



**BUREAU** MINERAL LABORATORIES  
**VERITAS** Canada

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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: Dennis Arne  
Receiving Lab: Canada-Whitehorse  
Received: September 24, 2018  
Report Date: October 18, 2018  
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## CERTIFICATE OF ANALYSIS

WHI18000980.1

### CLIENT JOB INFORMATION

Project: MacMillan Pass  
Shipment ID: FWZ18-BV-022  
P.O. Number  
Number of Samples: 310

### SAMPLE DISPOSAL

RTRN-PLP Return After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

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

CC: Jack Milton  
Gilles Dessureau  
Jill Moore  
Maeve Murphy

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS230	302	Dry at 60C sieve 100g to -230 mesh			WHI
SLBHP	8	Sort, label and box pulps			WHI
AQ250	310	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
SHP01	310	Per sample shipping charges for branch shipments			VAN

### ADDITIONAL COMMENTS

  
KERRY JAY  
Geochem Project Specialist

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.



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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3201651	Soil	9.30	49.98	31.77	190.0	521	49.3	8.7	160	2.82	52.4	3.1	2.4	5.8	29.1	0.42	3.79	0.26	40	0.15	0.145
3201652	Soil	9.97	57.06	33.10	206.7	449	54.4	8.6	168	3.64	82.8	3.2	34.3	6.0	30.4	0.56	4.97	0.33	43	0.16	0.221
3201653	Soil	37.29	248.31	149.11	37.4	2832	23.0	2.7	39	6.48	65.1	12.0	1.9	19.0	159.5	0.18	13.21	0.42	258	0.01	0.218
3201654	Soil	13.73	205.97	68.33	53.2	1869	29.7	3.7	82	4.64	38.0	12.4	2.9	7.1	101.0	0.17	7.83	0.27	104	0.02	0.144
3201655	Soil	3.85	44.38	16.11	39.4	200	10.9	1.8	59	1.22	10.6	0.8	2.7	<0.1	14.4	0.07	1.59	0.19	25	0.02	0.067
3201656	Soil	5.37	82.10	39.95	868.5	4219	882.4	37.8	6736	4.77	25.2	1.1	1.5	1.1	48.0	7.51	2.07	0.14	16	0.50	0.168
3201657	Soil	1.62	22.20	15.32	131.8	745	101.6	2.1	194	1.34	7.2	1.6	2.9	0.3	42.1	0.41	0.88	0.16	12	0.50	0.090
3201658	Soil	5.09	19.19	27.03	77.8	194	18.8	2.0	103	1.11	11.4	0.7	0.8	1.0	29.8	0.09	1.48	0.15	27	0.28	0.054
3201659	Soil	7.16	40.40	127.02	121.0	1707	28.2	3.0	62	2.40	68.8	1.4	19.9	1.2	29.6	0.23	2.45	0.37	39	0.19	0.092
3201660	Soil	7.08	40.12	143.02	125.7	1639	27.5	3.3	63	2.45	76.9	1.4	15.9	1.3	32.3	0.23	2.43	0.36	43	0.20	0.089
3201661	Soil	4.05	29.56	67.21	104.9	1698	22.6	4.6	81	1.53	104.0	1.3	4.5	0.3	28.9	0.26	1.62	0.24	26	0.27	0.097
3201662	Soil	0.77	8.07	4.51	12.4	184	4.8	2.3	175	0.33	2.5	0.4	<0.2	<0.1	33.5	0.15	0.21	0.05	6	0.38	0.070
3201663	Soil	4.38	66.13	39.20	184.4	546	44.1	26.5	263	2.01	54.1	3.1	1.5	0.9	36.8	1.90	1.95	0.41	23	0.27	0.141
3201664	Soil	1.25	15.63	10.55	36.1	146	9.5	3.1	57	0.49	18.8	1.7	0.9	0.1	16.1	0.14	0.53	0.09	7	0.15	0.043
3201665	Soil	0.75	25.36	13.95	30.7	385	8.0	1.5	37	0.49	13.5	3.5	0.5	0.3	31.5	0.30	0.41	0.13	8	0.43	0.066
3201666	Soil	4.23	26.38	44.11	93.2	164	16.8	7.0	273	1.31	34.7	2.4	0.6	0.9	27.2	0.33	0.97	0.31	24	0.18	0.068
3201667	Soil	5.92	30.43	44.88	100.6	273	18.6	3.3	79	1.67	24.6	1.5	1.6	1.3	18.5	0.17	1.40	0.21	29	0.14	0.045
3201668	Soil	5.30	28.67	43.97	89.9	193	17.3	4.1	98	1.55	21.8	2.3	1.6	0.5	23.5	0.13	1.03	0.26	32	0.17	0.059
3201669	Soil	5.68	33.33	56.96	193.2	438	33.9	8.6	222	2.44	24.1	3.2	2.0	1.7	37.2	0.21	1.19	0.34	36	0.26	0.081
3201670	Soil	7.07	120.68	58.38	187.1	1035	79.9	16.3	313	3.72	107.6	3.3	23.7	9.0	119.7	0.64	4.24	0.53	30	0.02	0.127
3201671	Soil	52.85	76.33	30.71	871.9	734	291.2	35.7	637	4.42	84.5	6.2	4.9	0.4	56.2	3.85	11.10	0.35	112	0.11	0.185
3201672	Soil	10.40	67.39	23.56	105.1	170	29.3	4.9	109	2.45	25.6	1.1	1.7	0.1	20.7	0.28	1.63	0.33	62	<0.01	0.080
3201673	Soil	5.82	81.76	34.81	199.6	358	42.4	7.3	136	3.02	35.8	1.7	3.2	0.4	32.1	0.48	3.41	0.46	29	0.01	0.120
3201674	Soil	11.11	67.82	31.68	152.6	341	33.8	4.8	85	2.67	22.9	1.2	3.1	1.6	14.8	0.23	3.59	0.30	48	<0.01	0.058
3201675	Soil	6.86	54.32	147.44	329.1	2495	35.1	8.0	255	4.01	27.3	1.5	10.9	0.4	57.0	0.92	6.00	0.69	32	0.19	0.249
3201676	Soil	2.88	43.24	61.37	146.5	2387	34.1	6.8	192	2.28	15.9	1.7	9.4	0.9	56.9	0.69	1.92	0.47	20	0.35	0.224
3201677	Soil	4.25	31.54	33.07	108.3	278	20.4	9.1	258	1.37	13.3	1.1	<0.2	0.2	29.7	1.80	1.18	0.29	28	0.23	0.091
3201678	Soil	0.25	3.63	1.70	6.8	67	1.3	0.5	9	0.14	0.5	0.1	<0.2	<0.1	10.4	0.15	0.14	<0.02	3	0.08	0.020
3201679	Soil	3.45	45.04	25.40	139.4	368	33.0	11.1	111	1.61	25.4	2.0	<0.2	0.7	34.9	0.45	1.17	0.28	25	0.35	0.072
3201680	Rock Pulp	12.28	161.89	279.72	195.1	104	74.6	46.6	261	1.63	9.5	0.5	36.3	3.0	35.4	0.51	0.16	0.15	24	0.56	0.051



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**Project:** MacMillan Pass

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02
3201651	Soil	20.8	17.0	0.20	191.5	0.019	<20	1.13	0.004	0.10	0.7	2.5	0.42	0.03	231	3.4	0.07
3201652	Soil	19.2	17.0	0.17	149.6	0.015	<20	1.00	0.005	0.08	0.8	2.3	0.41	0.02	178	3.0	0.10
3201653	Soil	13.3	42.8	0.04	568.1	0.006	<20	0.81	0.003	0.12	<0.1	6.1	0.53	0.19	428	24.5	0.33
3201654	Soil	11.6	19.6	0.05	181.9	0.007	<20	0.88	0.001	0.07	<0.1	4.1	0.30	0.10	97	11.0	0.21
3201655	Soil	10.9	4.4	<0.01	34.2	0.006	<20	0.36	0.014	0.04	<0.1	0.2	0.07	0.03	34	1.2	0.06
3201656	Soil	8.7	5.2	0.05	74.3	0.003	<20	0.74	0.003	0.06	<0.1	0.6	0.14	0.08	62	6.9	0.07
3201657	Soil	8.6	4.8	0.05	35.2	0.006	<20	0.55	0.010	0.04	<0.1	0.6	0.06	0.08	64	1.9	0.03
3201658	Soil	13.2	5.0	0.03	87.0	0.004	<20	0.38	0.006	0.04	<0.1	0.7	0.11	0.04	21	1.1	0.03
3201659	Soil	17.9	11.7	0.05	190.9	0.002	<20	0.68	0.001	0.11	<0.1	1.6	0.21	0.03	190	2.0	0.14
3201660	Soil	20.0	13.5	0.05	209.4	0.003	<20	0.73	0.002	0.13	<0.1	1.4	0.24	0.04	185	2.0	0.12
3201661	Soil	10.2	8.9	0.06	156.7	0.006	<20	0.85	0.014	0.08	<0.1	0.8	0.13	0.06	89	1.5	0.06
3201662	Soil	2.9	2.6	0.05	44.9	0.009	<20	0.36	0.034	0.03	<0.1	0.3	0.03	0.04	24	0.6	<0.02
3201663	Soil	13.7	12.6	0.08	183.3	0.005	<20	1.04	0.009	0.08	<0.1	1.0	0.10	0.05	53	1.0	0.05
3201664	Soil	3.8	5.7	0.03	50.1	0.006	<20	0.30	0.023	0.03	<0.1	0.4	<0.02	0.03	17	0.3	<0.02
3201665	Soil	3.9	4.2	0.06	85.6	0.006	<20	0.45	0.030	0.04	<0.1	0.5	0.05	0.06	57	1.1	<0.02
3201666	Soil	17.0	9.8	0.09	165.6	0.007	<20	0.67	0.011	0.05	<0.1	0.8	0.14	0.03	32	1.0	0.04
3201667	Soil	17.6	8.8	0.09	213.0	0.004	<20	0.67	0.008	0.07	<0.1	0.9	0.17	0.02	42	1.5	0.05
3201668	Soil	11.8	10.5	0.09	249.0	0.006	<20	0.77	0.012	0.07	0.5	0.8	0.18	0.03	33	1.2	0.05
3201669	Soil	17.3	15.9	0.28	221.2	0.010	<20	1.27	0.011	0.09	0.1	1.5	0.20	0.03	41	1.3	0.05
3201670	Soil	27.9	8.5	0.04	135.0	0.004	<20	0.60	0.004	0.08	<0.1	3.9	0.26	0.05	21	3.8	0.22
3201671	Soil	16.9	14.9	0.03	277.5	0.002	<20	0.72	0.008	0.06	0.2	0.5	0.60	0.05	116	6.9	0.20
3201672	Soil	32.9	9.0	0.02	89.6	0.002	<20	0.45	0.001	0.06	<0.1	0.4	0.20	<0.02	12	1.6	0.09
3201673	Soil	25.3	8.5	0.02	98.8	0.003	<20	0.76	0.006	0.05	<0.1	0.8	0.14	0.05	31	2.7	0.17
3201674	Soil	38.7	8.1	0.02	69.2	0.006	<20	0.40	0.002	0.04	<0.1	0.9	0.12	0.02	17	3.6	0.13
3201675	Soil	15.9	13.8	0.09	132.1	0.006	<20	0.99	0.003	0.08	<0.1	1.0	0.15	0.07	296	4.5	0.20
3201676	Soil	12.7	10.8	0.08	127.4	0.005	<20	1.02	0.008	0.07	<0.1	1.3	0.16	0.09	186	3.1	0.04
3201677	Soil	13.0	10.1	0.10	113.8	0.006	<20	0.59	0.009	0.06	<0.1	0.6	0.13	0.03	24	1.0	0.04
3201678	Soil	1.1	0.8	0.01	16.1	0.005	<20	0.12	0.037	0.03	<0.1	0.1	<0.02	<0.02	16	<0.1	<0.02
3201679	Soil	13.9	10.7	0.17	154.0	0.007	<20	0.94	0.010	0.07	0.1	1.1	0.14	0.04	49	1.7	0.06
3201680	Rock Pulp	27.9	33.2	0.49	62.0	0.078	<20	0.84	0.088	0.12	<0.1	3.3	0.08	0.04	13	<0.1	<0.02



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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3201681	Soil	9.60	34.01	39.49	201.7	141	37.4	8.5	163	2.30	23.8	1.7	<0.2	5.4	19.4	0.40	2.18	0.35	42	0.17	0.070
3201682	Soil	8.14	29.17	37.49	224.6	237	38.3	8.3	154	2.30	23.6	1.6	1.3	2.5	18.0	0.40	1.63	0.32	48	0.12	0.053
3201683	Soil	6.87	28.08	54.18	208.5	375	31.3	34.0	618	2.12	17.8	2.2	1.6	2.1	27.1	0.47	1.39	0.28	43	0.25	0.089
3201684	Soil	5.84	37.12	64.04	251.4	795	40.4	16.5	365	2.12	18.7	3.9	2.1	1.9	36.4	0.83	1.65	0.28	42	0.50	0.085
3201685	Soil	5.09	34.79	63.30	286.4	607	33.2	12.0	250	2.09	17.6	3.0	1.1	2.3	36.3	0.61	1.39	0.27	39	0.35	0.082
3201686	Soil	4.47	31.13	59.11	291.7	319	32.6	7.3	246	2.10	17.1	2.6	1.9	2.9	26.9	0.43	1.25	0.25	38	0.30	0.073
3201687	Soil	4.29	31.75	60.81	299.3	283	39.2	8.1	182	2.10	18.3	2.7	3.5	3.4	28.0	0.51	1.41	0.33	47	0.28	0.097
3201688	Soil	2.25	15.94	33.42	61.7	628	12.9	4.0	159	1.07	9.4	1.9	3.3	0.7	15.9	0.17	0.72	0.19	25	0.18	0.053
3201689	Soil	6.66	34.32	56.49	205.6	240	33.8	6.8	311	2.63	26.3	3.1	3.9	4.3	18.4	0.49	1.28	0.31	58	0.16	0.081
3201690	Soil	6.46	41.51	63.53	195.2	578	36.3	7.1	334	2.58	26.4	3.6	4.8	3.1	26.2	0.71	1.49	0.33	58	0.31	0.093
3201691	Soil	5.46	46.69	49.87	212.1	568	44.3	6.6	322	2.22	21.7	3.0	5.3	2.4	41.1	1.00	1.86	0.29	50	0.69	0.097
3201692	Soil	8.33	44.42	58.83	173.9	663	33.4	6.1	192	3.49	43.1	3.0	5.2	4.0	24.3	0.64	1.99	0.30	55	0.25	0.107
3201693	Soil	1.63	22.58	11.88	36.1	124	28.1	4.9	41	1.02	14.9	0.3	0.6	<0.1	1.9	0.04	1.80	0.27	9	<0.01	0.047
3201694	Soil	6.13	73.48	71.40	103.8	126	57.4	19.6	609	7.89	18.8	1.7	1.3	2.3	4.5	0.39	1.96	0.21	12	0.06	0.058
3201695	Soil	3.19	7.95	5.52	37.6	51	6.3	1.9	53	0.75	3.8	0.4	0.6	<0.1	11.2	0.23	0.52	0.07	8	0.16	0.051
3201696	Soil	0.26	6.71	2.30	5.1	120	2.1	0.7	20	0.27	2.2	0.2	0.3	<0.1	7.3	0.01	0.13	0.05	6	0.08	0.042
3201697	Soil	4.66	44.86	22.67	74.4	223	21.2	3.3	48	1.40	29.1	1.0	1.2	<0.1	20.8	0.29	1.52	0.21	29	0.02	0.078
3201698	Soil	6.08	70.07	44.77	204.5	1521	48.2	3.6	109	2.20	133.2	16.2	8.6	1.2	37.4	0.88	1.82	0.26	42	0.23	0.154
3201699	Soil	7.09	103.43	39.52	320.1	769	72.6	12.2	231	3.69	75.2	11.2	6.4	0.4	63.5	2.00	3.88	0.32	35	0.53	0.226
3201700	Soil	1.50	12.11	15.32	75.6	250	11.2	1.2	29	0.80	14.2	1.2	1.8	<0.1	25.3	1.32	0.96	0.13	11	0.21	0.086
3201701	Soil	3.83	62.15	57.86	163.3	1505	24.3	7.2	99	6.11	556.8	0.9	6.3	9.7	25.4	0.10	7.12	0.67	37	<0.01	0.102
3201702	Soil	3.57	79.61	49.91	92.6	1397	23.3	4.4	75	8.04	839.2	1.2	5.6	14.4	66.4	0.11	10.20	6.47	22	<0.01	0.165
3201703	Soil	15.85	148.89	97.03	323.8	2582	64.5	14.1	213	9.75	2553.6	1.4	8.7	15.3	88.5	0.36	21.54	5.78	48	<0.01	0.176
3201704	Soil	11.54	83.27	90.89	140.3	2731	27.7	6.4	117	5.87	1115.1	1.0	9.5	10.7	114.7	0.18	17.72	5.37	35	0.01	0.139
3201705	Soil	11.01	129.45	80.62	180.7	2933	54.0	9.4	167	7.10	993.6	2.1	8.1	9.8	103.2	0.25	16.30	5.94	64	0.02	0.194
3201706	Soil	11.27	116.69	90.03	133.4	4875	35.7	6.2	116	5.17	497.0	3.2	11.7	7.4	326.7	0.46	16.79	11.82	143	0.08	0.269
3201707	Soil	15.25	95.42	56.51	231.6	1622	58.9	7.4	263	5.56	206.5	3.0	3.6	3.6	141.4	0.65	16.16	1.79	75	0.10	0.349
3201708	Soil	19.83	104.88	60.59	380.6	3362	83.8	8.6	338	5.87	204.4	2.9	2.7	5.5	154.1	2.77	26.07	1.53	124	0.15	0.329
3201709	Soil	10.62	129.72	48.35	281.7	1128	83.0	14.9	544	4.62	137.2	2.6	3.8	7.1	58.5	1.73	8.68	1.00	107	0.10	0.164
3201710	Soil	50.96	108.88	64.43	276.4	2009	69.4	9.4	274	4.27	222.8	5.7	3.2	5.1	78.4	0.99	21.81	0.78	288	0.09	0.211



