

**SUMMARY REPORT**

on the

**BRETT GOLD PROJECT**

**Vernon Mining Division  
British Columbia**

for

**EXPLORE B.C. PROGRAM**

and

**HUNTINGTON RESOURCES INC.**

**700 - 555 West Hastings Street  
Vancouver, B.C.  
V6B 4N5**

**W. Gruenwald, B. Sc.  
Geoquest Consulting Ltd.**

**March 20, 1996**

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25,351

**GEOLOGICAL SURVEY BRANCH**  
**ASSESSMENT REPORT**

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## SUMMARY

The Brett gold property owned by Huntington Resources Inc. is situated in south central British Columbia approximately 25 kilometres west of the city of Vernon. The property covers the northern valley slopes of Whiteman Creek. Access to the key areas of the claims is via a network of property roads.

Gold was first discovered on the property in the 1930's in narrow, granite hosted mesothermal veins. Geochemical work in the early 1980's revealed gold in creeks draining Tertiary volcanic terrain. In situ discoveries of epithermal gold mineralization were made in by Huntington Resources in 1984/85. Over 13,000 metres of drilling took place between 1986 and 1990, largely by the Huntington-Lacana (later Corona) joint venture. This work tested very promising epithermal style gold targets, in particular what is referred to as the Main Shear zone. A high grade shoot in this structure, known as the Bonanza zone received significant attention and was partially tested by a drift driven by Liquid Gold Resources Ltd in 1994 and early 1995.

Epithermal gold mineralization on the property is hosted by Tertiary volcanic rocks and is largely controlled by northwesterly trending steeply dipping structures such as the Main Shear zone and RW Vein. Gold mineralization occurs in the shear and often in the adjacent volcanics where it can extend up to 20 metres away from the structure. The mineralization is of Tertiary age and is probably related to the emplacement of the Whiteman Creek alkalic stock.

The work by Huntington in late 1995 and early 1996 was directed toward the bulk sampling of the RW Vein and the construction of a bypass drift around a caved portion of a preeexisting adit in the Bonanza zone. The bulk sampling program on the RW Vein successfully produced 250 tons of vein material grading 0.997 oz/ton gold and 1.82 oz/ton silver. There is a strong probability of more similar grade material available for bulk sampling.

In the underground program, a bypass drift totalling 54 metres in length was successfully driven around the caved area and should allow for access up into the Bonanza zone. Reserve calculations on the Main Shear zone indicate the potential for several thousands of ounces of gold in the Bonanza zone grading nearly an ounce per ton. Development and bulk sampling of this zone is planned for 1996. Ore mined from the RW vein and from the underground work is to be custom milled at a mill in Greenwood, B.C.

Mineralized shoots to the north along the Main Shear zone could provide additional potential by extending the current workings. Other gold bearing zones such as the New Discovery, East and granite hosted mesothermal veins offer further potential, the latter of which have never been drilled and bear some resemblance to the veins being mined by Fairfield Minerals Ltd.

## **INTRODUCTION**

This report on the Brett Gold project near Vernon, B.C. has been prepared for the Explore B.C. Program and Huntington Resources Inc. During the period of Aug. 15, 1995 to March 4, 1996, development work on the property was directed at:

- Bulk sample mining of an epithermal zone known as the RW Vein and
- Rehabilitation and assessment of underground workings accessing another epithermal target referred to as the Bonanza Zone.

The program was successful in producing a 250 ton bulk sample of vein material ready to be shipped to a custom milling facility. Access to a high grade zone of epithermal gold mineralization (Bonanza Zone) was achieved with the completion of a bypass drift around a caved portion of a preexisting drift.

## **LOCATION AND ACCESS**

The Brett property is located in south-central British Columbia approximately 25 kilometres west of the city of Vernon (Figure 1). Geographic coordinates for the property are 50°14' north latitude and 119°39' west longitude on N.T.S. Map No. 82L/4E.

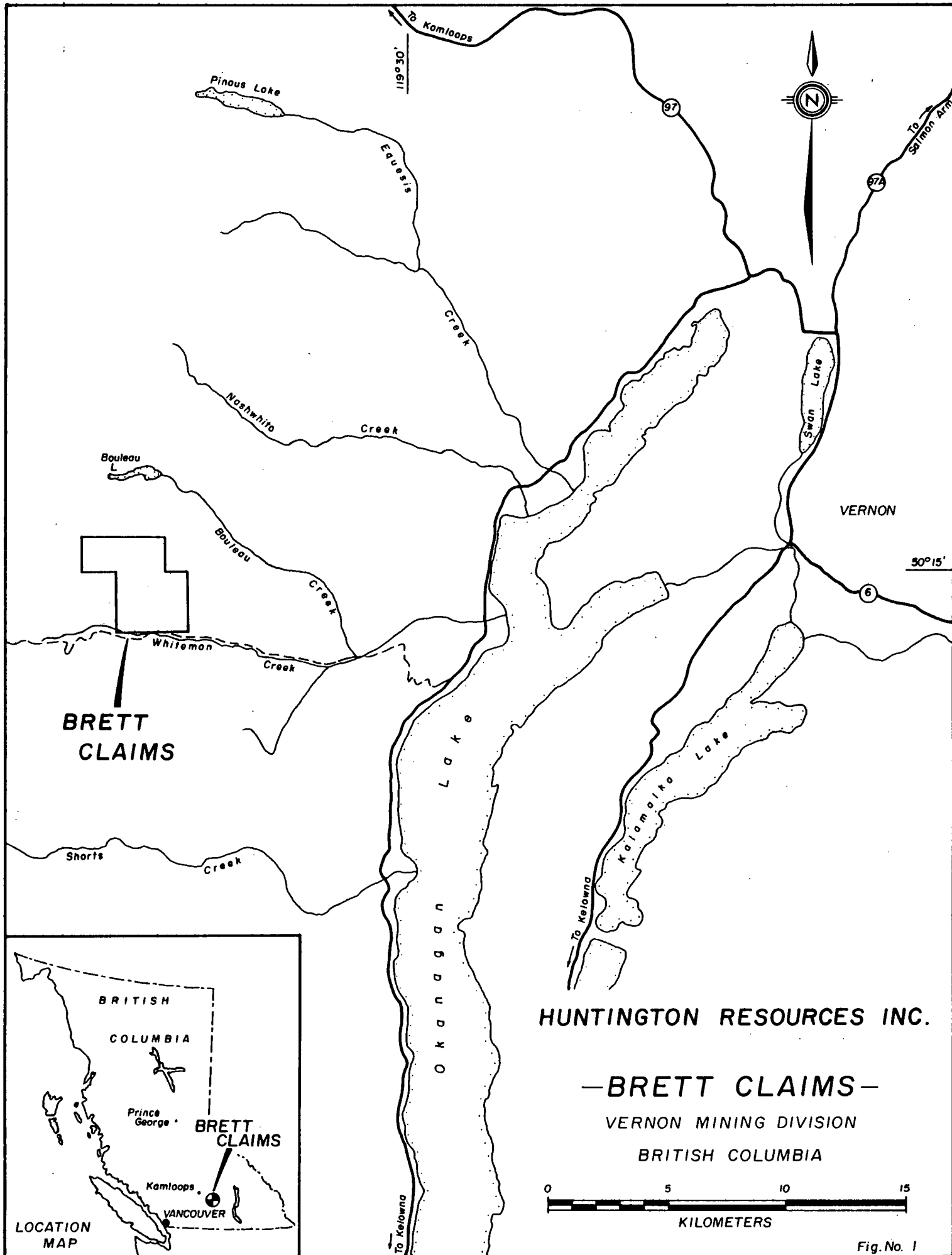
The property is accessible from Vernon via paved and gravel roads. Access from Vernon is by Highway 97 to Westside Road, south to the Whiteman Creek logging road and then 19.2 km along Whiteman Creek Road at which point a gate marks the entrance to the property. Recent upgrading of 3.5 km of the 11.5 km property road network allows access to the underground and surface workings. Travel time from Vernon is approximately an hour.

## **TERRAIN**

The property is situated immediately north of Whiteman Creek and extends northerly onto a broad ridge that separates the Whiteman and Bouleau Creek drainages (Figure 1). Several south flowing seasonal drainages are found on the property, the two westernmost of which are bounded locally by steep valley walls. The areas currently under investigation are situated between the 1,240 and 1,400 m elevations.

The entire property is forested with stands of fir and pine, with minor deciduous vegetation. Annual precipitation is light, with summers that are generally warm and dry.

The steepest terrain is found in the southern portion of the Brett 1 and 2 claims below the 1,370 m (4,500') elevation. This southern exposure results in a rapid spring snow melt, usually allowing easy access by April. The property is free of snow until late October.



The claims are situated on Crown Land with timber rights being held by Riverside Forest Products of Vernon, B.C. At present, no logging has taken place on the property. No private land or other encumbrances are indicated within eight kilometers.

