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ASSESSMENT REPORT
ON
SANTA MARINA GOLD LTD.'S
TIDE PROJECT

STEWART AREA, BRITISH COLUMBIA
SKEENA MINING DIVISION

NTS 104-B/8E

Latitude: 56° 23'N
Longitude: 130° 02'W

L. Lewis, B.Sc.
B. Dewonck, F.G.A.C.

January 1991

21,170

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SUMMARY

The Phase I exploration program has been completed on the Tide Lake Project of Santa Marina Gold Ltd. The property consists of 2 mineral claims, the Arc 30 and Arc 31, which are located approximately 40 km north of Stewart, British Columbia.

Work consisted of reconnaissance geological mapping, in conjunction with geochemical rock, soil, silt and heavy mineral concentrate sediment sampling. The property was found to be underlain predominantly by andesitic volcanics, with lesser siltstone, belonging to the Unuk River Formation. Rocks of the Betty Creek Formation were also mapped in the eastern portion of the Arc 30 Claim including andesitic to dacitic tuffs interbedded with clastic sedimentary rocks. The Unuk River and Betty Creek Formations are both defined as Lower Jurassic strata. The best potential host for precious metal mineralization located to date is a gossanous zone of altered siltstone, situated on the western edge of the Arc 30 claim. Gold results from rock samples of the gossan zone include values up to 1185 ppb. The elevated gold values correspond with anomalous silver and base metal mineralization. Gold results from the rest of the property were generally low, with several weak spot anomalies.

Based on the encouraging results obtained from the 1990 field program, a phase II work program is recommended.

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L. Lewis, B.Sc.

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INTRODUCTION

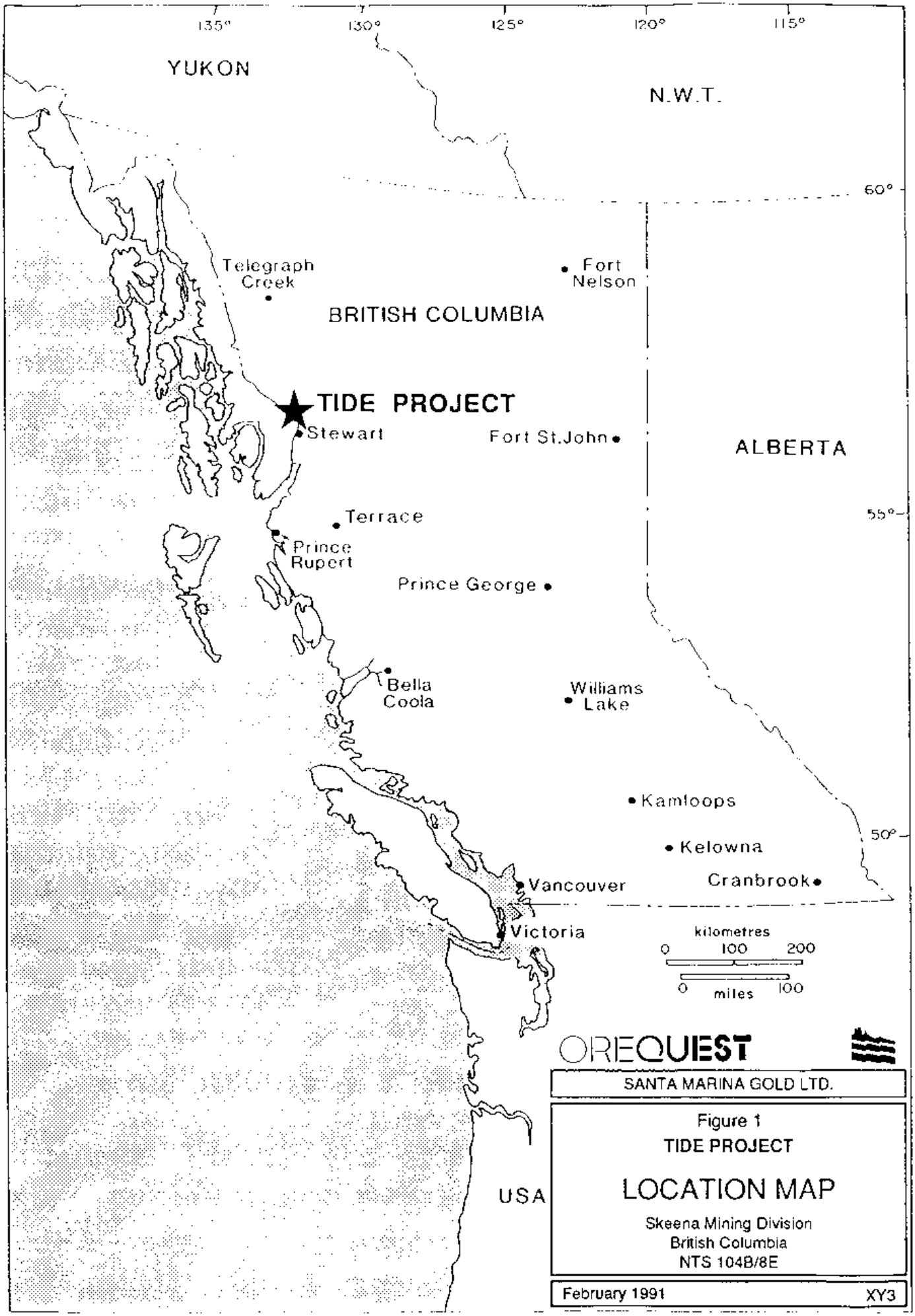
This report summarizes the 1990 exploration program conducted on the Tide Lake Project of Santa Marina Gold Ltd. The report is prepared by OreQuest Consultants Ltd. on behalf of Santa Marina Gold Ltd.

The nature of the work program was a preliminary examination concentrating on locating significant precious or base metal showings and/or favourable stratigraphy to host economic mineral deposits. Actual work consisted of geological mapping and rock sampling together with contour soil sampling, silt and heavy mineral concentrate sediment sampling of most creeks draining the claim area.

LOCATION AND ACCESS

The Tide Lake Project is located approximately 40 kilometers north of Stewart, British Columbia. The western boundary of the Arc 31 claim lies directly adjacent to the Granduc airstrip at the Tide Lake Flats, situated at the terminus of the Granduc Mine road. The property's coordinates are 56° 23'N latitude and 130° 02'W longitude, on map NTS 104B/8E within the Skeena Mining Division. Figure 1 shows the location of the mineral property.

Access to the property is via the Granduc Mine road to the airstrip. From this point, the western portion of the Arc 30 and Arc 31 claims may be reached by foot. The eastern area of the claims, higher in elevation, are best reached via helicopter, presently based


135°
130°
125°
120°
115°
YUKON
N.W.T.
60°
Telegraph Creek
Fort Nelson
BRITISH COLUMBIA
TIDE PROJECT
Stewart
Fort St.John
ALBERTA
Terrace
55°
Prince Rupert
Prince George
Bella Coola
Williams Lake
Kamloops
50°
Kelowna
Vancouver
Cranbrook
Victoria
kilometres
0 100 200
0 miles 100
USA
OREQUEST
SANTA MARINA GOLD LTD.
Figure 1
TIDE PROJECT
LOCATION MAP
Skeena Mining Division
British Columbia
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in Stewart. Exploration work described herein was carried out from OreQuest's temporary camp 11 km south of the Tide Lake Project via truck to the airstrip.

PHYSIOGRAPHY, VEGETATION AND CLIMATE

The Tide Lake property is located within the Boundary Ranges of the Coast Mountain area of British Columbia. Elevations on the claims range from 640 metres in the valley of the Bowser River on the west side of the property up to 1616 metres adjacent to the Phillips and Brightwell Glaciers to the east.

The western portion of the claims, adjacent to the Bowser River flats, is dominated by thick stands of alder and devil's club, making travel in the low lying regions difficult and slow. Higher elevations are vegetated by mature mountain hemlock and balsam. This changes to subalpine and alpine vegetation consisting of stunted shrubs and grasses. Outcrop is plentiful above the river flats and, in those areas where the ice has receded, is virtually continuous except where covered by talus.

Climate in the area is severe, particulary at the higher elevations. Heavy snowfalls in winter and rain in the short summer working season are typical of the Iskut-Sulphurets-Stewart area. Inclement weather conditions and reliance on helicopter transport make this a high cost area to explore for minerals.

CLAIM STATUS

The Tide Lake Project consists of two contiguous claims, the Arc 30 and Arc 31, totalling 40 units, under option to Santa Marina Gold Ltd. from Teuton Resources Corp.

The claims are recorded at the British Columbia Ministry of Energy, Mines and Petroleum Resources as follows:

TABLE 1: CLAIM INFORMATION

Claim Name	Units	Record No.	Expiry Date
Arc 30	20	7095	Jan. 6, 1993
Arc 31	20	7096	Jan. 6, 1993

The location of the Arc 30 and Arc 31 claims are shown in Figure 2. The actual claim boundaries were not located on the ground, likely due to the fact that the claims were staked in mid-winter. The expiry date shown above is based on acceptance of the work described herein.

PROPERTY AND GENERAL AREA HISTORY

No detailed work has been carried out on the subject property previous to 1990. A brief visit by R. R. Arnold of Sorbara Geological Consulting Ltd. was made during September, 1989 and two rock samples collected from the Arc 30 claim. These samples returned very anomalous gold values, up to 1740 ppb, and an anomalous silver value of 41.2 ppm.

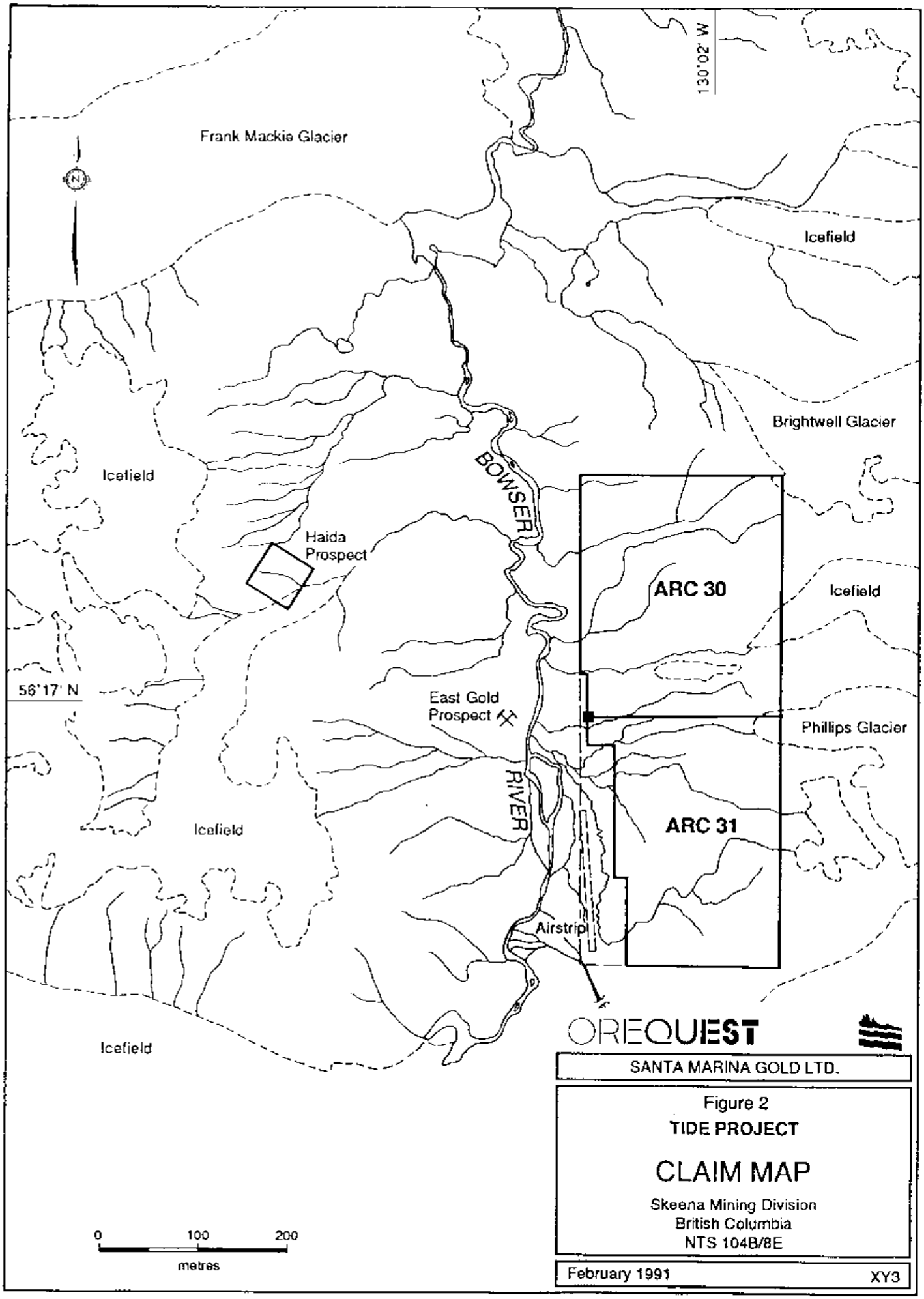
130°02' W
Frank Mackie Glacier
N
Icefield
Brightwell Glacier
Icefield
BOWSER
Haida
Prospect
ARC 30
Icefield
56°17' N
East Gold
Prospect
Phillips Glacier
RIVER
ARC 31
Icefield
Airstrip
Icefield
0
100
200
metres
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Figure 2
TIDE PROJECT
CLAIM MAP
Skeena Mining Division
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Although little work has been recorded on the actual claims, much work has been done in the region both historically and recently. A brief summary of activity on surrounding properties is included here.

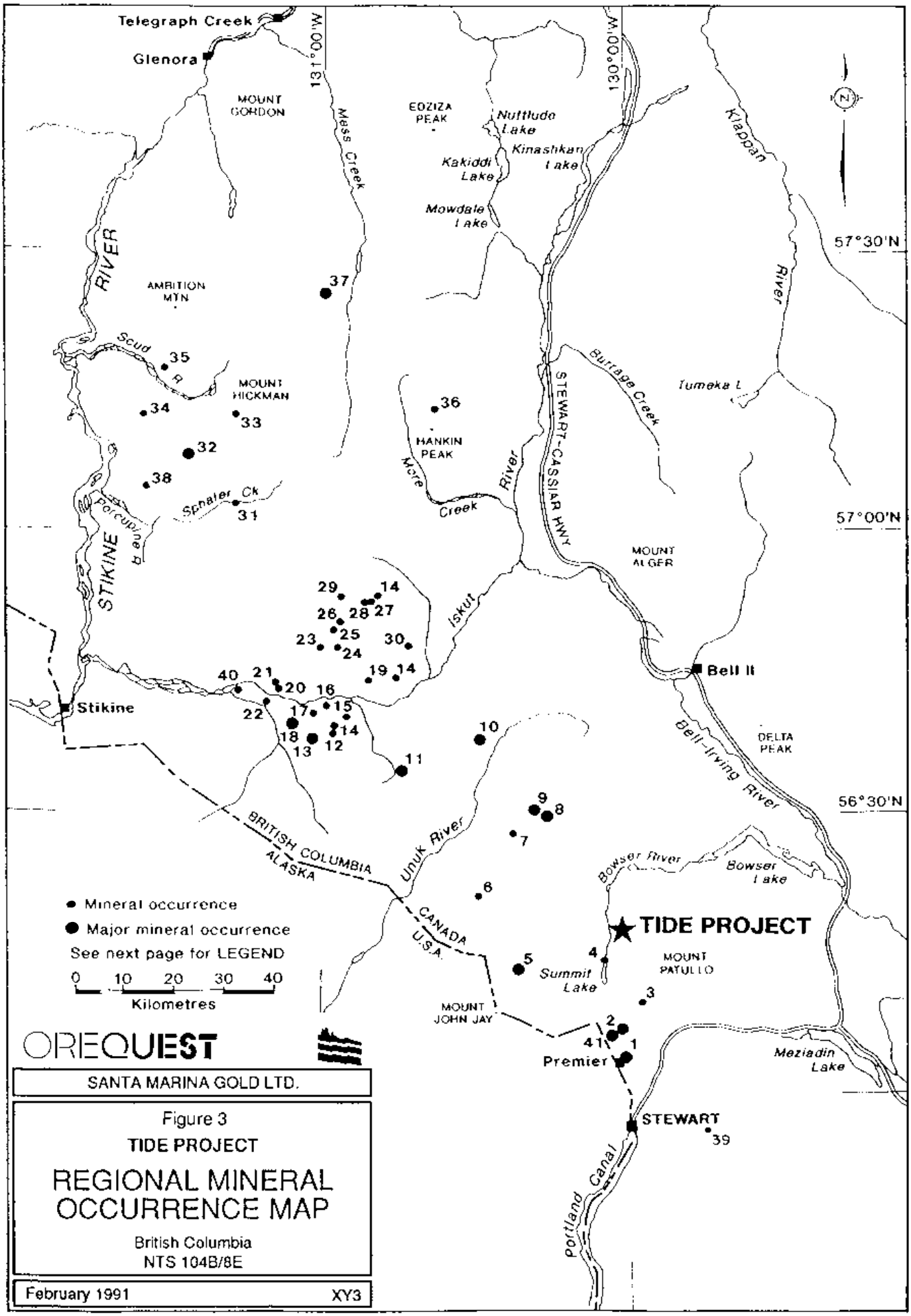
Exploration in the immediate area of the Tide Lake property began around 1926 when free gold was discovered on the East Gold property (about 750 m due west of the boundary between the Arc 30 and Arc 31 claims, shown in Figure 2). During 1929-1930, 10 diamond drill holes were put down, and one hole intersected 5 feet carrying 8.72 oz gold and 8.78 oz per ton silver. In subsequent years, an adit was driven to intersect the vein in which light yellow electrum was mistaken for pyrite. By 1939, the electrum was recognized, and between 1939 and 1950 limited hand cobbed ore was shipped to the smelter with total production from the East Gold property of 39.25 tons yielding 1533 oz gold and 4024 oz silver.