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**Project:** MacMillan Pass

**Report Date:** October 18, 2018

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# CERTIFICATE OF ANALYSIS

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3201681	Soil	42.3	16.7	0.26	106.4	0.011	<20	0.86	0.006	0.06	0.1	1.6	0.16	0.02	15	1.1	0.05	2.9
3201682	Soil	21.2	14.3	0.25	118.5	0.010	<20	0.97	0.006	0.09	0.1	1.5	0.24	0.02	42	1.0	0.04	3.2
3201683	Soil	20.1	15.3	0.21	234.2	0.008	<20	1.03	0.009	0.10	0.1	1.6	0.26	0.03	72	1.6	0.06	3.2
3201684	Soil	19.5	15.3	0.23	322.4	0.007	<20	1.14	0.010	0.13	0.1	2.1	0.26	0.05	123	2.7	0.03	3.1
3201685	Soil	19.9	16.0	0.22	422.5	0.007	<20	1.15	0.008	0.12	<0.1	1.9	0.24	0.03	113	1.9	0.03	3.5
3201686	Soil	20.5	14.0	0.19	357.3	0.007	<20	1.12	0.006	0.10	<0.1	1.8	0.21	0.03	82	1.1	0.03	3.0
3201687	Soil	22.4	19.6	0.24	430.4	0.009	<20	1.26	0.009	0.16	<0.1	2.1	0.27	0.04	113	1.6	0.05	3.5
3201688	Soil	7.3	10.1	0.08	254.9	0.009	<20	0.65	0.029	0.08	<0.1	1.0	0.17	0.03	95	1.2	0.02	2.1
3201689	Soil	28.6	18.8	0.20	424.3	0.007	<20	1.10	0.004	0.13	<0.1	2.4	0.27	<0.02	113	1.2	0.06	3.1
3201690	Soil	22.9	20.3	0.20	460.0	0.009	<20	1.13	0.008	0.13	<0.1	2.4	0.29	0.03	140	1.6	0.08	3.5
3201691	Soil	16.4	16.1	0.20	477.9	0.007	<20	0.99	0.007	0.14	0.2	2.0	0.27	0.05	112	2.1	0.07	2.7
3201692	Soil	23.1	17.0	0.17	403.6	0.007	<20	1.01	0.005	0.12	<0.1	2.3	0.27	0.02	119	1.6	0.06	2.7
3201693	Soil	8.8	4.1	<0.01	31.8	0.002	<20	0.19	0.005	0.04	<0.1	0.3	0.06	<0.02	19	0.6	0.07	1.3
3201694	Soil	19.7	6.2	0.05	89.8	0.003	<20	0.34	<0.001	0.04	<0.1	3.0	0.33	<0.02	88	1.1	<0.02	0.9
3201695	Soil	4.2	1.9	0.02	48.5	0.012	<20	0.69	0.029	0.03	<0.1	0.5	0.05	0.02	12	0.3	<0.02	1.6
3201696	Soil	1.8	2.8	0.02	17.0	0.017	<20	0.61	0.033	0.03	<0.1	0.4	0.03	<0.02	16	0.2	<0.02	1.4
3201697	Soil	11.9	8.6	0.02	74.9	0.004	<20	0.43	0.019	0.07	<0.1	0.3	0.10	0.03	13	0.9	0.06	2.4
3201698	Soil	18.6	14.8	0.05	207.5	0.003	<20	0.86	0.004	0.12	<0.1	1.2	0.24	0.06	116	2.5	0.07	2.4
3201699	Soil	12.8	12.2	0.06	176.0	0.005	<20	0.92	0.027	0.13	<0.1	0.8	0.17	0.11	37	3.9	0.10	2.7
3201700	Soil	6.6	5.7	0.03	62.4	0.006	<20	0.35	0.025	0.05	<0.1	0.3	0.06	0.06	17	1.5	0.02	1.7
3201701	Soil	35.4	15.0	0.03	871.4	0.002	<20	0.54	0.002	0.17	<0.1	4.6	0.35	0.09	72	6.9	0.19	2.6
3201702	Soil	29.4	9.3	0.05	186.2	0.004	<20	0.78	0.006	0.31	<0.1	5.3	0.64	0.45	40	7.5	0.21	3.9
3201703	Soil	13.6	17.7	0.03	2146.3	0.003	<20	0.66	0.002	0.23	0.3	9.5	0.65	0.34	74	22.4	0.33	2.6
3201704	Soil	17.8	15.3	0.06	1483.2	0.006	<20	0.70	0.009	0.36	0.2	7.1	0.94	0.55	66	13.0	0.30	3.5
3201705	Soil	20.9	21.8	0.11	1747.3	0.009	<20	1.14	0.013	0.31	0.3	8.3	0.93	0.49	45	11.6	0.25	4.8
3201706	Soil	21.8	36.3	0.29	1937.9	0.040	<20	1.48	0.013	0.31	0.6	10.1	0.89	0.42	113	11.5	0.24	5.1
3201707	Soil	19.1	44.9	0.22	2353.1	0.028	<20	1.73	0.017	0.32	0.4	4.3	1.53	0.48	107	9.6	0.14	5.3
3201708	Soil	18.2	52.0	0.35	492.1	0.032	<20	2.48	0.018	0.32	0.5	7.1	1.61	0.33	204	10.4	0.17	5.5
3201709	Soil	18.0	43.2	0.58	2505.6	0.070	<20	2.34	0.011	0.25	0.3	6.9	1.49	0.23	161	4.9	0.11	5.7
3201710	Soil	19.0	61.4	0.41	3422.5	0.053	<20	2.17	0.010	0.23	0.9	6.5	2.08	0.21	586	22.5	0.41	5.4



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Method Analyte Unit MDL		AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3201711	Soil	27.01	328.44	192.43	2608.9	2946	308.6	14.0	1800	2.91	121.4	12.5	3.0	1.8	150.4	41.39	25.40	0.88	377	0.35	0.237
3201712	Soil	15.49	383.76	110.99	1482.7	20157	45.5	2.4	830	12.11	1123.3	1.7	22.9	0.9	101.1	15.15	505.42	161.26	118	0.05	0.059
3201713	Soil	3.75	25.68	25.38	96.5	499	17.3	2.3	64	1.31	16.9	0.9	18.4	0.7	12.0	0.37	1.23	0.27	29	0.04	0.063
3201714	Soil	8.45	48.26	45.66	274.1	498	42.0	8.4	294	3.02	33.3	1.8	4.1	2.8	25.4	0.98	1.63	0.38	50	0.15	0.090
3201715	Soil	2.85	24.46	29.74	51.1	276	9.4	1.6	42	0.96	14.5	1.4	3.3	0.3	25.0	0.38	0.56	0.24	32	0.28	0.097
3201716	Soil	3.13	68.52	47.83	230.5	1786	80.1	5.5	119	1.96	32.8	7.4	9.1	1.4	56.2	1.42	1.46	0.34	39	0.66	0.141
3201717	Soil	2.29	31.54	31.19	111.5	661	36.4	3.6	176	1.38	27.4	3.6	4.8	0.7	34.4	0.69	0.85	0.22	32	0.32	0.108
3201718	Soil	2.23	47.71	32.18	130.8	827	26.8	6.4	125	1.21	16.4	5.7	5.2	0.5	42.6	0.84	1.03	0.18	27	0.56	0.107
3201719	Soil	3.61	21.07	38.14	89.0	330	13.3	3.4	125	1.56	21.3	2.4	3.5	1.0	22.0	0.42	0.77	0.22	38	0.22	0.079
3201720	Rock Pulp	0.69	25.15	2.11	21.1	26	18.8	6.2	269	1.48	1.0	0.4	2.4	2.8	32.1	0.03	0.05	0.03	23	0.64	0.053
3201721	Soil	7.57	15.23	14.19	68.9	67	16.5	2.0	69	1.15	17.9	0.7	2.6	0.6	10.0	0.10	1.20	0.17	37	0.08	0.032
3201722	Soil	2.16	32.80	23.23	23.4	204	7.9	1.6	28	1.13	4.6	0.7	2.5	<0.1	5.1	0.22	0.59	0.22	28	0.02	0.061
3201723	Soil	4.63	25.03	36.30	64.5	363	12.1	3.0	78	4.53	16.8	0.9	1.3	3.3	6.6	0.09	1.45	0.45	43	0.01	0.098
3201724	Soil	3.03	19.71	21.47	49.4	280	10.7	2.4	45	1.17	8.9	1.0	1.2	0.4	8.4	0.19	1.02	0.17	19	0.03	0.046
3201725	Soil	5.31	53.95	50.29	217.4	358	46.0	19.3	222	2.79	19.9	3.4	1.6	2.4	27.0	0.42	1.99	0.35	37	0.31	0.100
3201726	Soil	7.89	40.96	45.68	194.0	372	39.7	6.3	174	2.77	25.0	2.1	1.8	6.0	14.3	0.66	2.15	0.30	42	0.11	0.096
3201727	Soil	6.72	34.80	43.77	216.2	416	43.1	14.4	273	2.66	22.1	2.1	1.7	3.2	18.6	0.66	2.13	0.29	40	0.21	0.096
3201728	Soil	7.19	41.47	45.90	282.4	617	57.7	25.7	655	2.86	22.3	2.5	2.2	3.1	24.7	1.53	2.02	0.32	42	0.30	0.100
3201729	Soil	7.23	37.70	41.08	216.7	706	45.5	15.5	472	2.87	19.6	3.0	2.4	2.5	20.9	0.92	2.21	0.27	32	0.26	0.097
3201730	Soil	6.35	30.40	35.90	222.9	483	39.4	11.8	360	2.57	19.0	2.0	2.2	2.0	18.7	0.57	1.85	0.26	33	0.22	0.091
3201731	Soil	6.41	31.17	37.41	241.7	463	40.0	12.9	348	2.74	22.1	2.2	2.0	2.2	16.9	0.38	1.74	0.28	38	0.19	0.089
3201732	Soil	9.72	36.52	30.14	330.4	859	59.2	12.2	1794	4.13	28.4	3.4	3.1	4.3	24.6	1.17	2.14	0.31	37	0.40	0.118
3201733	Soil	8.14	27.85	36.89	174.5	237	25.7	4.7	180	3.62	29.3	1.3	1.3	0.7	9.2	0.98	1.97	0.32	38	0.03	0.092
3201734	Soil	24.80	85.28	85.31	492.0	1492	56.3	8.4	70	2.56	89.1	11.9	0.7	6.7	20.0	2.17	13.39	0.32	57	0.22	0.101
3201735	Soil	10.06	50.88	62.15	139.9	135	37.3	12.9	295	5.04	29.4	1.8	1.9	2.0	5.0	0.42	3.26	1.88	34	0.02	0.094
3201736	Soil	0.99	5.44	2.94	12.1	17	3.9	0.9	23	0.55	6.0	0.2	<0.2	0.8	3.4	0.03	0.32	0.06	11	0.01	0.020
3201737	Soil	0.17	4.62	4.67	17.2	46	2.5	0.6	47	0.25	0.9	0.3	<0.2	<0.1	11.7	0.28	0.11	0.04	4	0.28	0.029
3201738	Soil	5.73	83.14	29.98	108.5	501	28.4	4.2	64	2.27	37.2	1.1	2.1	0.2	20.6	0.18	2.28	0.22	32	<0.01	0.086
3201739	Soil	5.99	87.27	32.52	108.1	476	29.8	4.3	79	2.46	38.0	1.2	7.5	0.7	27.0	0.19	2.42	0.22	31	<0.01	0.082
3201740	Soil	9.37	79.48	32.75	160.0	612	39.0	5.0	120	2.60	29.8	1.6	18.9	1.4	25.0	0.35	2.82	0.24	36	<0.01	0.071



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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3201711	Soil	13.9	69.4	0.34	8449.3	0.047	<20	2.16	0.008	0.20	0.7	5.4	2.00	0.10	334	9.5	0.23	3.7
3201712	Soil	7.0	13.0	0.05	5960.4	0.019	<20	0.49	0.003	0.03	0.4	1.9	0.49	0.11	1382	15.8	0.19	2.8
3201713	Soil	15.0	10.8	0.04	185.4	0.005	<20	0.48	0.010	0.08	<0.1	0.7	0.13	0.03	54	0.8	0.04	2.0
3201714	Soil	27.8	17.7	0.12	567.7	0.004	<20	0.97	0.003	0.12	<0.1	1.9	0.19	0.04	59	1.5	0.06	3.2
3201715	Soil	17.3	11.1	0.06	202.2	0.003	<20	0.63	0.007	0.10	<0.1	0.5	0.18	0.04	54	0.9	0.04	2.7
3201716	Soil	12.9	16.5	0.11	401.0	0.005	<20	1.10	0.010	0.18	<0.1	1.9	0.25	0.09	185	3.9	0.06	2.8
3201717	Soil	13.0	10.6	0.08	235.9	0.006	<20	0.85	0.014	0.10	<0.1	1.1	0.17	0.05	72	1.9	0.04	2.6
3201718	Soil	8.0	9.5	0.09	272.3	0.007	<20	0.82	0.029	0.10	<0.1	1.0	0.15	0.06	98	1.9	0.03	2.2
3201719	Soil	14.2	10.9	0.08	215.3	0.005	<20	0.67	0.012	0.10	<0.1	1.1	0.17	0.03	51	0.9	0.06	2.4
3201720	Rock Pulp	16.4	29.5	0.47	57.7	0.079	<20	0.79	0.082	0.11	0.1	3.1	0.07	<0.02	8	<0.1	<0.02	2.9
3201721	Soil	22.7	6.3	0.03	81.4	0.010	<20	0.35	0.009	0.05	0.1	0.5	0.12	<0.02	13	0.7	0.05	3.2
3201722	Soil	17.7	9.2	0.02	56.7	0.005	<20	0.72	0.014	0.03	<0.1	0.2	0.06	<0.02	30	<0.1	0.02	4.1
3201723	Soil	21.3	16.1	0.06	69.2	0.017	<20	0.72	0.007	0.04	0.2	0.9	0.08	0.03	28	0.6	0.04	8.1
3201724	Soil	9.1	9.1	0.11	91.4	0.007	<20	0.56	0.010	0.06	<0.1	0.6	0.12	0.03	46	0.5	0.04	2.3
3201725	Soil	18.5	20.9	0.31	250.0	0.017	<20	1.33	0.007	0.14	0.2	2.2	0.29	0.03	129	2.6	0.07	3.7
3201726	Soil	21.6	16.9	0.25	214.8	0.017	<20	1.13	0.006	0.12	0.2	2.4	0.30	0.02	91	1.4	0.08	3.4
3201727	Soil	19.7	18.0	0.28	253.5	0.017	<20	1.16	0.006	0.13	0.4	2.1	0.31	0.02	117	1.7	0.06	3.3
3201728	Soil	18.3	18.5	0.30	329.7	0.016	<20	1.29	0.006	0.14	0.2	2.4	0.35	0.03	118	2.2	0.07	3.4
3201729	Soil	15.7	16.0	0.23	291.2	0.012	<20	1.02	0.005	0.10	0.2	2.4	0.33	0.03	139	2.0	0.06	2.9
3201730	Soil	15.6	15.6	0.25	255.9	0.014	<20	1.07	0.004	0.09	0.2	1.9	0.29	0.02	99	1.5	0.06	3.4
3201731	Soil	19.3	18.1	0.29	294.5	0.014	<20	1.35	0.004	0.10	0.2	2.0	0.32	0.02	107	1.8	0.06	3.7
3201732	Soil	15.7	18.8	0.31	293.4	0.020	<20	1.10	0.003	0.10	0.1	2.9	0.28	0.03	162	1.3	0.07	3.3
3201733	Soil	17.2	15.7	0.12	146.4	0.010	<20	0.97	0.001	0.07	0.2	1.0	0.23	0.02	41	1.2	0.07	4.8
3201734	Soil	18.0	18.9	0.14	243.3	0.012	<20	0.67	0.001	0.13	<0.1	4.5	1.04	0.06	316	10.5	0.09	2.4
3201735	Soil	21.2	10.8	0.11	51.2	0.014	<20	0.73	0.003	0.06	0.2	1.3	0.27	0.03	33	0.6	0.11	5.0
3201736	Soil	16.0	3.1	0.01	27.5	0.006	<20	0.37	0.013	0.03	<0.1	0.4	0.07	<0.02	12	<0.1	<0.02	2.1
3201737	Soil	2.0	1.2	0.05	41.6	0.013	<20	0.56	0.036	0.02	<0.1	0.4	0.03	0.02	16	<0.1	<0.02	1.6
3201738	Soil	20.7	6.8	<0.01	59.1	0.002	<20	0.40	<0.001	0.04	<0.1	0.3	0.08	0.03	35	2.3	0.08	1.7
3201739	Soil	25.4	6.5	0.01	72.6	0.002	<20	0.34	<0.001	0.04	<0.1	0.7	0.09	0.02	23	2.6	0.11	1.2
3201740	Soil	22.4	10.2	0.04	107.3	0.002	<20	0.42	<0.001	0.07	<0.1	1.2	0.15	0.03	66	3.5	0.11	1.3