### **PROPERTY**

The Brett property consists of four contiguous modified grid claims, the Brett 1, 2, 3 and 4 in good standing until 1999 and totalling 51 units of 1275 hectares (Figure 2). Claim details are as follows:

<u>Claim Name</u>	<u>Tag No.</u>	<u>Record No.</u>	<u>No of Units</u>	<u>Expiry Date</u>
Brett 1	87964	1550	15	July 19, 1999
Brett 2	87965	1551	15	July 19, 1999
Brett 3	83283	2045	12	Oct. 24, 1999
Brett 4	83284	2046	9	Oct. 24, 1999

Huntington Resources Inc. holds a 100% interest in the Brett property.

Under an agreement dated March 2, 1993 between Huntington Resources Inc. and Liquid Gold Resources Inc., Liquid Gold was granted an option to earn a 50% net profits interest in the Brett property by placing the property in "commercial production" by February 12, 1995. Huntington has received very little information on the work by Liquid Gold especially data pertaining to the underground development. The option agreement has since been terminated.

### **HISTORY**

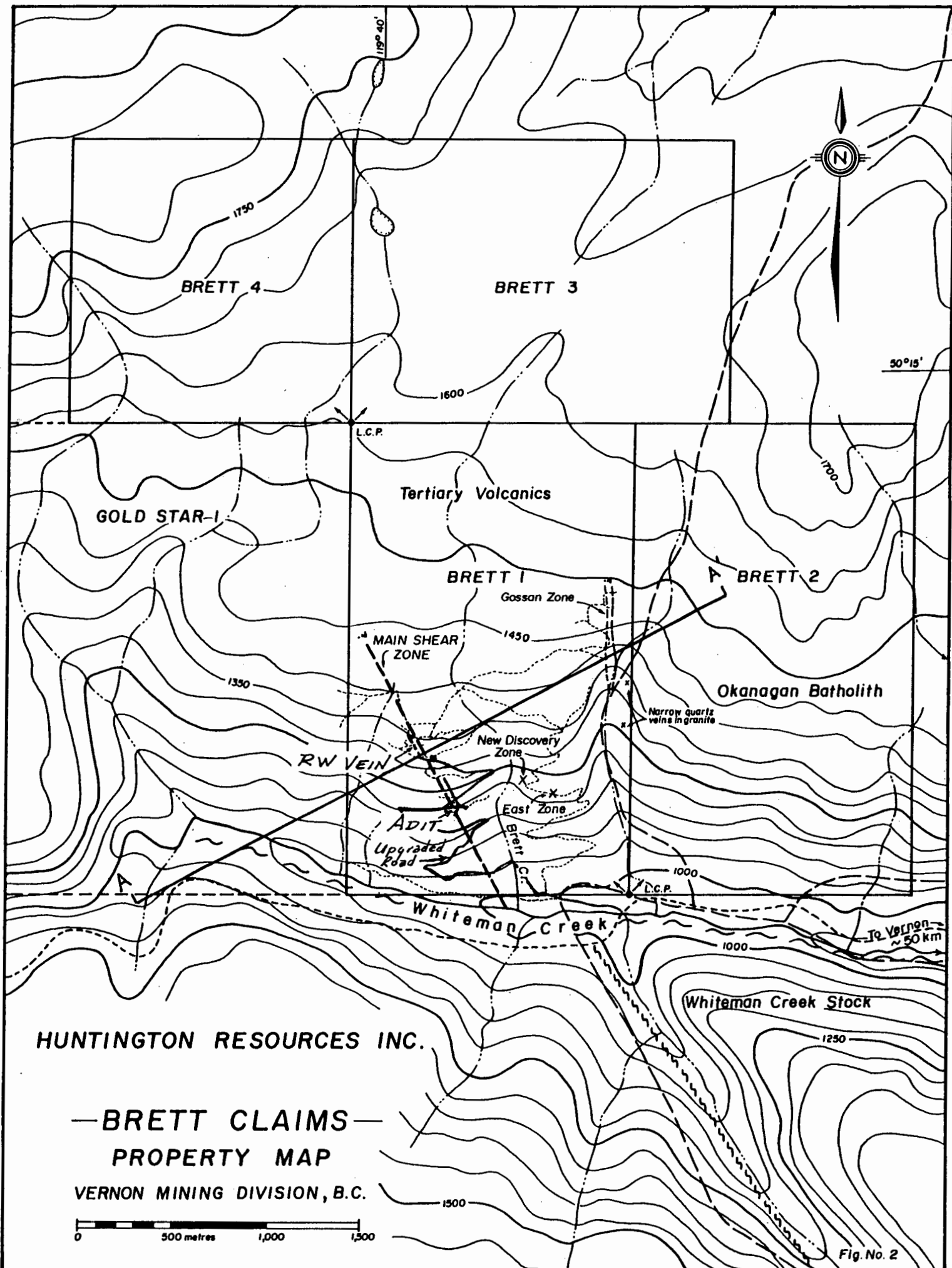
The Brett property has received a significant amount of work since the original geochemical discovery in 1983 by Mr. C. Brett through to the most recent development work on the Bonanza Zone. The exploration history can be summarized as follows:

#### **1983 to 1985:**

Discovery of strongly anomalous gold values in drainages on property area (Brett, 1983). Preliminary geological and geochemical surveys by Huntington, resulted in several discoveries of epithermal gold-silver mineralization on the Brett 1 claim including the RW Vein and Main Shear Zone.

#### **1986 to 1990:**

Main period of exploration on the property firstly by Huntington in 1986, then by the Huntington-Lacana (later Corona) joint venture. Integrated geological, geochemical, trenching and drilling program including 106 diamond drill holes (11,463 metres) and 34 reverse circulation holes (2,835 metres). The Main Shear Zone was tested over a 1,400 metre strike length of which a 300 metre section returned significant gold and silver values from a number of shoots. Disseminated and vein style epithermal gold mineralization was encountered elsewhere on the Brett 1 claim in particular the New Discovery and East zones (Figure 2).





**Unit 1: Fine to Coarse Tuffs**

- several nearly flat lying horizons ranging from 2 to 40 metres thick.

**Unit 2: Andesite Flows, Minor Basalt**

- largest portion of Tertiary sequence.

**Unit 3: Shear Zones**

- north-northwesterly trending, steep westerly dipping.
- Up to several metres wide.
- generally comprised of clay gouge containing altered rock and occasional angular quartz vein fragments.
- normal faulting has occurred along some shears resulting in dip slip displacement of up to 40 metres.
- structural trend thought to be related to prominent "linear" (fault) that projects from the south through the Whiteman Creek stock.

**Unit 4: Feldspar Porphyry Dykes**

- north-northwesterly trend, steep dips to west.
- range from < 1 m to 15 m wide.
- often found proximal to or intruding shear zones.
- dykes thought to emanate from nearby Whiteman Creek stock.

