OPEN FILE 2008-9

GEOLOGY AND MINERAL DEPOSITS OF THE AREA EAST OF BEAVERDELL, BRITISH COLUMBIA

PARTS OF NTS 82E/6E; 82E/7W; 82E/10W; 82E/11E

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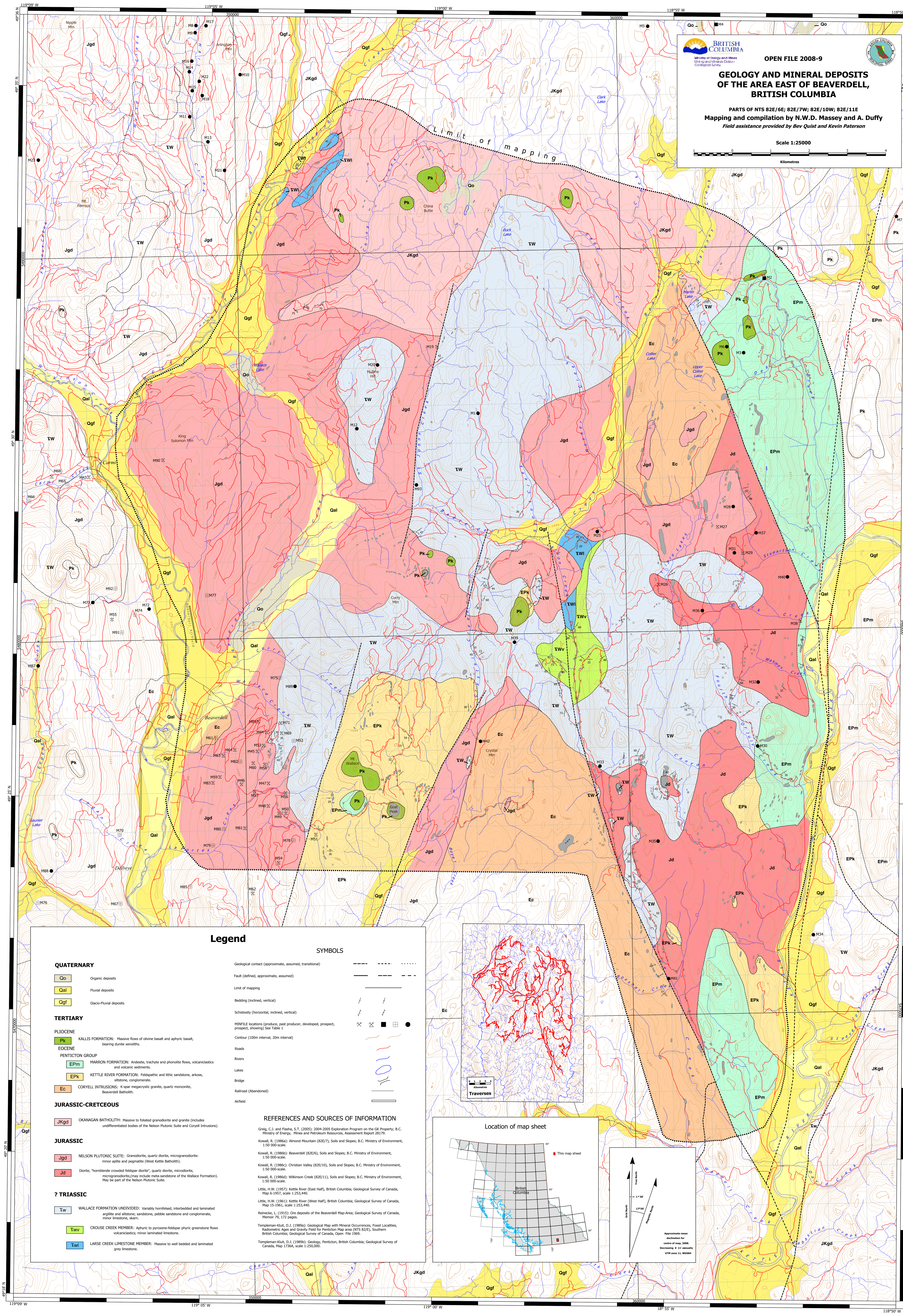
British Columbia Ministry of Energy and Mines, Mining and Minerals Division, Geological Survey

