



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Alaska Geologic Materials Center

Data Report #439

Geochemical analysis of 6 core samples from the Canwell Prospect BH 80190, BH 80191 and BH 80195

Received October 2017

Zip archive (1.0 Mb) available for download from DGGS

Correlation between sample number and borehole information

sample number	property	borehole	alt_borehole	sample type	top	bottom	analysis
CMAR3674	Canwell	BH 80190	Can-01	core	133.7	133.7	geochemistry
CMAR3675	Canwell	BH 80190	Can-01	core	167	167	geochemistry
CMAR3676	Canwell	BH 80190	Can-01	core	206.5	208	geochemistry
CMAR3677	Canwell	BH 80191	Can-02	core	647.9	648.5	geochemistry
CMAR3678	Canwell	BH 80195	Can-03	core	269.5	270	geochemistry
CMAR3679	Canwell	BH 80195	Can-03	core	603.2	603.8	geochemistry

prospect	borehole	quad	lat	lon
Canwell Prospect	BH 80190	Mount Hayes	63.327745	-145.589559
Canwell Prospect	BH 80191	Mount Hayes	63.327858	-145.596359
Canwell Prospect	BH 80195	Mount Hayes	63.34402	-145.63912



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To: **VESTERHEIM GEOSCIENCE PLC**
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DULUTH MN 55803
USA

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 This copy reported on
 13-OCT-2017
 Account: VGPMEBKL

CERTIFICATE FA17162754

Project: CMA Forbes-Emerick-Canwell
 P.O. No.: cma1707
 This report is for 6 Rock samples submitted to our lab in Fairbanks, AK, USA on 4-AUG-2017.

The following have access to data associated with this certificate:

RODNEY HUNT KURT JOHNSON PHIL LARSON

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
CRU-QC	Crushing QC Test
PUL-32	Pulverize 1000g to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS42	Up to 34 elements by ICP-MS	ICP-MS
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
TOT-ICP06	Total Calculation for ICP06	ICP-AES
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Ni-OG62	Ore Grade Ni - Four Acid	ICP-AES
PGM-MS23	Pt, Pd, Au 30g FA ICP-MS	ICP-MS
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
C-IR07	Total Carbon (Leco)	LECO
S-IR08	Total Sulphur (Leco)	LECO
ME-MS81	Lithium Borate Fusion ICP-MS	ICP-MS

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

***** See Appendix Page for comments regarding this certificate *****

Comments: reference "Sampling Agreement 188" on Certificate.

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS FA17162754

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	OA-GRA05
		Recvd Wt.	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	Cr2O3	TiO2	MnO	P2O5	SrO	BaO	LOI		
		kg	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
CMAR3674		0.33	48.0	16.50	11.80	11.60	6.95	2.53	0.67	0.02	0.64	0.18	0.11	0.03	0.03	1.98		
CMAR3675		0.33	34.3	0.52	12.05	0.17	41.0	0.02	0.02	1.07	0.04	0.17	<0.01	<0.01	<0.01	9.68		
CMAR3676		0.44	42.3	9.58	14.65	10.15	15.80	0.79	0.95	0.20	0.58	0.16	0.02	0.02	0.02	4.91		
CMAR3677		0.34	34.5	1.18	10.85	0.52	39.4	0.06	0.03	1.06	0.10	0.14	<0.01	<0.01	<0.01	12.15		
CMAR3678		0.39	48.6	13.65	11.75	13.05	8.88	2.35	0.26	0.06	0.57	0.20	0.05	0.02	0.01	1.80		
CMAR3679		0.43	45.6	17.25	8.97	15.25	7.35	1.98	0.53	0.04	0.56	0.19	0.01	0.07	0.10	3.21		

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CERTIFICATE OF ANALYSIS FA17162754