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Project:

MacMillan Pass

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3201741	Soil	9.94	79.58	29.91	165.0	609	40.4	5.0	117	2.59	29.3	1.6	16.8	1.8	23.2	0.32	2.90	0.21	39	<0.01	0.067
3201742	Soil	7.69	59.42	30.54	125.2	595	29.6	3.5	61	2.09	23.4	1.2	3.5	0.3	21.8	0.36	2.27	0.20	33	0.02	0.068
3201743	Soil	7.04	47.22	26.61	106.6	918	24.2	2.9	49	1.79	18.3	1.2	4.9	0.3	24.1	0.28	1.88	0.19	32	0.09	0.068
3201744	Soil	5.66	58.39	35.31	161.9	588	31.6	6.4	121	2.15	22.2	1.8	5.3	2.7	24.2	0.70	1.69	0.23	31	0.14	0.070
3201745	Soil	5.10	61.64	33.55	147.1	1005	33.3	3.7	105	1.85	18.6	2.4	5.9	2.0	42.9	0.74	1.74	0.24	36	0.42	0.068
3201746	Soil	4.01	41.24	30.48	140.6	774	28.4	3.6	110	1.65	17.5	2.2	5.6	1.8	36.5	0.51	1.19	0.22	32	0.32	0.064
3201747	Soil	3.32	41.22	30.83	135.7	727	31.2	3.6	135	1.70	18.5	2.5	7.8	1.9	31.1	0.52	1.15	0.22	28	0.30	0.064
3201748	Soil	3.09	41.25	30.11	117.2	728	28.1	3.2	139	1.52	18.1	2.8	4.7	1.3	41.0	0.45	1.14	0.21	29	0.51	0.075
3201749	Soil	7.97	38.38	55.03	110.4	151	25.4	5.0	143	3.44	30.2	1.2	2.3	2.7	11.7	0.20	2.19	0.30	38	0.02	0.072
3201750	Soil	8.54	15.92	14.91	80.3	46	14.6	1.8	39	0.99	16.1	0.5	0.5	0.4	4.7	0.10	1.20	0.14	29	<0.01	0.029
3201751	Soil	0.31	8.04	4.52	6.4	95	1.9	0.8	12	0.27	0.5	0.4	0.4	<0.1	6.6	0.06	0.11	0.03	7	0.03	0.031
3201752	Soil	10.24	29.68	173.27	92.9	190	14.4	3.0	92	5.01	74.1	0.9	0.5	4.8	15.8	0.11	2.95	1.33	44	0.01	0.176
3201753	Soil	2.87	22.17	24.66	71.0	324	13.1	3.6	68	1.34	8.9	1.6	2.9	0.7	15.6	0.10	0.95	0.23	19	0.15	0.056
3201754	Soil	4.77	42.74	34.39	126.4	479	24.3	5.7	116	2.41	18.4	3.0	2.2	2.3	20.2	0.13	1.61	0.32	32	0.15	0.080
3201755	Soil	6.46	26.46	37.73	125.1	256	21.9	5.9	158	2.40	19.3	1.5	1.9	1.5	15.5	0.12	1.51	0.29	36	0.09	0.060
3201756	Soil	3.70	33.09	42.42	109.0	679	21.7	5.7	89	2.18	20.0	2.9	3.4	2.1	16.6	0.27	1.48	0.34	36	0.12	0.100
3201757	Soil	7.35	23.78	39.07	140.9	382	24.4	23.4	734	3.11	22.0	1.7	1.8	1.7	15.3	0.22	1.87	0.32	39	0.12	0.075
3201758	Soil	5.27	26.07	17.89	98.4	806	21.4	31.0	2803	1.45	9.2	2.1	1.7	0.7	18.3	0.44	1.25	0.15	17	0.23	0.058
3201759	Soil	1.39	15.29	7.92	42.0	415	8.5	2.7	99	0.52	4.0	1.0	1.5	<0.1	17.0	0.18	0.54	0.12	11	0.23	0.045
3201760	Rock Pulp	11.67	154.57	264.76	200.9	97	75.1	46.9	256	1.48	9.1	0.4	35.0	2.9	28.6	0.53	0.16	0.16	23	0.52	0.051
3201761	Soil	4.25	96.56	23.37	142.5	619	43.9	12.2	250	3.70	18.1	2.0	6.1	0.7	21.8	0.69	2.20	0.27	26	0.33	0.178
3201762	Soil	3.82	26.87	12.76	137.2	252	18.2	3.8	266	1.37	8.5	1.9	1.5	<0.1	19.0	1.08	1.14	0.23	26	0.24	0.180
3201763	Soil	7.89	70.23	20.72	530.9	2165	65.6	7.1	121	2.27	21.7	5.8	4.7	0.3	27.6	2.32	4.46	0.19	54	0.77	0.387
3201764	Soil	8.68	37.50	104.76	244.8	384	44.6	10.1	243	3.05	38.1	3.1	1.7	3.6	20.2	0.82	2.93	0.29	39	0.18	0.107
3201765	Soil	8.04	30.15	57.67	223.0	396	36.6	9.7	244	2.73	27.2	2.3	1.4	4.4	20.6	0.59	2.56	0.27	39	0.23	0.100
3201766	Soil	7.73	33.37	57.50	227.3	469	36.2	11.4	496	2.80	24.2	3.1	1.4	3.0	22.6	0.59	1.99	0.30	40	0.22	0.080
3201767	Soil	8.43	35.04	67.00	244.0	817	39.6	10.9	478	2.97	33.7	5.1	3.4	2.1	28.6	0.94	1.88	0.32	40	0.36	0.091
3201768	Soil	6.70	36.24	49.45	253.3	877	45.5	10.1	385	2.44	22.3	4.3	2.9	2.3	28.6	1.44	1.56	0.25	38	0.46	0.097
3201769	Soil	8.33	35.44	50.93	239.3	1329	40.7	10.2	1313	2.17	20.3	5.1	3.1	1.6	27.7	2.03	1.44	0.23	42	0.30	0.107
3201770	Soil	7.92	47.55	81.41	509.1	1251	69.2	12.7	453	3.69	28.9	4.6	3.5	3.1	29.3	2.45	2.42	0.26	43	0.68	0.106





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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3201741	Soil	26.2	10.0	0.04	112.9	0.002	<20	0.43	<0.001	0.06	<0.1	1.3	0.15	0.03	68	3.4	0.12	1.2
3201742	Soil	18.8	8.9	0.03	128.4	0.003	<20	0.42	0.003	0.06	<0.1	0.6	0.13	0.03	50	2.2	0.10	1.6
3201743	Soil	16.3	7.6	0.03	110.7	0.002	<20	0.37	0.003	0.06	<0.1	0.5	0.12	0.03	45	2.0	0.09	1.5
3201744	Soil	26.1	10.3	0.08	156.7	0.002	<20	0.55	<0.001	0.08	<0.1	1.6	0.12	0.02	74	2.1	0.09	1.6
3201745	Soil	16.6	11.7	0.08	254.5	0.002	<20	0.63	0.003	0.11	<0.1	1.7	0.16	0.04	113	2.1	0.10	1.9
3201746	Soil	14.1	11.2	0.06	230.0	0.003	<20	0.65	0.003	0.09	<0.1	1.4	0.14	0.03	85	1.5	0.07	1.7
3201747	Soil	14.3	9.2	0.07	193.5	0.003	<20	0.56	0.002	0.07	<0.1	1.4	0.12	0.03	94	1.5	0.07	1.6
3201748	Soil	11.6	9.0	0.08	229.0	0.003	<20	0.60	0.003	0.07	<0.1	1.2	0.12	0.04	90	1.5	0.06	1.7
3201749	Soil	18.6	16.8	0.12	184.7	0.007	<20	1.07	0.002	0.08	<0.1	1.4	0.17	0.03	51	1.5	0.06	4.0
3201750	Soil	15.7	5.3	0.01	40.7	0.006	<20	0.21	0.005	0.03	0.1	0.4	0.07	<0.02	10	0.5	0.06	2.4
3201751	Soil	1.4	2.2	0.02	21.5	0.004	<20	0.26	0.025	0.02	<0.1	0.1	0.03	<0.02	9	<0.1	<0.02	0.9
3201752	Soil	26.5	15.1	0.07	139.8	0.017	<20	0.57	0.003	0.06	0.1	1.1	0.10	0.05	23	1.3	0.08	6.4
3201753	Soil	9.2	10.4	0.16	125.1	0.018	<20	0.79	0.016	0.07	0.2	1.0	0.16	0.03	44	0.7	0.03	3.2
3201754	Soil	17.2	18.9	0.30	205.8	0.020	<20	1.35	0.005	0.12	0.3	2.0	0.28	0.03	96	1.4	0.05	4.2
3201755	Soil	18.0	18.2	0.29	204.9	0.016	<20	1.20	0.004	0.10	0.2	1.5	0.25	0.02	76	0.9	0.06	4.0
3201756	Soil	18.6	19.1	0.27	235.2	0.015	<20	1.26	0.002	0.11	0.3	2.1	0.31	0.04	101	1.6	0.07	4.1
3201757	Soil	15.8	17.3	0.25	235.9	0.015	<20	1.20	0.006	0.09	0.2	1.6	0.29	0.02	69	1.7	0.05	3.9
3201758	Soil	7.2	9.1	0.12	193.6	0.014	<20	0.74	0.019	0.05	0.1	1.2	0.16	0.03	73	1.6	0.03	2.6
3201759	Soil	4.2	5.7	0.07	107.1	0.009	<20	0.40	0.030	0.05	<0.1	0.5	0.09	0.02	32	0.3	0.02	1.7
3201760	Rock Pulp	23.5	31.0	0.45	58.5	0.066	<20	0.77	0.083	0.11	<0.1	2.8	0.08	0.04	20	<0.1	0.02	2.8
3201761	Soil	12.3	15.1	0.16	109.0	0.006	<20	0.91	0.002	0.06	0.3	1.3	0.16	0.02	54	1.9	0.08	2.3
3201762	Soil	8.0	11.0	0.08	125.7	0.001	<20	0.80	0.009	0.08	<0.1	0.2	0.20	0.07	56	0.6	0.06	3.3
3201763	Soil	16.2	17.3	0.10	119.5	0.007	<20	0.62	0.002	0.12	0.2	1.1	0.42	<0.02	204	1.7	0.10	1.8
3201764	Soil	21.7	19.5	0.36	149.1	0.016	<20	1.18	0.004	0.08	0.1	1.9	0.22	<0.02	87	1.4	0.07	3.4
3201765	Soil	19.8	19.2	0.37	156.4	0.025	<20	1.14	0.007	0.09	0.2	2.2	0.23	<0.02	67	1.2	0.07	3.3
3201766	Soil	17.8	19.3	0.36	249.2	0.019	<20	1.34	0.007	0.09	0.2	2.2	0.25	<0.02	86	1.2	0.07	3.7
3201767	Soil	13.9	18.6	0.30	280.9	0.012	<20	1.42	0.009	0.10	0.2	2.2	0.23	0.03	157	1.3	0.07	3.8
3201768	Soil	13.7	18.1	0.29	260.2	0.011	<20	1.19	0.007	0.10	0.1	2.2	0.32	0.03	135	1.3	0.06	3.1
3201769	Soil	11.5	17.6	0.16	294.2	0.007	<20	1.08	0.005	0.10	<0.1	1.9	0.32	0.04	203	1.2	0.05	3.0
3201770	Soil	13.8	15.1	0.25	344.3	0.009	<20	1.11	0.007	0.10	<0.1	3.0	0.69	0.03	222	1.6	0.09	2.8



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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3201771	Soil	9.35	102.46	33.03	190.1	604	48.0	6.5	154	2.76	38.8	1.8	8.0	6.3	30.7	0.78	2.71	0.25	41	0.02	0.075
3201772	Soil	5.60	61.61	26.39	100.8	383	25.7	4.0	67	2.09	27.2	1.3	3.6	0.5	20.2	0.20	2.11	0.19	28	0.02	0.059
3201773	Soil	6.53	82.48	26.14	139.9	320	32.2	4.8	82	2.53	34.7	1.5	3.9	1.6	18.1	0.23	2.82	0.20	34	<0.01	0.056
3201774	Soil	5.75	50.36	21.77	95.5	497	21.9	3.1	54	1.79	19.5	1.2	13.7	0.4	12.9	0.20	1.85	0.16	31	0.01	0.047
3201775	Soil	6.14	71.73	30.31	139.4	577	34.2	5.5	112	2.79	37.7	1.1	3.6	1.1	14.1	0.24	2.92	0.22	37	<0.01	0.064
3201776	Soil	4.69	50.60	30.23	101.6	313	24.6	4.4	76	2.54	29.9	1.1	1.6	0.2	14.8	0.27	2.19	0.25	27	0.02	0.069
3201777	Soil	2.85	52.41	38.84	47.9	149	55.4	35.0	1307	3.92	57.9	1.1	0.7	1.4	7.5	0.64	1.13	1.32	13	0.15	0.073
3201778	Soil	1.53	14.01	11.23	44.3	316	10.8	3.1	226	0.87	7.6	1.2	1.2	0.2	22.0	0.43	0.63	0.10	15	0.46	0.054
3201779	Soil	5.72	39.96	25.27	194.8	956	23.8	6.7	198	1.63	12.7	1.3	2.7	0.8	25.8	1.06	1.26	0.19	29	0.39	0.071
3201780	Soil	7.49	54.91	42.06	384.6	1551	43.0	15.3	460	2.63	19.1	1.9	4.5	2.3	32.7	1.66	1.80	0.29	42	0.47	0.098
3201781	Soil	5.24	24.15	37.61	215.8	460	30.9	5.7	171	1.95	17.2	1.4	2.3	3.0	29.6	1.03	1.45	0.21	39	0.45	0.069
3201782	Soil	5.73	21.84	42.03	237.3	185	34.5	10.1	471	2.26	19.5	1.1	1.3	4.2	17.9	1.23	1.48	0.24	41	0.21	0.079
3201783	Soil	4.71	34.04	36.42	228.4	430	37.7	6.1	166	2.87	32.6	4.2	2.6	2.8	33.4	2.33	1.37	0.21	34	0.39	0.070
3201784	Soil	2.25	33.04	32.01	249.5	417	38.9	8.1	229	1.98	22.3	3.9	2.6	1.9	36.6	2.54	1.03	0.25	32	0.47	0.083
3201785	Soil	2.07	22.52	25.03	190.3	387	36.4	8.5	244	2.20	25.2	3.1	2.2	2.8	42.7	1.03	1.08	0.22	28	0.69	0.074
3201786	Soil	1.15	27.44	27.37	206.4	454	27.6	10.4	188	1.62	11.2	4.8	1.9	1.5	53.0	0.50	0.95	0.21	24	0.95	0.067
3201787	Soil	1.57	35.12	33.21	290.9	430	40.7	11.8	170	2.10	13.8	2.9	1.7	3.0	49.7	0.56	1.05	0.26	30	0.84	0.084
3201788	Soil	0.66	19.23	9.18	99.4	220	18.5	3.9	134	0.90	5.3	4.4	0.9	0.7	38.4	0.54	0.73	0.09	14	0.65	0.045
3201789	Soil	2.86	33.07	30.12	188.7	719	36.5	8.8	277	2.14	14.7	7.6	2.6	4.0	48.8	0.97	1.73	0.30	44	0.98	0.095
3201790	Soil	3.11	23.37	25.27	156.1	340	28.5	7.4	241	2.01	14.4	4.0	1.9	2.6	27.6	0.38	1.24	0.24	34	0.42	0.066
3201791	Soil	3.14	27.82	27.61	161.2	473	30.9	7.3	310	2.04	16.1	5.3	2.3	3.0	29.9	0.60	1.42	0.26	37	0.45	0.085
3201792	Soil	6.40	35.78	45.30	183.5	922	31.3	6.9	362	2.48	23.2	4.1	4.0	2.5	20.1	0.72	1.73	0.27	42	0.22	0.082
3201793	Soil	6.45	33.85	40.19	178.9	504	33.3	7.9	291	2.21	19.2	3.1	2.3	1.5	29.8	1.06	1.69	0.23	35	0.44	0.081
3201794	Soil	5.17	33.50	35.59	213.9	605	35.3	7.4	341	2.35	22.7	3.6	2.9	1.9	31.4	1.25	1.80	0.23	34	0.55	0.085
3201795	Soil	1.85	22.35	35.23	89.5	191	26.3	15.4	1670	4.74	20.4	1.0	0.9	1.7	35.6	0.94	2.75	0.26	18	1.84	0.113
3201796	Soil	12.04	50.66	34.75	108.8	478	32.7	11.7	183	2.39	24.4	13.8	6.2	1.4	27.2	1.43	2.53	0.24	24	0.36	0.081
3201797	Soil	88.55	285.08	171.64	2699.1	3326	178.8	46.0	1200	5.27	66.0	7.9	0.4	9.4	18.3	32.84	8.83	0.31	64	0.49	0.110
3201798	Soil	2.15	13.20	128.01	169.2	184	10.5	3.9	596	2.61	48.1	1.5	0.7	0.4	34.7	1.14	0.93	0.15	28	2.89	0.165
3201799	Soil	0.99	22.85	26.72	72.7	94	14.5	6.3	2759	7.28	25.1	0.4	1.0	1.5	21.4	0.43	0.87	0.18	18	0.75	0.057
3201800	Rock Pulp	0.61	22.44	1.93	19.8	27	16.1	5.4	243	1.35	0.8	0.4	0.7	2.8	27.7	0.03	0.05	0.03	20	0.57	0.052