In the early 1930's, prospecting uncovered a series of auriferous, cross-cutting quartz-sulphide veins and shear zones on ground now covered by the Haida claim (owned by Consolidated Silver Standard Mines). This property, called the "Portland", originally consisted of 16 claims. A limited amount of diamond drilling (using a portable drill) was carried out on the Portland during the summer of 1990.

A buoyant market for precious metals revived interest in this part of the Stewart area in 1980. Many former prospects along with proximal zones of favourable geology were subjected to reconnaissance surveys by exploration companies.

The Tide Lake Project lies within an historically active mining and exploration area that extends some 225 km from Stewart in the south to near Telegraph Creek in the north. Within this area, which has been referred to as the Stikine Arch, mining activity goes back to the turn of the century. Due to the size of the region it historically has been referred to as more specific areas, ranging from the Stewart area to Sulphurets, Iskut River and Galore Creek, however all of these individual camps appear to be related to the Stikine Arch as a whole and are located in the area now referred to as the "Golden Triangle". Recent discoveries appear to be filling in areas between these known mineralized camps. It is probable that the entire area can be considered as one large mineralized province with attendant subareas. The location of several deposits and mineral occurrences appears in Figure 3, which also locates the Tide Lake Project with respect to these sites. This list of mineral occurrences is by no means comprehensive but is included to illustrate distribution in the region.

The Stewart area has been mined actively since the early 1900's and is one of the most prolific mining districts in British Columbia (Grove, 1971). Most prominent among the numerous mining properties


Telegraph Creek
Glenora
MOUNT GORDON
131°00'W
130°00'W
Mess Creek
EDZIZA PEAK
Nuttlude Lake
Kinaskan Lake
Kakiddi Lake
Mowdale Lake
Klappan River
57°30'N
AMBITION MTN
37
RIVER
Scud R.
35
MOUNT HICKMAN
34
33
32
38
Spatter Ck
31
Porcupine R.
STIKINE
36
HANKIN PEAK
More Creek
River
STEWART-CASSIAR HWY
Burrage Creek
Tumeka L.
57°00'N
MOUNT ALGER
29
14
26
28
27
25
23
30
24
19
14
Iskut
40
21
20
16
22
17
15
18
13
12
14
Stikine
Bell II
10
11
DELTA PEAK
Bell-Irving River
56°30'N
9
8
7
BRITISH COLUMBIA
ALASKA
Unuk River
Bowser River
Bowser Lake
6
CANADA
U.S.A.
TIDE PROJECT
5
4
Summit Lake
MOUNT PATULLO
3
MOUNT JOHN JAY
2
41
1
Premier
Meziadin Lake
STEWART
39
Portland Canal
Mineral occurrence
Major mineral occurrence
See next page for LEGEND
0 10 20 30 40
Kilometres
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SANTA MARINA GOLD LTD.
Figure 3
TIDE PROJECT
REGIONAL MINERAL OCCURRENCE MAP
British Columbia
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LEGEND FOR FIGURE 3

	PROPERTY OWNER AND/OR NAME	MINERAL RESERVES AND/OR ELEMENTS
1	Westmin Resources Ltd./Silbak Premier Mines	6,100,000 tons 0.064 oz/t Au, 2.39 oz/t Ag
2	Westmin Resources Ltd./Tournigan Mining Explorations Ltd.	1,860,000 tons 0.09 oz/t Au, 0.67 oz/ton Ag
3	Noranda (Todd Creek Project)	Au
4	Scottie Gold Mine	Au
5	Granduc	10,890,000 tons 1.79% Cu
6	Echo Bay Mines/Magna Ventures/Silver Princess Resources (Doc Project)	470,000 tons 0.27 oz/ton Au, 1.31 oz/ton Ag
7	Western Canadian Mining (Kerr Project)	Cu, Au
8	Exponential Holdings Ltd. (Gold Wedge)	337,768 tonnes 25.78 g/tonne Au, 36.65 g/tonne Ag
9	Newhawk/Lacana/Granduc (Sulphurets Project - West Zone)	550,000 tons 0.42 oz/t Au, 18.0 oz/ton Ag
10	Prime/Stikine Resources Ltd. (Eskay Creek Project)	1,992,000 tons 1.47 oz/t Au, 55.77 oz/t Ag
11	Consolidated Silver Standard Mines Ltd. (E & L Deposit)	3,200,000 tons 0.80% Ni, 0.60% Cu
12	Inel Resources Ltd.	Au, Ag, Cu, Pb, Zn
13	Skyline Gold Corporation (Johnny Mountain)	740,000 tons 0.52 oz/ton Au, 1.0 oz/ton Ag
14	Kestrel Resources Ltd.	Au, Ag, Cu, Pb, Zn
15	Hector Resources Inc. (Golden Spray Vein)	Au, Ag
16	Tungco Resources Corp.	Au, Ag, Cu, Pb, Zn
17	Winslow	Au, Ag, Cu, Pb, Zn
18	Cominco/Prime (Snip Deposit)	1,030,000 tons 0.88 oz/ton Au
19	Pezgold Resource Corp.	Ag, Au
20	Meridor Resources Ltd.	Au
21	Prime/American Ore Ltd./Golden Band	Au
22	Magenta Development Corp./Crest Resources Ltd.	Au, Ag, Cu, Pb
23	Ticker Tape Resources Ltd. (King Vein)	Au
24	Pezgold Resource Corp.	Au
25	Consolidated Sea-Gold Corp.	Au
26	Gulf International Minerals Ltd. (Northwest Zone)	Au, Ag, Cu
27	Kerr Claims	Ag, Cu, Au
28	Pezgold Resource Corp. (Cuba Zone)	Ag, Pb, Zn
29	Pezgold Resource Corp. (Ken Zone)	Cu, Au
30	Avondale Resources Inc. (Forrest Project)	Au, Ag, Cu
31	Pass Lake Resources Ltd. (Trek Project)	Cu, Au
32	Galore Creek	125,000,000 tons 1.06% Cu, 0.397 g/t Au, 7.94 g/t Ag
33	Continental Gold Corp.	Au, Ag, Cu
34	Bellex Resources Ltd./Sarabat Resources Ltd. (Jack Wilson Project)	Au, Cu
35	Pass Lake Resources Ltd. (JD Project)	Au, Cu
36	Lac Minerals (Hankin Peak Project)	Au
37	Schaft Creek	910,000,000 tons 0.30% Cu, 0.020% Mo, 0.113 g/t Au, 0.992 g/t Ag
38	Paydirt	200,000 tons 0.120 oz/ton Au
39	Bond International Gold (Red Mountain)	Au, Ag
40	Eurus/Thios (Rock & Roll)	Ag, Pb, Zn, Cu, Au
41	Westmin Resources Ltd. (SB)	308,000 of 0.505 oz/ton Au, 1.07 oz/ton Ag

are the Silbak - Premier, Big Missouri and Granduc deposits, located 13 km north, 20 km north and 39 km northwest of Stewart respectively.

The Premier vein system, first staked in 1910, produced in excess of 1.8 million ounces of gold and 41 million ounces of silver from 4.7 million tons (to 1968). The nearby Big Missouri deposit, first staked in 1904, did not produce until 1938 and then only until 1942. During this time 847,615 tons were mined, producing 58,384 ounces of gold and 52,677 ounces of silver. Both these deposits, however, have recently been re-evaluated by Westmin Resources Ltd. who has placed them both into production with announced reserves of 6.1 million tons grading 0.064 oz/ton gold, 2.39 oz/ton silver and 1.86 million tons grading 0.09 oz/ton gold and 0.67 oz/ton silver respectively (Canadian Mines Handbook, 1989-90).

Westmin Resources has been conducting an extensive surface and underground drilling program on the SB property which it has optioned from Tenajon Resources Corp. At least three zones have been outlined to date with development work completed and production anticipated by May of 1991. Results released have indicated good grades and widths of up to 43.8 ft (13.35 m) of 0.549 oz/ton gold, 2.97 oz/ton silver and 6.04% zinc (GCNL, January 9, 1991). Esso Minerals produced a reserve estimate of 308,000 tons grading 0.505 oz/ton gold (uncut) and 1.07 oz/ton silver with all zones remaining open (Canadian Mines Handbook, 1990-1991).

The Granduc deposit, a massive sulphide copper orebody, was discovered in 1951 and put into production in 1971 with reserves of 39.32 million tons grading 1.73% copper with minor gold and silver values. Production ceased in 1978 but the mine was reactivated in 1980 until early 1984. Production to 1978 totalled 13,423,340 tonnes grading 1.32% copper and later production (1981-82) was 1,114,271 tonnes grading 1.17% copper.

Scottie Gold Mines commenced production on a vein deposit at the north end of Summit Lake in 1981 with reserves of 186,680 tons grading 0.76 oz/ton gold. It closed in 1985, having experienced financial difficulties brought on by depressed metal prices and loss of infrastructure as a result of the closure of the nearby Granduc facilities.

Bond International Gold Inc. announced initial drill results from their Red Mountain Project (News Release, September 29, 1989). One discovery, referred to as the Marc Zone, produced a 66 m drill intersection grading 9.88 g/ton gold and 49.29 g/ton silver. Another area, the Willoughby Gossan Zone, produced a 20.5 m intersection grading 24.98 g/ton gold and 184.21 g/ton silver. These occurrences lie approximately 15.5 km and 23.5 km respectively east-northeast of Stewart. No results from the 1990 exploration program have been released.

The Iskut-Sulphurets area has seen extensive exploration in the last three years. The Iskut area originally attracted interest at the turn of the century when prospectors, returning south from the Yukon goldfields searched for placer gold and staked bedrock gossans. In the 1970's the porphyry boom drew exploration into the area. The new era of gold exploration began with the 1979 option of the Sulphurets claim block by Esso Minerals Canada and the 1980 acquisition of the Mount Johnny claims by Skyline Explorations Ltd. Skyline (now Skyline Gold Corporation) commissioned its mill in July, 1988, however production has been suspended temporarily. Cominco Ltd. and Prime Resource Group Inc. have recently put the Snip deposit into production.

Beyond these projects, and except for limited early placer gold recovery from some creeks, the area has had no mineral production history. Since 1979, more than 70 new mineral prospects have been identified, though ground acquisition was relatively slow until the fall of 1987 when the promising results of summer exploration programs became known and the provincial government announced the upcoming release of analytical results from a regional stream sediment survey. By April 1988, all open ground had been staked. More than 60 companies hold ground in the Iskut-Sulphurets belt but to date only small areas within this 40 x 80 km district have received extensive exploration.

In the Sulphurets Creek camp 30 km northwest of the Tide Lake Project, near Brucejack Lake, the vein-hosted West Zone of Newhawk Gold Mines Ltd. / Granduc Mines Ltd. / Corona Corporation is reported to contain 715,400 tons grading 0.431 oz/ton gold and 19.70 oz/ton silver (Newhawk Gold Mines Ltd., 1989 Annual Report) while the Snowfield Gold Zone and Sulphurets Lake gold zone are bulk tonnage low grade deposits containing 7.7 million tons of 0.075 oz/ton gold and 20 million tons of 0.08 oz/ton gold respectively (GCNL Aug. 24, 1989). Exponential Holdings Ltd.'s Gold Wedge Property is reported to contain 337,768 tonnes of 25.78 g/tonne gold and 36.65 g/tonne silver, partly in the Golden Rocket vein in a similar setting (GCNL, November 23, 1990). Also located in this area is Placer Dome Inc.'s Kerr property, a porphyry copper-gold occurrence to which they have assigned a geological resource of 138,000,000 tons grading 0.61% copper and 0.01 oz/ton gold (Placer Dome Inc. Annual Report, 1989).

On the Snip property situated 75 km to the northwest of the Tide Lake Project, the Twin Zone, a 3 to 25 ft thick discordant shear vein cuts a thickly bedded sequence of intensely carbonatized feldspathic wackes and siltstones. Twin Zone reserves in all categories have been reported ae 1,032,000 tons of 0.875 oz/ton gold (Prime Resources, 1989). This does not include additional reserves which may be developed outside the Twin Zone when mining begins. Twin Zone mineralization occurs in a banded shear zone comprising alternating bands of massive calcite, heavily disseminated to massive pyrite, crackle quartz and thin bands of biotite-chlorite.

At Skyline's nearby Johnny Mountain Mine, reserves in all categories are estimated at 876,000 tons of 0.55 oz/ton gold and 1.00 oz/ton silver with copper, zinc and lead (Northern Miner, Aug. 21, 1989). Five major areas of gold-bearing sulphide are known. The most important Stonehouse Zone consists of sulphide- potassium feldspar-quartz vein and stockwork systems which have been only partly explored.

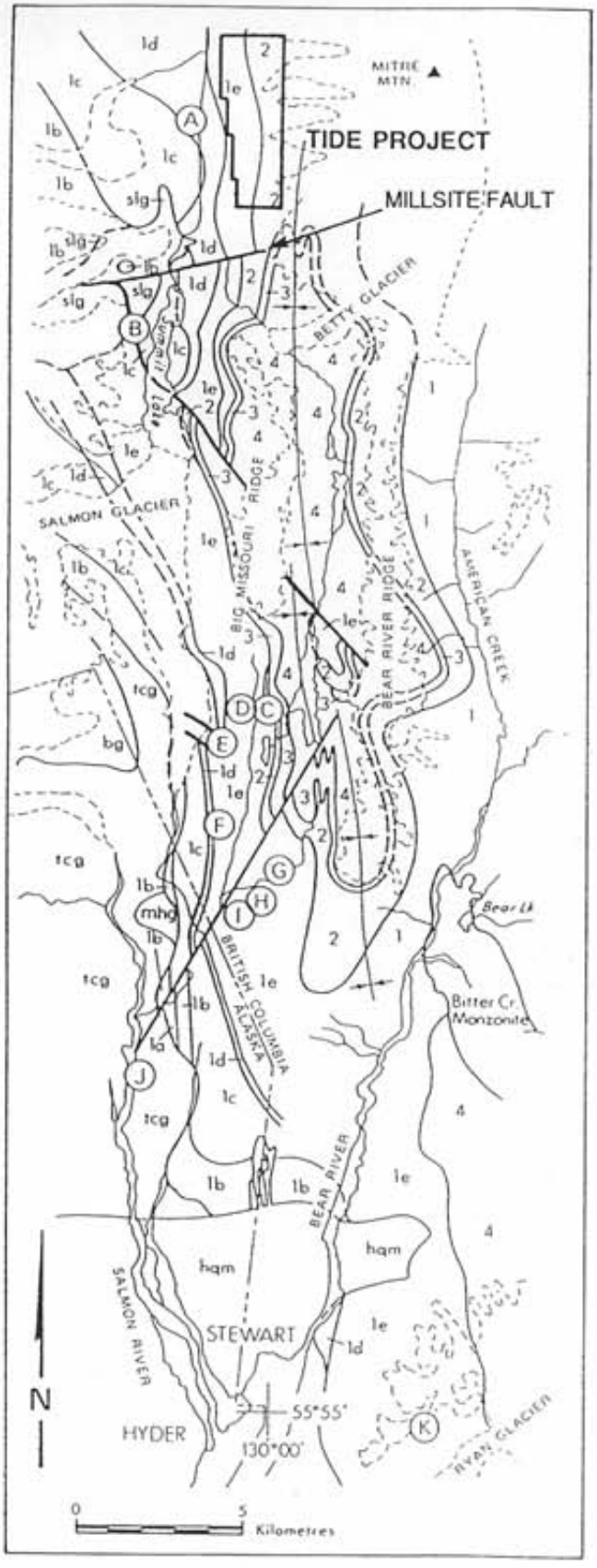
The most recently discovered and perhaps the most exciting gold mineralization occurs on the Eskay Creek property of Prime Resources Group Inc./Stikine Resources Ltd., located 20 km west of the Treaty Creek Project. Numerous Prime (formerly Calpine)/Stikine news releases have announced results from over 600 drill holes completed from 1988 to the present, the most spectacular of which is hole CA-89-109 which produced 682.2 feet of 0.875 oz/ton gold. Published preliminary reserve calculations done in-house by Prime, based on drilling up to hole CA90-657, indicate probable geological reserves of 1,992,000 tons grading 1.47 oz/ton gold and 55.77 oz/ton silver (Prime Capital Corp. News Release, Sept 14, 1990). The company is currently driving an exploration drift to test the deposit at depth for continuity and to conduct metallurgical testing.