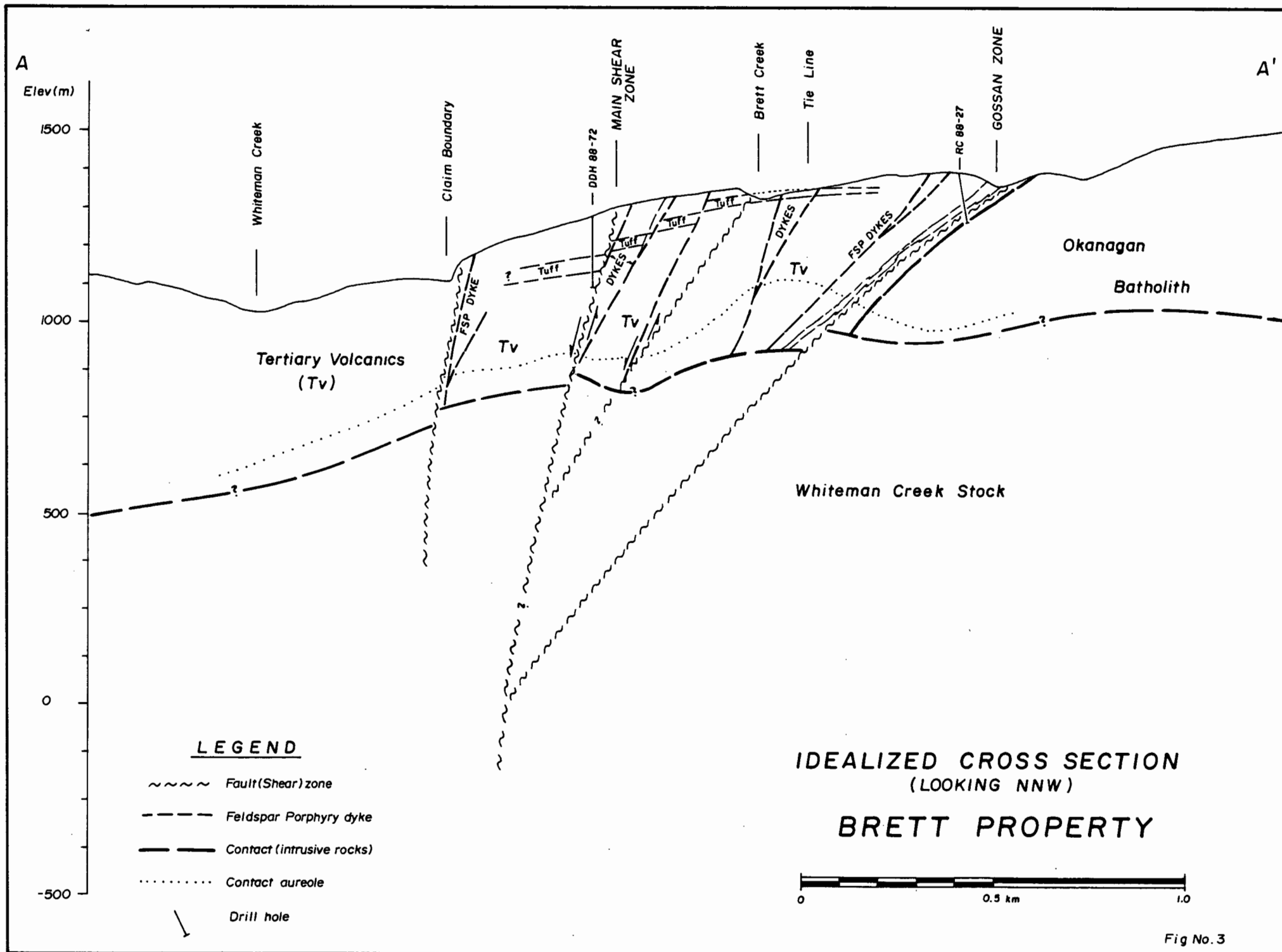
An idealized geological cross section of the property is shown on Figure 3.

## **MINERALIZATION**

Precious metal mineralization on the Brett property occurs as mesothermal quartz veins in granitic rocks of the Okanagan Batholith and epithermal shear, vein and silicified zones hosted by Tertiary volcanic rocks (Figure 2). To date, several areas of epithermal mineralization have been identified. From west to east these are referred to as the RW Vein, Main Shear, New Discovery, East and Gossan zones. The majority of exploration and development work has been directed toward the Main Shear and RW Vein zones.

### **Mesothermal Veins:**

Auriferous quartz veins were discovered within Okanagan intrusive rocks by Mr. Brewer in 1939. These veins are situated near the Brett 1 and 2 claim boundaries very near the contact with the Tertiary volcanics. There are at least two narrow ( $\leq 40$  cm) veins that strike westerly and dip  $25^\circ$  northerly. Gold values up to 1.16 oz/t and silver values to 5.5 oz/t along with base metal values (Cu,Pb) have been documented.



### **Epithermal Gold Mineralization -RW Vein**

In 1985 epithermal gold mineralization was first discovered in what is referred to as the RW Vein. This steeply west dipping vein ranges from 15 to 65 cm wide and has been traced for a at least 140 metres. Exploration has revealed that this vein is a splay structure off the nearby ( $\leq 15\text{m}$ ) Main Shear zone. Mineralization occurs as native gold, electrum, argentite and very minor pyrite. Visible gold commonly occurs along limonitic fractures and often in close association with argentite. This vein has returned values of over 7 oz/t Au and 12 oz/t Ag across 0.30 metres. Shearing, evidenced by gouge, is not uncommon along the vein contacts.

### **Epithermal Gold Mineralization - Main Shear Zone**

The Main Shear zone, located in the southwestern portion of the Brett 1 claim, is a north-northwesterly trending steeply west dipping structure. This zone is represented by intense clay alteration (gouge) containing highly altered rock and sporadic quartz vein fragments. A feldspar porphyry dyke is often found to intrude this zone. The shear ranges from less than one metre to three metres or more in width. Silicification, propylitization and bleaching of the host volcanic rocks are common forms of alteration observed adjacent to the shear zone. To date this structure has been traced for approximately 1.4 kilometres.

Gold and silver mineralization occurs within siliceous portions of the shear and often in the adjacent altered volcanics. Mineralization has thus far been delineated over a strike length of over 650 metres and most often between the 1180 and 1265 metre elevations. Grades of up to several ounces per ton (Au,Ag) have been obtained over significant widths in drill holes and trenches. Mineralogy is very simple consisting of native gold, electrum and argentite. Coarse visible gold is not uncommon in high grade sections. Pyrite is the predominant sulphide ranging from 1% to 5%. Drilling and underground work indicates multiple episodes of hydrothermal and tectonic activity along the Main Shear zone. This is evidenced by intense clay alteration, bleaching of rock fragments and brecciated quartz fragments. Localization of mineralization in 'shoots' along this structure have been identified. The most well defined shoot, referred to as the Bonanza zone is situated around drill section 8+05N (Figure 6). Other significant shoots are the RW Vein splay and North Extension zone, the latter centered around drill section 13+11N. The North Extension zone consists of a non-shear hosted quartz vein stockwork/breccia that has returned gold and silver values in excess of one ounce per ton over 1m+ intervals.

Mineralization occurring in the host rocks extends up to 20 metres from the shear. Favourable host rocks include andesite flows and tuffs the latter consisting of near flat lying horizons up to 40 metres thick. In the andesitic volcanics mineralization is fracture and alteration controlled, while in the footwall tuffs, permeability and alteration are the dominant controls. In general, the hanging wall volcanics contain higher though irregular gold grades in contrast to the more consistent and widespread lower grades in the tuffs (generally  $\leq 0.25$  oz/t Au).

## **Epithermal Gold Mineralization - Other Zones**

These zones are situated 0.4 to 1.0 km east of the Main Shear zone. All are Tertiary volcanic hosted, structurally controlled and in the case of the New Discovery and East zones possibly stratigraphically controlled. Some exploratory drilling has been conducted with the New Discovery zone returning one of the more significant intercepts grading .445 oz/t across 1.20 metres. Further drilling will be required to better define the mineralization in these areas.

## **WORK PROGRAMS - 1995/96**

### **RW Vein:**

In August, 1995 the RW Vein was targeted for bulk sample mining. Work commenced with the stripping of overburden (<1m) from a 115 metre length of the vein using a Cat 325 excavator (Glen Am Construction). Field supervision was conducted by Geoquest Consulting Ltd. ( W.Gruenwald, B.Sc and R.Montgomery, B.Sc.) with engineering conducted by Brad Thiele, P.Eng.

Once exposed, the vein was sampled and mapped in detail. Sample analysis was conducted by Chemex Labs. Owing to the nature of the mineralization (i.e. coarse gold ), it was necessary to conduct 'metallics assays' on all vein material. As the program called for the mining and milling of a bulk sample a metallurgical study of the vein material was undertaken by Process Research of Vancouver, B.C. Metallurgical analysis of the vein material indicated high recoveries for gold (>90%) utilizing gravity methods combined with either floatation or cyanidation. Analysis also revealed very low levels of deleterious elements which minimizes environmental impacts and suggests the potential for the production of a clean end product. The results of the surface sampling are shown on Figure 4 and the metallurgical report is contained in Appendix C.

Surface sampling delineated two distinct areas of gold mineralization separated by a 21 metre length of lower grade vein. The largest zone of high grade gold mineralization occurs at the southern end of the RW vein where a 51.35 metre strike length averaged 1.002 oz/t Au. A small northern 'shoot' graded .408 oz/t over a strike length of 10 metres. Previous drill programs have indicated mineralized vein material at depths of up to 25 metres.

On September 5, 1995 logging commenced over the area planned for bulk sample mining along with minor right of way logging along a section of road requiring upgrading. In all, less than two hectares of timber was harvested. Once logging was completed, systematic drilling and blasting of the hanging wall of the vein commenced at the north end of the main 'ore' shoot. Upon completion of the stripping of the waste rock the vein was carefully removed using the excavator and a large collection tray positioned at the base of the exposed vein (Photos #1, #2 - Appendix A). In most cases the vein was easily removed owing to the often sheared contact. Dilution was well controlled and was likely under 5%. The hanging wall was systematically removed southerly along the vein in a series of steps that were controlled

by topography and gold grade. The vein material was collected in metal 'pots' with an average capacity of 5 tons. During the collection of each pot, two samples were taken for analysis and were combined to yield an overall grade for the pot. Once the grade of a pot was established the material was stockpiled in one of three grade categories. Once the mining of a section of the vein was completed, sampling of the vein was conducted at close intervals to give an idea of the grade to be expected below the pit floor.