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**Project:** MacMillan Pass

**Report Date:** October 18, 2018

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# CERTIFICATE OF ANALYSIS

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3201771	Soil	24.6	9.6	0.05	173.3	0.002	<20	0.48	<0.001	0.10	<0.1	2.7	0.14	0.03	87	3.4	0.13	1.4
3201772	Soil	18.7	7.4	0.03	83.6	0.003	<20	0.44	0.003	0.05	<0.1	0.7	0.09	0.03	30	2.2	0.09	1.6
3201773	Soil	27.7	7.2	0.02	68.0	0.003	<20	0.32	<0.001	0.05	<0.1	1.1	0.07	0.02	25	2.9	0.10	1.3
3201774	Soil	15.7	6.9	0.02	92.5	0.003	<20	0.49	0.003	0.05	<0.1	0.7	0.09	0.02	30	1.8	0.09	1.6
3201775	Soil	20.5	7.8	0.02	60.6	0.004	<20	0.27	<0.001	0.04	<0.1	0.9	0.06	0.02	20	2.7	0.09	1.4
3201776	Soil	15.2	9.0	0.05	66.9	0.003	<20	0.56	0.005	0.04	<0.1	0.4	0.06	0.03	22	1.7	0.08	2.6
3201777	Soil	17.9	8.7	0.08	106.4	0.003	<20	0.64	0.003	0.05	<0.1	2.6	0.05	0.04	24	<0.1	0.03	1.2
3201778	Soil	6.0	6.2	0.09	116.1	0.010	<20	0.55	0.021	0.04	0.1	0.7	0.13	0.03	29	0.4	<0.02	1.8
3201779	Soil	12.4	9.5	0.08	263.2	0.005	<20	0.65	0.009	0.08	<0.1	1.0	0.14	0.03	76	0.9	0.04	2.4
3201780	Soil	16.7	16.6	0.15	357.6	0.008	<20	1.06	0.006	0.11	0.1	2.2	0.22	0.04	193	1.2	0.08	3.2
3201781	Soil	14.8	14.1	0.19	315.9	0.008	<20	0.97	0.006	0.10	0.1	1.7	0.20	0.03	99	1.4	0.04	2.9
3201782	Soil	21.3	17.5	0.27	181.7	0.022	<20	0.99	0.004	0.10	0.2	1.9	0.20	<0.02	45	0.8	0.05	3.3
3201783	Soil	13.0	13.4	0.17	238.0	0.009	<20	1.02	0.007	0.09	0.1	1.9	0.18	0.04	92	2.9	0.04	2.8
3201784	Soil	13.9	15.3	0.23	206.9	0.012	<20	1.12	0.006	0.10	<0.1	1.7	0.20	0.06	100	2.6	0.04	3.1
3201785	Soil	13.1	16.2	0.29	223.1	0.017	<20	1.16	0.007	0.10	0.1	1.8	0.19	0.06	95	3.5	0.04	3.0
3201786	Soil	9.3	14.9	0.29	179.2	0.016	<20	1.10	0.010	0.09	<0.1	1.5	0.16	0.07	98	2.7	0.04	3.4
3201787	Soil	14.4	19.3	0.36	226.1	0.022	<20	1.42	0.009	0.12	<0.1	2.1	0.22	0.08	119	2.1	0.03	3.5
3201788	Soil	5.8	7.9	0.12	141.6	0.013	<20	0.63	0.022	0.06	<0.1	0.9	0.10	0.04	44	1.4	<0.02	1.8
3201789	Soil	17.6	22.7	0.39	255.5	0.029	<20	1.31	0.006	0.15	0.2	2.7	0.34	0.05	126	2.6	0.06	3.8
3201790	Soil	16.3	17.2	0.29	204.8	0.023	<20	1.17	0.009	0.10	0.2	1.9	0.24	0.03	87	2.1	0.04	3.5
3201791	Soil	16.7	17.9	0.29	237.0	0.023	<20	1.18	0.008	0.11	0.2	2.1	0.26	0.04	91	2.3	0.04	3.4
3201792	Soil	15.6	16.9	0.19	318.6	0.011	<20	1.16	0.006	0.10	0.1	2.0	0.31	0.03	139	1.9	0.07	3.1
3201793	Soil	12.4	12.1	0.14	262.6	0.009	<20	0.90	0.006	0.08	<0.1	1.7	0.27	0.04	103	1.4	0.06	2.5
3201794	Soil	12.9	13.5	0.18	281.6	0.011	<20	0.95	0.005	0.08	0.1	1.9	0.25	0.04	117	1.5	0.05	2.7
3201795	Soil	9.5	8.4	0.52	173.6	0.006	<20	0.59	0.008	0.04	<0.1	3.9	0.06	0.05	34	0.6	0.03	1.0
3201796	Soil	9.1	9.0	0.08	238.2	0.008	<20	0.72	0.010	0.05	0.1	1.8	0.35	0.05	76	1.7	0.04	2.2
3201797	Soil	13.2	5.7	0.12	186.4	<0.001	<20	0.40	0.001	0.04	0.1	4.9	0.96	0.36	1263	16.1	0.11	0.6
3201798	Soil	8.4	8.3	1.30	61.3	0.008	<20	0.82	0.030	0.05	0.2	1.3	0.13	0.05	58	0.4	<0.02	1.7
3201799	Soil	9.9	7.4	0.27	133.4	0.012	<20	0.71	0.022	0.04	0.2	2.9	0.08	0.03	48	0.4	<0.02	1.7
3201800	Rock Pulp	15.5	24.8	0.43	52.6	0.066	<20	0.73	0.075	0.11	<0.1	2.5	0.06	<0.02	13	<0.1	<0.02	2.4



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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.1	0.2	0.5	0.01	0.02	0.02	1	0.01	0.001
3201801	Soil	6.07	51.11	25.00	98.9	473	22.7	2.9	60	1.79	21.5	1.1	5.8	0.6	19.7	0.18	1.84	0.20	29	<0.01	0.052
3201802	Soil	8.64	61.38	30.46	195.1	325	39.1	5.8	100	2.63	36.3	1.4	2.6	2.3	21.1	0.57	3.17	0.26	35	0.01	0.051
3201803	Soil	3.78	35.74	25.19	103.9	401	21.1	4.3	98	2.97	29.4	1.1	2.7	6.3	7.9	0.18	2.19	0.27	24	<0.01	0.046
3201804	Soil	13.62	39.52	32.23	147.0	344	25.7	3.9	55	2.49	36.6	0.6	0.7	0.9	8.4	0.13	3.37	0.27	50	<0.01	0.054
3201805	Soil	0.11	2.96	1.99	1.6	175	0.5	0.3	6	0.19	0.4	0.3	<0.2	<0.1	4.4	0.02	0.06	<0.02	3	0.02	0.012
3201806	Soil	6.39	35.19	44.78	176.9	259	34.1	10.2	314	3.01	28.6	2.1	3.1	6.6	13.7	0.51	2.54	0.30	30	0.09	0.078
3201807	Soil	6.93	41.15	47.50	224.3	245	34.9	10.4	259	3.01	32.1	2.0	2.2	1.6	25.2	1.17	2.32	0.39	32	0.27	0.124
3201808	Soil	1.86	20.67	37.21	63.8	518	20.1	5.7	142	1.53	61.4	2.8	2.4	1.3	60.6	0.21	1.51	0.27	14	1.00	0.075
3201809	Soil	3.59	28.27	41.42	190.8	574	36.2	11.7	871	2.45	26.9	1.1	2.2	1.7	35.8	1.67	1.47	0.19	24	0.56	0.050
3201810	Soil	2.72	22.05	22.69	135.5	427	23.8	5.1	892	1.19	11.5	1.1	1.3	1.0	56.2	1.99	1.03	0.11	17	2.38	0.049
3201811	Soil	0.62	11.62	8.60	75.9	144	10.2	1.6	161	0.61	3.6	1.5	1.6	0.6	17.4	0.50	0.47	0.05	10	0.41	0.040
3201812	Soil	2.22	26.86	27.86	167.2	388	28.5	5.2	384	1.97	13.6	6.0	2.7	1.5	33.5	1.10	1.42	0.22	28	0.76	0.098
3201813	Soil	1.64	18.82	14.02	84.5	263	17.8	3.8	167	1.30	8.3	8.5	1.3	0.9	37.5	0.52	1.09	0.13	21	0.73	0.061
3201814	Soil	2.05	16.92	17.74	122.1	311	19.6	5.4	339	1.64	12.2	4.3	1.3	1.1	34.1	0.46	1.17	0.17	25	0.73	0.070
3201815	Soil	2.83	20.73	25.57	182.3	325	27.5	6.9	263	2.04	13.9	4.6	1.5	1.8	31.5	0.54	1.33	0.22	30	0.50	0.069
3201816	Soil	1.63	27.88	26.91	181.1	487	29.8	7.5	231	2.15	16.8	6.2	3.6	2.1	40.9	0.96	1.17	0.25	33	0.66	0.082
3201817	Soil	5.21	50.75	43.41	182.3	1569	34.1	13.4	646	3.97	26.0	11.1	3.4	2.3	38.9	1.57	1.95	0.31	37	0.60	0.121
3201818	Soil	4.38	33.01	36.84	202.9	402	42.9	13.6	756	4.59	42.0	1.7	4.4	4.0	13.3	0.68	2.54	0.28	28	0.18	0.130
3201819	Soil	3.55	19.75	17.73	42.7	230	16.2	5.8	178	1.39	7.0	4.0	0.4	0.7	36.6	0.23	0.94	0.13	15	0.57	0.060
3201820	Soil	5.50	25.67	25.77	58.0	270	23.1	8.1	195	1.90	10.2	4.6	1.0	1.3	41.2	0.29	1.19	0.19	19	0.66	0.065
3206211	Soil	66.56	59.27	158.22	996.3	4019	121.6	16.1	450	5.46	249.0	10.7	3.1	4.3	46.3	3.79	16.25	0.56	415	0.10	0.159
3206212	Soil	37.88	21.90	219.34	23.2	2782	8.6	0.7	46	1.98	901.6	8.8	14.2	3.8	63.0	0.97	5.48	2.98	152	0.02	0.172
3206213	Soil	55.76	20.97	90.53	38.9	1402	9.7	1.7	74	4.03	408.7	7.6	3.4	0.7	42.6	0.27	10.31	0.64	347	0.02	0.171
3206214	Soil	65.54	4.80	117.92	3.2	2273	1.3	<0.1	4	1.38	23.3	3.2	0.7	7.0	13.7	0.02	22.22	0.36	91	<0.01	0.038
3206215	Soil	9.39	40.93	89.98	244.3	166	42.1	13.0	247	4.23	63.0	2.9	2.0	3.5	19.1	0.23	2.21	0.63	37	0.04	0.118
3206216	Soil	9.22	43.16	75.65	144.6	306	26.1	5.2	151	3.38	42.2	1.9	3.0	2.0	14.6	0.22	1.97	0.32	41	0.05	0.064
3206217	Soil	8.09	29.46	35.55	90.0	75	18.0	3.4	64	1.56	27.2	0.9	1.1	0.3	11.0	0.16	1.67	0.22	35	0.01	0.036
3206218	Soil	13.97	45.28	62.28	173.2	166	34.5	3.4	79	3.45	67.5	1.6	3.4	1.4	11.3	0.22	3.41	0.31	53	0.02	0.059
3206219	Soil	3.96	19.36	24.28	57.7	282	12.0	2.3	54	1.00	25.0	1.0	0.7	<0.1	17.3	0.09	0.63	0.19	30	0.15	0.072
3206220	Rock Pulp	0.57	21.92	1.85	19.0	19	15.0	5.2	229	1.32	0.6	0.4	0.4	2.7	24.5	0.02	0.04	<0.02	19	0.55	0.048



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		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3201801	Soil	19.7	6.7	0.03	85.1	0.002	<20	0.42	0.005	0.06	<0.1	0.6	0.12	0.02	51	2.2	0.09	1.5
3201802	Soil	24.7	7.1	0.03	102.3	0.004	<20	0.34	<0.001	0.04	<0.1	1.2	0.11	0.02	41	3.1	0.11	1.7
3201803	Soil	27.1	11.7	0.15	78.3	0.010	<20	0.90	0.002	0.06	0.2	1.6	0.12	<0.02	32	1.9	0.08	2.9
3201804	Soil	22.7	6.3	0.01	52.5	0.006	<20	0.26	0.002	0.04	0.2	0.6	0.11	<0.02	13	2.5	0.12	2.3
3201805	Soil	0.8	0.9	<0.01	11.9	0.009	<20	0.32	0.027	0.02	<0.1	0.2	<0.02	<0.02	11	<0.1	<0.02	0.8
3201806	Soil	33.8	15.2	0.31	110.1	0.023	<20	1.12	0.006	0.08	0.2	1.9	0.24	<0.02	35	1.7	0.06	3.2
3201807	Soil	27.1	12.7	0.19	118.4	0.007	<20	1.04	0.007	0.07	0.1	1.2	0.23	0.02	45	1.7	0.07	3.3
3201808	Soil	7.5	7.2	0.15	113.4	0.011	<20	1.00	0.028	0.06	0.1	1.4	0.16	0.08	88	1.3	0.02	2.4
3201809	Soil	15.8	9.4	0.16	152.1	0.010	<20	0.87	0.019	0.08	<0.1	1.3	0.27	0.04	70	2.7	0.04	2.1
3201810	Soil	7.3	6.6	0.13	228.0	0.009	<20	0.64	0.025	0.07	0.1	1.0	0.18	0.05	64	1.0	0.03	1.6
3201811	Soil	5.1	4.7	0.07	162.6	0.006	<20	0.49	0.026	0.06	<0.1	0.6	0.08	0.02	40	0.4	<0.02	1.3
3201812	Soil	13.3	15.9	0.26	297.0	0.020	<20	1.13	0.009	0.10	0.7	1.5	0.21	0.05	93	1.6	0.04	3.2
3201813	Soil	9.4	10.5	0.19	224.5	0.014	<20	0.85	0.016	0.07	<0.1	1.0	0.13	0.05	56	1.4	0.02	2.4
3201814	Soil	9.3	10.5	0.18	210.9	0.016	<20	0.88	0.019	0.09	0.1	1.2	0.18	0.04	53	1.3	0.03	2.7
3201815	Soil	13.2	14.9	0.26	228.3	0.018	<20	1.06	0.013	0.11	0.2	1.9	0.29	0.04	79	1.4	0.04	3.2
3201816	Soil	15.0	16.0	0.28	229.2	0.015	<20	1.14	0.009	0.09	<0.1	1.9	0.25	0.05	112	2.4	0.03	3.4
3201817	Soil	20.3	15.4	0.21	235.0	0.013	<20	1.09	0.008	0.08	0.2	3.7	0.42	0.05	301	3.6	0.05	2.9
3201818	Soil	20.9	14.6	0.17	104.6	0.009	<20	1.01	0.004	0.04	0.2	2.1	0.26	<0.02	41	1.5	0.07	2.4
3201819	Soil	9.6	5.0	0.10	128.7	0.009	<20	0.55	0.019	0.04	<0.1	1.0	0.17	0.05	49	1.2	<0.02	1.5
3201820	Soil	13.8	6.3	0.12	146.6	0.008	<20	0.57	0.011	0.04	<0.1	1.5	0.22	0.05	68	1.3	0.03	1.4
3206211	Soil	11.5	28.1	0.08	1224.2	0.010	<20	1.80	0.002	0.17	1.1	3.4	2.45	0.26	580	22.8	0.47	2.8
3206212	Soil	23.4	27.1	0.05	459.0	0.002	<20	0.83	0.006	0.18	0.5	3.6	1.21	0.31	285	12.5	0.21	4.5
3206213	Soil	19.1	29.4	0.08	889.7	0.007	<20	0.98	0.004	0.29	0.3	0.8	1.60	0.46	157	22.8	0.17	4.7
3206214	Soil	7.4	9.9	0.01	295.0	0.018	<20	0.14	0.002	0.26	0.4	1.0	2.60	0.49	566	21.1	0.36	1.4
3206215	Soil	36.6	17.6	0.24	116.3	0.007	<20	1.06	0.003	0.07	<0.1	1.3	0.16	0.03	37	1.6	0.07	3.6
3206216	Soil	21.0	13.0	0.08	179.1	0.003	<20	0.82	<0.001	0.08	<0.1	1.1	0.20	0.03	37	2.7	0.09	3.0
3206217	Soil	17.3	7.3	0.05	79.7	0.005	<20	0.46	0.010	0.04	<0.1	0.4	0.09	<0.02	10	1.4	0.07	2.5
3206218	Soil	16.9	13.3	0.05	94.3	0.005	<20	0.62	<0.001	0.06	<0.1	0.9	0.18	0.03	30	3.5	0.08	2.8
3206219	Soil	10.7	7.8	0.06	158.2	0.002	<20	0.76	0.007	0.05	<0.1	0.2	0.18	0.03	15	0.6	0.04	3.1
3206220	Rock Pulp	15.0	23.6	0.43	47.9	0.061	<20	0.71	0.074	0.11	<0.1	2.2	0.06	<0.02	8	<0.1	<0.02	2.3