REGIONAL GEOLOGY

The Tide Project lies within the Iskut River map area (NTS 104B) which encompasses an important geological transect through the west-central Cordillera. The area is underlain by the Stewart Complex (Grove 1971, 1986). The Stewart Complex includes Late Paleozoic and Mesozoic rocks, confined by the Coast Plutonic Complex to the west, the Bowser Basin to the east, Alice Arm to the south and the Iskut River to the north. Representation of the regional geology setting (after Alldrick, 1985) appears in Figure 4, on which the Tide Project area is also indicated.

Grove (1971, 1986) established the modern stratigraphic, plutonic and metallogenic framework for the Stewart mining district. Alldrick (1983, 84, 85, 87), Alldrick et al. (1987, 89), Alldrick and Britton (1988), and Britton and Alldrick (1988) have redefined and extended the Mesozoic stratigraphy around the Silbak Premier and Big Missouri mines north to the Sulphurets and Bronson Creek Camps.

The stratigraphy and plutonic framework are most simply described in terms of four tectonostratigraphic elements: Paleozoic Stikine Assemblage, Triassic and Jurassic Stikinian strata and plutons, Middle and Upper Jurassic Bowser Lake Group and Tertiary Coast Plutonic Complex, (Anderson, 1989). Of particular interest to mineral explorationists are the Lower Jurassic volcanics and associated Early Jurrassic alkaline granitic rocks of the Stikinian assemblage; many



(after Alldrick,1985)

MAJOR MINERAL DEPOSITS

- A East Gold Mine
- B Scottie Gold Mine
- C Dago Hill Deposit
- D Big Missouri Mine (S-1 Zone)
- E Silver Butte Deposit
- F Indian Mine
- G Sebakwe Mine
- H B.C. Silver Mine
- I Silbak Premier Mine
- J Riverside Mine
- K Prosperity and Porter Idaho Mines

LEGEND

Middle Jurassic

4 Salmon River Formation
Argillite, siltstone, sandstone

Lower Jurassic

3 Mt. Dilworth Formation
Dacite pyroclastic formation

2 Betty Creek Formation
Epiclastic rocks, hematitic

Unuk River Formation
1a Andesite tuffs
1b Argillite, siltstone
1c Andesite tuffs
1d Argillite, siltstone
1e Andesite tuffs and flows

INTRUSIVES

Eocene

Hyder Pluton (hqm, bg, mhg)
Biotite granodiorite stocks

Lower Jurassic

Texas Creek (tcg,slg)
Hornblende granodiorite stocks

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Figure 4
TIDE PROJECT

REGIONAL GEOLOGY

British Columbia
NTS 104B/8E

February 1991 XY3

of the precious metal vein deposits seem to be associated with them (eg. Premier, Big Missouri, Silver Butte, Sulphurets camp).

Grove (1986) defined Lower Jurassic Unuk River and Betty Creek Formations to include lower volcanogenic strata. The Middle Jurassic Salmon River Formation and Upper Jurassic Nass Formation encompassed the overlying sedimentary rocks. Alldrick and Britton (1988) and Alldrick et al. (1989) recently defined the Lower to Middle Jurassic Hazelton Group to incorporate volcanogenic rocks of the Unuk River, Betty Creek and newly established Mount Dilworth Formations, while the sedimentary Salmon River Formation has been included in the Spatzizi Group (Alldrick, 1989). Overlying the Salmon River Formation is the Middle and Upper Jurassic Bowser Lake Group.

Unuk River Formation

The Unuk River Formation in the eastern Iskut River map area is dominated by white and grey-brown andesitic volcanic breccia and thin-bedded lava (Anderson and Thorkelson, 1990).

West of the Bowser River, the volcaniclastics grade into a sedimentary unit, dominated by siliceous siltsone and subordinate pebble conglomerate and greywacke. Anderson and Thorkelson (1990) report that south of Frank Mackie Glacier, a 10 m wide dyke of alkali-feldspar phyric "Premier Porphyry" andesite crosscuts the siltstone. The intrusive relationships indicate that the sedimentary rocks are not Salmon River Formation as mapped by Grove (1986, unit

#16 on the regional geology map) and Alldrick and Britton (1988), but are equivalent to an argillite unit within the Unuk River Formation.

East of the Salmon and Frank Mackie Glaciers, the top of the Unuk River Formation is a hornblende - feldspar porphyry flow at least 20 m thick. In the Salmon Glacier area, the flow is coeval and texturally similar to the "Premier porphyry" dykes and Texas Creek plutonic suite. The lava also may be the upper bounding stratum for many precious metal veins (Alldrick, 1985).

The Unuk River Formation has been interpreted as a subaqueous volcanic pile (Alldrick, 1988). Alldrick regards the andesitic stratovolcano as a predominantly subaerial structure with two brief periods of marine transgression as indicated by the thin-bedded siltstone members.

Betty Creek Formation

The Betty Creek Formation, conformably overlying the Unuk River Formation (Anderson & Thorkelson, 1990), contains characteristic hematitic maroon to green volcanic siltstone, greywacke, conglomerate and breccia. The members are massive, thick- or medium-bedded.

The clastic sediments have likely been derived by weathering and erosion of Unuk River Formation tuffs and flows. The Betty Creek Formation is interpreted as a subaerial clastic apron of poorly sorted lahar deposits and reworked debris flows interbedded with onlapping

andesitic to dacitic volcanic rocks on the flanks of an andesitic stratovolcano constructed of Unuk River Formation rocks. Areas where Betty Creek Formation thins or wedges out represent paleotopographic highs (Anderson & Thorkelson, 1990).

Mount Dilworth Formation

In the eastern Iskut River map area, the Mount Dilworth Formation is the least heterogeneous and most extensive marker within the Hazelton Group. It consists of distinctive white, maroon or green weathering, siliceous felsic welded tuff and tuff breccia (Anderson, 1989). This thin, distinctly colored unit is resistant, a cliff-former and is an important regional stratigraphic marker (Alldrick, 1988).

The formation represents airfall deposits from a series of subaerial explosive felsic volcanic eruptions, and indicates the last volcanic event within the Hazelton Group.

Salmon River Formation

The Salmon River Formation, a thick assemblage of thin to medium-bedded siltstones and wackes, is comprised of two members. A thin, sandy bioclastic limestone occurs at the base. The overlying member has three facies that form north-trending belts. The Troy Ridge facies, informally known as the "pajama beds" is a distinctive black siliceous shale and white reworked tuff turbidite that occurs in the east Iskut map area. Along and west of the Unuk River is a

sequence of pillowed lava and limy to siliceous shale and siltstone/argillite of the Eskay Creek facies. This medial facies hosts the Eskay Creek deposit, which seems to be mainly stratabound within a sedimentary interval between felsic volcanic rocks in the footwall and hanging wall pillowed andesite lavas (Anderson & Evenchick, 1990). The westernmost Snippaker Mountain facies consists of andesitic volcaniclastics.

If equivalent (Snippaker Mountain facies, Eskay Creek facies and Troy Ridge facies), these rocks might represent a volcanic arc in the west with rift-facies submarine pillow lavas and sedimentary rocks in the middle and distal, basinal volcanogenic turbidite in the east (Anderson & Thorkelson, 1990).

Plutonism

Plutonic rocks occur throughout the Iskut map area, but dominate in the southwest. In the past geologists have included all granite plutons as part of the Tertiary Coast Plutonic Complex. Recent mapping and geochronometry have helped to redefine the plutonic episodes. At least four episodes are recognized (Anderson, 1989):

1. Late Triassic - Stikine plutonic suite,
2. Early Jurassic - Texas Creek plutonic suite,
3. Middle Jurassic - Three Sisters plutonic suite,
4. Eocene - Hyder plutonic suite.

The Stikine plutonic suite, coeval with the Stuhini Group volcanic rocks, ranges in composition from gabbro, diorite, quartz monzodiorite to quartz monzonite (Anderson, 1989).

The Early Jurassic Texas Creek plutonic suite is coeval with eruption of Lower Jurassic Hazelton Group volcanic rocks. These plutons are widespread, distinctive and metallogenically important. The Texas Creek plutonic suite comprises biotite- hornblende quartz monzodiorite and granodiorite plutons crosscut by alkali-feldspar-phyric andesite dykes, ie "Premier Porphyry" dykes (Anderson & Bevier, 1990). The typical green-weathering appearance of the calc-alkaline suite indicates the suite's widespread alteration to chlorite and epidote.

Typical Premier porphyry dykes are medium to dark green, composed of large (1 to 4 cm) orthoclase phenocrysts and smaller (0.5 cm) plagioclase phenocrysts in a fine-grained crystalline matrix. Euhedral hornblende phenocrysts and quartz eyes are also common. The dykes are interpreted as a contemporaneous peripheral dyke phase of the main Texas Creek stock (Alldrick, 1985). These dykes are thought to have fed the porphyritic volcanic flows present at the top of the Unuk River andesitic sequence.

The Texas Creek stock is interpreted to have formed a subsidiary magma chamber in the andesitic stratavolcano, and was emplaced at a depth of about 2 km. It is therefore an integral part of the Hazelton

group volcanic package and not part of the Coast Plutonic Complex as previously suggested (Alldrick, 1985).

Previous to 1990, no Middle Jurassic plutons had been recognized in the Iskut River Map area. New dating indicates gabbro, diorite, monzodiorite and quartz monzonite make up the Middle Jurassic Three Sisters plutonic suite in the western and northern Iskut map area (Anderson, Thorkelson & Bevier, 1990).

The Tertiary Hyder plutonic suite of the Coast Belt plutonic complex ranges in composition from quartz monzonite to granodiorite. The plutons lack dykes and preserved volcanic equivalents. Tertiary plutons crosscut all regional structural fabrics and are post-tectonic (Anderson & Bevier, 1990).

Structure - Deformation - Metamorphism

The regional structural pattern is a north - northwest - striking fold system of open to tight folds. The axial plane dips steeply west-southwest and the folds are doubly plunging, creating a series of canoe-shaped synclinal troughs in the Long Lake area. Local areas of shallow to moderately west-dipping penetrative foliation are common in the wallrocks adjacent to brittle and ductile faults (Alldrick, 1988).

During the Cretaceous, moderate deformation with lower greenschist facies regional metamorphism along north-trending fold

axes took place and major folds and slaty cleavage were formed (Alldrick, 1986).

Mineralization

Precious and base metal veins being developed in the area occur within Upper Triassic (e.g. Kerr, Doc, Inel, Snip, and Stonehouse deposits), Lower Jurassic (e.g. Premier and Sulphurets deposits) and lower Middle Jurassic (e.g. Eskay creek deposit) strata. For many deposits (e.g. Premier, Kerr, Inel and Snip) proximity to Early Jurassic calc-alkaline to alkaline plutonic intrusions, especially the alkali-feldspar porphyry variety (Premier porphyry) seems to be the main control, in which case the host strata are of secondary importance.

The Eskay Creek deposit is an important exception where the precious metal veins seen to be mainly stratabound within a sedimentary and pillowed lava sequence of the Eskay Creek facies of the Salmon River Formation (Anderson, Thorkelson & Bevier, 1990).

PROPERTY GEOLOGY

During the 1990 field program, mapping was conducted along major creeks to determine the underlying lithologies. Figure 5 illustrates the Tide Lake Project's geology. As the work was of a reconnaissance nature, a scale of 1:10,000 was used. The lithological boundaries shown are approximate and more detailed mapping is required to better

define contacts. The symbols utilized correspond to the ones used in Figure 4.

Areas mapped indicate that much of the property is underlain by andesitic volcanics with minor interbedded sedimentary rocks of the Unuk River Formation (unit 1). The eastern edge of the Arc 31 claim appears to by underlain by rocks of the Betty Creek Formation (unit 2), which includes mafic to intermediate tuffs and flows interbedded with distinctly coloured maroon, red and green epiclastic sedimentary rocks.

Unuk River Formation

The predominant unit in the area is the upper andesite member (1e) of the Unuk River Formation which includes typically green to greyish green greenstone and fragmental rocks. The rocks are characterized by pervasive chlorite alteration and disseminated fine-grained pyrite. The fragmental rocks are generally matrix-supported (best seen in weathered surfaces), consisting of lithic, pumice and crystal fragments while the groundmass is composed of fine-grained fragments plus ash material. Fragments are typically angular, with lesser sub- angular to subrounded fragments. The size of fragments ranges from tuff to lapilli tuff to medium to coarse breccias. At sample location 39253, fragments range up to 50 cm long. Alldrick (1988) notes that the coarsest fragmental rocks occur towards the top of the upper andesite member.

The west-southwest area of the Arc 30 claim is underlain by the upper siltstone member (1d) of the Unuk River Formation. These siltstones and minor shales are dark grey to black, fine- grained and thinly-bedded. The exposures are typically brightly coloured and gossanous due to the weathering of local pyrite alteration (up to 15%) in the siltstones. The altered rocks are also sericitized and silicified. The contact between the siltstone (1d) and upper andesite member (1e) was not observed in outcrop.

Betty Creek Formation

Overlying the Unuk River Formation in the eastern portion of the Arc 31 claim is the Betty Creek Formation which includes andesitic to dacitic tuffs and flows interbedded with distinctly colored maroon, red, and green clastic sedimentary rocks. In other areas of the Salmon River Valley, Alldrick (1988) notes that the basal contact is typically marked by a sharp colour change from greenish, chloritic andesitic tuffs of the Unuk River Formation to maroon, clastic sedimentary rocks. On the property, the actual contact was not identified but at sample location 39258, strong maroon/red coloured, fine-grained sediments were noted.

Mineralization

During the mapping, 42 grab rock samples were collected and shipped to Vangeochem Labs in Vancouver for analysis for gold by atomic absorption plus 25 elements by inductively coupled plasma (ICP) spectrophotometry. Rock descriptions and assay results are found in

Appendix I and II respectively. Rock sample locations and results (Au, Ag, Cu, Pb, and Zn) are plotted on Figure 6.

All the rock samples collected from the upper andesite member of the Unuk River Formation (1e) and Betty Creek Formation returned negligible gold assays, the highest being 20 ppb, from samples #39292 and #39279.