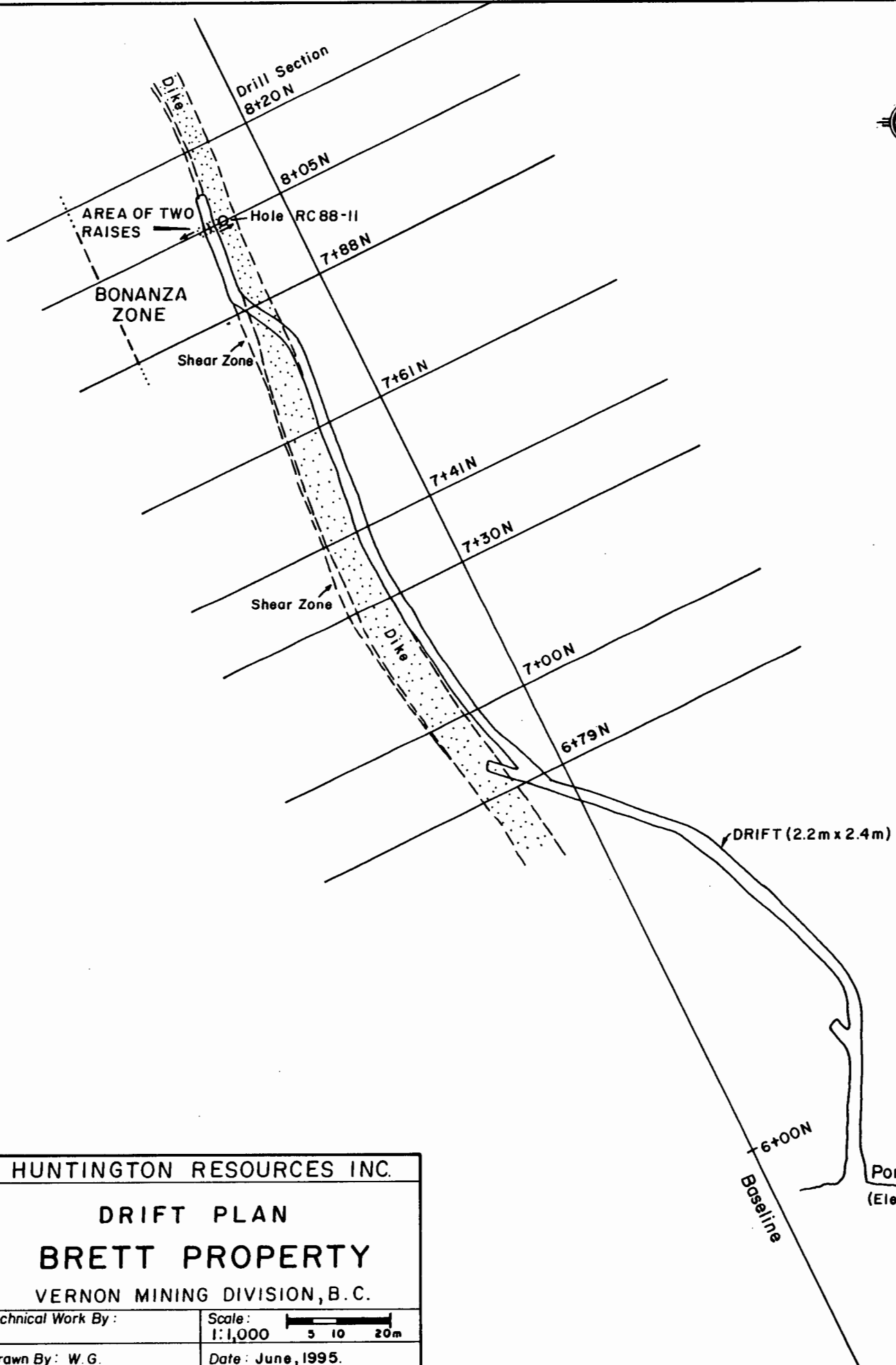
The mining of the vein along with pot assays and vein channel sample assays are shown on a longitudinal section (Figure 5). Appendix B contains a detailed tabulation of the mined and stockpiled material.

Surface mining of the RW vein was completed on November 7, 1995, however, due to the lateness of the season the proposed milling facility was forced to suspend operations for the year. In all, approximately 335 tons of vein material was mined and of this 250 tons were stockpiled for milling. The resultant grade of the 250 ton bulk sample is 0.997 oz/t Au, virtually identical to the surface sampling grades. Huntington plans to ship and process this stockpiled material in the spring of 1996.

#### **Underground Development:**

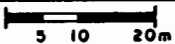
On November 24, 1995 Huntington received Mines department approval to commence with underground work. The proposed work had two main objectives, the first of which was to drive a tracked, 2.1 x 2.1 metre bypass drift around a section of the preexisting drift that had caved. Once completed, this bypass was planned to connect with the end of the original drift and allow access to the Bonanza zone for testing and the mining of a bulk sample. Work commenced on December 4, 1995 with the timbering of the furthestmost section of the original drift (Photo #3 - Appendix A). This was done to stop any further caving along the Main Shear zone and would also serve as a switching area. After a protracted shutdown over the holidays and through January the bypass tunnel broke through to the old drift on March 4, 1996. The total length of the bypass drift was 54 metres. Unfortunately, the end of the original drift suffered substantial caving and will require some remedial work. One of the two raises that was driven in competent hanging wall rock was in good condition and may be utilized to gain access to the Bonanza zone. The other raise was caved and not accessible.

The field expenditures for the above work cover the period August 15, 1995 to February, 1996. and are outlined in Appendix D.

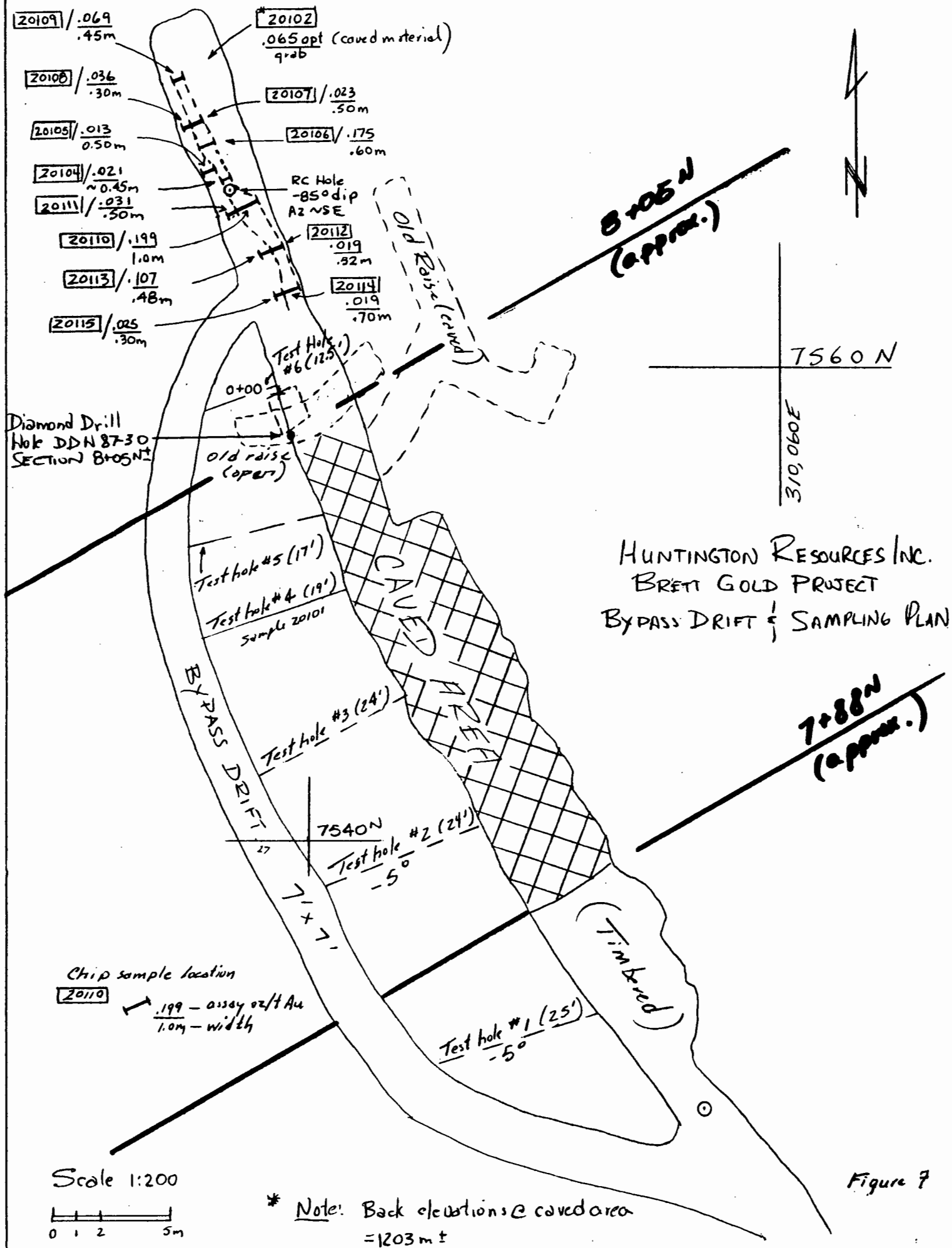


HUNTINGTON RESOURCES INC.