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Project:

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3206221	Soil	7.00	95.66	43.95	149.2	543	35.5	11.6	182	1.99	48.3	2.8	2.7	0.7	36.3	1.59	2.52	0.35	38	0.33	0.098
3206222	Soil	14.73	110.82	133.21	29.2	4886	9.2	1.8	100	3.87	50.7	7.1	3.5	13.4	480.1	0.11	6.48	0.59	84	0.05	0.249
3206223	Soil	7.54	159.71	35.05	95.0	864	33.1	4.9	136	3.96	31.3	10.9	3.7	1.9	86.9	0.31	4.82	0.31	38	0.04	0.156
3206224	Soil	4.20	78.12	30.31	60.4	1276	17.7	3.6	123	2.17	17.1	5.3	4.2	0.2	62.0	0.15	2.30	0.32	28	0.05	0.103
3206225	Soil	4.19	35.53	28.16	80.5	696	19.5	3.3	83	1.61	16.0	0.8	2.4	<0.1	20.2	0.12	2.27	0.26	22	0.01	0.055
3206226	Soil	2.96	16.36	18.91	59.0	379	12.7	2.0	35	0.93	11.3	0.4	0.7	<0.1	10.8	0.08	1.29	0.15	17	0.01	0.039
3206227	Soil	10.13	55.57	53.21	132.0	1325	26.6	15.7	339	4.18	27.8	1.5	8.2	2.6	25.6	0.35	1.64	0.32	30	0.07	0.087
3206228	Soil	2.79	15.37	50.85	73.8	411	12.7	4.1	190	1.37	35.2	0.7	3.3	0.5	11.3	0.32	0.85	0.21	18	0.04	0.074
3206229	Soil	3.49	38.50	24.61	40.8	817	13.8	3.0	146	1.16	33.2	2.4	4.0	0.5	46.3	0.13	2.50	0.19	20	0.06	0.091
3206230	Soil	23.54	67.21	81.74	314.1	576	72.3	6.6	97	2.61	38.0	1.8	5.0	0.4	20.7	0.49	3.25	0.28	63	<0.01	0.085
3206231	Soil	0.73	9.80	3.84	10.2	556	2.7	0.5	12	0.26	3.1	1.0	0.8	<0.1	6.2	0.06	0.39	0.06	5	0.02	0.034
3206232	Soil	8.61	22.77	27.43	75.0	510	17.3	1.7	31	1.04	17.7	1.3	2.8	<0.1	24.0	0.21	2.68	0.15	29	0.02	0.071
3206233	Soil	15.91	50.89	47.54	169.4	638	40.6	4.0	100	2.03	42.9	3.7	4.5	0.2	53.8	0.51	4.33	0.32	50	0.07	0.090
3206234	Soil	5.35	21.58	18.99	58.3	410	12.9	1.7	53	0.87	11.7	1.4	3.5	0.1	16.5	0.26	1.96	0.11	19	0.02	0.047
3206235	Soil	11.14	37.62	39.34	144.4	267	28.8	3.2	95	1.60	23.6	1.3	3.4	0.8	16.2	0.41	2.42	0.21	38	0.02	0.065
3206236	Soil	9.18	40.30	40.52	129.5	483	27.1	3.4	100	1.71	23.2	1.6	4.3	0.9	21.7	0.48	2.00	0.22	40	0.10	0.072
3206237	Soil	8.30	37.54	36.49	118.5	421	24.5	3.5	113	1.57	21.2	1.4	3.4	1.0	21.1	0.43	2.03	0.20	36	0.11	0.059
3206238	Soil	7.68	30.76	31.21	129.9	333	20.7	2.7	97	1.51	20.4	1.1	3.6	1.5	19.8	0.46	1.82	0.18	35	0.13	0.052
3206239	Soil	6.20	24.70	31.68	113.3	380	18.7	3.2	132	1.52	20.0	0.9	2.1	1.2	20.6	0.38	1.24	0.18	38	0.15	0.050
3206240	Soil	6.79	28.92	36.64	124.7	455	21.6	4.1	133	1.57	21.4	1.3	4.0	1.3	23.9	0.51	1.34	0.21	39	0.17	0.059
3206241	Soil	7.50	30.24	34.67	111.5	437	19.8	3.2	125	1.52	20.7	1.2	2.9	1.4	22.8	0.17	1.44	0.20	37	0.16	0.057
3206242	Soil	5.25	27.99	41.93	126.7	546	21.4	4.4	121	1.64	22.8	1.7	4.3	1.8	24.9	0.36	1.29	0.23	38	0.20	0.065
3206243	Soil	5.48	32.97	44.87	157.4	466	25.6	5.3	159	1.78	20.8	2.1	4.1	1.8	26.5	0.53	1.35	0.22	37	0.22	0.069
3206244	Soil	5.78	38.43	56.84	233.8	689	39.3	12.1	1596	2.40	23.9	2.7	3.8	2.9	31.1	1.07	1.49	0.27	40	0.32	0.070
3206245	Soil	5.13	34.55	56.72	171.2	717	31.4	8.1	258	2.14	23.3	3.1	3.6	3.1	29.4	0.74	1.49	0.28	37	0.35	0.071
3206246	Soil	4.20	37.28	63.37	177.8	701	29.3	8.3	204	2.19	21.4	4.0	6.5	5.1	22.8	0.52	1.15	0.31	38	0.19	0.065
3206247	Soil	3.77	26.21	44.14	140.6	453	23.9	5.8	306	1.82	15.5	2.2	2.1	2.2	21.7	0.37	1.08	0.21	33	0.28	0.065
3206248	Soil	6.63	42.22	64.37	174.8	513	36.0	7.2	311	2.37	27.1	4.2	2.6	3.8	28.8	0.36	1.65	0.26	40	0.20	0.082
3206249	Soil	8.02	34.40	72.99	185.3	519	32.5	10.5	545	2.60	30.5	3.6	3.2	3.7	29.1	0.42	1.56	0.30	49	0.36	0.092
3206250	Soil	6.15	32.64	63.85	160.4	741	30.7	7.1	274	2.09	22.9	3.0	4.8	2.3	29.7	0.35	1.58	0.29	41	0.38	0.086



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		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3206221	Soil	11.4	10.8	0.09	183.2	0.007	<20	0.69	0.006	0.09	<0.1	1.2	0.13	0.05	34	1.8	0.06	2.6
3206222	Soil	7.7	22.7	0.06	300.7	0.006	<20	0.63	0.005	0.19	<0.1	4.5	1.04	0.38	47	12.7	0.37	2.9
3206223	Soil	18.6	11.9	0.07	99.9	0.011	<20	0.74	0.005	0.05	0.1	2.1	0.16	0.05	30	4.8	0.14	1.9
3206224	Soil	12.4	9.6	0.06	98.3	0.007	<20	0.91	0.010	0.07	<0.1	0.8	0.19	0.06	58	2.5	0.13	2.6
3206225	Soil	11.4	5.2	0.03	74.5	0.004	<20	0.46	0.012	0.04	<0.1	0.3	0.08	0.03	27	1.3	0.07	2.0
3206226	Soil	8.9	3.8	0.01	47.8	0.004	<20	0.18	0.011	0.03	<0.1	0.2	0.04	0.02	18	0.8	0.04	1.3
3206227	Soil	19.5	8.9	0.08	113.3	0.005	<20	0.51	<0.001	0.05	<0.1	1.9	0.18	<0.02	150	1.2	0.07	1.5
3206228	Soil	14.2	4.6	0.02	65.9	0.004	<20	0.39	0.006	0.04	<0.1	0.4	0.07	0.02	59	0.9	0.05	1.4
3206229	Soil	7.0	6.2	0.04	149.4	0.008	<20	0.61	0.019	0.07	<0.1	1.2	0.14	0.04	27	1.6	0.06	1.6
3206230	Soil	17.5	10.3	0.01	145.0	0.001	<20	0.50	0.002	0.08	<0.1	0.7	0.32	0.04	76	4.3	0.12	1.6
3206231	Soil	1.1	2.0	0.01	49.3	0.003	<20	0.25	0.024	0.03	<0.1	0.1	0.02	0.02	43	<0.1	0.02	0.8
3206232	Soil	6.8	5.6	0.01	196.4	0.002	<20	0.31	0.009	0.04	<0.1	0.2	0.13	0.03	35	1.4	0.05	1.1
3206233	Soil	11.5	9.7	0.04	889.7	0.003	<20	0.62	0.007	0.08	<0.1	0.7	0.28	0.05	66	3.0	0.09	1.6
3206234	Soil	6.0	3.9	0.02	225.7	0.005	<20	0.51	0.017	0.04	<0.1	0.5	0.12	0.03	27	1.1	0.05	1.5
3206235	Soil	16.1	8.1	0.02	359.3	0.002	<20	0.38	0.004	0.07	<0.1	0.8	0.16	0.03	18	2.0	0.07	1.4
3206236	Soil	15.1	8.2	0.04	498.5	0.002	<20	0.48	0.002	0.09	<0.1	1.2	0.18	0.03	54	2.3	0.09	1.5
3206237	Soil	14.1	8.9	0.05	505.2	0.002	<20	0.46	0.003	0.08	<0.1	1.1	0.16	0.04	54	1.7	0.09	1.2
3206238	Soil	17.2	8.3	0.06	335.4	0.002	<20	0.42	0.002	0.08	<0.1	1.2	0.15	0.03	44	1.6	0.06	1.4
3206239	Soil	14.7	8.1	0.07	210.5	0.002	<20	0.53	0.003	0.09	<0.1	1.1	0.15	0.02	57	1.2	0.07	1.6
3206240	Soil	14.9	9.7	0.08	240.6	0.002	<20	0.59	0.004	0.10	<0.1	1.4	0.17	0.03	52	1.4	0.06	1.6
3206241	Soil	15.2	9.1	0.09	270.4	0.002	<20	0.56	0.004	0.08	<0.1	1.3	0.17	0.03	57	1.6	0.08	1.8
3206242	Soil	15.6	11.4	0.10	283.5	0.003	<20	0.66	0.003	0.10	<0.1	1.6	0.17	0.03	69	1.6	0.09	2.0
3206243	Soil	14.6	11.4	0.11	318.7	0.003	<20	0.71	0.004	0.10	<0.1	1.6	0.19	0.03	82	1.5	0.07	2.2
3206244	Soil	15.7	12.8	0.14	401.8	0.004	<20	0.81	0.005	0.11	<0.1	2.1	0.31	0.04	104	2.0	0.06	2.3
3206245	Soil	17.6	12.5	0.15	366.1	0.003	<20	0.81	0.004	0.11	<0.1	2.7	0.21	0.03	105	1.9	0.06	2.2
3206246	Soil	22.6	14.7	0.18	390.6	0.005	<20	0.84	0.001	0.09	<0.1	2.5	0.19	<0.02	127	1.2	0.05	2.7
3206247	Soil	12.7	9.3	0.13	272.8	0.004	<20	0.77	0.004	0.09	0.2	1.8	0.15	0.03	82	1.3	0.05	2.0
3206248	Soil	19.6	14.3	0.18	440.4	0.005	<20	0.94	0.006	0.11	<0.1	2.5	0.28	0.02	147	1.6	0.08	2.7
3206249	Soil	21.0	17.1	0.19	427.9	0.005	<20	0.99	0.004	0.12	0.1	2.0	0.28	0.03	117	1.9	0.09	3.0
3206250	Soil	16.0	15.6	0.18	428.5	0.006	<20	0.93	0.009	0.11	<0.1	2.3	0.28	0.03	149	1.6	0.08	2.8



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		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3206251	Soil	5.78	31.54	57.67	194.1	617	32.1	8.1	344	2.37	20.8	3.6	3.7	1.9	28.0	0.41	1.25	0.29	42	0.27	0.092
3206252	Soil	5.83	133.94	55.36	80.8	2424	31.2	4.7	91	2.84	28.7	4.4	6.2	0.1	81.4	0.19	1.74	0.48	46	0.02	0.204
3206253	Soil	2.84	21.72	11.73	43.6	601	10.0	1.7	35	1.29	13.5	0.7	1.2	<0.1	8.9	0.11	1.35	0.19	21	0.01	0.060
3206254	Soil	7.25	59.68	52.07	161.9	419	36.9	5.7	114	2.68	61.1	1.1	1.1	0.9	47.4	0.21	3.93	0.40	42	<0.01	0.065
3206255	Soil	11.84	52.66	61.57	155.6	299	32.0	3.4	89	2.29	31.9	1.1	4.5	0.8	11.2	0.21	2.65	0.22	49	<0.01	0.060
3206256	Soil	9.10	51.74	37.90	139.8	188	26.4	3.1	69	2.30	28.7	0.8	4.8	0.9	8.8	0.15	3.01	0.19	42	<0.01	0.042
3206257	Soil	9.93	55.84	30.88	144.3	310	26.5	3.4	62	2.25	25.0	0.8	66.2	0.8	10.7	0.18	3.26	0.21	45	<0.01	0.048
3206258	Soil	3.04	26.76	25.66	94.2	703	16.3	2.2	81	1.12	8.7	0.6	1.3	<0.1	16.2	0.58	1.09	0.13	16	0.05	0.057
3206259	Soil	5.38	43.04	38.77	199.9	207	35.1	23.3	529	2.61	27.6	1.8	1.7	3.8	12.9	0.59	1.32	0.38	26	0.03	0.054
3206260	Rock Pulp	11.96	152.93	274.42	203.4	102	74.8	47.1	264	1.53	9.7	0.5	32.2	3.3	30.4	0.52	0.17	0.17	23	0.50	0.052
3206261	Soil	11.33	48.14	32.77	190.6	239	40.4	11.1	231	2.35	24.4	1.8	3.9	3.1	15.3	0.66	2.07	0.24	34	0.07	0.067
3206262	Soil	7.47	36.67	32.24	163.2	152	31.5	8.4	184	2.50	33.3	1.5	2.4	4.6	13.0	0.55	1.72	0.30	32	0.06	0.053
3206263	Soil	7.43	23.89	27.05	121.8	190	24.3	8.6	204	1.99	22.7	1.1	3.5	1.8	10.3	0.35	1.37	0.27	32	0.06	0.052
3206264	Soil	7.59	42.16	31.87	293.8	450	43.4	16.7	503	2.20	24.5	3.3	2.5	1.6	28.0	1.35	1.31	0.27	35	0.29	0.078
3206265	Soil	6.54	24.65	50.94	121.4	214	22.8	4.3	137	2.04	19.4	1.4	1.9	1.2	10.1	0.32	1.65	0.17	31	0.06	0.065
3206266	Soil	11.15	27.07	46.25	172.3	188	34.2	5.7	124	2.10	20.9	1.7	1.0	0.5	19.7	0.35	1.32	0.29	57	0.15	0.065
3206267	Soil	6.02	56.75	56.29	235.1	814	41.5	13.9	242	2.69	23.4	6.3	3.0	2.6	33.7	0.61	2.00	0.35	44	0.38	0.104
3206268	Soil	5.78	45.22	47.63	207.5	620	37.5	9.2	195	2.46	19.6	5.2	2.5	2.9	31.9	0.48	1.89	0.36	44	0.35	0.100
3206269	Soil	5.97	41.95	46.41	226.5	449	36.9	13.3	373	2.62	15.9	5.1	2.7	3.8	27.1	0.58	1.51	0.32	44	0.30	0.105
3206270	Soil	5.25	39.67	42.64	207.4	774	37.4	11.8	458	2.39	18.3	4.6	2.5	2.2	36.1	1.05	1.61	0.27	41	0.46	0.105
3206271	Soil	2.55	33.65	21.84	70.1	356	18.1	3.3	151	1.05	7.0	3.0	0.9	3.3	22.5	1.01	0.77	0.25	23	0.30	0.038
3206272	Soil	4.31	16.46	19.64	82.3	68	15.7	3.4	102	1.53	14.7	1.3	0.8	4.1	16.8	0.40	1.58	0.23	42	0.19	0.054
3206273	Soil	6.38	28.44	66.52	276.5	408	35.8	9.6	347	2.79	24.9	2.8	2.1	2.9	25.6	0.70	1.58	0.33	43	0.31	0.100
3206274	Soil	8.25	34.86	60.61	272.7	735	38.8	8.3	165	5.09	68.7	3.3	3.2	4.2	25.7	1.41	1.72	0.28	39	0.35	0.119
3206275	Soil	3.80	35.03	74.56	270.8	738	38.6	6.9	202	3.68	33.7	3.5	3.2	4.6	31.3	1.01	1.29	0.31	42	0.42	0.090
3206276	Soil	2.59	35.66	58.03	220.9	653	34.0	5.7	201	1.68	12.6	3.2	3.6	3.9	25.8	0.69	0.88	0.26	42	0.29	0.069
3206277	Soil	4.51	47.38	49.72	187.7	689	42.3	6.5	372	2.41	23.2	3.7	3.9	1.7	29.3	0.42	1.29	0.23	41	0.32	0.094
3206278	Soil	13.15	56.78	50.29	248.1	698	27.4	5.4	164	3.57	41.0	1.6	3.0	0.3	15.4	0.69	5.13	0.31	26	0.23	0.095
3206279	Soil	5.55	94.35	35.63	133.9	359	68.9	11.2	112	2.93	17.7	2.0	4.0	0.2	42.8	0.49	4.61	0.43	35	0.01	0.112
3206280	Soil	6.12	109.17	40.70	152.6	434	80.2	12.5	130	3.35	20.0	2.1	7.8	0.2	49.0	0.52	5.23	0.49	40	0.01	0.125