Scale 1:25000



Legend

QUATERNARY

Symbol	Description
Qo	Organic deposits
Qal	Fluvial deposits
Qgf	Glacio-Fluvial deposits

TERTIARY

PLIOCENE

- **Pk** — KALLIS FORMATION: Massive flows of olivine basalt and aphyric basalt, bearing dunite xenoliths.

EOCENE

PENTICTON GROUP

- **EPm** — MARRON FORMATION: Andesite, trachyte and phonolite flows, volcaniclastics and volcanic sediments.
- **EPk** — KETTLE RIVER FORMATION: Feldspathic and lithic sandstone, arkose, siltstone, conglomerate.
- **Ec** — CORYELL INTRUSIONS: K-spar megacrystic granite, quartz monzonite, Beaverdell Batholith.

JURASSIC-CRETCEOUS

- **JKgd** — OKANAGAN BATHOLITH: Massive to foliated granodiorite and granite (includes undifferentiated bodies of the Nelson Plutonic Suite and Coryell Intrusions).

JURASSIC

- **Jgd** — NELSON PLUTONIC SUITE: Granodiorite, quartz diorite, microgranodiorite: minor aplite and pegmatite (West Kettle Batholith).
- **Jd** — Diorite, "hornblende crowded feldspar diorite", quartz diorite, microdiorite, microgranodiorite,(may include meta-sandstone of the Wallace Formation). May be part of the Nelson Plutonic Suite.

? TRIASSIC

- **TW** — WALLACE FORMATION UNDIVIDED: Variably hornfelsed, interbedded and laminated argillite and siltstone; sandstone, pebble sandstone and conglomerate, minor limestone, skarn.
- **TWv** — CROUSE CREEK MEMBER: Aphyric to pyroxene-feldspar phyric greenstone flows volcaniclastics; minor laminated limestone.
- **TWl** — LARSE CREEK LIMESTONE MEMBER: Massive to well bedded and laminated grey limestone.

SYMBOLS

- Geological contact (approximate, assumed, transitional)
- Fault (defined, approximate, assumed)
- Limit of mapping
- Bedding (inclined, vertical)
- Schistosity (horizontal, inclined, vertical)
- MINFILE locations (produce, past producer, developed, prospect, prospect, showing) See Table 1
- Contour (100m interval, 20m interval)
- Roads
- Rivers
- Lakes
- Bridge
- Railroad (Abandoned)
- Airfield

REFERENCES AND SOURCES OF INFORMATION

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Kowall, R. (1986c): Christian Valley (82E/10), Soils and Slopes; B.C. Ministry of Environment, 1:50 000-scale.

Kowall, R. (1986d): Wilkinson Creek (82E/11), Soils and Slopes; B.C. Ministry of Environment, 1:50 000-scale.

Little, H.W. (1957): Kettle River (East Half), British Columbia; Geological Survey of Canada, Map 6-1957, scale 1:253,440.

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Reinecke, L. (1915): Ore deposits of the Beaverdell Map-Area; Geological Survey of Canada, Memoir 79, 172 pages.

Templeman-Kluit, D.J. (1989a): Geological Map with Mineral Occurrences, Fossil Localities, Radiometric Ages and Gravity Field for Penticton Map area (NTS 82/E), Southern British Columbia; Geological Survey of Canada, Open File 1969.

Templeman-Kluit, D.J. (1989b): Geology, Penticton, British Columbia; Geological Survey of Canada, Map 1736A, scale 1:250,000.