**DRIFT PLAN**  
**BRETT PROPERTY**  
VERNON MINING DIVISION, B.C.

Technical Work By:	Scale: 1:1,000 
Drawn By: W.G.	Date: June, 1995.
Approved By:	Fig. No. 6

To accompany a report by *W. Gruenwald, B.Sc.*



## **CONCLUSIONS AND RECOMMENDATIONS**

The work conducted by Huntington Resources Inc. has been largely successful. The surface bulk sampling of the RW vein yielded 250 tons of 1 oz/ton Au material meeting the expectations based on the initial surface sampling. In addition, the results and historic data indicate further potential at depth and strike along this vein and it is conceivable that an equal or greater mineable reserve exists. Based on the positive results and the fact that the infrastructure is established it is recommended that a mining plan be drawn up and that application be made to continue extraction.

The underground program successfully bypassed the caved portion of the old drift. This now allows access to the Bonanza zone. It is recommended that bulk sampling of this zone be undertaken utilizing the open raise and establishing development subdrifts. Advancement of this work should be closely monitored with detailed sampling and mapping conducted throughout. Identified ore should be stockpiled until such time that shipments can be made to the milling facility.



**APPENDIX A**  
**PHOTOGRAPHS**



**Photo # 1 - Drilling and Stripping of RW Vein**

**Photo # 2 - Vein stripped with floor ready to sample**



Photo # 3

Timbering caved area at  
start of Bypass Drift



Photo # 4

Brett property portal site



**APPENDIX B**

**RW VEIN BULK SAMPLING RESULTS**

## RW VEIN POT SUMMARY

Pot No.	Au (oz/t)	A Sample	B Sample	Stockpile Category	Pot oz Au	Total ounces	Total tons	Overall Grade oz/t Au
1	0.753	1.054	0.451	High	3.763	3.763	5.000	0.753
2	0.327	0.404	0.250	Med	1.635	5.398	10.000	0.540
3	0.457	0.067	0.846	Med	2.283	7.680	15.000	0.512
4	0.331	0.477	0.184	Med	1.653	9.333	20.000	0.467
5	0.106	0.069	0.143	Low	0.530	9.863	25.000	0.395
6	0.055	0.045	0.064	Waste	0.000	9.863	25.000	0.395
7	0.135	0.119	0.150	Low	0.673	10.535	30.000	0.351
8	0.032	0.017	0.047	Waste	0.000	10.535	30.000	0.351
9	0.051	0.058	0.043	Waste	0.000	10.535	30.000	0.351
10	0.071	0.047	0.095	Waste	0.000	10.535	30.000	0.351
11	0.060	0.065	0.055	Waste	0.000	10.535	30.000	0.351
12	0.087	0.099	0.074	Waste	0.000	10.535	30.000	0.351
13	0.051	0.061	0.041	Waste	0.000	10.535	30.000	0.351
14	0.032	0.040	0.024	Waste	0.000	10.535	30.000	0.351
15	0.036	0.016	0.056	Waste	0.000	10.535	30.000	0.351
16	0.027	0.030	0.024	Waste	0.000	10.535	30.000	0.351
17	0.014	0.015	0.012	Waste	0.000	10.535	30.000	0.351
18	0.015	0.013	0.017	Waste	0.000	10.535	30.000	0.351
19	0.025	0.029	0.021	Waste	0.000	10.535	30.000	0.351
20	0.070	0.101	0.039	Waste	0.000	10.535	30.000	0.351
21	0.429	0.327	0.531	Med	2.145	12.680	35.000	0.362
22	0.792	0.483	1.100	High	3.958	16.638	40.000	0.416
23	2.028	2.087	1.969	High	10.140	26.778	45.000	0.595
24	1.622	1.257	1.553	High	8.110	34.888	50.000	0.698
25	1.932	2.390	1.473	Med	9.658	44.545	55.000	0.810
26	1.427	1.158	1.695	High	7.133	51.678	60.000	0.861
27	0.510	0.559	0.461	High	2.550	54.228	65.000	0.834
28	2.555	1.733	3.376	High	12.773	67.000	70.000	0.957
29	1.145	0.967	1.322	High	5.723	72.723	75.000	0.970
30	0.594	0.699	0.488	Med	2.968	75.690	80.000	0.946
31	2.591	4.046	1.136	Med	12.955	88.645	85.000	1.043
32	2.454	1.232	3.675	Med	12.268	100.913	90.000	1.121
33	1.671	2.023	1.319	Med	8.355	109.268	95.000	1.150
34	1.019	0.935	1.103	High	5.095	114.363	100.000	1.144
35	1.921	1.173	2.668	High	9.603	123.965	105.000	1.181
36	1.258	1.464	1.052	High	6.290	130.255	110.000	1.184
37	1.506	1.048	1.964	High	7.530	137.785	115.000	1.198
38	0.851	0.454	1.247	High	4.253	142.038	120.000	1.184
39	0.744	0.498	0.990	High	3.720	145.758	125.000	1.166
40	0.567	0.692	0.441	High	2.833	148.590	130.000	1.143
41	0.290	0.311	0.269	Med	1.450	150.040	135.000	1.111
42	0.516	0.338	0.693	High	2.578	152.618	140.000	1.090
43	0.035	0.022	0.047	Waste	0.000	152.618	140.000	1.090
44	0.041	0.042	0.040	Waste	0.000	152.618	140.000	1.090
45	0.128	0.097	0.158	Low	0.638	153.255	145.000	1.057
46	0.155	0.180	0.130	Low	0.775	154.030	150.000	1.027
47	0.266	0.053	0.478	Med	1.328	155.358	155.000	1.002
48	0.614	0.602	0.626	High	3.070	158.428	160.000	0.990
49	0.407	0.311	0.502	Med	2.033	160.460	165.000	0.972
50	0.100	0.088	0.111	Low	0.498	160.958	170.000	0.947
51	0.048	0.030	0.065	Waste	0.000	160.958	170.000	0.947
52	0.637	0.641	0.632	High	3.183	164.140	175.000	0.938
53	0.726	0.763	0.689	High	3.630	167.770	180.000	0.932
54	0.546	0.570	0.521	High	2.728	170.498	185.000	0.922
55	1.450	1.188	1.711	High	7.248	177.745	190.000	0.936
56	1.505	1.538	1.473	High	7.526	185.271	195.000	0.950
57	1.004	0.444	1.564	High	5.020	190.291	200.000	0.951
58	1.200	1.654	0.745	High	5.998	196.289	205.000	0.958
59	1.440	2.001	0.878	High	7.198	203.486	210.000	0.969
60	0.602	0.498	0.706	High	3.010	206.496	215.000	0.960
61	0.963	0.926	1.00	High	4.815	211.311	220.000	0.961
62	2.555	2.903	2.206	High	12.773	224.084	225.000	0.996
63	0.737	0.570	0.903	High	3.683	227.766	230.000	0.990
64	1.007	0.909	1.104	High	5.033	232.799	235.000	0.991
65	1.214	1.578	0.850	High	6.070	238.869	240.000	0.995
66	1.304	0.796	1.811	High	6.518	245.386	245.000	1.002
67	0.759	0.663	0.855	High	3.795	249.181	250.000	0.997

## RW VEIN STOCKPILE SUMMARY

Grade Category	Grade Range (oz/t Au)	No. of Tons	Contained ounces Au	Contained ounces Ag
Low	0.100-0.249	25	3.1	7.5
Medium	0.250-0.499	60	58.7	101.4
High	>0.500	165	187.2	354.0
Totals =		250	249.2	462.9
Average Au Grade (oz/t) =			0.997	
Average Ag Grade (oz/t) =			1.852	

**APPENDIX C**

**PRELIMINARY METALLURGICAL TESTING - RW VEIN**





Process Research Associates Ltd.

9145 Shaughnessy Street, Vancouver, B.C. V6P 6R8  
Telephone: (604) 322-0118 Fax: (604) 322-0181

November 1, 1995

**Huntington Resources**  
Suite 700 - Harbour Centre  
P.O. Box 12099  
Vancouver, B.C.  
V6B 4N5

**Attention: Mr. Werner Gruenwald**

Dear Werner:

**Re: Preliminary Metallurgical Testing**

The following summarizes procedures and results for metallurgical test work to recover gold from your samples. The objective of the test work was to evaluate two processing options:

1. Gravity concentration followed by flotation,
2. Gravity concentration followed by cyanidation.

A composite sample was prepared from assay rejects that were received from Chemex Labs. The samples combined to prepare the composite are listed in the attached table. Head assays revealed that the sample contained 20.3 g/t gold and 50.3 g/t silver.