The most significant results came from the gossanous upper siltstone member (1d) of the Unuk River Formation, located near the western boundary of the Arc 30 claim. Sample #39260 to #39265 were all elevated in gold, up to 1185 ppb, with some anomalous silver values and elevated copper, lead and zinc values. Results are as follows:

Sample #	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
39260	1185	6.3	388	-	193
39261	460	20.3	145	73	81
39262	410	7.7	77	34	52
39263	740	4.7	13	51	21
39264	810	43.0	99	56	167
39265	670	12.6	36	48	63

The above samples are altered siltstones, strongly gossaned, silicified and sericitized accompanied by 1 to 10% pyrite $\pm$ arsenopyrite as disseminations and fracture fillings with quartz and weak carbonate. Alldrick (1988) states that this upper siltstone is host to precious metal veins at the East Gold Mine, approximately 750

m west, across the Bowser River. The unit also provides evidence for major offsets along the Millsite fault (located south of the Arc 31 claim's southern boundary, shown on Figure 4). Samples collected from altered, pyritized shale to the north are generally low in gold, but contain elevated values in silver, lead and zinc, up to 44.0 ppm, 108 ppm and 114 ppm respectively.

PROPERTY GEOCHEMISTRY

Systematic soil sampling, silt sampling and heavy mineral concentrate sediment sampling was carried out over selected areas of the property. A total of 178 soil samples, 9 silts and 8 heavy sediment samples were collected and analyzed in the same manner as previously described for the rock samples. Results are listed in Appendix II and analytical procedures are outlined in Appendix III.

The soil samples were collected along contour soil lines at 50 m sample spacing, using a grubhoe. In all instances, the targeted soil horizon was the brown or reddish-brown, fine to medium-grained sand of the B horizon, at an average depth of 10-20 cm. Adjacent to glaciers and in areas of little soil development, the samples taken were tailings fines. When collecting silt samples, fine silt was taken by hand from free running active streams. Both soil and silts were collected into kraft paper bags. The heavy mineral concentrate samples were collected by passing stream sediments, scooped up using a stainless steel hand trowel, through a 10 mesh screen and catching 2-3 kg of fines in a plastic bag.

Of the 141 soil samples collected from three contour lines (2500', 3000' and 4000') on the Arc 31 claim, the highest gold value was 30 ppb from two locations on Line 4000, at 2+00N and 7+00N. Of the other elements analysed, silver was weak to moderately anomalous in numerous localities with the highest values on Line 3000 at 4+50S (1.5 ppm), 15+50S (1.0 ppm) and Line 2500 at 9+00S (0.9 ppm). In most instances, these correspond with elevated zinc values (>100 ppm). Silt and heavy sediment samples collected from creeks draining the Arc 31 claim returned low gold and silver values as well as base metals.

Thirty-seven soil samples were collected from 2 soil contour lines (4000A' and 4500') on the Arc 30 claim. The best gold value was 30 ppb from Line 4000A, at 10+00N. Silver values range between 0.1 to 0.8 ppm, zinc is up to 110 ppm while copper and lead values are low. Silts and heavy mineral concentrate sediment samples, taken at the western boundary, carry little mineralization.

CONCLUSIONS AND RECOMMENDATIONS

The Phase I reconnaissance exploration propram on the Tide Lake Project of Santa Marina Gold Ltd. was completed during the 1990 field season. Work consisted of geological mapping and rock sampling in conjunction with geochemical silt, soil and heavy mineral concentrate sediment sampling. Surveys covered selected areas of the property to identify anomalous precious and base metal showings or favourable stratigraphy to host such deposits.

The property was found to be underlain largely by the Unuk River Formation (Lower Jurassic) of the Hazelton Group, dominated by volcanics of the upper andesite member (1e) with lesser sedimentary rocks of the upper siltstone member (1d). Overlying the Unuk River Formation in the eastern portion of the Arc 31 claim is the Betty Creek Formation which includes andesitic to dacitic tuffs and flows interbedded with maroon, red and green clastic sedimentary rocks. The best potential host for precious metal mineralization identified so far appears to be the gossanous siltstones of the Unuk River Formation (unit 1d) which occur on the western edge of the Arc 30 claim. The fact that this unit is known to host precious metal veins at the East Gold Mine, approximately 3/4 km west, makes this a very favourable target for further exploration.

A total of 42 rock, 9 silt, 8 heavy mineral concentrate sediment and 178 soil samples were collected and sent for gold assay and 25 element ICP analysis. An anomalous zone was identified near the western edge of the Arc 30 claim where rock samples 39260 to 39265 returned anomalous gold and silver responses as well as some elevated base metal values. Sample #39260 assayed 1185 ppb Au, 388 ppm Cu and 193 ppm Zn. Sample #39264 returned values of 810 ppb Au, 43.0 ppm Ag and 167 ppm Zn. The source of the anomalies is the gossanous altered siltstone of the Unuk River Formation. It contains up to 15% pyrite $\pm$ arsenopyrite as disseminations and fracture fillings accompanied by quartz. The rocks are sericitized and silicified.

Several other spot anomalies were identified by the contour soil sampling and, although values are fairly weak, they warrant follow-up.

Recommendations for further work on the Tide Lake Project are made below, based on results from the 1990 exploration program:

1) Physically locate the western claim boundaries;
2) Establish a grid for control over the anomalous area of the Arc 30 claim, accompanied by detailed mapping, sampling, trenching and geophysics to better define and outline anomalies;
3) Continue soil contour lines and regional mapping over the west portion of the Arc 30 claim to evaluate untested ground.

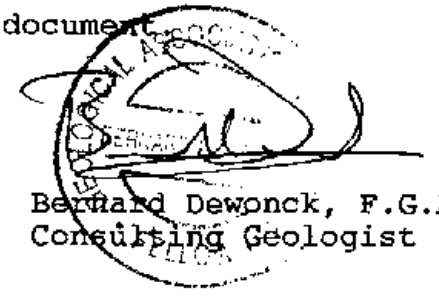
STATEMENT OF EXPENDITURES

Mobilization/Demobilization (prorated from Stewart Project)			$ 788.09
Wages:			
G. Cavey (consulting geologist)	1.5 days @	$525/day	$ 787.50
L. Lewis (geologist)	3 days @	$350/day	1,050.00
S. Baillie (")	3 days @	$330/day	990.00
T. McGowen (field assistant)	3 days @	$280/day	840.00
C. Birarda (")	3 days @	$270/day	810.00
C. Churchill (")	3 days @	$250/day	750.00
M. Davies (")	3 days @	$250/day	750.00
L. Azzopardi (")	4 days @	$250/day	1,000.00
		Total	$ 6,977.50
Engineering, Supervision & Administation			$ 1,999.82
Support Costs (Camp, Expediting, etc.)			3,571.12
Transportation & Communication			163.42
Helicopter			1,093.60
Analyses			3,205.58
Report Costs (partial only)			79.33
Total Expenditures			$17,868.46

CERTIFICATE OF QUALIFICATIONS

I, Bernard Dewonck, of 11931 Dunford Road, Richmond, British Columbia hereby certify:

1. I am a graduate of the University of British Columbia (1974) and hold a BSc. degree in geology.
2. I am an independent consulting geologist retained by OreQuest Consultants Ltd. of #306-595 Howe Street, Vancouver, British Columbia.
3. I have been employed in my profession by various mining companies since graduation.
4. I am a Fellow of the Geological Association of Canada.
5. I am a member of the Canadian Institute of Mining and Metallurgy.
6. This report is based on a review of information listed in the Bibliography and supervision of the fieldwork carried out by L. Lewis, B.Sc.
7. Neither OreQuest Consultants Ltd. nor myself have or expect to receive direct or indirect interest in the Tide Project or in the securities of Santa Marina Gold Ltd. or any of its subsidiaries.
8. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.



Bernard Dewonck, F.G.A.C.
Consulting Geologist

DATED at Vancouver, British Columbia, this 31st day of January, 1991.

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APPENDIX I

ROCK SAMPLE DESCRIPTIONS

TIDE PROJECT 1990

Sample:	Date:	Location:	Lithology:	Remarks / Alteration / Structure:	Mineralization:	Analysis:
39251	Aug 20/90	R4, elev: 768m	mafic volcanic	local oxidation of weathered surface along fractures	<< 1% disseminated py	
39252		R4, elev: 775m	qtz chl vein in mafic-intermed volc w/ hetergen inclusions	irregular vein massive, common qtz-chl veins throughout, rock type	trace sulphides	
39253		R4, elev: 849m	mafic-intermed volc w/ hetero inclusions	oxidation of weathered surface intermed pervasive chl, + local epidote	py - cm scale individual v's + fine dissem py, py: 25%	
39254		R4, elev: 915m	intermed volc w/ hetero inclusions	strong local oxidation + clay mineral development, Fault gouge 57/50° NW	sulfides too fine to see	
39255		R4, elev: 1035m	mafic-intermed volcanic	shear zone: 061/55°SE, local oxidized patches, streaky chl veinlets, minor epidote	sulfides too fine to see	
39256	Aug 21/90	R7, elev: 1172m	qtz-chl vein in epi-inter-felsic volc w/ hetero inclusions	qtz-chl vein 25m long 10cm wide in strongly epidolized rock minor hematization of qtz vein	No visible sulfides	
39257		R7, elev: 1040m	epidotized intermed volc w/ inclusions	strong to mod pervasive epidotization	Tr sulfides	
39258		R7, elev: 1062m	maroon fine grained sediment	massive, pervasively + fracture controlled hematization	Trace sulfides	
39259		R7, elev: 970m	feldspar porphyry	wk-mod pervasive hematization and epidotization	Tr sulfides	
39260	Aug 22/90	R2 (all pleural)	altered siltstone - fine grained	stc oxidation, fresh surf = bleached silicified weak carb.	qtz-py veinlet stockwork 1% py	
39261		R2	sericite schist - altered siltstone	strong sericitization, strong clay mineral development, bright yellow adjacent to shear zone mod - silicification	fine grained py aggregates w/ infilling, medgr py disseminated fine gr py fracture controlled qtz + py veinlets py 3-5% of sample	

TIDE PROJECT 1990

Sample	Date	Location	Lithology	Remarks / Alteration / Structure	Mineralization	Analysis
39262	Aug 22/90	R2	altered siltstone (fine gr. sediment)	strongly oxidized, sericite, silicified vuggy aspect	finely disseminated pyrite Qtz±py veinlets ≤1% py	
39263		R2	altered siltstone	sericitized silicified (veinlets + pervasive) strong yellow color no carb	sulphides finely dissem py 1-2%	
39264		R2	altered siltstone	strong sericitization, str. silicification strong yellow color, no carb	qtz-py vein stockwork py 10%	
39265		R2	altered siltstone	strong silicification, str sericitization yellow color + oxidized surface no carb	weakly developed qtz-py veinlet stockwork, py 2-3%	
39266		R2	Pencil shale	oxidized weathered surface spotty	fine-med gr fracture controlled py ≤1%	
39267		R2	altered seam in pencil shale	highly sericitized and oxidized silicified, strong yellow color	disseminated py, aggregates of py along Qtz veinlets. py 7-10%	
39268		R2	pencil shale	strongly oxidized, sheared irregular silicification, minor yellow oxidation	py assoc with qtz veinlets cm scale aggregates of fine py disseminated py 5-7%	
39269		R2	pencil shale	strongly oxidized, sericitized no carb	finely disseminated py with py-qtz aggregates, 15%	
39270		R2	pencil shale	sheared, silicified, bleached	disseminated py throughout pervasively silicified black elongate zones cm scale py 2-3%	
39271		R1	Shale	sheared, streaky oxidation along bedding	<1% finely dissem py	
39272		R1 elev: 658m	siltstone ? light colored sed.	sheared, strong brown oxidation	finely dissem py throughout with local fine py aggregates py 10-15%	
39273		R1 elev 660m	siltstone (?) light colored sed	sheared, mod brown oxidation	<1% finely dissem py ≤1% fracture controlled py	

TIDE PROJECT 1990

Sample:	Date:	Location:	Lithology:	Remarks / Alteration / Structure:	Mineralization:	Analysis:
39274	Aug 22/90	B1	altered shale	Strong light brown oxidation parallels bedding, mod carb.	<1% finely dissem py	

TIDE PROJECT 1990 L. LEWIS

Sample:	Date:	Location:	Lithology:	Remarks / Alteration / Structure:	Mineralization:	Analysis:
39275	AUG 20	River #6 Approx 250m E of S. end of airstrip	Felsic Tuff	Mod sericitized, foliated 167/74°E	2% py cubes	
39276	AUG 20	River #6 740m	Feldspar crystal tuff	Shear zone @ 174/80°E (15cm) in mod sericitized tuff	3-5% py	
39277	AUG 20	River #6 738m	Feldspar crystal tuff	Shear zone @ 165/78°E	3-5% py	
39278	AUG 20	River #6 770m	Felsic tuff	Mod gossan, minor sericite	4-6% py as stringers along foliation	
39279	AUG 21	River #2 1390m	Quartz vein	@ 360/56°E in andesitic porphyritic feldspar lapilli	NVS	
39280	AUG 21	River #2 1225m	Andesite	20 cm minor shear @ 111/70°S	1% pods cubic py	
39281	AUG 21	River #2 1005m	Andesitic tuff	10 cm shear @ 120/84°N, minor sericite mod carb	tr-2% py	
39282	AUG 21	River #2 945m	Andesite	minor shear @ 058/66°SE, foliation @ 135/65°SW	1-3% py pods	
39283	AUG 21	River #2 835m	Andesitic porphyritic feldspar lapilli	w/ bull quartz vein @ 144/58°NE	1-3% py pods	

TIDE Project

Sample:	Date:	Location:	Lithology:	Remarks / Alteration / Structure:	Mineralization:	Analysis:
* TIDE 188 (39284)	Aug 22/90	S. fork of river #6 2m E of L4000' 8188	sericite schist	silicified / strongly sericitized, light green blue, oxidized W.S. very fine grained. Sheared (?)	fine grained pyrite aggregates mm scale diameter, elongated along schistosity plane Py 5-7%	
TIDE 189 (39285)		S. fork of river #6 10m E. of 39284	Qtz-chl vein in altered siltstone	milky qtz. + chl aggregates, brown oxidation along fracture planes siltstone - strong sericitization	no detectable sulfides	
TIDE 190 (39286)		S. fork of river #6 15m E. of 39285	intermed volc	mod silicified, bleached wk sericitized, strongly oxidized W.S.	finely disseminated Py ≤1%	
TIDE 191 (39287)		S. fork of river #6 20m W. of L4000' 9+65.	sericite schist ?	creamy white, chalky, brittle silicified ? strong brown with local yellow weathered surface, strong sericitization	mm scale flattened along schistosity pale grey colored pyritized patches throughout no visible sulfides	
Tie. 25m + 7 21+00S (39288)	Aug 22/90	Soil Contour 2500' 21+00S	leucocratic volc fine grained	silicified, sericitized/carbonatized brown oxidized W.S.	fine grained fracture controlled + disseminated Py 3-5%	
L 2500' 21+60S (39289)		Soil Contour 2500' 21+60S	intermediate volc w/mm scale inclusions	sericitized weakly, wk silicification brown oxidized W.S.	<1% finely disseminated Py	
L 2500' + 14+86.5 (39291)	Aug 21/90	Soil Contour 2500' 14+86S	intermed to mafic volc	wk-mod pervasive chloritization weakly bleached, brown ox staining weakly schistose	<<1% finely dissem Py	
L 2500' 21+00S (39292)	AUG 22/90	Soil contour 2500' 21+00S	intermed. volc.	wk pervasive med grey, f. to m.g. mass, trace mm carbs	2% f. disseminated Py	
39290	AUG 22	River #2	Pencil shale	oxidized streakily highly fractured	NVS	

* Tim: prospecting samples

APPENDIX II

ASSAY CERTIFICATES

1630 PANDORA STREET
VANCOUVER, BC V5L 1L6
(604) 251-5656

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
~~1988 TRIUMPH ST.~~
~~VANCOUVER, B.C. V5L 1K5~~
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A

REPORT NUMBER: 900432 GA JOB NUMBER: 900432 ONEQUEST CONSULTANTS LTD. PAGE 1 OF 2

SAMPLE #	Au ppb
39251	10
39252	nd
39253	15
39254	15
39255	nd
39256	nd
39257	10
39258	10
39259	nd
39260	1185
39261	460
39262	410
39263	740
39264	810
39265	670
39266	nd
39267	10
39268	10
39269	10
39270	15
39271	15
39272	25
39273	nd
39274	10
39275	5
39276	10
39277	15
39278	10
39279	nd
39280	20
39281	15
39282	15
39283	15
39284	5
39285	10
39286	nd
39287	nd
39288	nd
39289	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Phn(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Mo, P, Sn, Sr and W.