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**Project:** MacMillan Pass

**Report Date:** October 18, 2018

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02
3206251	Soil	16.9	15.6	0.20	359.1	0.007	<20	1.12	0.006	0.11	0.2	2.0	0.27	0.03	110	1.1	0.06
3206252	Soil	18.0	17.7	0.09	134.3	0.002	<20	1.17	0.003	0.09	<0.1	0.5	0.31	0.06	142	2.6	0.09
3206253	Soil	7.4	6.9	0.02	33.1	0.005	<20	0.55	0.011	0.03	<0.1	0.2	0.07	0.04	43	0.9	0.04
3206254	Soil	26.9	8.8	0.02	74.4	0.008	<20	0.27	<0.001	0.05	<0.1	1.1	0.10	0.03	7	2.6	0.13
3206255	Soil	18.8	10.5	0.02	104.5	0.002	<20	0.37	<0.001	0.06	<0.1	0.9	0.17	0.02	30	3.4	0.11
3206256	Soil	18.8	6.7	0.01	58.9	0.002	<20	0.26	<0.001	0.04	<0.1	0.8	0.09	0.02	9	3.1	0.09
3206257	Soil	24.8	6.5	<0.01	58.7	0.005	<20	0.18	<0.001	0.04	<0.1	0.7	0.09	0.03	8	2.9	0.09
3206258	Soil	7.3	5.5	0.02	120.5	0.003	<20	0.48	0.016	0.04	<0.1	0.3	0.08	0.02	29	1.3	0.05
3206259	Soil	28.6	14.6	0.19	141.1	0.003	<20	0.91	0.002	0.06	<0.1	1.2	0.09	<0.02	32	1.4	0.06
3206260	Rock Pulp	25.3	29.5	0.44	56.6	0.067	<20	0.75	0.080	0.12	<0.1	2.7	0.08	0.04	12	<0.1	<0.02
3206261	Soil	25.3	11.2	0.14	106.4	0.003	<20	0.58	<0.001	0.05	<0.1	1.2	0.13	0.02	27	2.6	0.08
3206262	Soil	31.0	13.2	0.21	116.6	0.005	<20	0.80	<0.001	0.05	<0.1	1.4	0.11	<0.02	23	1.7	0.07
3206263	Soil	22.2	12.2	0.18	85.7	0.005	<20	0.74	0.002	0.06	0.1	0.8	0.13	<0.02	31	1.1	0.06
3206264	Soil	14.3	14.8	0.21	166.9	0.005	<20	1.08	0.006	0.07	<0.1	1.2	0.18	0.03	74	1.1	0.05
3206265	Soil	19.3	11.9	0.16	198.4	0.005	<20	0.68	0.003	0.06	<0.1	0.9	0.16	<0.02	58	1.0	0.06
3206266	Soil	19.2	14.3	0.17	198.6	0.004	<20	0.88	0.001	0.08	0.1	0.7	0.26	<0.02	46	1.1	0.07
3206267	Soil	16.9	20.4	0.31	380.0	0.018	<20	1.49	0.008	0.14	0.2	2.4	0.33	0.05	167	2.3	0.07
3206268	Soil	18.3	20.1	0.29	359.9	0.020	<20	1.30	0.008	0.14	0.2	2.3	0.33	0.03	143	1.9	0.07
3206269	Soil	21.8	23.1	0.33	326.6	0.019	<20	1.33	0.003	0.13	0.2	2.5	0.29	0.02	138	1.6	0.07
3206270	Soil	16.8	17.2	0.25	423.2	0.015	<20	1.25	0.007	0.12	0.2	2.1	0.33	0.04	147	2.0	0.05
3206271	Soil	22.7	11.1	0.15	245.4	0.025	<20	0.59	0.002	0.08	0.2	1.3	0.18	<0.02	39	0.5	0.02
3206272	Soil	21.0	11.7	0.20	157.6	0.057	<20	0.64	0.006	0.09	0.1	1.2	0.17	<0.02	21	0.7	0.03
3206273	Soil	18.9	19.6	0.27	291.2	0.013	<20	1.18	0.005	0.11	0.2	1.9	0.26	0.02	93	1.3	0.07
3206274	Soil	13.4	16.1	0.22	364.6	0.011	<20	1.23	0.005	0.10	0.2	2.3	0.25	0.23	144	4.9	0.06
3206275	Soil	16.2	17.0	0.23	408.2	0.010	<20	1.22	0.006	0.11	<0.1	2.4	0.26	0.06	149	4.2	0.06
3206276	Soil	19.6	16.4	0.21	435.0	0.007	<20	1.12	0.006	0.12	<0.1	2.2	0.27	0.03	136	1.9	0.06
3206277	Soil	13.8	14.2	0.15	420.8	0.007	<20	1.03	0.010	0.10	<0.1	1.7	0.24	0.03	120	1.4	0.05
3206278	Soil	7.8	7.3	0.06	306.7	0.003	<20	0.56	<0.001	0.05	0.1	0.6	0.20	0.02	34	2.0	0.07
3206279	Soil	19.2	11.0	0.02	96.8	0.001	<20	0.55	0.003	0.05	0.1	0.3	0.07	0.05	19	3.2	0.15
3206280	Soil	21.5	12.1	0.03	110.3	0.001	<20	0.61	0.001	0.05	0.1	0.4	0.08	0.06	27	3.8	0.15



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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3206281	Soil	6.39	62.79	30.64	100.5	165	39.9	8.2	102	2.11	13.9	1.0	1.3	0.3	19.1	0.40	3.62	0.32	37	0.01	0.072
3206282	Soil	8.49	96.27	35.53	217.8	1091	45.9	6.8	121	3.09	61.4	2.1	5.0	0.5	25.9	0.47	3.67	0.33	46	0.01	0.097
3206283	Soil	10.52	93.58	33.95	292.5	458	54.5	8.0	102	3.24	48.7	1.6	1.5	0.3	20.8	0.46	4.12	0.33	53	0.01	0.087
3206284	Soil	7.79	57.41	42.48	212.1	336	38.8	5.8	133	2.65	47.7	1.4	1.5	0.3	21.4	0.52	2.32	0.32	38	<0.01	0.081
3206285	Soil	5.32	33.35	28.28	75.5	323	17.7	2.1	94	1.50	13.9	0.9	1.7	0.4	13.0	0.34	1.05	0.17	34	<0.01	0.046
3206286	Soil	4.79	32.67	32.18	204.9	749	31.6	6.4	250	2.23	19.6	1.5	3.1	1.6	29.7	1.14	1.20	0.31	34	0.24	0.076
3206287	Soil	4.76	37.13	25.95	215.3	654	36.1	6.0	171	2.15	16.6	2.3	3.1	3.0	40.3	1.03	1.60	0.27	30	0.56	0.084
3206288	Soil	3.51	20.62	24.58	128.6	510	21.1	3.0	122	1.36	12.4	1.0	2.3	1.6	31.6	0.49	1.14	0.26	26	0.45	0.058
3206289	Soil	8.95	54.94	66.00	241.7	703	46.0	5.4	241	2.46	27.2	2.6	3.5	4.8	28.2	1.05	2.38	0.25	45	0.30	0.077
3206290	Soil	7.08	34.53	54.63	174.2	435	33.1	3.9	138	2.13	21.9	1.3	2.9	2.3	21.9	0.44	1.70	0.24	44	0.13	0.075
3206291	Soil	9.95	46.49	61.48	219.4	253	39.9	5.3	250	2.27	24.0	1.6	3.4	4.0	16.9	0.75	1.92	0.22	45	0.11	0.074
3206292	Soil	6.43	36.60	47.08	187.1	501	29.1	5.0	224	2.13	21.5	2.1	5.1	2.3	24.5	0.41	1.39	0.26	43	0.21	0.082
3206293	Soil	4.62	38.17	42.13	171.9	523	30.8	5.6	156	2.05	20.5	2.5	3.8	2.3	28.3	0.70	1.29	0.26	43	0.23	0.082
3206294	Soil	4.97	58.06	45.16	206.5	829	45.2	10.9	231	2.29	22.4	4.1	4.7	2.7	40.7	0.84	1.47	0.29	46	0.45	0.082
3206295	Soil	3.82	38.91	41.10	199.3	573	35.9	8.6	157	2.12	19.3	3.0	4.3	2.5	35.4	0.50	1.21	0.31	39	0.43	0.077
3206296	Soil	4.32	50.83	45.34	196.8	631	41.2	6.5	147	2.19	19.8	3.1	4.5	2.5	39.2	0.81	1.32	0.31	41	0.40	0.074
3206297	Soil	4.14	24.89	31.58	113.9	383	21.1	2.9	76	1.51	13.3	1.5	2.6	1.5	23.4	0.35	0.94	0.22	37	0.17	0.071
3206298	Soil	4.51	43.88	41.48	164.2	594	33.0	6.6	264	1.98	18.6	3.3	4.3	2.4	33.1	0.55	1.14	0.29	41	0.28	0.071
3206299	Soil	3.42	43.84	37.96	220.3	550	39.2	8.2	205	1.99	16.3	3.0	3.6	2.6	36.9	0.80	1.17	0.29	39	0.46	0.072
3206300	Rock Pulp	11.98	157.09	266.84	201.8	101	74.2	46.0	265	1.56	9.2	0.4	39.2	3.2	32.5	0.48	0.16	0.15	23	0.53	0.051
3206301	Soil	3.43	39.11	17.46	81.6	165	17.7	4.3	93	1.65	12.1	1.4	2.1	1.3	7.9	0.29	1.21	0.34	32	0.03	0.057
3206302	Soil	4.21	31.85	23.79	170.7	252	23.9	5.1	136	2.37	26.4	1.4	1.8	1.1	12.2	1.02	1.68	0.35	31	0.11	0.082
3206303	Soil	8.06	77.86	42.24	266.6	236	44.4	11.5	256	3.19	38.8	2.1	2.0	4.7	31.6	1.68	3.00	0.30	46	0.36	0.176
3206304	Soil	5.63	133.93	31.09	255.5	684	42.0	12.2	177	2.94	20.2	2.1	5.7	3.2	22.4	2.24	2.59	0.30	26	0.20	0.065
3206305	Soil	3.24	23.34	5.62	44.6	126	7.4	1.5	11	0.55	5.0	0.7	0.5	0.2	3.7	0.37	0.74	0.08	16	0.02	0.033
3206306	Soil	4.41	36.93	41.75	244.7	712	33.5	9.1	196	2.25	19.0	2.8	4.1	1.3	21.2	0.99	1.23	0.30	41	0.13	0.106
3206307	Soil	7.20	98.24	50.68	189.3	644	55.1	12.0	195	4.70	462.9	2.9	6.6	1.3	67.9	0.47	5.47	0.72	45	0.01	0.155
3206308	Soil	5.66	85.92	36.30	196.9	565	55.5	11.0	133	3.64	274.1	3.5	5.6	1.3	42.7	0.42	4.73	0.48	33	0.01	0.116
3206309	Soil	3.54	68.18	20.82	124.2	402	38.8	7.4	187	2.16	48.5	2.6	4.2	1.1	25.3	0.29	3.28	0.27	22	0.07	0.096
3206310	Soil	3.93	50.27	22.64	59.9	1082	25.1	4.2	64	1.55	18.7	0.7	7.8	<0.1	17.5	0.21	2.80	0.23	22	0.02	0.077



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		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3206281	Soil	24.2	9.4	<0.01	68.6	0.004	<20	0.46	0.003	0.04	0.2	0.4	0.04	0.04	22	2.7	0.11	1.7
3206282	Soil	20.6	9.2	0.02	88.5	0.005	<20	0.55	0.004	0.06	<0.1	0.8	0.12	0.03	38	3.6	0.14	2.4
3206283	Soil	25.6	14.7	0.01	76.8	0.004	<20	0.48	0.005	0.04	0.1	0.5	0.07	0.03	18	3.9	0.16	2.9
3206284	Soil	21.7	8.4	0.01	99.7	0.002	<20	0.40	<0.001	0.05	<0.1	0.4	0.13	0.03	12	3.1	0.13	1.7
3206285	Soil	20.3	11.4	0.05	122.1	0.002	<20	0.52	0.001	0.07	<0.1	0.5	0.14	0.02	26	1.2	0.07	1.9
3206286	Soil	17.8	16.9	0.20	213.2	0.008	<20	1.13	0.009	0.11	0.1	1.4	0.19	0.03	80	2.6	0.05	3.6
3206287	Soil	17.4	12.9	0.23	202.7	0.008	<20	1.04	0.009	0.09	0.5	1.6	0.16	0.04	98	1.9	0.05	2.8
3206288	Soil	10.5	8.4	0.10	161.8	0.005	<20	0.58	0.014	0.08	<0.1	1.0	0.10	0.03	61	1.7	0.04	1.9
3206289	Soil	22.6	14.5	0.15	279.0	0.005	<20	0.75	0.003	0.12	0.1	2.1	0.20	0.02	118	2.7	0.08	2.1
3206290	Soil	16.1	12.4	0.11	267.2	0.004	<20	0.85	0.004	0.13	<0.1	1.5	0.19	0.03	106	2.9	0.07	2.4
3206291	Soil	24.5	13.2	0.13	303.7	0.003	<20	0.70	0.001	0.12	<0.1	1.8	0.20	<0.02	97	2.1	0.08	2.1
3206292	Soil	16.8	12.9	0.11	290.1	0.003	<20	0.83	0.002	0.13	<0.1	1.7	0.17	0.02	89	1.9	0.07	2.3
3206293	Soil	18.2	14.5	0.12	244.2	0.004	<20	0.78	0.005	0.13	<0.1	1.7	0.18	0.04	78	2.1	0.06	2.1
3206294	Soil	18.5	16.6	0.15	289.3	0.005	<20	0.94	0.006	0.14	<0.1	2.1	0.21	0.04	115	2.7	0.07	2.5
3206295	Soil	18.3	13.7	0.17	238.6	0.006	<20	0.92	0.007	0.13	<0.1	1.8	0.19	0.03	89	2.1	0.08	2.5
3206296	Soil	18.2	14.8	0.14	307.2	0.005	<20	0.91	0.005	0.12	<0.1	1.9	0.20	0.04	96	2.9	0.09	2.5
3206297	Soil	17.0	12.5	0.10	194.1	0.004	<20	0.68	0.004	0.11	<0.1	1.3	0.17	0.03	64	1.6	0.06	2.3
3206298	Soil	18.6	13.8	0.14	313.5	0.006	<20	0.95	0.009	0.12	<0.1	1.9	0.20	0.03	104	1.7	0.08	2.7
3206299	Soil	19.1	15.1	0.19	276.0	0.008	<20	0.98	0.007	0.13	<0.1	1.9	0.22	0.04	106	2.1	0.06	2.8
3206300	Rock Pulp	26.2	31.4	0.46	59.3	0.074	<20	0.78	0.084	0.12	<0.1	3.0	0.08	0.04	18	<0.1	<0.02	2.7
3206301	Soil	21.3	8.6	0.06	88.2	0.011	<20	0.47	0.003	0.06	0.1	0.8	0.16	<0.02	19	1.3	0.04	2.5
3206302	Soil	20.0	13.1	0.11	94.2	0.011	<20	0.80	0.002	0.05	0.2	0.8	0.23	<0.02	32	1.2	0.08	3.4
3206303	Soil	22.2	15.2	0.13	186.0	0.008	<20	0.69	0.004	0.12	0.1	1.9	0.23	<0.02	16	2.8	0.10	1.9
3206304	Soil	24.6	9.2	0.09	189.6	0.006	<20	0.66	0.008	0.08	<0.1	1.9	0.19	<0.02	74	1.9	0.08	1.8
3206305	Soil	10.3	3.8	0.01	90.1	0.003	<20	0.32	0.002	0.05	<0.1	0.2	0.13	<0.02	19	0.6	0.03	2.0
3206306	Soil	17.5	15.0	0.16	260.6	0.007	<20	1.06	0.007	0.12	<0.1	1.4	0.24	0.03	111	1.6	0.08	3.2
3206307	Soil	22.2	20.7	0.14	124.3	0.005	<20	0.84	0.003	0.07	0.1	2.1	0.14	0.09	76	4.4	0.24	3.7
3206308	Soil	21.3	14.6	0.09	104.2	0.003	<20	0.67	0.002	0.07	0.1	1.4	0.12	0.07	77	2.8	0.15	2.6
3206309	Soil	16.3	7.9	0.09	81.4	0.014	<20	0.75	0.016	0.06	0.1	1.4	0.10	0.03	20	1.8	0.09	2.1
3206310	Soil	10.4	7.4	0.02	46.3	0.002	<20	0.26	0.013	0.04	<0.1	0.2	0.04	0.03	31	2.3	0.07	1.5