#### **Gravity Concentration/ Flotation**

To evaluate the gravity concentration and flotation option, a 4 kg sample was ground to approximately 55% -200 mesh. The ground sample was processed with the Knelson Concentrator to recover the coarse free gold and the concentrate was upgraded by hand panning. The Knelson tails and pan tails were combined and subjected to bulk sulphide and gold flotation. All products were dried, weighed and assayed for gold and silver so that a metallurgical balance could be prepared.

Gravity concentration recovered 60.3% of the gold and 20.3% of the silver in a product that accounted for 0.1% of the sample weight. Flotation recovered an additional 31.0% of the gold and 52.5% of the silver yielding overall gold and silver recoveries of 91.3% and 72.8%, respectively. The product weight recovery was 2.9%.

The flotation concentrate graded 343 g/t gold and 955 g/t silver. A multi-element ICP analysis revealed that the levels of penalty elements (As, Sb and Hg) were below the maximum limits (as per Cominco letter to W. Gruenwald, September 26, 1995). The sulphur assay was 1.02% which indicates a small sulphide mineral content. The low levels of Cu (65 ppm), Pb (48 ppm) and Zn (211 ppm) suggest that only minor amounts of base metal sulphides are present. Iron sulphide (pyrite) likely accounts for most of the sulphur assay.

A whole rock analysis of the flotation concentrate revealed that the main contaminants are silicate minerals ( $\text{SiO}_2$  58.02%). Cleaning stages of flotation may reject most of the silicate mineral particles and produce a higher grade concentrate.

### **Gravity Concentration/ Cyanidation**

A representative 4 kg sample was subjected to gravity concentration followed by cyanidation. As in the first test, the sample was ground to approximately 60% -200 mesh and the coarse free gold was recovered with the Knelson Concentrator followed by hand panning. The combined Knelson tails and pan tails were leached with cyanide. A 48-hour leach test was performed maintaining the NaCN concentration at 1 g/L and the pH at 10.5. Intermediate solution samples were obtained at 8 hours and 24 hours so that the gold and silver extraction could be monitored as a function of time.

Gravity concentration recovered 55.1% of the gold and 20.9% of the silver; these recoveries are similar to those achieved from the previous test. Cyanide leaching of the gravity concentration tails extracted 93.6% of the gold and 53.6% of the silver. The overall gravity concentration plus cyanidation gold and silver recoveries were 97.1% and 63.3%, respectively.

The attached cyanide leach test report shows that most of the leachable gold and silver was extracted within 24 hours. However, leaching for 48 hours produced significant improvements: gold extraction increased from 90.8% to 93.6% and silver extraction improved from 41.8% to 53.6%.

### **Summary**

Gravity concentration recovered significant amounts of the gold and silver; the gold recoveries ranged from 55.1% to 60.3% and the silver recoveries from 20.3% to 20.9%.

Flotation of the gravity concentration tails improved the overall gold and silver recoveries to 91.3% and 72.8%, respectively. The combined gravity concentration plus flotation concentrate graded 984 g/t gold and 1289 g/t silver. The main contaminant in the concentrate was silicate mineral particles; these may be rejected by using a cleaning stage of flotation. The levels of penalty elements in the flotation concentrate were below specified limits.



Cyanide leaching of the gravity concentration tails extracted 93.6% of the gold and 53.6% of the silver. Overall gravity concentration plus cyanidation gold and silver recoveries were 97.1% and 63.3%. Although most of the precious metals leached within 24 hours, some benefits were realized by leaching for 48 hours.

If you have any questions regarding the test procedures or the results, please call me.

Sincerely yours,  
**PROCESS RESEARCH ASSOCIATES LTD.**



Bern Klein, Ph.D.  
Senior Process Metallurgist

## TESTWORK PROCEDURE

Project No: 95-082

Date : 2-Oct-95

Test No: F1

Objective : To perform bulk flotation for the recovery of sulphide minerals

Sample Id : Gravity tails (Knelson)

STAGE	TIME (Minutes)	ADDITION		COMMENTS
		g/tonne	REAGENT	
Condition 1	3	50 25	Potassium Amyl Xanthate A208	
Bulk rougher flotation			Initial pH = 5.8	
Rougher float	5	18	DF250	
Condition 2	3	50 25	Potassium Amyl Xanthate A208	
Scavenger float	5	0	DF250  Final pH = 6.0	

## MATERIAL BALANCE

Project no : 95-082

Date : 3-Oct-95

Test no : F1

Sample description : Knelson tails

Products	Weight		Assay		%Distribution	
	(g)	(%)	Au (g/t)	Ag (g/t)	Au	Ag
Gravity concentrate	2.9	0.1	25,334	13,988	66.0	27.7
Roughr concentrate	59.5	1.5	599.1	1,574.7	31.9	63.8
Scavenger concentrate	50.9	1.3	43.2	230.1	2.0	8.0
Total flotation concentrate	110.4	2.8	342.6	954.5	33.9	71.8
Total flotation and gravity conc	113.3	2.9	984.3	1,289.1	99.9	99.5
Final flotation tails	3,848.0	97.1	2.8	14.2	0.1	0.5
Calculated head	3,961.3	100.0	28.2	37.1	100.0	100.0
Assay head						

## SIZE ANALYSIS REPORT

Project no : 95-082

Date : 2-Oct-95

Test no : F1

Sample description : Flotation tails

Size Fraction (Tyler mesh)	Individual Percentage Retained	Cumulative Percentage Passing
65	0.9	99.1
100	9.6	89.5
150	18.6	70.9
200	14.4	56.5
270	10.3	46.2
325	4.9	41.4
400	2.6	38.7
Undersize	38.7	
TOTAL	100.0	



## CERTIFICATE OF ANALYSIS

iPL 95J0401

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Process Research Associates Ltd  
Project: 95-082 1 Pulp

iPL: 95J0401

Out: Oct 06, 1995  
In: Oct 04, 1995

Page 1 of 1  
[083312:17:31:59100695]

Section 1 of 2  
Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	M ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %
95-082 F1 Bo Conc	0.3m	85	48	211	274	33	<	136	<	<	<	24	820	133	<	1461	57	560	31	235	6	2	0.01	1.29	0.32	6.92	0.75	0.20	0.03

Min Limit 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 2 5 1 2 1 2 1 1 1 0.01 0.01 0.01 0.01 0.01 0.01 0.01  
Max Reported\* 99.9 20000 20000 20000 9999 9999 9999 9999 999 999 99.9 999 999 9999 999 9999 999 9999 9999 9999 9999 999 99 1.00 9.99 9.99 9.99 9.99 9.99 5.00  
Method ICP  
—No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 Z=Estimate % Max=No Estimate  
International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

03-20-1996 01:27PM

PROCESS RESEARCH ASSOC.

1 604 3220181

P.03



CERTIFICATE OF ANALYSIS  
iPL 95J0401

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Process Research Associates Ltd  
Project: 95-082 1 Pulp

iPL: 95J0401

Out: Oct 06, 1995  
In: Oct 04, 1995

Page 1 of 1  
[083312:17:35:59100695]

Section 2 of 2  
Certified BC Assayer: David Chiu

Sample Name	P	Z
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95-082 F1 Ro Conc	0.21	
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Min Limit 0.01  
Max Reported\* 5.00  
Method ICP

—No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate Z Max=No Estimate  
International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

03-20-1996

01:27PM

PROCESS RESEARCH ASSOC.

