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ASSESSMENT REPORT

on the

PLEASANT SURPRISE

Mineral Claims

Fort Steele Mining Division, Southeastern British Columbia

N.T.S. 82G/06W 11W

Latitude 49° 29' N, Longitude 115° 24' W

by

C.C. Downie, P.Geo. 122 13th Ave, S. Cranbrook, B.C. V1C 2V5 owner/report author

August 25 2000

CEOLOGICAL SURVEY BRANCH



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SUMMARY

The **Pleasant Surprise** Mineral Claim was staked on May 28, 1997 to cover three historical Crown Grants that came open for staking. The claims consist of 6 MGS units and cover a package of Devonian to Mississippian limestones and dolomites and Precambrian Aldridge Formation argillite and quartzite. The claims straddle the lower part of the Bull River.

The 1997 geological reconnaissance program consisted of prospecting, rock sampling and preliminary 1:10000 scale mapping. (MEMPR Assessment Report 25678). Although none of the rock samples returned strongly anomalous values, preliminary mapping indicated that Aldridge Formation sediments occur on the property and could be the host for either Sullivan type Pb - Zn mineralization or shear hosted Cu - Au mineralization similar to that found at the Bull River Mine, located approximately 500m from the Northeastern Claim Boundary.

2000 fieldwork focussed on the south side of the Bull River in an area thought to be Aldridge formation sediments. The one day field program consisted of soil, rock and silt sampling, as well as 1:1000 scale geological mapping. Although geochemistry returned only weakly anomalous values, ground traverses located both a previously unidentified conglomerate unit as well as quartz – calcite vein stockwork. Recent expansion at the nearby Galowai Bul River Mine is apparently targeting similar gold and copper bearing structures. The total cost of the 2000 field program was \$2431.03.

LOCATION AND ACCESS

The **Pleasant Surprise** property is located within the Fort Steele Mining Division, along the border of NTS mapsheets 82G/06W and 11W at 49° 29' North latitude and 115° 24' West longitude (see Location Map; Figure 1, following). It is situated on the Bull River Road between Wardner and Fort Steele approximately 40 km by road from Cranbrook, B.C.. The historic Cu - Au producer Bull River Mine is located approximately 1 km east of the property. The northern claims have excellent year round road access. The southern claims are traversed by a high voltage hydro power line and can be accessed by ATV.

The rectangular claim group consists of 6 MGS units which straddle the westward flowing meandering Bull River approximately 5 km above the point it discharges into the Kootenay River. The property is cut by a few small intermittent streams.

Elevations within the property range from 940m (3080') to 780m (2560'). The property is subjected to moderate precipitation, and is free of snow from May to October. Vegetation on the property includes bull pine and low prairie grass on the drier, central and southern part of the property to aspen and willow stands along the river and in the damper part of the property. Physiography consists of flat benches along the deeply incised Bull River valley. Most of the property is covered with thick boulder till and outcrop exposure is generally limited to steep bluffs along the river banks.

The **Pleasant Surprise** Claim group has an excellent location with respect to mining infrastructure. Concentrator and crushing facilities of the Galowai Bul River Mine are located approximately 2 km east of the Pleasant Surprise Claims and Cominco Ltd.'s Sullivan Mine and concentrator facility (including concentrate loading and shipping via rail) are located approximately 60 km by road west of the claims. A hydroelectric powerline traverses the southern part of the claims. There also exist local well established mining support industries in both Cranbrook and Kimberley.



PROPERTY TENURE

The **Pleasant Surprise** consists of a single 6 unit MGS claim block The claims were located on May 28, 1997. Claim boundaries and post locations are shown on Fig. 2, in pocket. The claims are 100% owned by Charles Claude Downie FMC 135211 of 122 13th Ave. South Cranbrook, B.C. V1C 2V5. A summary of tenure information is provided below:

Claim Name	Record No.	Units	Location Date	Expiry Date *
PLEASANT SURPRISE	356311	6	May 28, 1997	May 28 2002
	TOTAL :	6 units		
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* expiry date after assessment filed

REGIONAL ECONOMIC HISTORY

The East Kootenay area has long been known as a mineral resource-rich area, with numerous mineral showings documented over the years. The turn of the century discovery of Cominco's world-class Sullivan deposit near the present city of Kimberley, put the area into focus with mineral explorationists world-wide. The Sullivan massive sulphide ore body hosted 180,000,000 tons of ore averaging 6.5% zinc, 6.4% lead and 1.90 oz/t silver, with a mineable lifetime of over 100 years, and a contained metal value in present dollars estimated to be in excess of 25 billion dollars. The mine is scheduled to close in 2001.