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Project:

MacMillan Pass

Report Date:

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3206311	Soil	6.35	65.91	75.58	157.8	526	41.6	6.0	178	3.17	115.3	1.3	8.9	1.2	41.3	0.59	2.75	0.51	34	0.01	0.127
3206312	Soil	4.02	24.59	33.77	155.1	210	26.9	11.7	979	2.81	201.7	1.1	2.4	0.8	21.9	3.90	1.98	0.30	26	0.46	0.100
3206313	Soil	10.55	49.58	25.23	240.2	596	61.7	5.6	256	2.06	27.1	1.9	4.4	3.8	31.0	2.77	2.60	0.21	46	0.37	0.073
3206314	Soil	5.05	30.06	26.46	273.0	564	67.7	6.8	815	2.59	94.0	1.5	2.7	3.1	36.4	1.17	1.45	0.26	36	0.48	0.089
3206315	Soil	4.73	48.79	33.77	259.6	671	75.9	6.6	384	2.29	39.1	1.6	2.9	3.0	48.1	2.64	1.54	0.26	43	0.68	0.087
3206316	Soil	4.21	36.57	42.85	230.3	569	52.5	7.2	289	2.35	38.2	1.3	3.0	3.9	43.0	1.14	1.29	0.26	45	0.59	0.082
3206317	Soil	6.70	31.34	62.09	174.7	393	31.9	9.4	297	2.80	49.4	2.5	2.5	3.3	43.1	0.40	1.08	0.32	55	0.52	0.081
3206318	Soil	5.74	46.61	41.98	168.9	339	34.9	10.1	231	2.05	19.4	3.3	1.5	2.3	42.1	0.92	1.11	0.31	42	0.54	0.059
3206319	Soil	2.46	26.17	20.66	127.9	405	27.7	3.0	55	0.97	6.1	3.5	1.7	1.0	33.0	1.06	1.10	0.10	19	0.49	0.039
3206320	Soil	2.62	26.02	20.94	130.4	381	28.4	2.9	56	0.97	6.0	3.4	1.4	1.0	31.4	0.96	1.06	0.10	20	0.46	0.040
3206321	Soil	5.14	63.44	43.71	276.7	841	54.2	10.3	411	2.59	21.9	9.1	3.5	2.5	61.4	1.71	2.12	0.34	50	1.04	0.099
3206322	Soil	4.91	31.61	27.35	165.2	396	33.9	5.2	238	1.80	13.0	4.4	2.6	2.4	37.7	1.09	1.86	0.20	31	0.52	0.083
3206323	Soil	9.82	37.77	56.61	207.2	313	40.6	10.9	483	2.59	25.6	1.6	1.9	4.7	13.8	0.75	2.35	0.20	41	0.08	0.065
3206324	Soil	7.48	32.30	42.13	185.6	288	33.9	6.0	381	2.27	19.2	2.1	2.4	2.9	23.9	1.06	1.46	0.26	48	0.22	0.070
3206325	Soil	6.07	22.66	41.35	167.5	489	28.2	6.3	276	2.10	18.9	1.8	1.8	1.2	16.9	0.51	1.21	0.24	44	0.13	0.058
3206326	Soil	5.00	27.75	34.78	171.1	519	30.2	7.0	256	2.33	15.8	2.6	1.9	1.5	19.2	0.78	1.49	0.29	43	0.18	0.070
3206327	Soil	6.32	36.04	45.46	203.4	425	37.2	6.0	273	2.23	18.8	2.4	2.0	3.4	26.9	0.67	1.75	0.24	41	0.32	0.080
3206328	Soil	9.57	40.44	56.92	209.5	336	38.8	6.8	306	2.52	24.9	1.9	1.6	4.6	21.1	0.65	2.08	0.21	41	0.25	0.080
3206329	Soil	5.87	32.91	34.90	221.5	612	31.3	6.2	164	2.10	21.7	1.7	2.7	2.0	26.9	0.97	1.92	0.30	32	0.36	0.099
3206330	Soil	3.45	21.30	14.86	109.1	446	18.4	4.3	119	1.63	19.3	1.0	0.8	<0.1	15.7	0.66	1.32	0.23	22	0.24	0.106
3206331	Soil	8.38	45.01	53.56	182.5	494	33.1	6.2	295	2.44	24.9	2.2	4.1	2.1	17.9	0.83	2.03	0.27	38	0.14	0.093
3206332	Soil	4.88	56.80	23.55	230.4	403	43.9	5.4	53	2.39	5.0	2.0	10.2	0.2	11.4	0.68	2.87	0.25	54	0.05	0.094
3206333	Soil	6.32	148.99	38.88	179.1	905	35.3	7.7	92	3.90	29.1	1.6	4.7	0.2	12.0	0.92	3.39	0.35	27	0.09	0.226
3206334	Soil	17.75	26.19	22.43	204.2	414	55.0	5.3	213	1.49	20.8	2.4	2.7	0.4	25.3	1.01	4.15	0.14	27	0.51	0.065
3206335	Soil	29.78	46.32	32.93	558.1	336	109.3	8.8	248	2.43	30.7	2.9	5.8	4.4	66.1	0.87	5.05	0.27	27	2.76	0.087
3206336	Soil	5.37	28.58	25.51	176.5	488	22.9	2.6	84	1.27	14.8	4.4	3.1	2.5	24.9	0.93	1.37	0.21	28	0.39	0.046
3206337	Soil	10.63	18.75	14.63	205.3	234	34.7	2.8	111	0.93	11.4	3.3	1.6	0.6	30.5	1.05	2.81	0.08	23	0.75	0.093
3206338	Soil	4.77	21.22	24.18	121.6	417	19.5	3.0	107	1.11	10.4	2.0	2.3	0.9	23.9	0.42	1.11	0.14	25	0.29	0.059
3206339	Soil	6.21	33.62	35.96	138.8	199	22.3	3.9	75	1.87	21.1	2.8	2.0	0.9	21.9	0.96	1.54	0.27	34	0.16	0.054
3206340	Rock Pulp	0.72	22.32	2.10	18.9	29	15.9	5.7	260	1.38	0.6	0.4	0.6	2.8	28.9	0.03	0.05	0.03	20	0.55	0.059



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**Project:** MacMillan Pass

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	Method	Analyte	Unit	MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250			
					La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
					ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
					0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3206311	Soil				28.2	13.8	0.04	140.9	0.002	<20	0.48	0.003	0.09	<0.1	1.0	0.11	0.04	36	2.8	0.15	2.3
3206312	Soil				19.1	12.2	0.20	121.8	0.007	<20	0.87	0.009	0.07	0.5	1.2	0.13	0.04	40	1.1	0.05	2.9
3206313	Soil				17.6	14.3	0.20	176.6	0.008	<20	0.81	0.007	0.12	0.1	2.1	0.28	0.04	114	2.3	0.08	2.2
3206314	Soil				16.1	16.3	0.24	172.9	0.015	<20	0.99	0.007	0.11	<0.1	2.0	0.21	0.04	84	1.9	0.04	2.8
3206315	Soil				17.4	17.6	0.26	265.4	0.011	<20	1.13	0.010	0.11	<0.1	2.1	0.24	0.06	114	2.9	0.06	2.9
3206316	Soil				19.1	17.7	0.25	220.1	0.008	<20	1.06	0.008	0.13	0.2	2.2	0.21	0.04	96	2.0	0.05	3.0
3206317	Soil				16.8	16.8	0.19	266.5	0.005	<20	1.02	0.006	0.11	0.1	1.9	0.24	0.04	73	2.8	0.06	3.4
3206318	Soil				16.4	18.4	0.26	203.1	0.013	<20	0.98	0.008	0.09	0.2	1.6	0.18	0.03	47	1.5	0.06	3.5
3206319	Soil				6.7	8.1	0.09	218.9	0.008	<20	0.62	0.024	0.08	<0.1	1.0	0.14	0.04	57	1.3	0.03	1.6
3206320	Soil				7.1	9.0	0.10	223.8	0.009	<20	0.64	0.025	0.08	<0.1	1.0	0.14	0.04	61	1.4	0.03	1.7
3206321	Soil				15.8	21.1	0.31	442.2	0.023	<20	1.46	0.013	0.17	0.2	2.3	0.31	0.08	141	3.2	0.08	4.2
3206322	Soil				14.2	14.8	0.22	384.6	0.018	<20	0.95	0.013	0.11	0.1	1.9	0.22	0.05	90	2.6	0.04	2.9
3206323	Soil				29.6	13.8	0.16	200.6	0.007	<20	0.78	0.004	0.07	<0.1	1.6	0.17	<0.02	33	2.0	0.05	2.1
3206324	Soil				20.5	19.3	0.21	369.1	0.012	<20	1.05	0.006	0.14	0.2	1.9	0.27	0.03	98	1.9	0.06	3.5
3206325	Soil				19.3	16.7	0.18	294.3	0.014	<20	0.95	0.010	0.12	0.1	1.4	0.23	<0.02	49	1.2	0.06	3.5
3206326	Soil				14.9	18.6	0.26	343.4	0.027	<20	1.37	0.013	0.18	0.2	2.0	0.33	0.03	77	1.5	0.06	4.4
3206327	Soil				19.8	15.0	0.19	288.4	0.012	<20	0.96	0.008	0.11	<0.1	2.0	0.21	0.03	86	2.5	0.07	2.7
3206328	Soil				24.2	14.3	0.19	245.1	0.006	<20	0.79	0.003	0.09	<0.1	1.9	0.17	<0.02	64	2.3	0.06	2.3
3206329	Soil				17.0	12.4	0.15	250.9	0.011	<20	0.81	0.005	0.08	0.1	1.5	0.21	0.03	78	1.6	0.08	3.1
3206330	Soil				12.4	7.9	0.07	112.8	0.003	<20	0.71	0.008	0.04	<0.1	0.2	0.16	<0.02	32	0.7	0.04	2.9
3206331	Soil				21.9	13.2	0.16	289.0	0.004	<20	0.87	0.001	0.08	<0.1	1.9	0.20	0.02	103	1.6	0.06	2.5
3206332	Soil				16.3	16.1	0.35	169.1	0.019	<20	0.87	0.004	0.27	<0.1	0.5	0.29	0.03	29	3.9	0.07	4.8
3206333	Soil				15.9	7.8	0.02	92.3	0.002	<20	0.49	0.003	0.07	0.1	0.3	0.11	0.04	40	3.7	0.10	1.9
3206334	Soil				6.7	7.6	0.13	106.1	0.005	<20	0.42	0.013	0.05	<0.1	0.9	0.27	0.03	165	1.2	0.03	1.2
3206335	Soil				13.8	12.4	1.38	140.6	0.009	<20	0.57	0.002	0.07	0.2	2.0	0.69	0.02	225	1.8	0.11	1.6
3206336	Soil				17.2	9.0	0.08	160.9	0.003	<20	0.45	<0.001	0.06	<0.1	1.2	0.19	0.02	104	1.4	0.07	1.4
3206337	Soil				6.8	5.3	0.04	88.1	0.006	<20	0.39	0.020	0.05	<0.1	0.6	0.22	0.04	199	1.7	0.02	1.1
3206338	Soil				10.0	6.7	0.08	233.1	0.005	<20	0.58	0.013	0.06	<0.1	0.9	0.13	0.02	78	0.8	0.05	1.8
3206339	Soil				19.2	8.9	0.06	134.9	0.004	<20	0.52	0.003	0.07	<0.1	0.9	0.12	0.02	24	1.5	0.05	2.5
3206340	Rock Pulp				16.5	26.5	0.43	59.0	0.064	<20	0.72	0.074	0.10	<0.1	2.5	0.07	<0.02	12	<0.1	<0.02	2.5



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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3206341	Soil	4.13	52.51	31.07	296.6	355	40.3	13.5	271	3.47	23.5	2.6	1.7	15.7	31.4	0.73	2.70	0.48	25	0.28	0.128
3206342	Soil	6.86	52.84	57.45	226.8	790	71.9	20.1	1298	2.67	41.9	4.0	3.8	4.3	46.4	0.72	2.09	0.30	38	0.52	0.082
3206343	Soil	4.67	39.55	58.18	207.3	694	46.1	8.5	355	2.46	27.5	1.8	1.4	5.0	67.2	0.46	1.54	0.27	38	2.56	0.073
3206344	Soil	9.20	41.65	63.60	171.5	531	32.3	6.9	286	3.15	48.3	2.0	2.9	5.7	23.7	0.45	1.68	0.31	47	0.24	0.075
3206345	Soil	5.49	41.72	53.77	235.8	652	48.2	10.0	937	2.70	30.8	4.0	1.5	3.2	37.3	0.69	1.56	0.29	39	0.32	0.092
3206346	Soil	2.34	23.63	34.97	105.3	449	24.6	5.5	850	1.67	15.0	3.4	1.9	1.4	69.0	0.77	1.23	0.24	25	0.96	0.077
3206347	Soil	4.96	42.45	65.19	154.5	400	32.6	8.3	278	2.68	23.5	1.0	2.1	5.3	33.6	0.54	1.65	0.30	36	0.38	0.090
3206348	Soil	3.29	27.90	47.37	116.5	1031	25.3	5.8	322	1.81	13.0	1.8	1.6	2.8	66.1	0.51	1.44	0.22	28	0.64	0.072
3206349	Soil	6.77	25.49	70.94	116.3	489	23.7	7.9	348	2.52	23.2	2.3	1.5	4.2	22.8	0.47	1.39	0.29	36	0.18	0.091
3206350	Soil	5.75	22.72	57.60	148.6	314	25.7	8.5	419	2.54	28.2	2.0	2.3	4.3	28.0	0.56	1.44	0.29	40	0.24	0.091



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**Project:** MacMillan Pass

**Report Date:** October 18, 2018

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# CERTIFICATE OF ANALYSIS

WHI18000980.1

	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3206341	Soil	37.0	19.1	0.41	141.2	0.030	<20	1.34	0.005	0.16	0.3	2.9	0.25	<0.02	59	1.2	0.04	4.3
3206342	Soil	17.0	15.5	0.16	644.7	0.006	<20	1.14	0.006	0.13	0.2	2.3	0.25	0.05	166	2.1	0.07	2.9
3206343	Soil	14.1	15.9	0.22	412.5	0.006	<20	0.92	0.004	0.14	<0.1	2.4	0.27	0.11	139	6.2	0.04	2.7
3206344	Soil	24.2	16.5	0.20	536.7	0.005	<20	1.04	0.002	0.10	<0.1	2.3	0.21	<0.02	114	2.6	0.07	2.9
3206345	Soil	18.6	17.0	0.19	523.9	0.007	<20	1.20	0.006	0.14	<0.1	2.3	0.20	0.03	162	1.7	0.05	3.4
3206346	Soil	12.0	12.8	0.25	390.0	0.011	<20	0.91	0.010	0.09	<0.1	1.4	0.15	0.05	90	1.8	0.03	2.6
3206347	Soil	20.4	18.1	0.24	728.4	0.007	<20	1.09	0.003	0.11	<0.1	2.3	0.19	0.03	115	1.8	0.05	3.1
3206348	Soil	11.7	14.2	0.18	580.8	0.006	<20	0.99	0.009	0.11	<0.1	2.0	0.19	0.05	119	2.1	0.07	2.6
3206349	Soil	21.0	15.4	0.21	599.9	0.005	<20	1.06	0.006	0.09	<0.1	1.8	0.20	0.02	142	1.7	0.04	3.3
3206350	Soil	19.3	17.0	0.21	396.7	0.007	<20	1.10	0.001	0.10	<0.1	2.0	0.20	0.02	121	1.9	0.06	3.2