Approximate mean declination for centre of map, 2008. Decreasing 0 11' annually

UTM zone 11, WGS84

Table 1: Mineral Occurences

Map ID	MINFILE number	Property Name	Status	Commodities	Deposit type	Latitude °N	Longitude °W	UTM zone	Easting	Northing
M1	082ENE012	ELLSWORTH, BEM, TUFF, MAL, JOHN, MOSH	Showing	Cu, Au, Ag	I	49.50750	118.98511	11	350217	5485770
M2	082ENE016	FUKI, DONEN	Developed Prospect	U	D04	49.53972	118.88333	11	363747	5489161
M3	082ENE030	COLLIER, DONEN	Showing	U	D04	49.52222	118.89056	11	359175	5487229
M4	082ENE041	CUP LAKE, DONEN, CAROL	Developed Prospect	U	D04	49.60917	118.90140	11	352607	5496802
M5	082ENE047	LASS 2, DONEN 361	Showing	U	D04	49.59861	118.92911	11	359529	5495196
M6	082ENE048	ML, SILVER SPOT NO. 4, SILVER SPOT LOC. 13	Showing	Cu, Au, Ag, Mo	I	49.52361	118.89557	11	362737	5487304
M7	082ENE074	KET, KET 2, DONEN 129, EARTH	Showing	U	D04	49.55445	118.83583	11	367223	5490713
M8	082ENW005	ELK 2, DKD, BRU	Showing	Mo, Cu, Zn	I, L04	49.59778	119.08917	11	349035	5495005
M9	082ENW009	ELK 4, DKD, BRU	Showing	Cu	L04	49.59611	119.08946	11	349010	5495823
M10	082ENW015	ARLINGTON, CU, CAPTAIN GORDON	Showing	Cu, Au	I06, I05	49.58638	119.07336	11	350155	5494705
M11	082ENW033	HALL CREEK	Showing	Asbestos	M06	49.57638	119.09111	11	348829	5493634
M12	082ENW037	IVY, IVY-O	Showing	Au, Ag, Cu, Zn, Mo		49.50361	119.02973	11	353040	5485422
M13	082ENW039	WALLACE	Showing	W, Cu	K05, K01	49.57056	119.08444	11	349393	5492972
M14	082ENW041	DKD 2	Showing	Cu		49.59056	119.09139	11	348841	5494806
M15	082ENW042	BRU 2	Showing	Cu		49.58250	119.09028	11	348908	5494312
M16	082ENW043	DKD 4, BRU	Showing	Cu		49.58944	119.09056	11	348909	5495084
M17	082ENW044	DKD 6, BRU	Showing	Cu	I	49.59777	119.08556	11	349296	5496000
M18	082ENW045	BRU 22	Showing	Cu	I	49.58139	119.08556	11	349155	5494181
M19	082ENW046	ROSEMONT, ROSEMONT (L.32016), OLIS, GOLDIE, AURIFEROUS, AUR., DICK, ROSALIE	Past Producer	Au, Ag, Cu	I01	49.52306	119.00111	11	355177	5487526
M20	082ENW047	KNOB HILL, KNOB HILL (L.2550), IVY-O 8	Showing	Cu, Mo	K	49.51861	119.02250	11	353615	5487076
M21	082ENW081	BLACK	Showing	Cu, Ag, Mo, Au	I	49.58388	119.07834	11	349714	5492219
M22	082ENW085	HALL, DKD 4, BRU	Showing	Cu		49.59472	119.09778	11	349095	5494554
M23	082ENW092	FERROUX, WT	Showing	Au, Ag, Cu, Zn	I	49.55583	119.14556	11	344580	5492571