ANALYST: _____

REPORT #: 900432 PA | DREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: SEPT 10 1990 | DATE OUT: OCT 09 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 1 OF 2

Sample Name	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	Sb ppm	Sn ppm	Sr ppm	U ppm	W ppm	Zn ppm
39251	0.2	2.87	<3	395	<3	1.44	2.0	25	19	36	4.29	0.24	1.29	1236	10	0.04	10	0.10	<2	<2	14	122	<5	<3	99
39252	0.1	1.26	<3	310	<3	0.48	1.0	15	191	41	2.16	0.06	0.80	663	10	0.01	195	0.03	<2	<2	8	74	<5	<3	61
39253	1.0	3.72	<3	53	<3	1.05	4.8	39	19	38	8.76	0.26	1.50	1229	265	0.04	8	0.09	61	<2	16	44	<5	<3	96
39254	0.5	2.37	<3	141	<3	0.34	2.4	28	20	33	5.44	0.13	0.83	1034	16	0.02	24	0.09	<2	<2	5	14	<5	<3	114
39255	<0.1	0.61	<3	51	<3	2.40	0.9	6	68	15	0.95	0.13	0.38	517	7	0.01	2	<0.01	<2	<2	2	38	<5	<3	42
39256	<0.1	1.71	<3	255	<3	1.05	1.8	14	81	24	1.95	0.13	0.70	601	5	0.02	89	0.06	<2	<2	9	240	<5	<3	61
39257	<0.1	0.82	<3	165	<3	2.30	0.4	7	120	10	1.20	0.14	0.40	552	10	0.01	10	0.01	<2	<2	3	61	<5	<3	44
39258	<0.1	1.34	<3	311	<3	0.54	0.9	25	25	8	2.46	0.13	0.55	369	6	0.02	29	0.02	<2	<2	12	41	<5	<3	77
39259	<0.1	0.79	<3	142	<3	1.06	1.5	12	33	8	1.61	0.11	0.18	219	5	0.02	<1	0.10	<2	<2	8	110	<5	<3	30
39260	6.3	1.44	<3	115	<3	1.01	3.7	9	48	388	3.31	0.16	0.83	482	75	0.02	75	0.03	<2	<2	5	57	<5	<3	193
39261	20.3	0.26	365	10	<3	0.91	6.0	12	35	145	7.81	0.21	0.03	178	15	0.01	52	0.01	73	<2	4	49	<5	<3	81
39262	7.7	0.92	246	81	<3	0.15	5.1	4	90	77	4.25	0.10	0.46	162	32	<0.01	85	0.07	34	16	3	10	<5	<3	52
39263	4.7	0.27	45	90	<3	0.03	2.2	6	44	13	1.69	0.04	0.02	25	78	<0.01	25	0.01	51	12	<2	9	<5	<3	21
39264	43.0	0.38	274	8	<3	0.09	6.5	15	111	99	>10.00	0.20	0.02	52	27	0.02	150	<0.01	56	65	6	3	<5	<3	167
39265	12.6	0.17	152	58	<3	0.03	3.4	4	52	36	1.81	0.03	<0.01	27	177	<0.01	10	0.03	48	62	<2	6	<5	<3	63
39266	0.8	2.74	<3	123	<3	0.17	2.6	5	66	44	4.66	0.12	1.44	357	16	0.02	76	0.06	<2	<2	6	11	<5	<3	95
39267	44.0	0.23	661	6	<3	0.11	9.7	12	60	27	>10.00	0.22	0.02	27	12	0.02	56	<0.01	95	63	7	3	<5	<3	51
39268	4.7	0.95	1768	34	<3	0.18	17.9	8	134	43	5.66	0.13	0.45	172	14	0.01	142	0.05	14	45	4	11	<5	<3	114
39269	8.7	1.01	1180	23	<3	0.15	13.0	12	59	27	6.77	0.14	0.51	177	24	0.02	46	0.05	108	33	5	9	<5	<3	103
39270	12.8	0.42	>2000	14	<3	0.09	30.0	13	121	46	6.82	0.14	0.04	85	13	0.01	149	0.03	31	57	4	5	<5	<3	23
39271	0.5	0.58	32	86	<3	0.27	3.2	7	31	21	2.26	0.08	0.15	29	6	0.02	18	0.10	24	10	3	34	<5	<3	44
39272	0.5	1.39	31	44	<3	0.08	4.1	6	65	30	7.02	0.15	0.54	276	13	0.02	66	<0.01	5	5	7	8	<5	<3	53
39273	0.2	0.92	<3	106	<3	0.04	2.5	4	19	13	2.48	0.06	0.31	111	10	0.01	4	<0.01	<2	6	3	5	<5	<3	61
39274	0.5	0.56	<3	100	<3	>10.00	4.8	24	35	95	5.05	0.37	3.26	2321	17	0.03	108	0.06	23	14	6	687	<5	<3	123
39275	0.1	0.56	<3	209	<3	0.43	2.5	14	29	12	1.88	0.09	0.11	122	6	0.02	<1	0.09	15	9	9	24	<5	<3	29
39276	0.4	2.42	<3	37	<3	2.26	3.0	19	45	25	4.98	0.26	1.50	577	12	0.03	40	0.07	<2	<2	12	42	<5	<3	116
39277	0.1	2.87	<3	99	<3	1.12	4.0	15	22	17	4.74	0.20	1.85	887	10	0.03	<1	0.07	<2	<2	13	17	<5	<3	170
39278	0.2	1.58	<3	46	<3	1.17	3.7	18	62	17	3.66	0.18	0.51	517	11	0.02	52	0.08	<2	<2	11	49	<5	<3	68
39279	<0.1	0.22	<3	93	<3	0.11	2.9	10	91	94	2.01	0.04	0.04	1359	28	<0.01	5	0.01	5	9	<2	6	<5	<3	24
39280	0.2	2.59	<3	206	<3	1.88	4.1	34	30	60	6.85	0.29	0.65	1247	12	0.03	28	0.10	40	<2	12	35	<5	<3	95
39281	0.2	1.98	<3	154	<3	1.76	4.0	20	26	56	5.85	0.26	0.61	816	11	0.02	22	0.13	11	<2	9	34	<5	<3	58
39282	0.7	2.58	<3	40	<3	2.48	4.8	29	15	114	8.53	0.35	1.03	1114	17	0.03	7	0.09	<2	<2	10	48	<5	<3	128
39283	0.2	1.99	<3	120	<3	2.58	3.8	25	23	57	5.25	0.29	0.69	906	9	0.02	28	0.12	<2	<2	11	46	<5	<3	46
39284	0.3	0.79	<3	9	<3	0.23	5.6	12	30	12	8.77	0.18	0.29	142	46	0.02	<1	0.02	52	5	9	6	<5	<3	88
39285	<0.1	1.50	<3	123	<3	0.09	2.7	9	191	9	3.18	0.06	0.81	413	14	0.01	173	<0.01	<2	<2	7	5	<5	<3	86
39286	0.2	0.90	<3	19	<3	0.79	4.0	15	45	9	4.11	0.15	0.18	128	17	0.02	<1	0.06	9	5	9	64	<5	<3	49
39287	0.2	0.31	<3	290	<3	0.15	5.1	8	55	10	9.54	0.19	<0.01	30	43	0.02	62	0.04	29	15	10	19	<5	<3	20
39288	0.3	1.26	<3	29	<3	2.80	2.9	21	27	19	3.85	0.23	0.77	500	10	0.02	5	0.04	<2	<2	7	46	<5	<3	43
39289	0.3	0.76	<3	151	<3	2.32	4.5	17	37	10	5.85	0.16	0.64	299	48	0.03	8	0.05	<2	18	9	34	<5	<3	34
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sb, Sr and W.

ANALYST: _____

REPORT #: 900432 PA | GREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: SEPT 10 1990 | DATE OUT: OCT 09 1990 | ATTENTION: MR. JIM CHAPMAN |

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
39290	0.4	2.35	<3	110	<3	0.26	0.5	6	388	83	5.08	0.13	1.23	229	500	0.01	1630	0.10	<2	4	10	38	<5	<3	94
39291	0.3	2.06	<3	204	<3	0.55	<0.1	24	61	28	4.90	0.15	0.62	591	13	0.02	59	0.10	<2	<2	18	55	<5	<3	73
39292	0.2	1.02	<3	8	<3	1.39	0.2	16	25	44	7.72	0.26	0.51	251	6	0.02	<1	0.03	<2	8	10	40	<5	<3	33
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

(- Less Than Minimum) - Greater Than Maximum is - Insufficient Sample as - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

VANCOUVER, BC V5L 1I6
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VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
PASADENA, NFLD
BATHURST, N.B
MISSISSAUGA, ONT
RENO, NEVADA, U.S.A

REPORT NUMBER: 900340 GA JOB NUMBER: 900340 OREQUEST CONSULTANTS LTD. PAGE 1 OF 1

SAMPLE #	Au ppb
T;HS-1	15
T;HS-3	5
T;HS-5	20
T;HS-7	15
T;HS-9	10
T;HS-11	nd
T;HS-13	10
T;HS-15	nd
T;S-2	5
T;S-4	10
T;S-6	15
T;S-8	nd
T;S-10	10
T;S-12	15
T;S-14	20
T;S-16	nd
T SILT L2500 19+50S	5

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VANGEOCHEM LAB LIMITED
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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: _____

REPORT #: 900340 PA | OREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: AUG 30 1990 | DATE OUT: OCT 01 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 1 OF 1

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
STD6	2.5	1.32	12	69	110	1.30	20.6	16	80	153	3.70	0.18	0.59	680	25	0.10	620	0.08	58	24	7	27	44	26	105
T;HS-1	0.3	1.56	<3	112	<3	0.54	4.5	21	26	40	6.37	0.17	0.74	894	10	0.02	19	0.10	<2	<2	9	28	<5	<3	92
T;HS-3	0.2	1.39	<3	30	<3	2.36	3.3	35	11	70	7.79	0.29	0.60	966	11	0.03	14	0.12	18	6	8	73	<5	<3	105
T;HS-5	0.1	1.55	<3	123	<3	1.22	3.7	18	12	23	4.75	0.19	0.69	813	8	0.02	10	0.09	<2	<2	8	47	<5	<3	80
T;HS-7	0.2	1.64	<3	169	<3	0.70	1.7	16	13	23	4.28	0.14	0.73	733	8	0.02	10	0.09	<2	<2	8	41	<5	<3	85
T;HS-9	0.3	2.22	<3	329	<3	0.79	1.3	20	29	109	4.28	0.16	0.98	1150	11	0.03	16	0.09	<2	<2	11	64	<5	<3	106
T;HS-11	0.3	1.85	<3	162	<3	0.78	3.1	22	38	37	4.95	0.15	1.07	1049	12	0.02	30	0.08	<2	<2	11	47	<5	<3	94
T;HS-13	0.2	1.93	<3	151	<3	0.64	2.5	20	34	31	4.33	0.14	1.04	957	9	0.02	28	0.08	<2	<2	11	42	<5	<3	84
T;HS-15	<0.1	1.47	<3	120	<3	1.10	1.6	22	13	25	4.94	0.17	1.05	789	10	0.02	19	0.07	<2	<2	11	52	<5	<3	72
T;S-2	0.4	2.68	<3	325	<3	0.83	1.8	25	34	49	5.13	0.16	1.07	1315	11	0.03	34	0.11	<2	<2	11	50	<5	<3	118
T;S-4	0.2	1.73	<3	88	<3	3.00	0.6	19	8	35	5.02	0.25	0.74	1137	10	0.02	16	0.11	<2	<2	8	94	<5	<3	91
T;S-6	0.2	1.64	<3	181	<3	1.67	<0.1	16	10	18	3.74	0.18	0.72	881	8	0.02	16	0.09	<2	<2	8	54	<5	<3	83
T;S-8	0.2	1.68	<3	186	<3	1.14	1.0	16	9	20	3.82	0.15	0.73	874	7	0.02	18	0.10	<2	<2	8	45	<5	<3	85
T;S-10	0.4	2.12	<3	203	<3	0.84	1.2	24	28	86	4.20	0.15	1.10	1286	8	0.03	40	0.11	<2	<2	12	56	<5	<3	125
T;S-12	0.4	2.01	<3	202	<3	0.76	0.4	21	28	45	4.19	0.15	1.03	1207	9	0.02	35	0.09	<2	<2	11	52	<5	<3	103
T;S-14	0.3	1.88	<3	195	<3	0.74	0.4	20	32	36	4.19	0.13	1.04	1371	12	0.02	33	0.08	<2	<2	11	47	<5	<3	100
T;S-16	0.2	1.64	<3	141	<3	1.37	0.4	23	11	24	4.18	0.16	1.16	862	9	0.02	23	0.08	<2	<2	13	63	<5	<3	76
T STLT L2500 19+50S	0.3	2.28	<3	301	<3	0.59	0.6	16	14	17	3.76	0.12	0.68	763	11	0.02	27	0.08	<2	<2	11	47	<5	<3	92
STD1	2.9	1.03	<3	61	<3	1.62	<0.1	17	100	166	3.67	0.19	0.61	702	29	0.03	784	0.08	64	<2	6	30	<5	<3	100
STD6	2.5	1.32	12	69	110	1.30	20.6	16	80	153	3.70	0.18	0.59	680	25	0.10	620	0.08	58	24	7	27	44	26	105
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

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VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
PASADENA, NFLD.
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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 900338 GA JOB NUMBER: 900338 **OREQUEST CONSULTANTS LTD.**

SAMPLE #	Au ppb
TL2500 0+00S	nd
TL2500 0+50S	nd
TL2500 1+00S	nd
TL2500 1+50S	10
TL2500 2+00S	nd
TL2500 2+50S	10
TL2500 3+00S	15
TL2500 3+50S	15
TL2500 4+00S	15
TL2500 4+50S	20
TL2500 5+00S	5
TL2500 5+50S	nd
TL2500 6+00S	nd
TL2500 6+50S	10
TL2500 7+00S	5
TL2500 7+50S	10
TL2500 8+00S	nd
TL2500 8+50S	20
TL2500 9+00S	nd
TL2500 9+50S	5
TL2500 10+00S	5
TL2500 11+00S	10
TL2500 11+50S	20
TL2500 12+00S	15
TL2500 12+50S	10
TL2500 13+00S	5
TL2500 13+50S	10
TL2500 14+00S	nd
TL2500 14+50S	15
TL2500 15+00S	5
TL2500 15+50S	nd
TL2500 16+00S	5
TL2500 16+50S	15
TL2500 17+00S	25
TL2500 17+50S	5
TL2500 18+00S	15
TL2500 18+50S	nd
TL2500 19+00S	nd
TL2500 19+50S	10
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

1630 PANDORA STREET
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BRANCH OFFICES
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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A

SAMPLE #	Au ppb
TL2500 20+00S	nd
TL2500 20+50S	nd
TL2500 21+00S	nd
TL2500 21+50S	nd
TL2500 22+00S	20
TL2500 22+50S	5
TL2500 23+00S	10
TL2500 23+50S	15
TL2500 24+00S	10
TL2500 24+50S	15
TL2500 25+00S	5
TL2500 25+50S	15
TL2500 26+00S	10
TL2500 26+50S	nd
TL2500 27+00S	5
TL2500 27+50S	10
TL2500 28+00S	10
TL2500 28+50S	5
TL2500 29+00S	nd
TL2500 29+50S	10
TL2500 30+00S	10
TL2500 30+50S	5
TL3000 0+00S	5
TL3000 0+50S	nd
TL3000 1+00S	10
TL3000 1+50S	10
TL3000 2+00S	nd
TL3000 2+50S	20
TL3000 3+00S	5
TL3000 3+50S	15
TL3000 4+00S	nd
TL3000 4+50S	10
TL3000 5+00S	20
TL3000 5+50S	5
TL3000 6+00S	nd
TL3000 6+50S	5
TL3000 7+00S	nd
TL3000 7+50S	10
TL3000 8+00S	20
DETECTION LIMIT	5

nd = none detected -- = not analysed ls = insufficient sample

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RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
TL3000 8+50S	5
TL3000 9+00S	nd
TL3000 9+50S	10
TL3000 10+00S	5
TL3000 10+50S	nd
TL3000 12+00S	15
TL3000 12+50S	15
TL3000 13+00S	nd
TL3000 13+50S	nd
TL3000 14+00S	10
TL3000 14+50S	20
TL3000 15+00S	15
TL3000 15+50S	5
TL3000 16+00S	nd
TL3000 16+50S	10
TL3000 17+00S	nd
TL3000 18+00S	nd
TL3000 18+50S	nd
TL3000 19+00S	20
TL3000 19+50S	nd
TL3000 20+00S	25
TL4000 0+00W	nd
TL4000 0+50W	10
TL4000 1+00W	20
TL4000 1+50W	10
TL4000 2+00W	30
TL4000 2+50W	15
TL4000 3+00W	nd
TL4000 3+50W	nd
TL4000 4+00W	5
TL4000 4+50W	10
TL4000 5+00W	nd
TL4000 5+50W	25
TL4000 6+00W	5
TL4000 6+50W	5
TL4000 7+00W	30
TL4000 7+50W	25
TL4000 8+50W	20
TL4000 9+00W	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANCOUVER, BC V5L 1L6
(604) 251-5656