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## QUALITY CONTROL REPORT

WHI18000980.1

Method Analyte Unit MDL		AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
3201655	Soil	3.85	44.38	16.11	39.4	200	10.9	1.8	59	1.22	10.6	0.8	2.7	<0.1	14.4	0.07	1.59	0.19	25	0.02	0.067
REP 3201655	QC	3.75	43.90	16.79	40.9	207	10.2	1.7	53	1.26	9.9	0.8	1.7	<0.1	15.5	0.09	1.62	0.18	25	0.02	0.069
3201691	Soil	5.46	46.69	49.87	212.1	568	44.3	6.6	322	2.22	21.7	3.0	5.3	2.4	41.1	1.00	1.86	0.29	50	0.69	0.097
REP 3201691	QC	5.30	45.70	47.47	202.5	548	43.9	6.5	307	2.18	20.7	2.8	4.3	2.2	39.1	0.96	1.81	0.28	48	0.63	0.092
3201727	Soil	6.72	34.80	43.77	216.2	416	43.1	14.4	273	2.66	22.1	2.1	1.7	3.2	18.6	0.66	2.13	0.29	40	0.21	0.096
REP 3201727	QC	6.79	35.62	43.48	217.5	427	43.0	14.4	273	2.64	22.2	2.1	1.3	2.9	18.5	0.66	2.09	0.29	39	0.21	0.095
3201763	Soil	7.89	70.23	20.72	530.9	2165	65.6	7.1	121	2.27	21.7	5.8	4.7	0.3	27.6	2.32	4.46	0.19	54	0.77	0.387
REP 3201763	QC	7.87	69.17	20.65	529.7	2121	64.2	7.0	119	2.25	21.3	5.7	5.1	0.3	27.5	2.32	4.45	0.17	56	0.77	0.389
3201799	Soil	0.99	22.85	26.72	72.7	94	14.5	6.3	2759	7.28	25.1	0.4	1.0	1.5	21.4	0.43	0.87	0.18	18	0.75	0.057
REP 3201799	QC	0.91	21.94	26.85	70.6	95	14.1	6.0	2761	7.20	23.9	0.4	1.1	1.5	21.2	0.42	0.91	0.18	18	0.75	0.059
3206225	Soil	4.19	35.53	28.16	80.5	696	19.5	3.3	83	1.61	16.0	0.8	2.4	<0.1	20.2	0.12	2.27	0.26	22	0.01	0.055
REP 3206225	QC	4.01	35.02	26.51	84.2	650	18.5	2.8	75	1.62	14.9	0.8	2.6	<0.1	20.4	0.09	2.14	0.25	22	0.01	0.053
3206261	Soil	11.33	48.14	32.77	190.6	239	40.4	11.1	231	2.35	24.4	1.8	3.9	3.1	15.3	0.66	2.07	0.24	34	0.07	0.067
REP 3206261	QC	11.10	47.38	33.04	202.2	232	42.4	10.9	238	2.33	24.4	1.8	2.4	3.1	15.3	0.67	2.15	0.24	34	0.07	0.066
3206297	Soil	4.14	24.89	31.58	113.9	383	21.1	2.9	76	1.51	13.3	1.5	2.6	1.5	23.4	0.35	0.94	0.22	37	0.17	0.071
REP 3206297	QC	4.27	24.63	32.17	118.7	399	21.0	2.9	74	1.49	13.4	1.5	3.3	1.5	23.7	0.37	1.00	0.23	35	0.17	0.069
3206331	Soil	8.38	45.01	53.56	182.5	494	33.1	6.2	295	2.44	24.9	2.2	4.1	2.1	17.9	0.83	2.03	0.27	38	0.14	0.093
REP 3206331	QC	8.02	41.08	54.44	195.0	483	36.4	6.3	285	2.45	24.6	2.3	3.0	1.9	17.3	0.78	1.94	0.26	37	0.14	0.090
Reference Materials																					
STD DS11	Standard	14.04	149.53	133.94	331.0	1739	77.9	13.6	1006	3.04	41.4	2.4	63.4	7.5	63.3	2.40	5.68	11.33	47	1.03	0.068
STD DS11	Standard	13.59	140.88	134.14	320.2	1591	77.8	13.2	968	2.92	42.6	2.3	64.7	7.1	60.3	2.21	5.90	10.78	47	0.99	0.066
STD DS11	Standard	15.42	157.61	138.27	323.7	1749	78.8	13.8	960	3.16	43.5	2.7	60.1	7.3	73.4	2.45	6.33	12.55	48	1.05	0.066
STD DS11	Standard	14.40	155.28	135.55	328.2	1680	79.2	13.4	1011	3.04	45.1	2.4	78.1	7.3	65.5	2.46	6.21	11.90	46	1.03	0.066
STD DS11	Standard	12.57	137.19	138.42	311.3	1670	67.6	12.3	938	2.96	41.3	2.4	62.1	7.0	71.6	2.23	6.31	11.99	46	0.98	0.069
STD DS11	Standard	13.17	147.78	138.46	300.1	1647	74.4	13.5	929	3.02	41.2	2.5	93.0	7.1	70.9	2.17	6.68	11.87	45	1.01	0.069
STD DS11	Standard	13.75	145.76	134.31	322.4	1797	75.9	13.1	990	3.02	42.7	2.5	64.7	7.5	64.8	2.37	6.59	12.28	46	1.02	0.070
STD DS11	Standard	14.20	152.17	136.41	356.9	1603	78.2	13.1	996	3.04	43.4	2.9	54.7	8.3	68.1	2.39	6.29	11.93	48	1.03	0.069
STD DS11	Standard	13.51	146.11	137.67	342.4	1464	75.6	13.1	1004	3.04	41.9	2.5	53.1	7.6	66.3	2.28	6.24	12.06	49	1.02	0.070





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## QUALITY CONTROL REPORT

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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																		
3201655	Soil	10.9	4.4	<0.01	34.2	0.006	<20	0.36	0.014	0.04	<0.1	0.2	0.07	0.03	34	1.2	0.06	2.1
REP 3201655	QC	10.5	4.6	<0.01	36.3	0.005	<20	0.37	0.014	0.04	<0.1	0.2	0.06	0.03	34	1.2	0.04	2.2
3201691	Soil	16.4	16.1	0.20	477.9	0.007	<20	0.99	0.007	0.14	0.2	2.0	0.27	0.05	112	2.1	0.07	2.7
REP 3201691	QC	16.4	15.5	0.19	445.2	0.007	<20	1.00	0.006	0.13	<0.1	1.9	0.27	0.05	125	1.9	0.05	2.7
3201727	Soil	19.7	18.0	0.28	253.5	0.017	<20	1.16	0.006	0.13	0.4	2.1	0.31	0.02	117	1.7	0.06	3.3
REP 3201727	QC	19.5	18.3	0.28	252.2	0.017	<20	1.18	0.006	0.13	0.3	2.0	0.30	0.02	102	1.7	0.08	3.4
3201763	Soil	16.2	17.3	0.10	119.5	0.007	<20	0.62	0.002	0.12	0.2	1.1	0.42	<0.02	204	1.7	0.10	1.8
REP 3201763	QC	16.0	17.5	0.10	117.9	0.007	<20	0.62	0.002	0.12	0.2	1.1	0.43	<0.02	210	1.6	0.09	1.7
3201799	Soil	9.9	7.4	0.27	133.4	0.012	<20	0.71	0.022	0.04	0.2	2.9	0.08	0.03	48	0.4	<0.02	1.7
REP 3201799	QC	9.8	6.7	0.27	133.9	0.012	<20	0.71	0.021	0.04	0.2	2.7	0.07	0.03	32	0.4	0.02	1.6
3206225	Soil	11.4	5.2	0.03	74.5	0.004	<20	0.46	0.012	0.04	<0.1	0.3	0.08	0.03	27	1.3	0.07	2.0
REP 3206225	QC	11.0	5.5	0.03	69.3	0.004	<20	0.47	0.011	0.04	<0.1	0.3	0.08	0.03	18	1.4	0.08	2.3
3206261	Soil	25.3	11.2	0.14	106.4	0.003	<20	0.58	<0.001	0.05	<0.1	1.2	0.13	0.02	27	2.6	0.08	1.7
REP 3206261	QC	27.4	11.5	0.14	110.5	0.003	<20	0.58	<0.001	0.05	<0.1	1.2	0.13	<0.02	25	2.4	0.06	1.6
3206297	Soil	17.0	12.5	0.10	194.1	0.004	<20	0.68	0.004	0.11	<0.1	1.3	0.17	0.03	64	1.6	0.06	2.3
REP 3206297	QC	16.7	12.3	0.11	195.2	0.004	<20	0.67	0.005	0.11	<0.1	1.3	0.17	0.03	66	1.6	0.06	2.3
3206331	Soil	21.9	13.2	0.16	289.0	0.004	<20	0.87	0.001	0.08	<0.1	1.9	0.20	0.02	103	1.6	0.06	2.5
REP 3206331	QC	19.6	13.3	0.16	293.1	0.004	<20	0.86	0.002	0.07	<0.1	1.6	0.18	0.02	99	1.5	0.06	2.4
Reference Materials																		
STD DS11	Standard	17.4	58.6	0.81	381.5	0.088	<20	1.12	0.067	0.39	2.9	3.3	4.76	0.26	249	1.7	4.49	5.0
STD DS11	Standard	16.4	57.0	0.80	369.6	0.085	<20	1.06	0.067	0.38	2.3	3.0	4.71	0.27	252	2.0	4.36	4.7
STD DS11	Standard	19.4	58.1	0.84	403.2	0.090	<20	1.16	0.072	0.41	3.0	3.3	5.07	0.27	263	2.3	4.87	5.0
STD DS11	Standard	18.2	58.7	0.82	382.3	0.094	<20	1.13	0.070	0.39	2.6	3.1	4.85	0.26	245	2.0	4.51	4.8
STD DS11	Standard	19.5	56.2	0.78	373.4	0.086	<20	1.04	0.067	0.38	2.7	3.1	4.89	0.27	283	1.8	4.59	4.9
STD DS11	Standard	18.4	57.3	0.80	401.6	0.082	<20	1.08	0.065	0.39	2.5	3.2	4.87	0.27	254	2.1	4.48	5.2
STD DS11	Standard	17.7	55.6	0.82	345.9	0.088	<20	1.09	0.071	0.39	2.5	3.2	4.88	0.26	253	2.2	4.67	4.9
STD DS11	Standard	18.9	59.8	0.82	408.1	0.094	<20	1.11	0.070	0.39	2.6	3.3	4.95	0.27	293	2.0	4.62	5.3
STD DS11	Standard	18.4	57.1	0.82	412.0	0.093	<20	1.12	0.074	0.39	2.6	3.1	4.96	0.27	241	2.2	4.52	5.1



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## QUALITY CONTROL REPORT

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		AQ250 Mo ppm 0.01	AQ250 Cu ppm 0.01	AQ250 Pb ppm 0.01	AQ250 Zn ppm 0.1	AQ250 Ag ppb 2	AQ250 Ni ppm 0.1	AQ250 Co ppm 0.1	AQ250 Mn ppm 1	AQ250 Fe % 0.01	AQ250 As ppm 0.1	AQ250 U ppm 0.1	AQ250 Au ppb 0.2	AQ250 Th ppm 0.1	AQ250 Sr ppm 0.5	AQ250 Cd ppm 0.01	AQ250 Sb ppm 0.02	AQ250 Bi ppm 0.02	AQ250 V ppm 1	AQ250 Ca % 0.01	AQ250 P % 0.001
STD OREAS45EA	Standard	1.72	692.45	14.28	28.6	260	388.1	49.3	390	22.11	10.4	1.7	50.8	9.7	4.1	0.02	0.26	0.24	321	0.03	0.029
STD OREAS45EA	Standard	1.57	694.32	13.13	26.2	231	387.6	49.0	378	20.24	10.3	1.5	48.1	9.2	3.4	0.02	0.21	0.20	296	0.03	0.026
STD OREAS45EA	Standard	1.63	741.63	15.64	32.8	284	419.1	54.2	467	24.45	12.5	2.1	64.0	11.0	4.2	0.02	0.19	0.28	344	0.03	0.031
STD OREAS45EA	Standard	1.73	710.62	14.41	28.4	257	400.5	51.7	411	22.70	13.6	1.7	56.0	10.0	4.1	<0.01	0.18	0.19	329	0.03	0.029
STD OREAS45EA	Standard	1.28	674.09	13.70	28.5	248	372.6	50.2	382	20.72	10.2	1.8	58.6	10.0	3.8	0.02	0.19	0.24	296	0.04	0.028
STD OREAS45EA	Standard	1.53	696.19	15.71	32.5	269	385.7	53.9	429	23.06	10.6	2.0	58.0	11.1	4.0	0.02	0.27	0.30	324	0.03	0.031
STD OREAS45EA	Standard	1.40	686.37	14.02	30.0	233	389.2	51.5	392	20.44	10.4	1.8	54.7	10.4	3.7	<0.01	0.19	0.24	312	0.03	0.028
STD OREAS45EA	Standard	1.57	691.40	14.84	32.5	248	399.5	52.3	414	22.62	10.8	1.9	46.8	10.9	3.9	0.02	0.20	0.25	310	0.03	0.029
STD OREAS45EA	Standard	1.47	680.74	14.81	31.9	239	393.0	52.4	402	22.06	10.5	1.9	47.7	11.0	3.8	<0.01	0.17	0.31	302	0.03	0.030
STD OREAS45EA Expected		1.6	709	14.3	31.4	260	381	52	400	22.65	11.4	1.73	53	10.7	4.05	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected		13.9	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	0.04	0.03	0.2	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	0.02	<0.01	<0.1	2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	0.02	<0.01	0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001
BLK	Blank	<0.01	<0.01	<0.01	<0.1	<2	<0.1	<0.1	<1	<0.01	0.2	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001



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**Project:**

MacMillan Pass

**Report Date:**

October 18, 2018

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**Part:**

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## QUALITY CONTROL REPORT

WHI18000980.1

		AQ250 La ppm 0.5	AQ250 Cr ppm 0.5	AQ250 Mg % 0.01	AQ250 Ba ppm 0.5	AQ250 Ti % 0.001	AQ250 B ppm 20	AQ250 Al % 0.01	AQ250 Na % 0.001	AQ250 K % 0.01	AQ250 W ppm 0.1	AQ250 Sc ppm 0.1	AQ250 Ti ppm 0.02	AQ250 S % 0.02	AQ250 Hg ppb 5	AQ250 Se ppm 0.1	AQ250 Te ppm 0.02	AQ250 Ga ppm 0.1
STD OREAS45EA	Standard	7.1	927.7	0.09	152.3	0.093	<20	3.21	0.013	0.05	<0.1	77.8	0.07	0.03	6	0.8	0.09	12.2
STD OREAS45EA	Standard	6.6	905.5	0.09	139.7	0.090	<20	3.12	0.016	0.05	<0.1	73.3	0.06	0.03	12	0.6	0.07	11.9
STD OREAS45EA	Standard	8.1	878.5	0.10	154.1	0.099	<20	3.59	0.016	0.06	<0.1	81.0	0.07	0.04	15	1.0	0.10	13.8
STD OREAS45EA	Standard	7.4	952.0	0.10	154.1	0.102	<20	3.43	0.014	0.05	<0.1	80.3	0.07	0.03	15	1.3	0.09	12.9
STD OREAS45EA	Standard	6.8	798.8	0.09	140.4	0.089	<20	3.18	0.015	0.06	<0.1	72.8	0.07	0.03	11	0.7	0.08	12.3
STD OREAS45EA	Standard	7.3	807.8	0.09	156.5	0.092	<20	3.14	0.014	0.05	<0.1	81.7	0.07	0.03	15	0.5	0.06	13.9
STD OREAS45EA	Standard	7.0	803.9	0.10	140.2	0.093	<20	3.19	0.021	0.05	<0.1	77.3	0.06	0.02	12	0.9	0.08	12.3
STD OREAS45EA	Standard	7.5	854.3	0.11	150.5	0.104	<20	3.35	0.025	0.06	<0.1	79.6	0.07	0.04	11	0.9	0.06	12.9
STD OREAS45EA	Standard	7.4	866.4	0.10	143.5	0.101	<20	3.31	0.025	0.06	<0.1	78.7	0.08	0.04	11	1.1	0.09	12.5
STD OREAS45EA Expected		7.06	849	0.095	148	0.0984		3.32	0.02	0.053		78	0.072	0.036	10	0.78	0.1	12.4
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	3.1	4.9	0.2835	260	2.2	4.56	4.7
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1