1 604 3220181

P.09



CERTIFICATE OF ANALYSIS  
iPL 95J0402

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Process Research Associates Ltd  
Project: 95-082 1 Pulp

iPL: 95J0402

Out: Oct 16, 1995  
In: Oct 04, 1995

Page 1 of 1  
[083412:08:52:59101695]

Section 1 of 1  
Certified BC Assayer: David Chiu

Sample Name	S %	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	MnO %	BaO %	P2O5 %	LJI %	Total %
95-082 F1 Ro Conc	1.02	58.02	0.58	13.62	10.89	1.74	0.57	0.39	3.85	0.07	0.07	0.46	9.57	99.93

Min Limit 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01  
Max Reported\* 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 105.00  
Method Assay WRock WRock WRock WRock WRock WRock WRock WRock WRock WRock WRock GeoSp WRock  
—No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate  
International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

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## METALLURGICAL BALANCE

Project No: 95-082

Date: 6-Oct-95

Test No: C1

Product	Weight		Assay (%)		Distribution (%)	
	(g)	(%)	Au	Ag	Au	Ag
Pan Concentrate	2.39	0.1	24477	12887	55.1	20.9
Tails	3954.5	99.9	12.1	29.5	44.9	79.1
Total	3956.9	100.0	26.8	37.3	100.0	100.0



# CYANIDATION TEST REPORT

PROJECT NO : 95-082

DATE : 3-Oct-95

TEST NO : C1

SAMPLE DESCRIPTIONS : Knelson tails

## TEST DESCRIPTION :

- 4 kg of sample was ground to - 60% -200 mesh
- ground sample was gravity separated for free gold using Knelson separator
- Knelson concentrate was pan and the pan tails was combined with Knelson tails for cyanide leach
- the cyanidation test was performed at 40% solids, 1 g/L NaCN, pH 10.5 and maintained
- solution samples were taken at 8, 24 and 48 hours
- all test products were fire assay for Au and Ag

Time hr	NaCN		Time mL	pH		dO <sub>2</sub> [mg/L]	Slurry Wt g	Vol (mL)	Solution		Wt (g)	Residue		Wt (g)	Carbon	
	[g/L]	g		Init	End				Au (mg/L)	Ag (mg/L)		Au (g/t)	Ag (g/t)		Au (mg)	Ag (mg)
0.0	1.00	6.00	78.0	6.2	10.5	8.6	10000									
2.0	1.00		20.0	9.8	10.5											
4.0	0.90	0.60	7.0	10.2	10.5											
8.0	1.00		7.0	10.2	10.5		10109	6184	5.03	4.5						
24.0	0.73	1.62		10.5	10.5		10023	6103	7.10	8.0						
48.0	0.78			10.7	10.7	9	10028	6137	7.28	10.2	3954.5	0.77	13.7			

EXTRACTION		
Time hr	Au (%)	Ag (%)
8	65.0	23.8
24	90.8	41.8
48	93.6	53.6

DISTRIBUTION		
	Au (%)	Ag (%)
Solution	93.6	53.6
Residue	6.4	46.4
	100.0	100.0

HEAD GRADE		
	Au (g/t)	Ag (g/t)
Calculated	12.07	29.53
Measured		

NaCN CONSUMPTION	
NaCN =	0.87 kg/t

LIME CONSUMPTION	
Ca(OH) <sub>2</sub> =	4.47 kg/t

REDUCING POWER	
RP =	28 mL of N/10 KMnO <sub>4</sub> per litre solution

## **APPENDIX D**

### **PROGRAM EXPENDITURES**

#### **RW VEIN BULK SAMPLE PROGRAM**

Excavator/Bulldozer Contractor:	53,681
Drilling and Blasting:	16,393
Analytical:	8,131
Metallurgical	2,055
Transportation:	3,359
Trucking:	3,505
Road Maintenance:	479
Supervision:	24,001
Supplies:	2,297
Equipment Rental:	853
Room and Board:	321
Freight:	565
Maps/Printing/Secretarial:	965
Miscellaneous:	1,992
Subtotal:	\$118,597

#### **UNDERGROUND PROGRAM**

Excavator/Bulldozer/Bobcat:	5,801
Mining Contractor:	49,475
Mechanical Contractor:	12,789
Equipment Rental:	21,396
Explosives:	7,148
Supplies:	7,707
Equipment Purchases:	16,864
Fuel:	4,886
Transportation:	4,634
Supervision:	12,804
Room and Board:	136
Freight:	692
Maps/Printing/Secretarial:	230
Miscellaneous:	405
Subtotal:	\$144,967

**Total Project Expenditures: \$263,564**

**Note:** The above costs do not include administrative and related costs.

## APPENDIX E

### REFERENCES

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- Gruenwald, W. (1987): Diamond Drilling Report on the Brett Claims, Vernon M.D. Assessment Report.
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- Duba, D. (1988:): Geology of the Whiteman Creek Area. Mapping project by Discovery Consultants for Brican Resources Ltd., Chevron Minerals Ltd. And Corona Corporation.
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- Livgard, E. (1992): Report on the Brett Property for Beaton-Vicore Group.
- Ash, W.M. (1993): Assessment Report on Phase One Development and Recommendations for Phase Two Development on the Brett Gold Project. Report for Liquid Gold Resources Inc.
- Liquid Gold Resources Inc. (1993-1995): Numerous press releases, George Cross Newsletter.
- Wells, R.C. (1995): Summary Report on the Brett Property, Vernon M.D. for Huntington Resources Inc.

**APPENDIX F**

**CERTIFICATE**

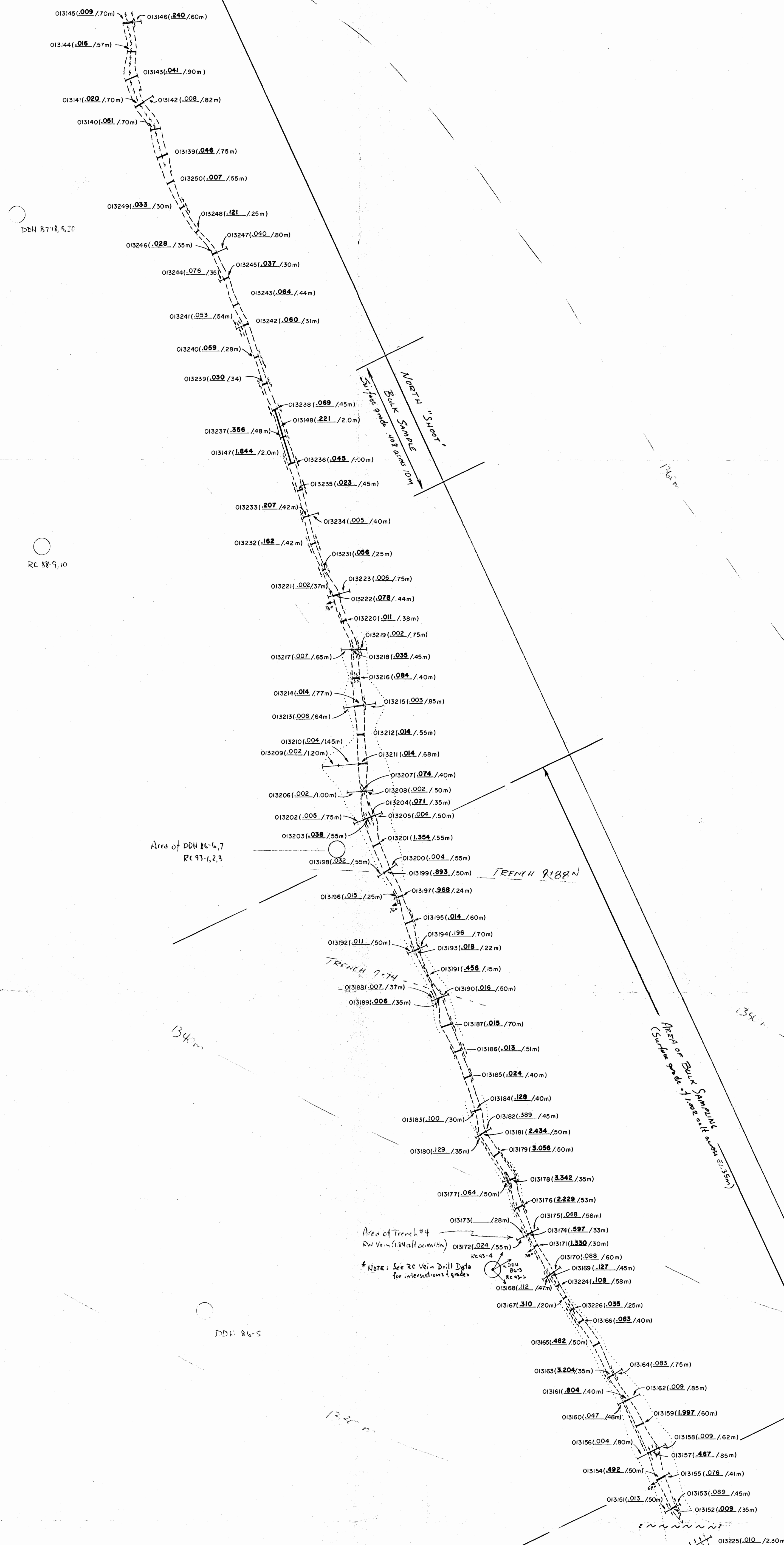
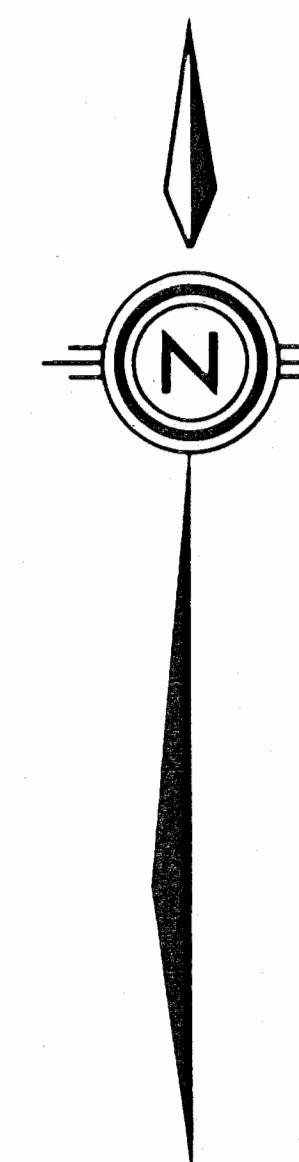
**I, WERNER GRUENWALD, OF THE CITY OF VERNON, BRITISH COLUMBIA  
HEREBY CERTIFY THAT:**

1. I am a graduate of the University of British Columbia with a B. Sc. degree in Geology (1972).
2. I am a fellow of the Geological Association of Canada (#F2958).
3. I am presently employed as a consulting geologist and president of Geoquest Consulting Ltd., Vernon, B.C.
4. I have practiced continuously as a geologist for the past 23 years in Canada and the US.
5. I was actively involved as project geologist on the Brett gold property during the 1995/96 work programs.
6. I am a director of Huntington Resources Inc.