M24	082ENW109	NIPPLE MOUNTAIN SPLITSTONE, GLORY, FLAG, MOUNTAIN ASH, KETTLE VALLEY	Producer	Flagstone, dimension stone, building stone	R08	49.60000	119.13387	11	345679	5496351
M25	082ESE066	GATEWAY, MOONLIGHT (L.1528), GOLDEN DAWN (L.1349), ALAMEDA (L.2876), DAN	Showing	Au, Ag, Cu, Mo	I05	49.48000	118.94278	11	359275	5482631
M26	082ESE067	O.K. (L.5739), IVANHOE (L.5743), OK, MONA (L.2941), MEXICO (L.2937), ROI, TRIPLE LAKE, KETTLE, CLEAVER	Past Producer	Au, Ag, Cu, Pb, Zn	I01	49.46777	118.92055	11	360850	5481251
M27	082ESE068	MOGUL (L.2857), MONITOR (L.2858), CLEAVER	Past Producer	Au, Ag	I01	49.48139	118.89944	11	362418	5482706
M28	082ESE069	SILVER DOLLAR (L.2842), CLEAVER	Showing	Au, Ag	I01	49.48612	118.89389	11	362833	5483221
M29	082ESE109	BARNATO (L.2848), YORKSHIRE LASS (L.3024), BARNATO FR. (L.2865), KETTLE, FAN, CLEAVER, WARD	Past Producer	Au, Ag, Cu, Pb, Zn	I05	49.47528	118.89028	11	363084	5482010
M30	082ESE111	MONTANA (L.2640), FOURTH OF JULY (L.2638), MULDOON (L.2639), COLORADO (L.2641), IDAHO (L.2642), GUTS, CANYON CREEK	Showing	Cu, Ag, Zn, Pb, Au	I05	49.43000	118.88446	11	363351	5476966
M31	082ESE167	HACKLA (L.2847), MAME (L.2884), M.L. 400, CLEAVER	Showing	Au, Ag, Cu, Zn	I01	49.47528	118.89333	11	362843	5482015
M32	082ESE168	MAYFLOWER (L.1284), LILLIE MAY (L.1285), GUTS, KETTLE	Showing	Au, Ag, Cu	I01	49.44500	118.88444	11	363403	5478632
M33	082ESE175	BUT, GROUSE	Showing	Au	I01	49.43500	118.94111	11	359258	5477614
M34	082ESE178	LOU, KET, RENO	Showing	Cu, Zn, Ag		49.38583	118.88359	11	363750	5472016
M35	082ESE217	BLUEJAY, RUSTY, BLUE JAY	Showing	Au, Ag, Cu	I01	49.40750	118.91999	11	360730	5474530
M36	082ESE244	KINGSTON (L.2300), HOUSTON (L.2302), BOSTON (L.2301), FAN, POT, KETTLE, SUPERIOR (L.2786), JEWEL (L.2785), BARNATO, CRICK, CLEAVER, BEAVER, WARD	Showing	Au, Ag, Cu, Zn	I01	49.46157	118.90472	11	361650	5480525
M37	082ESE245	HIGHLAND MARY (L.1482), MOUNTAIN VIEW (L.1642)	Showing	Au, Ag, As	I01	49.48000	118.88656	11	363420	5482526
M38	082ESE248	MAYBE, TRAPPER (L.1487)	Past Producer	Au, Ag, Cu, Pb, Zn	I05	49.46046	118.86044	11	364630	5480212
M39	082ESE252	VOLCANO, HK, LITTLE JOE, SULLIVAN, RAINBOW, CRYSTAL BUTTE, CRYSTAL CREEK, HK	Showing	Ag, Zn, Pb, Cu, Au	I05	49.45399	118.97223	11	357000	5479784
M40	082ESE253	RIVERSIDE (L.1266), HARD TO BEAT (L.2848), GLOBE (L.2402)	Showing	Au, Ag, Zn, Cu	I05	49.46072	118.87417	11	364216	5481363
M41	082ESE254	RCJV 24	Showing	Cu, Zn, Ag, Pb, magnetite	I05	49.37628	118.91653	11	360631	5470940