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
~~1988 TRIUMPH ST~~
~~VANCOUVER, B C V5L 1K5~~
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD
BATHURST, N.B.
MISSISSAUGA, ONT
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
TL4000 9+50N	15
TL4000 10+00N	10
TL4000 10+50N	15
TL4000 11+00N	20
TL4000 11+50N	5
TL4000 12+00N	15
TL4000 12+50N	15
TL4000 14+00N	5
TL4000 14+50N	nd
TL4000 15+00N	nd
TL4000 15+50N	10
TL4000 16+00N	nd
TL4000 16+50N	5
TL4000 17+00N	nd
TL4000 17+50N	nd
TL4000 18+00N	nd
TL4000 18+50N	nd
TL4000 19+00N	10
TL4000 19+50N	nd
TL4000 20+00N	nd
TL4000 20+50N	5
TL4000 21+00N	20
TL4000 21+50N	5
TL4000 22+00N	nd
TL4000A 0+00N	5
TL4000A 0+50N	20
TL4000A 1+00N	nd
TL4000A 1+50N	nd
TL4000A 2+00N	nd
TL4000A 2+50N	nd
TL4000A 3+00N	nd
TL4000A 3+50N	10
TL4000A 4+00N	5
TL4000A 4+50N	5
TL4000A 5+00N	nd
TL4000A 5+50N	nd
TL4000A 6+00N	5
TL4000A 6+50N	nd
TL4000A 7+00N	15
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VANCOUVER, BC V5L 1L6
(604) 251-5656

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
~~1088 TRIUMPH ST~~
~~VANCOUVER, B.C. V5L 1K5~~
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FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD
BATHURST, N.B.
MISSISSAUGA, ONT
RENO, NEVADA, U.S.A.

SAMPLE #	Au ppb
TL4000A 7+50N	15
TL4000A 8+00N	nd
TL4000A 8+50N	nd
TL4000A 9+00N	nd
TL4000A 9+50N	nd
TL4000A 10+00N	30
TL4500A 0+00S	20
TL4500A 0+50S	10
TL4500A 1+00S	5
TL4500A 1+50S	5
TL4500A 2+00S	5
TL4500A 2+50S	5
TL4500A 3+00S	nd
TL4500A 3+50S	15
TL4500A 4+00S	10
TL4500A 4+50S	15
TL4500A 5+00S	5
TL4500A 5+50S	5
TL4500A 6+00S	nd
TL4500A 6+50S	15
TL4500A 7+00S	10
TL4500A 7+50S	10

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 90023B PA | OREQUEST CONSULTANTS LTD. | PROJECT: TIBE | DATE IN: AUG 29 1990 | DATE OUT: OCT 2 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 1 OF 5

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TL2500 0+00S	<0.1	1.67	<3	196	<3	0.60	1.4	18	15	27	4.13	0.12	0.69	858	12	0.02	16	0.10	<2	<2	10	38	<5	<3	80
TL2500 0+50S	<0.1	1.54	<3	180	<3	0.74	<0.1	18	14	22	3.68	0.12	0.72	944	10	0.02	8	0.10	<2	<2	11	61	<5	<3	73
TL2500 1+00S	<0.1	1.68	<3	221	<3	0.73	0.7	19	15	16	3.78	0.12	0.72	672	13	0.02	6	0.09	<2	<2	11	64	<5	<3	79
TL2500 1+50S	<0.1	1.53	<3	179	<3	0.74	0.8	17	13	12	3.63	0.11	0.68	808	10	0.02	7	0.11	<2	<2	11	65	<5	<3	83
TL2500 2+00S	0.2	1.57	<3	136	<3	0.42	0.2	12	15	10	3.16	0.09	0.54	481	10	0.01	9	0.05	<2	<2	10	44	<5	<3	57
TL2500 2+50S	<0.1	1.65	<3	384	<3	0.70	0.7	15	17	13	3.58	0.12	0.70	656	12	0.02	12	0.05	<2	<2	11	82	<5	<3	78
TL2500 3+00S	<0.1	1.24	<3	262	<3	0.82	<0.1	16	11	15	3.43	0.11	0.57	729	10	0.01	9	0.07	<2	<2	10	73	<5	<3	85
TL2500 3+50S	0.7	3.56	<3	284	<3	1.06	<0.1	16	37	39	3.35	0.15	0.35	6134	27	0.02	19	0.24	<2	<2	13	41	<5	<3	63
TL2500 4+00S	<0.1	1.23	<3	179	<3	0.48	0.6	9	24	30	4.02	0.09	0.19	572	15	<0.01	17	0.15	<2	<2	12	22	<5	<3	53
TL2500 4+50S	0.2	1.83	<3	73	<3	0.13	0.4	12	18	31	2.57	0.04	0.24	747	15	<0.01	13	0.12	<2	<2	10	15	<5	<3	45
TL2500 5+00S	<0.1	2.32	<3	60	<3	0.24	1.2	14	24	25	5.66	0.11	0.25	583	18	0.02	14	0.07	<2	<2	16	23	<5	<3	56
TL2500 5+50S	0.4	1.59	<3	109	<3	0.11	0.7	8	18	8	3.74	0.04	0.13	126	13	<0.01	12	0.03	<2	<2	11	22	<5	<3	34
TL2500 6+00S	0.4	0.41	<3	50	<3	0.15	<0.1	2	7	5	0.52	<0.01	0.04	44	7	<0.01	10	0.05	<2	4	6	22	<5	<3	35
TL2500 6+50S	0.2	1.00	<3	54	<3	0.08	<0.1	2	14	4	0.89	<0.01	0.09	66	8	<0.01	11	0.04	<2	<2	6	15	<5	<3	27
TL2500 7+00S	<0.1	3.25	<3	55	<3	0.07	0.2	5	56	14	3.71	0.05	0.27	148	16	<0.01	18	0.06	<2	<2	13	8	<5	<3	52
TL2500 7+50S	<0.1	3.01	<3	138	<3	0.21	0.5	35	38	35	4.40	0.10	0.53	2216	16	<0.01	30	0.11	<2	<2	13	18	<5	<3	84
TL2500 8+00S	<0.1	1.74	<3	90	<3	0.07	<0.1	5	25	10	2.12	0.02	0.17	125	11	<0.01	15	0.03	<2	<2	7	9	<5	<3	28
TL2500 8+50S	0.3	1.42	<3	85	<3	0.22	<0.1	9	24	13	4.04	0.07	0.27	258	13	<0.01	21	0.14	<2	<2	11	24	<5	<3	48
TL2500 9+00S	0.9	3.20	<3	302	<3	0.26	<0.1	13	47	31	3.73	0.09	0.63	550	16	0.01	35	0.10	<2	<2	11	20	<5	<3	118
TL2500 9+50S	0.2	1.25	<3	70	<3	0.12	<0.1	4	19	5	1.60	0.01	0.22	148	10	<0.01	17	0.04	<2	<2	6	21	<5	<3	27
TL2500 10+00S	<0.1	2.39	<3	182	<3	0.32	<0.1	12	20	16	2.58	0.06	0.41	254	11	<0.01	21	0.02	<2	<2	12	22	<5	<3	38
TL2500 11+00S	<0.1	3.91	<3	101	<3	0.25	1.0	18	51	52	5.80	0.14	0.92	810	18	0.02	50	0.04	<2	<2	14	20	<5	<3	136
TL2500 11+50S	<0.1	4.95	<3	101	<3	0.24	0.7	18	51	56	6.09	0.17	0.85	767	16	0.02	48	0.04	<2	<2	16	16	<5	<3	139
TL2500 12+00S	0.2	1.89	<3	98	<3	0.26	<0.1	10	28	20	2.69	0.06	0.53	338	12	<0.01	24	0.05	<2	<2	11	31	<5	<3	57
TL2500 12+50S	<0.1	1.87	<3	107	<3	0.26	<0.1	9	24	17	2.40	0.05	0.49	320	10	<0.01	21	0.04	<2	<2	11	32	<5	<3	50
TL2500 13+00S	<0.1	2.29	<3	124	<3	0.29	1.0	15	33	35	4.77	0.12	0.59	567	15	<0.01	31	0.06	<2	<2	14	28	<5	<3	95
TL2500 13+50S	0.4	2.68	<3	105	<3	0.18	0.5	25	25	26	3.81	0.08	0.62	1085	15	<0.01	26	0.07	<2	<2	14	20	<5	<3	95
TL2500 14+00S	<0.1	1.64	<3	69	<3	0.47	<0.1	14	22	87	2.25	0.06	0.70	423	10	<0.01	39	0.08	<2	<2	12	73	<5	<3	70
TL2500 14+50S	0.7	1.81	<3	76	<3	0.07	<0.1	3	17	7	5.19	<0.01	0.14	105	8	<0.01	20	0.02	<2	<2	7	10	<5	<3	21
TL2500 15+00S	<0.1	2.29	<3	122	<3	0.23	0.5	16	29	18	4.17	0.08	0.65	837	13	<0.01	28	0.04	<2	<2	12	26	<5	<3	77
TL2500 15+50S	<0.1	2.29	<3	302	<3	0.25	<0.1	22	24	13	3.58	0.09	0.61	1198	13	<0.01	28	0.05	<2	<2	11	29	<5	<3	73
TL2500 16+00S	<0.1	1.53	<3	62	<3	0.18	<0.1	9	19	13	3.94	0.07	0.22	1041	10	<0.01	25	0.16	<2	<2	9	21	<5	<3	54
TL2500 16+50S	0.2	1.42	<3	56	<3	0.16	<0.1	6	21	11	2.90	0.04	0.24	208	12	<0.01	22	0.04	<2	<2	9	19	<5	<3	37
TL2500 17+00S	0.7	2.03	<3	115	<3	0.20	0.8	10	36	23	6.43	0.14	0.34	411	16	<0.01	28	0.06	<2	<2	13	17	<5	<3	72
TL2500 17+50S	<0.1	0.94	<3	77	<3	0.15	<0.1	11	16	8	2.62	0.03	0.14	247	10	<0.01	22	0.05	<2	<2	11	21	<5	<3	28
TL2500 18+00S	<0.1	1.71	<3	178	<3	0.24	<0.1	7	15	10	2.49	0.04	0.34	1146	10	<0.01	24	0.05	<2	<2	9	27	<5	<3	50
TL2500 18+50S	0.3	1.42	<3	100	<3	0.18	<0.1	7	15	6	2.36	0.04	0.26	304	9	<0.01	23	0.05	<2	<2	8	27	<5	<3	38
TL2500 19+00S	0.6	1.30	<3	72	<3	0.17	<0.1	5	17	5	1.89	0.02	0.22	211	9	<0.01	21	0.04	<2	<2	8	24	<5	<3	27
TL2500 19+50S	0.2	1.56	<3	122	<3	0.26	<0.1	10	20	9	3.16	0.05	0.48	482	10	<0.01	26	0.07	<2	<2	9	28	<5	<3	63
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

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ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 900338 FA | CREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: AUG 29 1990 | DATE OUT: OCT 2 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 2 OF 5

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TL2500 20+00S	<0.1	2.48	<3	149	<3	0.50	1.1	22	22	28	4.74	0.12	0.77	1222	11	0.02	23	0.11	<2	<2	13	40	<5	<3	94
TL2500 20+50S	<0.1	1.31	<3	88	<3	0.18	<0.1	8	14	11	2.44	0.04	0.14	140	9	<0.01	9	0.04	<2	<2	9	35	<5	<3	31
TL2500 21+00S	<0.1	2.45	<3	284	<3	0.46	1.7	21	23	31	4.85	0.13	0.90	1416	14	0.02	20	0.08	<2	<2	11	33	<5	<3	112
TL2500 21+50S	<0.1	2.42	<3	120	<3	0.14	0.8	9	30	20	3.90	0.07	0.43	368	12	0.01	17	0.05	<2	<2	10	21	<5	<3	51
TL2500 22+00S	<0.1	2.55	<3	116	<3	0.15	1.1	11	35	27	4.90	0.10	0.50	439	14	0.02	16	0.06	<2	<2	12	21	<5	<3	64
TL2500 22+50S	<0.1	0.73	<3	72	<3	0.37	0.5	8	10	31	1.66	0.04	0.20	141	9	<0.01	14	0.09	11	3	12	24	<5	<3	46
TL2500 23+00S	<0.1	4.63	<3	180	<3	0.22	2.4	19	61	48	5.80	0.15	1.08	921	20	0.02	48	0.04	<2	<2	16	23	<5	<3	138
TL2500 23+50S	<0.1	4.07	<3	176	<3	0.23	1.9	25	56	55	5.36	0.15	1.23	1211	15	0.02	53	0.03	<2	<2	14	22	<5	<3	142
TL2500 24+00S	<0.1	3.02	<3	189	<3	0.25	0.9	18	26	25	4.93	0.11	0.79	786	15	0.02	26	0.04	<2	<2	13	27	<5	<3	97
TL2500 24+50S	0.5	1.71	<3	259	<3	0.28	<0.1	9	23	23	3.01	0.06	0.46	319	13	0.01	19	0.07	<2	<2	11	30	<5	<3	57
TL2500 25+00S	0.1	2.25	<3	135	<3	0.21	0.6	11	26	21	4.45	0.09	0.40	356	13	0.01	39	0.09	<2	<2	12	26	<5	<3	69
TL2500 25+50S	0.2	1.52	<3	53	<3	0.13	<0.1	6	13	7	1.92	0.03	0.12	120	8	<0.01	12	0.03	<2	<2	9	31	<5	<3	21
TL2500 26+00S	0.2	3.75	<3	93	<3	0.13	1.8	13	76	41	9.43	0.22	0.71	418	21	0.02	31	0.08	<2	<2	17	13	<5	<3	102
TL2500 26+50S	0.5	1.00	<3	71	<3	0.20	0.2	4	8	9	1.01	0.02	0.09	76	7	<0.01	10	0.03	<2	<2	8	45	<5	<3	24
TL2500 27+00S	<0.1	1.18	<3	66	<3	0.16	0.7	11	10	10	3.33	0.06	0.10	247	9	0.01	14	0.06	<2	<2	11	28	<5	<3	30
TL2500 27+50S	<0.1	1.43	<3	74	<3	0.14	0.9	14	13	13	4.31	0.07	0.11	344	10	0.01	16	0.09	<2	<2	13	25	<5	<3	35
TL2500 28+00S	<0.1	2.07	<3	198	<3	0.22	<0.1	9	12	10	2.84	0.06	0.30	256	11	0.01	16	0.14	<2	<2	11	33	<5	<3	42
TL2500 28+50S	<0.1	1.69	<3	209	<3	0.15	0.1	6	11	9	2.47	0.04	0.14	162	10	0.01	16	0.08	<2	<2	10	29	<5	<3	25
TL2500 29+00S	<0.1	1.42	<3	218	<3	0.69	0.9	19	12	13	3.72	0.11	0.72	710	10	0.02	20	0.04	<2	<2	12	68	<5	<3	66
TL2500 29+50S	<0.1	1.26	<3	168	<3	0.65	1.1	18	10	21	3.46	0.11	0.74	883	11	0.02	23	0.05	<2	<2	13	48	<5	<3	73
TL2500 30+00S	<0.1	1.41	<3	135	<3	0.75	1.6	21	10	14	3.75	0.11	0.84	726	10	0.02	25	0.06	<2	<2	13	68	<5	<3	70
TL2500 30+50S	<0.1	1.42	<3	114	<3	0.67	1.4	23	10	18	4.18	0.12	0.86	792	9	0.02	23	0.06	<2	<2	12	53	<5	<3	70
TL3000 0+00S	<0.1	1.80	<3	257	<3	0.61	1.0	29	13	36	4.96	0.14	0.78	1462	10	0.02	19	0.12	<2	<2	10	43	<5	<3	105
TL3000 0+50S	<0.1	1.89	<3	250	<3	0.58	1.9	20	12	30	4.71	0.14	0.82	1771	10	0.02	20	0.11	<2	<2	11	37	<5	<3	101
TL3000 1+00S	<0.1	1.85	<3	236	<3	0.65	1.2	21	12	25	4.53	0.13	0.84	1351	10	0.03	21	0.12	<2	<2	12	42	<5	<3	98
TL3000 1+50S	<0.1	1.33	<3	215	<3	0.64	0.9	15	7	15	3.66	0.11	0.65	809	7	0.02	18	0.10	<2	<2	10	58	<5	<3	69
TL3000 2+00S	<0.1	1.10	<3	556	<3	0.65	1.9	24	8	41	4.93	0.14	0.62	2705	9	0.02	23	0.14	5	<2	9	44	<5	<3	102
TL3000 2+50S	<0.1	1.28	<3	228	<3	0.68	0.9	18	6	22	3.74	0.11	0.69	833	9	0.02	18	0.09	<2	<2	11	64	<5	<3	73
TL3000 3+00S	<0.1	1.27	<3	210	<3	0.74	1.6	19	7	20	3.95	0.11	0.65	923	9	0.02	16	0.11	<2	<2	12	66	<5	<3	72
TL3000 3+50S	<0.1	1.34	<3	238	<3	0.68	1.0	17	6	22	3.70	0.11	0.63	1030	10	0.02	19	0.10	<2	<2	11	75	<5	<3	81
TL3000 4+00S	<0.1	1.35	<3	220	<3	0.69	0.3	17	5	32	3.50	0.11	0.63	1092	7	0.02	20	0.15	<2	<2	11	91	<5	<3	84
TL3000 4+50S	1.5	2.43	<3	67	<3	0.07	0.8	5	19	19	2.64	0.05	0.13	509	9	0.02	24	0.08	<2	<2	10	19	<5	<3	51
TL3000 5+00S	0.5	4.75	<3	120	<3	0.14	1.6	62	31	29	4.61	0.12	0.24	14892	19	0.02	25	0.15	<2	<2	17	13	<5	<3	92
TL3000 5+50S	<0.1	2.12	<3	72	<3	0.13	0.7	13	27	14	4.47	0.07	0.34	393	13	0.02	28	0.03	<2	<2	15	25	<5	<3	61
TL3000 6+00S	<0.1	1.08	<3	32	<3	<0.01	0.3	2	21	6	0.81	<0.01	0.10	53	6	<0.01	23	0.03	<2	<2	7	4	<5	<3	25
TL3000 6+50S	<0.1	1.41	<3	74	<3	0.10	0.5	13	12	12	3.38	0.05	0.17	197	10	0.02	22	0.03	<2	<2	15	30	<5	<3	46
TL3000 7+00S	<0.1	0.64	<3	84	<3	0.11	<0.1	6	5	18	2.80	0.04	0.06	148	8	0.02	24	0.09	9	5	10	21	<5	<3	47
TL3000 7+50S	<0.1	2.17	<3	197	<3	0.40	1.2	20	16	35	4.47	0.12	0.71	1143	8	0.02	45	0.08	<2	<2	11	37	<5	<3	110
TL3000 8+00S	<0.1	1.57	<3	113	<3	0.10	1.0	6	12	18	3.97	0.06	0.29	373	9	0.02	22	0.10	<2	<2	11	22	<5	<3	53
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 900338 PA | OREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: AUG 29 1990 | DATE OUT: OCT 2 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 4 OF 5