Sample Description	Method Analyte Units LOR	TOT-ICP06 Total %	C-IR07 C %	S-IR08 S %	ME-MS81 Ba ppm	ME-MS81 Ce ppm	ME-MS81 Cr ppm	ME-MS81 Cs ppm	ME-MS81 Dy ppm	ME-MS81 Er ppm	ME-MS81 Eu ppm	ME-MS81 Ga ppm	ME-MS81 Gd ppm	ME-MS81 Ge ppm	ME-MS81 Hf ppm	ME-MS81 Ho ppm
CMAR3674		101.04	0.06	0.01	257	14.3	140	0.42	2.73	1.83	0.72	15.4	2.46	<5	1.2	0.61
CMAR3675		99.04	0.09	0.05	5.0	<0.5	8070	0.05	<0.05	0.04	<0.03	1.5	<0.05	<5	<0.2	0.01
CMAR3676		100.13	0.02	2.36	166.5	3.7	1470	1.00	1.70	0.88	0.51	10.5	1.54	<5	0.5	0.35
CMAR3677		99.99	0.18	0.15	11.7	1.9	7880	0.04	0.23	0.13	0.07	2.4	0.24	<5	<0.2	0.05
CMAR3678		101.25	0.05	0.04	112.5	3.9	440	0.41	3.19	2.21	0.57	13.4	2.26	<5	0.9	0.74
CMAR3679		101.11	0.02	0.02	833	3.2	330	1.42	1.99	1.31	0.36	11.3	1.47	<5	0.4	0.44

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CERTIFICATE OF ANALYSIS FA17162754

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
		La ppm 0.5	Lu ppm 0.01	Nb ppm 0.2	Nd ppm 0.1	Pr ppm 0.03	Rb ppm 0.2	Sm ppm 0.03	Sn ppm 1	Sr ppm 0.1	Ta ppm 0.1	Tb ppm 0.01	Th ppm 0.05	Tm ppm 0.01	U ppm 0.05	V ppm 5
CMAR3674		6.9	0.26	2.9	8.3	1.92	12.6	2.31	1	286	0.1	0.42	1.32	0.26	0.50	272
CMAR3675		<0.5	0.01	<0.2	0.2	0.04	0.4	<0.03	<1	4.4	<0.1	0.01	<0.05	<0.01	0.08	39
CMAR3676		1.4	0.12	0.7	3.4	0.65	21.8	1.26	1	179.5	<0.1	0.25	0.07	0.12	<0.05	222
CMAR3677		1.0	0.02	0.3	1.0	0.25	0.6	0.25	<1	6.6	<0.1	0.04	0.26	0.02	<0.05	61
CMAR3678		1.7	0.35	0.7	3.4	0.65	4.9	1.44	<1	166.0	<0.1	0.44	0.33	0.32	0.15	316
CMAR3679		1.4	0.19	0.3	2.8	0.54	8.4	1.04	<1	602	<0.1	0.29	0.10	0.20	0.06	334

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CERTIFICATE OF ANALYSIS FA17162754

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-4ACD81	ME-4ACD81
		W ppm	Y ppm	Yb ppm	Zr ppm	As ppm	Bi ppm	Hg ppm	In ppm	Re ppm	Sb ppm	Se ppm	Te ppm	Tl ppm	Ag ppm	Cd ppm
CMAR3674		<1	16.1	1.75	46	2.4	0.09	0.027	0.012	<0.001	0.10	0.2	0.01	0.06	<0.5	<0.5
CMAR3675		<1	<0.5	0.05	<2	2.3	0.06	0.006	0.007	0.001	0.06	0.3	0.03	<0.02	<0.5	<0.5
CMAR3676		1	8.4	0.76	14	1.6	1.19	0.035	0.042	0.013	0.17	14.4	2.19	0.26	3.8	0.9
CMAR3677		1	1.3	0.14	3	0.6	0.04	0.012	0.009	0.001	<0.05	0.6	0.04	<0.02	<0.5	<0.5
CMAR3678		1	19.4	2.12	30	1.3	0.04	0.006	0.007	0.001	0.15	0.4	0.03	0.02	<0.5	<0.5
CMAR3679		1	11.5	1.26	12	4.5	0.06	0.006	<0.005	0.001	0.11	0.3	0.03	<0.02	<0.5	<0.5

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		Co ppm	Cu ppm	Li ppm	Mo ppm	Ni ppm	Pb ppm	Sc ppm	Zn ppm	Ni %	Au ppm	Pt ppm	Pd ppm
CMAR3674		48	124	10	<1	118	<2	29	85		0.007	0.0142	0.018
CMAR3675		148	43	<10	<1	2700	<2	4	83		0.008	0.0266	0.021
CMAR3676		193	7350	10	<1	>10000	16	30	76	1.020	0.348	0.860	0.913
CMAR3677		131	146	<10	<1	2650	<2	6	73		0.009	0.0368	0.031
CMAR3678		56	145	20	<1	131	<2	52	78		0.006	0.0187	0.019
CMAR3679		44	57	30	<1	212	<2	38	67		0.004	0.0158	0.019

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