M42	082ESE256	CRYSTAL	Showing	Fluorite, Mo, Ag	I11	49.43056	118.98417	11	356132	5477213
M43	082ESW026	CARMI (L.2362), B.A. FR. (L.2367)	Past Producer	Au, Ag, Zn, Pb, Cu, Mo	I06, L05	49.49157	119.12611	11	345033	5484287
M44	082ESW030	BEAVERDELL, BEAVERDELL MINE, HIGHLAND BELL, BELL (L.2343), HIGHLAND LASS (L.2341), TECH, LASS	Past Producer	Ag, Pb, Zn, Au, Cd, Cu	I05	49.43326	119.06110	11	350600	5477551
M45	082ESW031	KOKOMO FR. (L.3367), KOKOMO, TRACTION	Past Producer	Ag, Pb, Zn, Au	I05	49.42778	119.06444	11	350304	5477051
M46	082ESW032	DUNCAN (L.2605)	Past Producer	Ag, Pb, Zn	I05	49.42000	119.07000	11	349877	5476207
M47	082ESW033	BOUNTY (L.2340)	Past Producer	Ag, Pb, Zn, Au	I05	49.42028	119.06028	11	350553	5476216
M48	082ESW034	RAMBLER (L.2787), FRAN, HIGHLAND SILVER, CRANBERRY CREEK, RAMBLER	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.41500	119.06028	11	350507	5475632
M49	082ESW035	STANDARD FR. (L.3257), FRAN PROPERTY, HIGHLAND SILVER	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.41333	119.05638	11	350844	5475435
M50	082ESW036	BUSTER (L.2907), FRAN PROPERTY	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.41333	119.05639	11	351025	5475434
M51	082ESW038	NEPANEE, NEPANEE FR., COBALT FR., NAPANEE, NEVADA, NEVADA FR., ROCCO PLATA	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.40834	119.04306	11	351796	5474857
M52	082ESW039	WASHINGTON (L.2363), IDAHO (L.2362), BEAVER (L.2342), BEAVERDELL, HIGHLAND-BELL	Prospect	Ag, Pb	I05	49.43028	119.05139	11	351258	5477312
M53	082ESW040	BEAVER (L.2342), HIGHLAND-BELL, BEAVERDELL	Past Producer	Ag, Pb, Zn, Au	I05	49.42516	119.06222	11	350469	5477216
M54	082ESW041	GOLD DROP (L.1165S), GOLD DROP FR. (L.3154), GOLD DROP NO. 3 (L.1166S), GOLD DROP GROUP, HOMESTAKE (L.1167S), JIY GROUP	Past Producer	Ag, Pb, Zn, Cu, Au	I05	49.40157	119.05658	11	350879	5474142
M55	082ESW056	INYO-ACKWORTH, INYO, ACKWORTH, ESTER, INYO EXTENSION, GACHAIN, DOLLAR, CRANBERRY RIDGE	Past Producer	Ag, Au, Pb, Zn, Cu	I05	49.45833	119.11773	11	345672	5480562
M56	082ESW086	BLACK DIAMOND (L.1098S), STANDARD (L.1099S)	Past Producer	Ag, Pb, Zn, Cu, Au	I05	49.41806	119.05417	11	351019	5475956
M57	082ESW086	BOUNTY FR. (L.2880)	Past Producer	Ag, Pb, Zn, Au	I05	49.41833	119.06628	11	350214	5476013
M58	082ESW087	TIGER (L.3097), WABASH	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.45472	119.06168	11	350458	5476715
