

# Appendix 4I

## GEOLOGICAL SURVEY OF CANADA

### Banks Island Samples - GOLD GRAIN SUMMARY AND METALLIC MINERALS IN PAN CONCENTRATE

Sample Number	Number of Visible Gold Grains				Dimensions (microns)			Nonmag HMC Weight (g)	Calculated PPB Visible Gold in HMC				Metallic Minerals in Pan Concentrate
	Total	Reshaped	Modified	Pristine	Thickness	Width	Length		Total	Reshaped	Modified	Pristine	
15SUV001	1	1	0	0	18C	75	100	96.4	10	10	0	0	~10 grains pyrite (25-50µm).
15SUV002	0	0	0	0	No Visible Gold			72.4	0				~200 grains pyrite (25-100µm).
15SUV003	0	0	0	0	No Visible Gold			70.8	0				1 grain galena (75µm). ~100 grains pyrite (25-100µm).
15SUV004	0	0	0	0	No Visible Gold			101.6	0				~10 grains galena (75-100µm). ~2000 grains pyrite (25-250µm). ~5000 grains marcasite (25-100µm).
15SUV005	1	0	1	0	8C	25	50	80.0	1	0	1	0	~0.5% pyrite (25-1000µm). ~200 grains marcasite (25-75µm).
15SUV006	0	0	0	0	No Visible Gold			80.8	0				~2000 grains pyrite (25-1000µm). ~200 grains marcasite (25-75µm).
15SUV008	0	0	0	0	No Visible Gold			36.0	0				~10 grains pyrite (25-50µm).
15SUV009	1	1	0	0	5C	25	25	45.6	1	1	0	0	~10 grains pyrite (25-50µm).
15SUV010	0	0	0	0	No Visible Gold			92.8	0				~10 grains pyrite (25-50µm).
15SUV014	0	0	0	0	No Visible Gold			74.0	0				~500 grains pyrite (25-100µm). ~500 grains marcasite (25-50µm).
15SUV015	0	0	0	0	No Visible Gold			32.8	0				~1% pyrite (25-1000µm). ~1% marcasite (25-100µm).
15SUV018	0	0	0	0	No Visible Gold			43.6	0				~30 grains galena (25-500µm). ~20 grains pyrite (25-100µm).
15SUV019*	1	1	0	0	20C	75	125	52.8	28	28	0	0	~5000 grains pyrite (25-250µm). Gold grain viald.
15SUV020	1	1	0	0	50M	150	200	86.4	133	133	0	0	~100 grains pyrite (25-100µm).
15SUV021	1	1	0	0	5C	25	25	84.8	<1	<1	0	0	~2000 grains pyrite (25-250µm). ~200 grains marcasite (25-75µm).
15SUV022	0	0	0	0	No Visible Gold			80.4	0				~0.5% pyrite (25-1000µm).
15SUV023	0	0	0	0	No Visible Gold			75.2	0				~5000 grains pyrite (25-1000µm).
15SUV024	0	0	0	0	No Visible Gold			62.0	0				~1000 grains pyrite (25-250µm). ~1000 grains marcasite (25-50µm).
15SUV025	0	0	0	0	No Visible Gold			72.4	0				~2000 grains pyrite (25-250µm).
15SUV026	1	1	0	0	50M	75	125	72.4	52	52	0	0	~20 grains pyrite (25-50µm).
15SUV027	0	0	0	0	No Visible Gold			78.0	0				~0.5% pyrite (25-1000µm). ~0.5% marcasite (25-75µm).
15SUV028	0	0	0	0	No Visible Gold			31.6	0				~20 grains pyrite (25-100µm). 5 grains marcasite (50-75µm).
15SUV030	0	0	0	0	No Visible Gold			53.6	0				~20 grains pyrite (25-75µm).
15SUV031	0	0	0	0	No Visible Gold			57.6	0				~1000 grains pyrite (25-250µm).
15SUV032	0	0	0	0	No Visible Gold			73.2	0				~5000 grains pyrite (25-1000µm). ~50 grains marcasite (25-75µm).
15SUV033	0	0	0	0	No Visible Gold			88.0	0				5 grains galena (50-75µm). ~0.5% pyrite (25-1000µm). ~0.5% marcasite (25-100µm).
15SUV050	0	0	0	0	No Visible Gold			76.8	0				~50 grains pyrite (25-100µm).
15SUV051	0	0	0	0	No Visible Gold			66.4	0				~100 grains pyrite (25-100µm).
15SUV052	1	0	1	0	25M	50	125	107.2	13	0	13	0	~2000 grains pyrite (25-1000µm). ~2000 grains marcasite (25-100µm).
15SUV053	2	1	1	0	10C 50M	25 125	75 225	92.0	127	125	2	0	~2000 grains pyrite (25-1000µm). ~500 grains marcasite (25-100µm).
15SUV054	0	0	0	0	No Visible Gold			64.0	0				No Sulphides.
15SUV055*	1	1	0	0	13C	50	75	48.8	8	8	0	0	~1000 grains pyrite (25-250µm). ~50 grains marcasite (25-75µm).