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TL4000 9+50N	0.3	1.08	<3	338	<3	0.27	5.1	17	13	23	>10.00	0.21	0.29	492	19	0.03	7	0.15	33	15	15	21	<5	<3	68
TL4000 10+00N	0.4	2.33	<3	228	<3	0.43	0.5	12	17	19	2.80	0.08	0.42	519	16	0.01	6	0.13	<2	<2	11	48	<5	<3	62
TL4000 10+50N	0.6	1.20	<3	50	<3	0.06	1.2	12	11	7	3.43	0.06	0.07	234	15	0.03	6	0.04	22	7	18	6	<5	<3	59
TL4000 11+00N	0.1	3.18	<3	72	<3	0.14	1.9	11	21	14	4.32	0.08	0.30	449	15	0.02	3	0.12	<2	<2	15	24	<5	<3	89
TL4000 11+50N	<0.1	2.05	<3	75	<3	0.12	0.2	8	16	8	3.47	0.06	0.17	168	12	0.02	2	0.07	<2	<2	13	22	<5	<3	58
TL4000 12+00N	0.2	1.21	<3	116	<3	0.18	0.3	7	10	10	1.74	0.04	0.15	246	8	0.01	5	0.08	<2	<2	11	30	<5	<3	51
TL4000 12+50N	<0.1	2.45	<3	217	<3	0.51	0.9	20	13	27	4.48	0.13	0.67	1527	8	0.02	12	0.11	<2	<2	12	43	<5	<3	100
TL4000 14+00N	<0.1	3.52	<3	159	<3	0.26	0.8	13	20	11	4.52	0.11	0.36	594	14	0.02	5	0.02	<2	<2	15	55	<5	<3	65
TL4000 14+50N	0.1	3.75	<3	421	<3	0.70	2.0	24	18	32	4.25	0.16	0.99	3079	13	0.03	9	0.08	<2	<2	13	143	<5	<3	161
TL4000 15+00N	0.3	1.76	<3	111	<3	0.23	1.8	13	13	11	4.42	0.09	0.45	400	9	0.02	3	0.09	<2	<2	10	30	<5	<3	73
TL4000 15+50N	0.1	2.74	<3	359	<3	0.38	1.4	15	17	17	4.58	0.12	0.54	698	14	0.02	6	0.02	<2	<2	13	58	<5	<3	82
TL4000 16+00N	0.4	2.47	<3	117	<3	0.29	0.8	17	14	20	4.29	0.11	0.49	1484	10	0.02	3	0.08	<2	<2	12	28	<5	<3	85
TL4000 16+50N	0.7	3.83	<3	106	<3	0.14	0.4	11	17	23	3.26	0.10	0.30	605	15	0.03	3	0.07	<2	<2	15	13	<5	<3	84
TL4000 17+00N	0.3	2.03	<3	99	<3	0.21	0.7	16	14	27	4.52	0.10	0.65	919	8	0.02	10	0.06	<2	<2	11	21	<5	<3	85
TL4000 17+50N	0.2	4.51	<3	306	<3	0.25	0.6	16	24	19	3.86	0.11	0.46	1234	15	0.02	4	0.14	<2	<2	13	27	<5	<3	116
TL4000 18+00N	0.2	4.17	<3	179	<3	0.34	1.3	18	24	34	5.27	0.15	0.44	3433	22	0.03	10	0.20	<2	<2	14	28	<5	<3	105
TL4000 18+50N	<0.1	2.50	<3	291	<3	0.16	1.0	18	15	22	4.71	0.10	0.41	3136	13	0.02	6	0.11	<2	<2	12	27	<5	<3	81
TL4000 19+00N	<0.1	3.61	<3	62	<3	0.09	3.3	11	24	14	8.11	0.16	0.26	523	21	0.03	8	0.05	<2	<2	18	10	<5	<3	94
TL4000 19+50N	<0.1	2.65	<3	303	<3	0.19	0.5	11	18	12	4.69	0.10	0.27	348	11	0.02	3	0.04	<2	<2	14	27	<5	<3	64
TL4000 20+00N	0.2	2.12	<3	322	<3	0.39	1.2	15	10	22	4.38	0.13	0.64	888	10	0.02	5	0.08	<2	<2	9	27	<5	<3	99
TL4000 20+50N	0.3	2.42	<3	129	<3	0.12	<0.1	14	13	14	5.45	0.11	0.38	691	12	0.02	7	0.05	<2	<2	12	19	<5	<3	77
TL4000 21+00N	0.2	2.11	<3	96	<3	0.19	1.1	16	11	28	4.48	0.11	0.64	882	7	0.02	9	0.07	<2	<2	10	20	<5	<3	85
TL4000 21+50N	<0.1	2.02	<3	70	<3	0.27	0.8	12	13	19	3.32	0.08	0.41	460	9	0.02	8	0.11	<2	<2	11	42	<5	<3	64
TL4000 22+00N	<0.1	3.43	<3	287	<3	0.19	<0.1	17	15	28	4.26	0.13	0.71	984	11	0.03	7	0.07	<2	<2	13	35	<5	<3	111
TL4000A 0+00N	<0.1	3.20	<3	36	<3	0.06	1.5	8	15	19	4.98	0.11	0.10	275	12	0.03	5	0.07	<2	<2	17	7	<5	<3	59
TL4000A 0+50N	<0.1	2.78	<3	55	<3	0.09	0.9	12	18	18	6.30	0.13	0.37	587	13	0.03	10	0.04	<2	<2	14	13	<5	<3	76
TL4000A 1+00N	0.2	2.42	<3	84	<3	0.16	0.9	18	10	23	5.45	0.13	0.45	5967	14	0.02	6	0.19	<2	<2	10	12	<5	<3	91
TL4000A 1+50N	0.3	2.59	<3	159	<3	0.21	<0.1	16	13	26	4.95	0.12	0.43	2580	11	0.02	12	0.11	<2	<2	10	18	<5	<3	110
TL4000A 2+00N	0.4	1.20	<3	57	<3	0.05	<0.1	4	4	11	1.56	0.02	0.14	130	3	0.01	3	0.05	<2	<2	7	16	<5	<3	27
TL4000A 2+50N	<0.1	5.50	<3	41	<3	0.03	<0.1	6	17	8	4.51	0.13	0.03	431	19	0.07	7	0.03	<2	<2	21	<1	<5	<3	82
TL4000A 3+00N	0.6	2.35	<3	52	<3	0.09	<0.1	7	9	36	3.65	0.08	0.16	288	10	0.02	4	0.14	<2	<2	12	10	<5	<3	54
TL4000A 3+50N	0.1	2.66	<3	74	<3	0.09	1.1	18	14	20	6.71	0.16	0.45	1296	9	0.03	11	0.07	<2	<2	16	15	<5	<3	77
TL4000A 4+00N	0.3	2.29	<3	82	<3	0.08	0.1	12	12	21	5.72	0.11	0.33	435	9	0.02	6	0.08	<2	<2	13	16	<5	<3	60
TL4000A 4+50N	0.2	3.21	<3	94	<3	0.10	0.5	13	15	32	4.34	0.10	0.33	1428	12	0.02	8	0.07	<2	<2	14	14	<5	<3	66
TL4000A 5+00N	0.4	3.06	<3	100	<3	0.31	0.3	14	20	27	6.16	0.14	0.40	1247	15	0.03	14	0.09	<2	<2	15	19	<5	<3	81
TL4000A 5+50N	0.2	1.97	<3	91	<3	0.09	<0.1	17	9	21	4.13	0.09	0.38	1621	7	0.02	9	0.08	<2	<2	12	10	<5	<3	61
TL4000A 6+00N	<0.1	3.49	<3	48	<3	0.09	0.1	13	18	32	4.58	0.10	0.57	677	10	0.03	13	0.09	<2	<2	13	20	<5	<3	78
TL4000A 6+50N	0.4	1.89	<3	70	<3	0.09	<0.1	7	7	26	2.23	0.05	0.35	218	4	0.02	7	0.06	<2	<2	8	16	<5	<3	42
TL4000A 7+00N	0.3	5.20	<3	28	<3	0.03	<0.1	7	12	55	5.50	0.15	0.03	433	20	0.07	8	0.05	<2	<2	19	<1	<5	<3	87
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

1630 Pandora Street, Vancouver, B.C. V5L 1L6
Ph:(604)251-5656 Fax:(604)254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCl to HNO_3 to H_2O at 95 °C for 90 minutes and is diluted to 10 ml with water.
This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

REPORT #: 900338 PA | OREQUEST CONSULTANTS LTD. | PROJECT: TIDE | DATE IN: AUG 29 1990 | DATE OUT: OCT 2 1990 | ATTENTION: MR. JIM CHAPMAN | PAGE 5 OF 5

Sample Name	Ag	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Sn	Sr	U	W	Zn
	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TL4000A 7+50N	0.4	3.19	<3	70	<3	0.17	2.0	15	25	41	4.84	0.10	0.53	1161	15	0.03	17	0.12	<2	<2	14	19	<5	<3	93
TL4000A 8+00N	0.2	2.00	<3	89	<3	0.15	3.3	15	18	22	6.03	0.12	0.25	1145	18	0.02	9	0.04	<2	<2	14	11	<5	<3	53
TL4000A 8+50N	0.3	2.60	<3	42	<3	0.10	2.2	10	19	17	5.27	0.10	0.14	865	15	0.03	5	0.06	<2	<2	17	15	<5	<3	65
TL4000A 9+00N	0.2	1.53	<3	46	<3	0.26	0.9	4	10	6	1.78	0.04	0.15	126	6	0.01	1	0.02	<2	<2	7	68	<5	<3	26
TL4000A 9+50N	0.1	1.99	<3	70	<3	0.32	2.5	17	23	18	4.47	0.11	0.60	1015	10	0.03	20	0.09	<2	<2	11	28	<5	<3	86
TL4000A 10+00N	0.4	2.37	<3	145	<3	0.19	2.2	16	56	24	4.34	0.10	0.44	2291	13	0.02	4	0.13	<2	<2	11	12	<5	<3	72
TL4500A 0+00S	<0.1	2.91	<3	105	<3	0.24	2.9	18	22	28	5.36	0.13	0.62	998	13	0.03	19	0.09	<2	<2	13	22	<5	<3	102
TL4500A 0+50S	<0.1	2.63	<3	89	<3	0.28	2.4	19	19	34	4.72	0.12	0.85	1220	10	0.03	22	0.09	<2	<2	11	21	<5	<3	108
TL4500A 1+00S	<0.1	3.07	<3	133	<3	0.20	3.1	18	28	47	4.55	0.12	0.84	919	9	0.03	27	0.09	<2	<2	12	18	<5	<3	108
TL4500A 1+50S	<0.1	1.17	<3	45	<3	0.12	1.6	9	14	16	2.80	0.05	0.30	363	9	0.03	9	0.05	<2	<2	12	8	<5	<3	57
TL4500A 2+00S	0.2	1.59	<3	245	<3	0.22	2.5	22	12	13	3.98	0.09	0.44	9359	9	0.02	6	0.11	<2	<2	9	17	<5	<3	71
TL4500A 2+50S	0.3	3.07	<3	125	<3	0.27	2.8	22	32	29	5.36	0.13	0.82	2228	14	0.03	16	0.10	<2	<2	17	19	<5	<3	117
TL4500A 3+00S	<0.1	3.41	<3	122	<3	0.14	2.8	23	19	45	5.37	0.11	0.71	3368	13	0.02	11	0.08	<2	<2	18	13	<5	<3	102
TL4500A 3+50S	<0.1	0.83	<3	53	<3	0.08	2.2	11	19	12	2.00	0.03	0.10	231	5	0.02	13	0.03	<2	<2	8	12	<5	<3	30
TL4500A 4+00S	<0.1	2.05	<3	85	<3	0.14	2.8	11	14	13	3.29	0.06	0.28	627	8	0.02	8	0.07	<2	<2	13	23	<5	<3	45
TL4500A 4+50S	0.8	3.67	<3	137	<3	0.21	2.8	9	20	48	4.38	0.12	0.31	1577	12	0.03	12	0.10	<2	<2	16	13	<5	<3	93
TL4500A 5+00S	0.4	1.57	<3	239	<3	0.22	2.1	27	10	14	4.79	0.11	0.41	13822	11	0.02	3	0.21	<2	<2	10	19	<5	<3	76
TL4500A 5+50S	<0.1	2.62	<3	64	<3	0.14	2.9	13	21	12	4.87	0.09	0.24	378	13	0.02	9	0.04	<2	<2	18	23	<5	<3	52
TL4500A 6+00S	0.2	2.17	<3	118	<3	0.15	2.3	17	17	20	5.47	0.11	0.28	6312	12	0.02	6	0.23	<2	<2	14	21	<5	<3	68
TL4500A 6+50S	<0.1	0.93	<3	73	<3	0.08	2.0	2	5	4	1.29	0.03	0.06	117	2	<0.01	2	0.05	<2	<2	6	16	<5	<3	16
TL4500A 7+00S	0.2	1.67	<3	142	<3	0.17	2.3	14	10	11	3.47	0.07	0.24	2833	6	0.02	8	0.06	<2	<2	11	25	<5	<3	56
TL4500A 7+50S	0.1	3.32	<3	79	<3	0.18	2.6	14	20	16	5.56	0.12	0.38	955	12	0.02	9	0.10	<2	<2	17	24	<5	<3	70
Minimum Detection	0.1	0.01	3	1	3	0.01	0.1	1	1	1	0.01	0.01	0.01	1	1	0.01	1	0.01	2	2	2	1	5	3	1
Maximum Detection	50.0	10.00	2000	1000	1000	10.00	1000.0	20000	1000	20000	10.00	10.00	10.00	20000	1000	10.00	20000	10.00	20000	2000	1000	10000	100	1000	20000

< - Less Than Minimum > - Greater Than Maximum is - Insufficient Sample ns - No Sample ANOMALOUS RESULTS - Further Analyses By Alternate Methods Suggested.