Numerous other past-producers in the area reflect the excellent mineralogic potential of the region. These include:

1) St. Eugene Mine (1899-1929) - 1.63 million tons grading approximately 8% lead, 1% zinc, 4.4 oz/t silver

2) Estella Mine (1951-1967) - 120,000 tons grading 4.8% lead, 9.0% zinc, 6.4 oz/t silver

3) Kootenay King Mine (1952-1953) - 14,616 tons grading 5.3% lead, 15.1% zinc, 1.94 oz/t silver.

4) Dalton Mine (1972-1974) - 520180 tons mined yielding 204274 oz Ag, 4055 oz. Au, and 15,996,847 Ibs Cu.

The area is also well known for the presence of once-rich placer gold deposits, though no economic hard-rock gold concentrations have yet been located. The Wildhorse River, located approximately 15 km west of the **Pleasant Surprise** Claims, saw frenzied placer mining activity beginning in 1864, with over 1,500,000 ounces of gold extracted from its gravels. Placer mining operations are still in place along the river.

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PROPERTY HISTORY

The **Pleasant Surprise** claims cover, in part, the Bull River gypsum deposit. Located on historical lease # 7806, the deposit saw production in 1937 when a total of 317 tonnes of gypsum was shipped for testing. The material analyzed approximately 30.5 percent CaO, 39.2 percent SO3, 18 percent H2O, 2.5 percent MgO, and 0.8 percent Fe2O3 and Al2O3. The host for the gypsum is Lower Mississippian Banff Formation limestone.

The Galowai Bul River mine is located approximately 1 km east of the northeast boundary of the Pleasant Surprise claims. The present day underground development is believed to be targeting the same vein structure exploited by Placid Oil who operated the Dalton Mine open pit operation from 1971 – 1974. The Dalton Mine produced 520,180 tonnes averaging 2.15% copper and 1.68 oz/t silver as well as 4055 ounces of gold over the mine life. The ore was produced from quartz-siderite veins within Aldridge Formation argillites and quartzites. Tetrahedrite, chalcopyrite, pyrite, pyrrhotite, azurite and malachite occur in association with these E-W striking, south dipping veins and chalcopyrite also occurs as fracture filling in some of the more brittle host rocks. The veins are concentrated within shear zones(EMPR MINFILE 082GNW002) and it is believed that these shear zones are the focus of recent underground work by the Standfied Group. Current estimates by the Stanfield Group(The Prefeasability Standing of the Gallowai Bul River Mine Project Fort Steele Mining Division Presented at New Ideas For the New Millenium, Cranbrook, B.C. May 2000) give the mine a reserve of 8,700,00 tonnes of 2.25% copper, 1.06 oz/t silver and 0.35 oz/t gold including 2,800,000 tonnes at 0.195 oz/t gold and 0.102 oz/t platinum.

GEOLOGY

REGIONAL GEOLOGY

The Pleasant Surprise property is located along the south slope of the Steeples Range which forms the highest structural portion of the southern part of the Western Rocky Mountains. Local geology is controlled by a series of thrust faults and block faults.

Regionally the area is underlain by rocks of the Purcell Supergroup and Rundle Group. The Purcell Anticlinorium is a broad, north-plunging arch-like structure in Helikian and Hadrynian aged rocks. The anticlinorium is allocthonous, carried eastward and onto the underlying cratonic basement by generally north trending thrusts throughout the Laramide orogeny during late Mesozoic and early Tertiary time (Price, 1981).