M59	082ESW088	NODAWAY (L.2916), HIGHLAND BELL, BEAVERDELL	Past Producer	Ag, Pb, Zn, Au	I05	49.42157	119.07778	11	349318	5476408
M60	082ESW089	CASTOR FR. (L.2278), HIGHLAND BELL, BEAVERDELL	Past Producer	Ag, Pb, Zn, Au	I05	49.42600	119.06694	11	350104	5476754
M61	082ESW070	HOMESTAKE FR. (L.1004S)	Prospect	Ag, Pb, Zn, Au	I05	49.43053	119.07046	11	349825	5477430
M62	082ESW071	SCANDIE, SILVER SCANDIE, SCANDIA, BABE, FRAN, FRAN PROPERTY	Past Producer	Ag, Pb, Zn, Au, Cd	I05	49.35444	119.06656	11	350172	5475357
M63	082ESW072	WELLINGTON (L.2621), BEAVERDELL-WELLINGTON, SILVER BOUNTY, BROACH, AIR REGENER, SILVER DOLLAR, HENDERSON	Past Producer	Ag, Pb, Zn, Au	I05	49.42586	119.07967	11	349414	5476931
M64	082ESW073	SALLY (L.2066), ROB ROY (L.2067), PULLDUTCH (L.12066), SALLY GROUP	Past Producer	Ag, Au, Pb, Zn, Cu	I05	49.42805	119.07251	11	349729	5477197
M65	082ESW101	MAY (L.2356)	Prospect	Ag, Pb	I05	49.49300	119.13389	11	345464	5484117
M66	082ESW104	CAPCO, CAPCO 44, CAPCO 42-45, A ZONE	Prospect	Ag, Au, Cu	I05	49.48585	119.14751	11	344466	5483682
M67	082ESW109	LAURION, LCR, RCO TRACTION, ARGENTIA	Prospect	Pb, Zn, Au, Ag, Pt, Hg	I05	49.35107	119.11305	11	346607	5470144
M68	082ESW132	BUTCHER BOY (L.2363)	Past Producer	Au, Ag, Zn, Pb, Cu, Mo	I05	49.49157	119.13945	11	345067	5484314
M69	082ESW133	HIGHLAND LASS (L.2341), BEAVERDELL, HIGHLAND-BELL, BELL (L.2343), GEM FRACTION (L.2347), IDAHO (L.2382)	Past Producer	Ag, Pb, Zn, Au, Cu	I05	49.43206	119.05574	11	350948	5477522
M70	082ESW136	DOCEN, DELL, KUZA, ARGENTIA, DELL GROUP, FRAN GROUP, Y GROUP, WYE, Y, MIDNIGHT GROUP, CRANBERRY RIDGE, CABIN ADITS, TT TRENCH, DAD E	Prospect	Au, Ag, Pb, Zn, Cu, Bi	I05	49.40276	119.11302	11	346076	5474390
M71	082ESW145	HIGHLAND CHIEF (L.2345)	Past Producer	Ag, Pb, Zn, Au, Cu	I05	49.43444	119.05611	11	350608	5477785
M72	082ESW146	OLYMPIC	Showing	Ag	I05	49.46085	119.10350	11	347546	5480814
M73	082ESW147	NIPPER, JUBILEE, SILVER CABLE, RADIO, NIPPER GROUP, DALE, DOLLAR CAMP	Showing	Au, Ag, Pb, Zn	I05	49.46222	119.12117	11	346061	5481010
M74	082ESW162	LUCKY BOY (L.30795), LUCKY BOY GROUP, GLORY (L.30743), GLORY FRACTION (L.30788), IDEAL (L.30768), TIE (L.30728), TITANIC, DOLLAR CAMP, OLYMPIC, JAMIE JORDAN	Prospect	Au, Ag, Cu, Pb, Zn	I05	49.46046	119.10858	11	347150	5480870
M75	082ESW156	HARD CASH (L.2715)	Prospect	Ag, Zn, Pb, Cu, Au	I05	49.44500	119.05006	11	350920	5478930
M76	082ESW157	CRANBERRY, TUZO	Prospect	Au, Ag	I01, I05	49.35167	119.14278	11	344510	5470206