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	Total	Reshaped	Modified	Pristine	Thickness	Width	Length		Total	Reshaped	Modified	Pristine	
16SUV013	0	0	0	0	No Visible Gold			39.2	0				Tr (~2000 grains) pyrite (25-250µm). Tr (~500 grains) marcasite (25-50µm).
16SUV014	1	1	0	0	40C	200	225	76.0	178	178	0	0	Tr (~1000 grains) pyrite (25-250µm). Tr (~1000 grains) marcasite (25-100µm).
16SUV015	1	1	0	0	10C	25	75	93.2	2	2	0	0	Tr (~500 grains) pyrite (25-250µm). ~0.5% (~1,000,000 grains) marcasite (25-50µm).
16SUV016	0	0	0	0	No Visible Gold			79.2	0				Tr (~2000 grains) pyrite (25-250µm). ~0.5% (~1,000,000 grains) marcasite (25-50µm).
16SUV017	0	0	0	0	No Visible Gold			24.8	0				Tr (~200 grains) pyrite (25-75µm). Tr (~2000 grains) marcasite (25-50µm).
16SUV018	0	0	0	0	No Visible Gold			44.0	0				Tr (~50 grains) pyrite (25-75µm). Tr (~300 grains) marcasite (25-50µm).
16SUV019	0	0	0	0	No Visible Gold			56.4	0				~80% undifferentiated pyrite/marcasite grains (25-1000µm).
16SUV020	0	0	0	0	No Visible Gold			62.8	0				~0.5% marcasite grains (25µm).
16SUV022	0	0	0	0	No Visible Gold			92.4	0				Tr (~5000 grains) marcasite (25-200µm).
16SUV023	9	4	5	0	3C	15	15	44.8	300	289	11	0	1 grain cinnabar (25µm).
					5C	25	25						
					8C	25	50						
					10C	50	50						
					27C	125	150						
					36C	150	225						
16SUV024	0	0	0	0	No Visible Gold			91.6	0				No sulphides.
16SUV025	1	1	0	0	10C	50	50	86.8	2	2	0	0	Tr (~200 grains) pyrite (25-75µm). ~0.5% marcasite (25µm).
16SUV026	0	0	0	0	No Visible Gold			64.0	0				Tr (~2000 grains) pyrite (25-200µm). ~2% marcasite (25µm).
16SUV027	1	1	0	0	8C	25	50	70.8	1	1	0	0	Tr (~100 grains) pyrite (25-75µm).
16SUV028	0	0	0	0	No Visible Gold			110.0	0				Tr (~200 grains) pyrite (25-75µm). Tr (~100 grains) marcasite (25µm).
16SUV030	0	0	0	0	No Visible Gold			63.2	0				Tr (~300 grains) marcasite (15-50µm).

\*sample 16SUV019 is a field duplicate of 16SUV018; 16SUV055 is a field duplicate of 16SUV031

\*\*Shading depicts Beaufort Formation samples