W. Gruenwald, B. Sc., F.G.A.C.

Dated: March 20, 1996

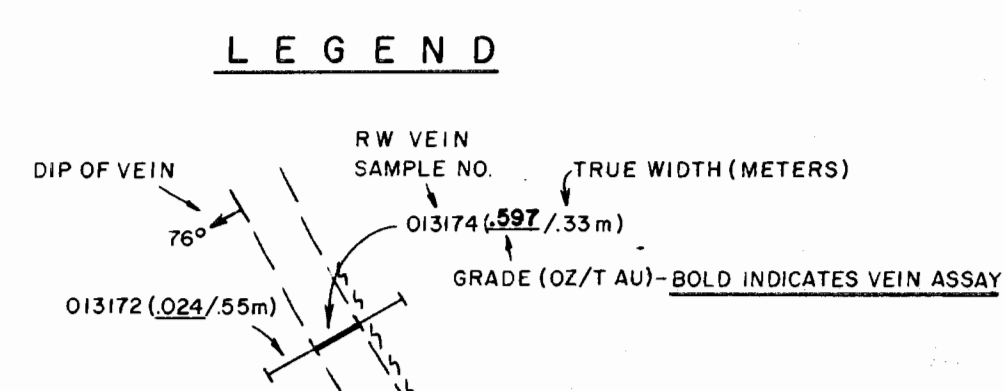


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EXPLORE B.C. PROGRAM  
MEMPHIS

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

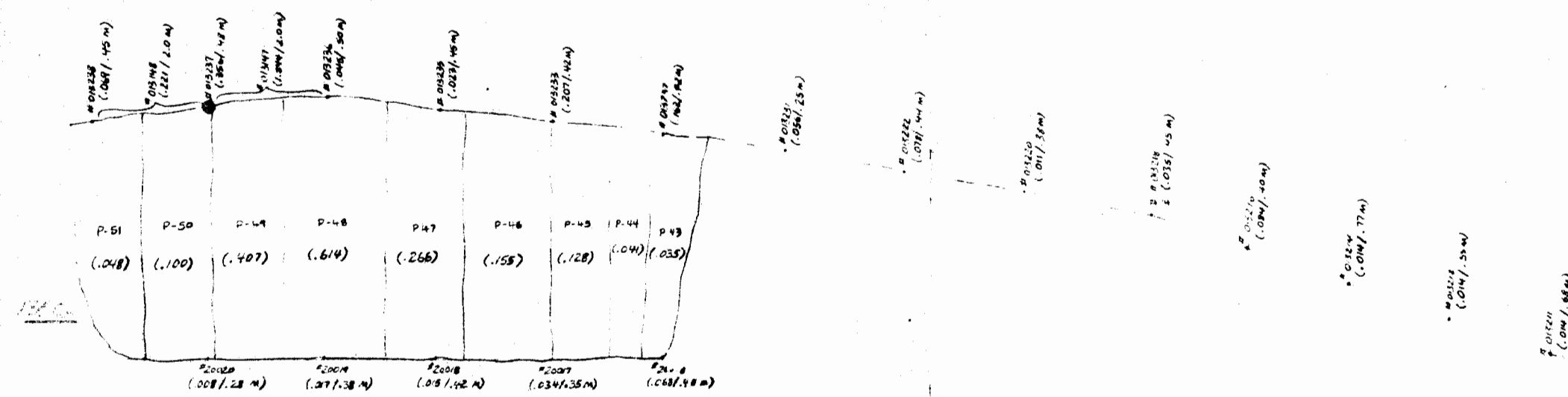
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HUNTINGTON RESOURCES INC.  
RW VEIN ZONE  
SURFACE SAMPLING



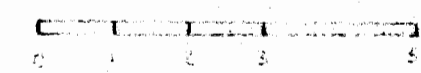
ASSAY CATEGORIES

□	>1,000 oz/ton Au
□	500 - 1,000
□	250 - 499
□	100 - 249
□	0 - 99



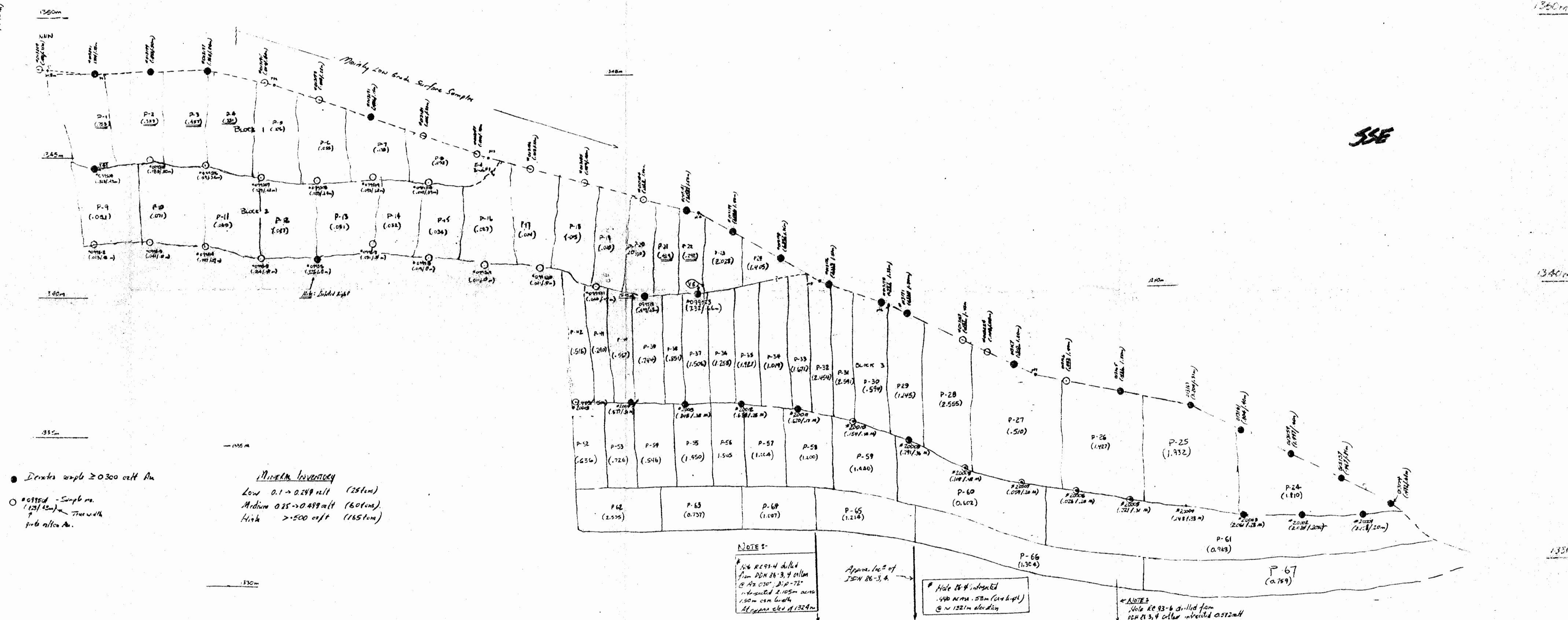
NNW

"RW" vein  
PLANE OF VIEW  
OF  
SAMPLING & MINING



GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,351



- Driller sample  $\geq 0.300$  cwt Au
- Potted - Sample
- Potted - Sample
- Potted - Sample

MINERAL INVENTORY  
Low 0.1 - 0.249 cwt (28.1m)  
Medium 0.25 - 0.499 cwt (60.1m)  
High  $> 0.500$  cwt (165.1m)

NOTE:  
5% REFINED  
100% REFINED  
100% REFINED

NOTE:  
100% REFINED  
100% REFINED  
100% REFINED

NOTE:  
100% REFINED  
100% REFINED  
100% REFINED