M77	082ESW158	FLORENCE, PAYMASTER, MOON, SUN, CRANBERRY RIDGE, SUN AND MOON, DAD	Prospect	Ag, Au, Pb, Zn, Cu	I05	49.46417	119.06300	11	349060	5481143
M78	082ESW191	ALASKA (L.2630)	Prospect	Ag, Au, Cu, Pb, Zn	I05	49.40594	119.05112	11	351207	5474710
M79	082ESW192	BELLACLAVA (L.3070), BALLACLAVA, BALACLAVA, CRATER LAKE GROUP	Prospect	Au, Ag, Pb, Zn	I05	49.40555	119.07959	11	349100	5474621
M80	082ESW193	HIDDEN TREASURE (L.3840S), SILVER HOARD (L.3838S), CRATER LAKE GROUP	Prospect	Ag, Pb, Zn, Au	I05	49.40346	119.07611	11	349462	5474046
M81	082ESW194	GOLDEN FR. (L.3838S), GOLDEN (L.14335), RECO FR. (L.38395), RICO FR., RECO (L.32505), RICO	Past Producer	Ag, Pb, Zn, Cu, Au	I05	49.40972	119.06302	11	348646	5475032
M82	082ESW195	EXCELSIOR FR. (L.12345), HIGHLAND-BELL, BEAVERDELL	Prospect	Pb	I05	49.42528	119.07055	11	349853	5476795
M83	082ESW196	ADVANCE FR. (L.3834S), INVASION FR. (L.3833S), LYON-ADVANCE	Past Producer	Ag, Pb, Zn	I05	49.42027	119.08217	11	349133	5476258
M84	082ESW197	REVENGE (L.3204S)	Past Producer	Au, Ag, Pb, Zn	I05	49.43472	119.06417	11	350346	5477832
M85	082ESW198	WOMBAT, DELL NO. 1	Prospect	Au, Cu, Ag	I05, L04	49.36504	119.06306	11	349453	5473357
M86	082ESW199	JAY, DOMINION, FRAN PROPERTY	Prospect	Cu, Ag, Au	L04	49.35509	119.08365	11	349816	5472437
M87	082ESW207	EOBO, SNEAKY SNAKE, FOXY	Showing	Ag, Cu, Mo, Ni	L04	49.44725	119.14961	11	344005	5479382
M88	082ESW285	BUG, GOLDBUG GROUP, BILL GROUP, (L.2970)	Showing	Au, Ag, Pb, Zn, Cu	I05	49.38017	119.13806	11	344876	5474026
M89	082ESW204	CHARYBDIS, GLADWIN FRACTION (L.3347S), MAPLE LEAF (L.2274), BLACK DIAMOND (L.2274)	Showing	Ag, Pb	I05	49.44105	119.06111	11	351317	5478732
M90	082ESW237	OBSERVATORY (L.1252S)	Past Producer	Ag	I05	49.49584	119.09444	11	348177	5484888
M91	082ESW233	BOUNDARY	Prospect	Ag, Pb, Zn, Cu	I05	49.46528	119.11362	11	346824	5480216
M92	082ESW233	NORTH	Prospect	Ag, Pb	I05	49.46566	119.11612	11	346576	5481354
M93	082ESW243	MARY-O, IVY, MULLIN HILL, ML M-23	Showing	Au, Ag, Cu, Zn, Mo	I05	49.49306	119.00306	11	352578	5483928

Key to deposit type codes:

Code	Description
D04:	Basal U
I:	Undifferentiated vein, breccia or stockwork
I01:	Au-quartz veins
I05:	Polymetallic veins Ag-Pb-Zn±Au
I06:	Cu-Ag quartz veins
I11:	Barite-fluorite veins
K:	Undifferentiated skarns
K01:	Cu skarn
K05:	W skarn
L04:	Porphyry Cu±Mo±Au
L05:	Porphyry Mo
M06:	Ultramafic-hosted asbestos
R08:	Flagstone