PROPERTY GEOLOGY

The Pleasant Surprise claims are underlain by Missississippian age Rundle Group limestone and dolomite and Proterozoic Aldridge Formation argillite and quartzite. Property geology is not yet well understood due to paucity of outcrop and lack of geological data for the area. It is postulated that older Aldridge Formation rocks have been thrust over younger Rundle Group rocks along a roughly east - west trending structure. Bedding on the property is generally oriented North to Northeast with dips varying from 30° to 84°. Mapping in 2000 located a quartz – carbonate vein stockwork thought to be similar to the structures hosting the mineralization at the Galowai Bul River Mine. Fieldwork also located a previously unidentified conglomerate unit which may represent an unconformity surface.

2000 PROGRAM (Fig.2 in pocket)

The primary focus of the 2000 exploration program on the Pleasant Surprise claims was reconnaissance type mapping and prospecting on the southern side of the Bull River. A total of two man days were spent on the property. One soil sample, one silt sample and two rock samples were collected and approximately 1.5 square km of 1:10000 scale mapping was undertaken.

Samples were shipped to Eco-Tech Labs at Kamloops, BC. Samples were then dried, sieved to -80 mesh and analyzed for 30 element ICP using aqua-regia digestion.

2000 RESULTS(Fig. 2 in pocket)

One of the two rock samples collected during the 2000 field program returned weakly anomalous metal values. CDPS00R-01, a sample of thin bedded Aldridge Formation quartzite – quartz wacke returned weakly anomalous geochemical values. The in situ sample had values of 40 ppm Ba, 35 ppm Bi, 61ppm Co, and 40 ppm Cr. Both the soil(CDPS00D01) and the silt(CDPS00S01) sample returned weakly anomalous zinc values of 103 ppm and 107 ppm respectively, and the silt was also weakly anomalous in lead at 110 ppm.

2000 mapping concentrated on the cliff exposure along the southern shore of the Bull River. Mapping undertaken in 1997 on the northern part of the claims in the area of the river valley suggests thrust faults are a dominant structural control on the Pleasant Surprise claims. Work in 1997 led to the postulation that Proterozoic Aldridge Formation quartzites and wackes exposed on the south side of the Bull River have been thrust northward on top of younger Rundle Group Limestones and dolomites. This postulation was based in part on results from a 1987, seven hole rotary and core drilling program was undertaken on claims directly north of the Pleasant Surprise(EMPR ASS RPT 15471). Drill logs indicate that Aldridge Formation argillites occur approximately 200 meters north of the northern boundary of the Pleasant Surprise claims. It is believed that another blind thrust fault occurs in the area of the main road, which brings Rundle group rocks over top of Proterozoic Aldridge sediments. The trace of this fault is concealed beneath a thick layer of boulder till which had a true thickness of 80m in hole S 12.

2000 mapping on the south side of the Bull River confirmed the presence of an E-W trending thrust fault, which forms much of the steep scarp, exposed along the river bank. Field crews also located a distinct conglomerate unit which occurs at or near the trace of the thrust fault. Lithologically, the unit consists of poorly sorted cobbles and pebbles of limestone, argillite and quartz wacke in a fine-grained, limey matrix. The unit is exposed on surface over an area approximately 50m by 20m. Near this conglomerate unit, field workers also identified a series of well-developed quartz – carbonate veins. The veins occur as stockwork within a dirty mixed limestone and argillite unit. Mapping also better defined the location of the thrust fault contact separating Mississippian carbonates and Helekian sediments.

CONCLUSIONS and RECOMMENDATIONS

Further work is recommended for the Pleasant Surprise claim group. The property has potential to host both Galowai Bul River type copper – gold – platinum mineralization associated with quartz – carbonate veins and base metal mineralization. The presence of low anomalous soil and silt geochemical values and a well developed vein system may indicate proximity to an extension of the Galowai Bul River structure. The unconformity surface identified during the 2000 field program may indicate proximity to a classic Pine Point Mississippi Valley type lead zinc mineralizing system. Follow up work should include mapping and prospecting in areas not covered by past work programs. Two soil sample lines should be run parallel to the river along both the north and south banks. Soil lines should be located in areas with minimal overburden cover. A detailed 25 m spaced soil grid should also be established in the area of the historic gypsum mine to determine any extensions of the known gypsum horizon. All samples should be analysed with 30 element ICP and also for Platinum Group Elements.