APPENDIX III

ANALYTICAL PROCEDURES

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

October 19, 1990

TO: Mr. Bernie Dewonck
OREQUEST CONSULTANTS LTD.
306 - 595 Howe Street
Vancouver, BC V6C 2T5

FROM: VANGEOCHEM LAB LIMITED
1630 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure used to determine gold by fire assay method and detect by atomic absorption spectrophotometry in geological samples.

1. Method of Sample Preparation

(a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.

(b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.

(c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. Method of Extraction

(a) 20.0 to 30.0 grams of the pulp samples were used. Samples were weighed out using a top-loading balance and deposited into individual fusion pots.

(b) A flux of litharge, soda ash, silica, borax, and, either flour or potassium nitrite is added. The samples are then fused at 1900 degrees Farenhiet to form a lead "button".

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
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RENO, NEVADA, U.S.A

(c) The gold is extracted by cupellation and parted with diluted nitric acid.

(d) The gold beads are retained for subsequent measurement.

3. Method of Detection

(a) The gold beads are dissolved by boiling with concentrated aqua regia solution in hot water bath.

(b) The detection of gold was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values, in parts per billion, were calculated by comparing them with a set of known gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Raymond Chan or Mr. Conway Chun and his laboratory staff.

Raymond Chan
VANGEOCHEM LAB LIMITED

VGC VANGEOCHEM LAB LIMITED

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BATHURST, N.B.
RENO, NEVADA, U.S.A.

3. Method of Analyses

The ICP analyses elements were determined by using a Jarrell-Ash ICAP model 9000 directly reading the spectrophotometric emissions. All major matrix and trace elements are interelement corrected. All data are subsequently stored onto disketts.

4 Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Raymond Chan
VANGEOCHEM LAB LIMITED

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
BATHURST, N.B.
RENO, NEVADA, U.S.A.

November 19, 1990

TO: Mr. Bernie Dewonck
OREQUEST CONSULTANTS LTD.
306 - 595 Howe Street
Vancouver, BC V6C 2T5

FROM: VANGEOCHEM LAB LIMITED
1630 Pandora Street
Vancouver, BC V5L 1L6

SUBJECT: Anlytical Procedure for Heavy Mineral Separation of Alluvial samples or coarsely ground rocks.

1. Method of Sample Preparation

(a) Alluvial samples are received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Coarsely ground rocks are received in poly ore bags.

(b) Samples are wet screened by hand using an 18" diameter, 18-mesh stainless steel sieve. The plus 18-mesh fractions are rejected. The minus 18-mesh fractions are washed free of organic matter and slime particles. These fractions are then dried.

(c) Dried samples are transferred to new bags for subsequent analyses.

2. Method of Heavy Mineral Separation

(a) Samples of up to 400 grams are placed into 1000 ml beakers. Tetrabromoethane with a S.G. of 2.95 is added to fill the beakers. The mixture is stirred to free air pockets and to initiate separation. The mixture is left for 15 - 30 minutes for the plus and minus S.G. 2.95 material to separate.

(b) The bulk of the lighter than S.G. 2.95 material is removed which floats on top of the tetrabromoethane solution.

(c) The heavier than S.G.2.95 material and tetrabromoethane is stirred into a large size buret and left for 15 - 30 minutes.

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BATHURST, N.B.
RENO, NEVADA, U.S.A.

(d) The heavy minerals are then removed from the bottom of the buret and filtered. This is then washed several times with acetone and dried on the hot plate.

(e) The dried heavy minerals are then put into envelopes for subsequent analyses.

3. Analysts

The procedures are supervised by Mr. Conway Chun or Mr. Raymond Chan and his laboratory staff.

Raymond Chan
VANGEOCHEM LAB LIMITED

Brightwell Glacier

Icefield

Phillips Glacier

Icefield

Icefield

Icefield

Airstrip

Murgatroyd

BOWSER RIVER

ARC 30

ARC 31

EAST GOLD FAULT (position plotted as in Arnold & Collins, 1990)

1d

1e

2

SLT gos

SLT, gos 10-15% py

SH

SLT,1% py
SS, 3-5% py
SLT, 1% py
SLT, 1-2% py
SLT, 10% py
SLT, 2-3% py

strong ser, silic, gos

SH,silic,2-3% py
ser,qtz,py (15%)
SH,shear,5-7% py
SH,ser/shear,7-10% py

qtz-py vein stockwork 1-10% py

SH

SH,frac

AFL QV

MV

MT (ser,carb)

MIV

MIV 25% py frag to 50cm chl, ep

MIV frag to 10cm

MIV chl+ep

FP

MIT frag, chl, ep

QV in MT (chl) (chl+ep)

MIV

QV in SLT

SS

IT

SS

FCT (ser)

MIV

MIV

FT (ser)

FT (ser)

MS hem

MIT ep

FP hem, ep

MIT (ep)

MIT

MIT (ep)

QV

FP

GEOLOGICAL BRANCH
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21,712

LEGEND

LOWER JURASSIC

UNUK RIVER FORMATION

1 1d Argillite, siltstone
1e Andesite tuffs and flows

BETTY CREEK FORMATION

2 Andesitic to dacitic tuffs interbedded with maroon, red, green clastic sedimentary rocks

SYMBOLS

- Geological boundary (approximate)
- Fault (approximate)
- Foliation, shear (vertical, inclined)
- Bedding and dyke orientation; vertical, inclined
- Rock sample location

ABBREVIATIONS

carb	carbonate	chl	chlorite
ep	epidote	gos	gossanous
ser	sericite	silic	silicified

AFL	Andesitic porphyritic feldspar lapilli
FCT	Felsic, crystal and lithic tuff
FP	Feldspar porphyry
IT	Intermediate tuff
MIT	Mafic/intermediate tuff
MIV	Mafic/intermediate volcanic
MV	Mafic volcanic
MS	Maroon coloured f.gr. sediment
MT	Mafic tuff
QV	Quartz vein
SS	Sericite schist
SH	Shale
SLT	Siltstone

0 200 400 600 800 1000
metres

OREQUEST

SANTA MARINA GOLD LTD.

Figure 5
TIDE PROJECT
PROPERTY GEOLOGY
British Columbia
NTS 104B/8E

February 1991 XY3

Brightwell Glacier

Icefield

Moraine

Phillips Glacier

Icefield

Airstrip

RIVER

BOWSER

ARC 30

ARC 31

L 4000A
10+00N

30,0.4,24,- ,72
- ,0.1,18,- ,86
- ,0.2,6,- ,26
- ,0.3,17,- ,65
- ,0.2,22,- ,53
15,0.4,41,- ,83
15,0.3,55,- ,87
- ,0.4,26,- ,42
5,- ,32,- ,78
- ,0.2,21,- ,61
- ,0.4,27,- ,81
5,0.2,32,- ,66
5,0.3,21,- ,60
10,0.1,20,- ,77
- ,0.6,36,- ,54
- ,- ,8,- ,82
- ,0.4,11,- ,27
- ,0.3,26,- ,110
20,- ,18,- ,76
5,- ,19,- ,59

L 4000A
0+00N

L 4500
0+00S

20,- ,28,- ,102
10,- ,34,- ,108
5,- ,47,- ,108
5,- ,16,- , 57
5,0.2,13,- ,71
5,0.3,29,- ,117
- ,- ,45,- ,102
15,- ,12,- ,30
10,- ,13,- ,45
- ,0.2,21,- ,68
- ,0.2,23,- ,91
▲39280 20,0.2,60,90,95

L 4500
7+50S

15,0.8,48,- ,93
5,0.4,14,- ,76
5,- ,12,- ,52
15,- ,4,- ,16
▲39279 - ,- ,94,5,24
10,0.1,16,- ,70
- ,0.2,20,- ,68
10,0.2,11,- ,56

▲39281 15,0.2,56,11,58

▲39273 - ,0.2,13,- ,61
▲39272 25,0.5,30,5,53
▲39271 15,0.5,21,24,44
▲39274 10,0.5,95,23,123
▲39282 15,0.7,114,- ,128
▲39283 15,0.2,57,- ,46
▲39290 15,0.4,83,- ,94

THS-1 15,0.3,40,- ,92
TS-2 5,0.4,49,- ,118

39260 1185,6.3,388,- ,193
39261 460,20.3,145,73,81
39262 410,7.7,77,34,52
39263 740,4.7,13,51,21
39264 810,43.0,99,56,167
39265 670,12.6,36,48,63

39270 15,12.8,46,51,23
39269 10,8.7,27,108,103
39268 10,4.7,43,14,114
39267 10,44.0,27,95,51

39266 - ,0.8,44, - ,95
THS-3 5,0.2,70,18,105
TS-4 10,0.2,35,- ,91

L 2500
0+00S

- ,- ,27,- ,80
- ,- ,22,- ,79
- ,- ,16,- ,79
10,- ,12,- ,83
- ,0.2,10,- ,67
10,- ,13,- ,78
15,- ,15,- ,85
15,0.7,39,- ,63
15,- ,30,- ,53
20,0.2,21,- ,46
5,- ,25,- ,58
- ,0.4,8,- ,34
- ,0.4,5,- ,36
10,0.2,4,- ,21
5,- ,14,- ,52
10,- ,35,- ,84
- ,- ,10,- ,28
20,0.3,13,- ,48
- ,0.9,31,- ,118
5,0.1,5,- ,27
5,- ,16,- ,38
10,- ,52,- ,136
20,- ,56,- ,139
15,0.2,20,- ,57
10,- ,17,- ,50
5,- ,35,- ,95
10,0.4,26,- ,95
- ,- ,87,- ,70
15,0.7,7,- ,21
5,- ,18,- ,77
- ,- ,13,- ,73
5,- ,13,- ,54
15,0.2,11,- ,37
25,0.7,23,- ,72
5,- ,8,16,28
15,- ,10,- ,50
- ,0.3,6,- ,38
- ,0.6,5,- ,27
10,0.2,9,- ,63
- ,- ,28,- ,94
- ,- ,11,- ,31
- ,- ,31,- ,112
- ,- ,20,- ,51
20,- ,27,- ,64
5,- ,31,11,40
10,- ,48,- ,138
15,- ,55,- ,142
10,- ,36,- ,97
15,0.5,23,- ,57
5,0.1,21,- ,60
15,0.2,7,21
10,0.2,41,- ,103
- ,0.5,8,- ,24
5,- ,10,- ,30
10,- ,13,- ,35
10,- ,10,- ,42
5,- ,9,- ,25
- ,- ,13,- ,66
10,- ,21,- ,73
10,- ,14,- ,70
5,- ,18,- ,70

L 2500
30+50S

L 3000
0+00S

▲39254 15,0.5,33,- ,114
5,- ,36,- ,105
- ,- ,30,- ,101
10,- ,25,- ,98
10,- ,15,- ,69
- ,- ,41,5,103
20,- ,22,- ,73
5,- ,20,- ,72
15,- ,12,- ,81
- ,- ,12,- ,84
10,1.5,19,- ,51
20,0.5,29,- ,92
5,- ,14,- ,61
- ,- ,6,- ,25
5,- ,12,- ,46
- ,- ,18,9,47
10,- ,35,- ,110
20,- ,18,- ,53
5,- ,11,- ,85
- ,- ,68,- ,87
10,- ,14,- ,50
5,- ,4,- ,25
- ,- ,9,- ,34
15,- ,6,5,63
15,- ,18,- ,58
- ,0.6,22,- ,56
- ,- ,8,- ,34
10,0.3,32,- ,101
20,- ,16,79,65
15,0.5,11,- ,99
5,1.0,28,- ,136
- ,- ,13,- ,57
10,- ,6,5,28
- ,- ,13,- ,80
- ,0.3,10,- ,98
- ,- ,24,9,49
20,0.4,26,- ,70
- ,0.3,21,- ,59
25,0.4,30,- ,81

L 3000
20+00S

▲39253 15,1.0,38,61,96
▲39255 - ,- ,15,- ,42

39251 10,0.2,36,- ,99
39252 - ,0.1,41,- ,61
39253 15,1.0,38,61,96
39288 - ,0.3,19,- ,43
39292 20,0.2,44,- ,33
39289 - ,0.3,10,- ,34

L 4000
22+00N

- ,- ,28,- ,111
5,- ,19,- ,64
20,0.2,28,- ,85
5,0.3,14,- ,77
- ,0.2,22,- ,99
- ,- ,12,- ,64
10,- ,14,- ,94
- ,- ,22,- ,81
- ,0.2,34,- ,105
- ,0.2,19,- ,116
- ,0.3,27,- ,85
5,0.7,23,- ,84
- ,0.4,20,- ,85
10,0.1,17,- ,82
- ,0.3,11,- ,73
- ,0.1,32,- ,161
5,- ,11,- ,65
15,- ,27,- ,100
15,0.2,10,- ,51
5,- ,9,- ,58
20,0.1,14,- ,89
15,0.6,7,22,59
10,0.4,19,- ,62
39285 10,- ,9,- ,86
39286 - ,0.2,9,9,49
39284 5,0.3,12,52,88
39287 - ,0.2,10,29,20
15,0.3,23,33,68
- ,0.2,8,14,53
20,- ,11,- ,59
25,- ,6,- ,73
30,0.6,22,- ,84
5,0.1,5,28,29
5,0.2,12,- ,83
25,- ,7,- ,91
- ,0.5,14,- ,70
10,0.2,26,- ,99
5,0.4,15,- ,89
- ,0.2,7,- ,61
- ,0.3,16,- ,85
15,0.4,12,- ,54
30,- ,14,- ,86
10,- ,6,10,40
20,0.2,15,- ,92
10,- ,12,- ,64
- ,- ,43,- ,101

L 4000
0+00N

39256 - ,- ,24,- ,61
39257 10,- ,10,- ,44
39258 10,- ,8,- ,77
39259 - ,- ,8,- ,30

THS-5 20,0.1,23,- ,80
TH-6 15,0.2,18,- ,83

THS-7 15,0.2,23,- ,85
TS-8 - ,0.2,20,- ,85

THS-9 10,0.3,109,- ,106
TS-10 10,0.4,86,- ,125

THS-11 - ,0.3,37,- ,94
TS-12 15,0.4,45,- ,103

39275 5,0.1,12,15,20

THS-13 10,0.2,31,- ,84
TS-14 20,0.3,36,- ,100

39276 10,0.4,25,- ,116
39277 15,0.1,17,- ,170
39278 10,0.2,17,- ,68

TSILT L2500 5,0.3,17,- ,92

39291 - ,0.3,28,- ,79

THS-15 - ,- ,25,- ,72
TS-16 - ,0.2,24,- ,76

LEGEND

- ▲39292 Rock sample location and number
- ■TS-8 Silt sample location and number
- ■THS-9 Heavy sediment sample location and number
- • Soil sample location
- ○ No sample

ASSAY RESULTS

Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
20,	0.5,	109,	28,	138
-,	-,		-,	
Au (not detected)	Ag (<0.1 ppb)		Pb (<2 ppm)	

0 200 400 600 800 1000
metres

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Figure 6
TIDE PROJECT

SAMPLE LOCATIONS AND RESULTS

British Columbia
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February 1991 XY3