	0.20	<0.01	0.04	<0.01	6.50	99.04	0.05	2.06	1.24	0.92	0.41	2.69	0.94	0.90		
Pulp Duplicates																						
3201046	Drill Core	4.41	0.05	0.81	0.15	0.01	0.09	<0.01	<0.01	0.03	4.85	99.21	0.01	0.27	1.40	0.18	0.05	0.15	1.28	0.37		
REP 3201046	QC	4.41	0.05	0.81	0.15	0.02	0.08	<0.01	<0.01	0.03	4.85	99.39	0.01									
3201051	Drill Core	5.42	0.03	0.90	0.14	0.02	0.10	<0.01	<0.01	0.02	4.71	98.60	0.02	0.34	0.68	0.18	0.15	<0.08	0.62	0.18		
REP 3201051	QC																				0.14	
3201054	Drill Core	4.70	0.07	0.82	0.16	0.02	0.08	<0.01	<0.01	0.02	4.94	99.42	0.01	0.39	0.45	0.15	0.10	0.49	0.36	0.27		
REP 3201054	QC														0.41	0.45						
3201092	Drill Core	2.65	0.37	0.56	0.13	0.02	0.18	<0.01	0.09	<0.01	7.47	99.50	0.04	2.20	0.84	0.77	0.32	4.07	0.51	0.99		
REP 3201092	QC	2.64	0.37	0.59	0.13	0.01	0.18	<0.01	0.09	<0.01	7.47	99.49	0.04									
3201103	Drill Core	2.23	0.49	0.47	0.12	0.02	0.15	<0.01	0.30	<0.01	9.08	99.79	0.05	2.97	1.39	1.02	0.34	5.90	0.89	1.49		
REP 3201103	QC																	0.35				
3201108	Drill Core	2.98	0.15	0.40	0.65	0.01	0.37	<0.01	<0.01	<0.01	13.80	96.85	0.08	4.73	3.26	1.73	0.42	9.42	2.67	1.77		
REP 3201108	QC																		9.53			
3201111	Rock Pulp	4.18	0.24	0.28	0.13	<0.01	0.07	0.01	1.82	3.08	11.39	95.25	<0.01	3.37	4.70	0.48	<0.02	10.55	2.29	7.23		
REP 3201111	QC																					
Reference Materials																						
STD COO1	Standard																		2.30			
STD COO1	Standard																		2.38			
STD GGC-10	Standard																	5.07				
STD GGC-10	Standard																	4.95				
STD GS311-1	Standard														1.05	2.14						
STD GS910-4	Standard														2.82	8.15						
STD OREAS133B(D)	Standard	3.43	0.16	0.23	0.11	<0.01	0.07	0.06	5.06	11.36	13.03	98.98	<0.01									
STD OREAS605	Standard																					
STD OREAS72B	Standard	1.32	0.14	0.35	0.06	0.15	0.03	0.02	<0.01	<0.01	5.12	98.29	0.01									
STD OREAS927-AR	Standard																					
STD RTS-3A	Standard																				3.47	
STD RTS-3A	Standard																				3.39	



**BUREAU
VERITAS**

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

2 of 2

Part:

1 of 3

QUALITY CONTROL REPORT

WHI19000429.1

		WGHT	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001
STD SY-4(D)	Standard																				
STD OREAS605 Expected			4.75	49800	856	2170	984	1568	96	86	3.75	1674	0.92		49	13.6	307	19	7.8	0.182	0.0105
STD OREAS927-AR Expected			1.06	10715	212	726	4.9	30.9	29.4	1110	8.15	13.5	1.7	12.5	13.1	1.1	1.3	66	34	0.3	0.054
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD RTS-3A Expected																					
STD GGC-10 Expected																					
STD SY-4(D) Expected																					
STD OREAS72B Expected																					
STD OREAS133B(D) Expected																					
STD COO1 Expected																					
BLK	Blank		<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<5	<0.01	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<10	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
SI BLK	Blank																				
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		0.8	3.8	1.2	32	<0.5	1.1	4.0	560	2.00	<5	<0.5	2.1	25	<0.5	<0.5	<0.5	27	0.65	0.041
ROCK-WHI	Prep Blank		0.9	4.6	1.1	31	<0.5	1.3	3.6	613	1.99	<5	0.6	2.1	25	<0.5	<0.5	<0.5	25	0.67	0.040



**BUREAU
VERITAS**

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

2 of 2

Part:

2 of 3

QUALITY CONTROL REPORT

WHI19000429.1

		AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	AQ270	LF725	LF725	LF725	LF725	LF725	
		La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	SiO2	Al2O3	Fe2O3	CaO	MgO
		ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	%	%	%
		0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.5	0.05	0.5	0.5	0.05	5	2	0.01	0.01	0.01	0.01	0.01
STD SY-4(D)	Standard																50.22	20.72	6.25	8.03	0.53
STD OREAS605 Expected		7.5	27.5	0.0289	160	0.01	0.73	0.0328	0.134	7.1	1.7	1.05	15.9	7.86	6.7	79					
STD OREAS927-AR Expected		26.9	41.7	1.94	51.4	0.085	3.25	0.011	0.27	4.9	0.12	4.74	1.77			9.09	15.5				
STD GS311-1 Expected																					
STD GS910-4 Expected																					
STD RTS-3A Expected																					
STD GGC-10 Expected																					
STD SY-4(D) Expected																	49.9	20.69	6.21	8.05	0.54
STD OREAS72B Expected																	51.16	8.97	9.724	3.96	15.933
STD OREAS133B(D) Expected																	33.83	6.91	11.67	5.4	3.73
STD COO1 Expected																					
BLK	Blank	<0.5	<0.5	<0.01	<5	<0.001	<0.01	<0.01	<0.01	<0.5	<0.05	<0.5	<0.5	<0.05	<5	<2					
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
SI BLK	Blank																99.02	0.32	<0.01	0.02	<0.01
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank	7.0	2.4	0.48	72	0.100	0.93	0.09	0.10	<0.5	<0.05	3.4	<0.5	<0.05	<5	<2	70.01	14.06	3.40	2.30	0.96
ROCK-WHI	Prep Blank	7.6	3.1	0.50	72	0.100	0.95	0.09	0.13	<0.5	<0.05	3.5	<0.5	<0.05	<5	<2	70.68	13.91	3.30	2.16	0.95



**BUREAU
VERITAS**

MINERAL LABORATORIES
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada

PHONE (604) 253-3158

Client:

Fireweed Zinc Ltd.

Suite 1020, 800 Pender Street

Vancouver British Columbia V5C 2V6 Canada

Project:

MacMillan Pass

Report Date:

September 11, 2019

Page:

2 of 2

Part:

3 of 3

QUALITY CONTROL REPORT

WHI19000429.1

		LF725 K2O %	LF725 MnO %	LF725 TiO2 %	LF725 P2O5 %	LF725 Cr2O3 %	LF725 Ba %	LF725 Cu %	LF725 Pb %	LF725 Zn %	LF725 LOI %	LF725 SUM_T %	LF725 V2O5 %	TC000 TOT/C %	TC000 TOT/S %	TC005 C/ORG %	TC005 C/GRA %	TC006 CO2 %	TC008 S/S- %	TC008 SO4 %	
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-5.11	0.01	0.01	0.02	0.02	0.02	0.02	0.08	0.05	0.05	
STD SY-4(D)	Standard	1.69	0.11	0.30	0.14	<0.01	0.04	<0.01	<0.01	0.01	4.56	99.80	<0.01								
STD OREAS605 Expected																					
STD OREAS927-AR Expected																					
STD GS311-1 Expected															1.02	2.35					
STD GS910-4 Expected															2.65	8.27					
STD RTS-3A Expected																					
STD GGC-10 Expected																			4.79		
STD SY-4(D) Expected		1.66	0.108	0.287	0.131	0.0345						4.56									
STD OREAS72B Expected		1.313	0.13	0.355	0.061	0.142	0.0335	0.0193				5.12									
STD OREAS133B(D) Expected								0.08	0.032	5.06	11.35										
STD COO1 Expected																			2.37		
BLK	Blank																				
BLK	Blank														<0.02	<0.02					
BLK	Blank																				
BLK	Blank																		<0.02		
SI BLK	Blank	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00	99.36	<0.01								
BLK	Blank																		<0.08		
Prep Wash																					
ROCK-WHI	Prep Blank	1.90	0.09	0.37	0.09	<0.01	0.08	<0.01	<0.01	<0.01	0.99	98.88	<0.01	0.11	<0.02	0.03	<0.02	0.29	<0.05	0.14	
ROCK-WHI	Prep Blank	1.90	0.09	0.35	0.09	<0.01	0.08	<0.01	<0.01	<0.01	1.04	99.27	<0.01	0.11	<0.02	0.02	<0.02	0.32	<0.05	0.16	