A budget for proposed initial follow-up work is included following:

PROPOSED BUDGET

Personnel	\$1000.00
Analytical	\$500.00
Meals/Grocery	\$100.00
Truck and Equipment Rentals	\$250.00
Supplies	\$100.00
Miscellaneous	\$100.00
Report/Reproduction	<u>\$1200.00</u>
Subtotal : plus 10% contingency	\$3250.00 <u>\$325.00</u>
TOTAL :	\$3575.00

REFERENCES

Allen, Alfred R. (1984, 1986) : EMPR ASSESSMENT REPORTS #12575, 15471, 15624,

De Souza et al(2000) : The Prefeasability Standing of the Gallowai Bul River Mine Project Fort Steele Mining Division Presented at New Ideas For the New Millenium, Cranbrook, B.C. May 2000

Downie, C.C (1998) : Assessment Report on the Pleasant Surprise Mineral Claims, Fort Steele Mining Division MEMPR ASSESSMENT REPORTS #25678

Hoy, T. (1993) : Geology of the Purcell Supergroup in the Fernie West-Half Map Area, Southeastern British Columbia, BCMMPR Bulletin #84.

McMechan, M.E. and Price, R.A.(1882) : Transverse folding and superimposed deformation, Mount Fisher area, southwestern Canadian Rocky Mountain thrust and fold belt. National Research Council of Canada.

Price, R.A. (1981) : The Cordilleran Foreland Thrust and Fold Belt in the Southern Canadian Rocky Mountains. Geological Society of London.

EMPR MINFILE # 082GNW002, 082GNW006, 082GNW028, 082GNW072, 082GSW031, 082GSW032, 082GSW036

EMPR ASSESSMENT REPORT # 3929, 20796

APPENDIX I

Certificate of Qualification

STATEMENT OF QUALIFICATIONS

I, Charles C. Downie of 122 13th Ave. S. Cranbrook, B.C. V1C 2V5, in the Province of British Columbia hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).
- 2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.
- 3) This report is supported by data collected by myself during fieldwork as well as information gathered through research.

Dated this 25th day of August, 2000 in Cranbrook, British Columbia



Charles C. Downie, P.Geo.

APPENDIX II

Statement of Expenditures

STATEMENT OF EXPENDITURES PLEASANT SURPRISE MINERAL CLAIMS

The following expenses were incurred on the **PLEASANT SURPRISE** mineral claims for the purpose of mineral exploration between the dates of April 15th - May 27th, 2000.

PERSONNEL

C.C. Downie, P.Geo.; Geologist: 1.0 day x \$400/day	\$400.00
Tim J. Termuende, P.Geo; Geologist: 1.0 day X \$400/day	\$400.00

EQUIPMENT RENTAL

4x4 Pickup:2.0 days x \$50/day	\$100.00
Mileage: 160 km x \$.20/km	\$32.00
Field Supply: 2 man days x \$25.00/day	\$50.00
Honda 4Trax : 1 day x \$75.00/day	\$75.00
ANALYTICAL	\$82.93
FREIGHT	\$16.10
NEALS	\$20.00
FUEL	\$40.00
DRAFTING AND REPORT REPRODUCTION (ESTIMATE)	
C. Downie , P.Geo.; 2.0 days x \$400/day	\$800.00
Drafting(includes digitizing, generating base maps)	\$400.00
Reproduction	<u>\$25.00</u>

\$2414.93

Total : \$2431.03

APPENDIX III

Analytical Results

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2	CDPS00R02	<5	<0.2	0.10	10	10	<5	>10	<1	1	2	6	0.45	<10	>10	257	<1	0.02	<1	130	<2	55	<20	89	<0.01	<10	7	<10	<1	3

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ECO-TECH LABORATORIES LTD. Frank J. Pezzotti, A.Sc.T. B.C. Certified Assayer

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APPENDIX IV

Rock Sample Descriptions

ROCK SAMPLE DESCRIPTIONS

CDPS00R-01 : ROCK/IN SITU

thin bedded Aldridge formation quartzite; fine to med. grained; mod. silicified; trace disseminated pyrrhotite; possible trace chlorite on fracture; weakly albitized?;

CDPS00R-02 : ROCK/IN SITU

brown dolomite and grey limestone with well developed 0.5 - 1 cm width carbonate – quartz vein stockwork;

