

**ASSESSMENT REPORT**

**PROSPECTING & ROCK GEOCHEMISTRY  
ON THE CAPTAIN CLAIMS**

**WINDY LAKE AREA  
NORTH-CENTRAL BRITISH COLUMBIA**



**CARIBOO MINING DIVISION**

**LATITUDE 54° 57' N LONGITUDE 123° 50' W  
NTS MAP SHEET 093J/13W  
MINERAL CLAIM SHEETS 093J/091 & 092**

**MTO CLAIMS:**  
(on which work was done)

Converted legacy claims: (516406,516408,516420,516455)

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**29,229**

**OWNER:**

**Orestone Mining Corp.**

**OPERATOR:**

**Portal Resources Ltd.**

**REPORT  
AUTHOR:**

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12470 99A Avenue, Surrey, B.C., Canada, V3V 2R5**

**REPORT  
DATE:**

**July 31, 2007**

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## 1.0

## SUMMARY

The Captain property is located in north-central British Columbia about 65 km northeast of the town of Mackenzie. The property is road-accessible from Fort St. James or Mackenzie, with about 1¼ hours driving time from either town to the property. The property consists of 15 mineral claims totaling 5,497.3 hectares. All claims are now 100%-owned by Orestone Mining Corp., a private mining exploration company based in Surrey, B.C.

Copper mineralization was first located in the claims area in the mid 1980's by well-known prospector Richard Haslinger Sr. of Fort St. James. Placer Dome and Noranda worked on separate areas of the property in the late 1980's and early 1990's, spending approximately \$1,000,000 on targeted areas. Their work included blanket till geochemical, induced polarization, VLF-EM and magnetic surveys followed by limited diamond and percussion drilling programs. The drilling intersected widespread, low-grade copper-gold mineralization which may be peripheral to a more strongly mineralized center. Large IP chargeability anomalies, some only partially delineated, have yet to be drill-tested. These IP targets are generally associated with widespread copper and gold soil anomalies and local areas of higher magnetic relief. Grab samples of massive sulphide float located south of Windy Lake reportedly grade up to 1.8% Cu and 32.17 g/t Au. This style of mineralization provides a secondary target on the property

Copper-gold mineralization on the Captain property is hosted in Triassic-Jurassic Takla Group volcanics of Quesnellia Terrane, the host of numerous alkalic copper-gold porphyries in B.C. such as Copper Mountain, Mount Polley and Mount Milligan. The latter lies about 30 km northwest of the Captain property. Outcrops of one or more dioritic intrusions occur along the Salmon River and silicified dioritic to granodioritic intrusive rocks have been identified in the central part of the property. A veneer of till transported from the south in a direction of 010° covers most of the property. Glacio-fluvial outwash is widespread along the floodplain of the Salmon River and in other areas throughout the property.

B. Bowen and G. Richards recognized the large untested potential described above and acquired the ground soon after the claims lapsed in July 2003. In 2004-05, they carried out limited MMI geochemical sampling programs in the southern part of the property, targeting possible source areas for the massive sulphide float and also testing a heavily overburden-covered area up-ice from the original copper showings exposed along the Salmon River. It was hoped that the MMI method of sampling might be more specific than conventional soil surveys conducted by earlier workers. Results were inconclusive.

The 2006 work program, costing \$7,456.54, consisted of two days of prospecting and rock geochemical sampling carried out in two separate areas on the property. Work was funded by Portal Resources Ltd. of Vancouver, B.C. Prospecting traverses totaled 5.5 km in length and 8 rock samples of mineralized float and outcrop were collected for gold and multi-element ICP analyses. In the southern part of the claims, a select grab sample of angular, chlorite-altered, strongly pyritic diorite float exhibiting malachite staining

returned significant values of 6,560 ppm Cu and 0.333 ppm Au. In the northern part of the claims, a new copper showing was discovered in an area of anomalous IP chargeability response. Minor chalcopyrite occurs on "dry" fractures in outcrops of silicified, dioritic to granodioritic intrusive rock which also contains up to 10% disseminated pyrrhotite and lesser pyrite.

## 2.0 CONCLUSIONS

On the Captain property, there remain large, only partially delineated IP chargeability anomalies coincident with copper and gold soil anomalies and, at one locality, known copper mineralization in outcrop. These areas, as yet drill-tested, represent a prime target for the discovery of large, porphyry-style, copper-gold deposits similar to others discovered within Quesnellia Terrane. The massive sulphide float south of Windy Lake, the bedrock source for which has not been located, provides another target on the property worthy of further work.

## 3.0 RECOMMENDATIONS

It is proposed that additional IP geophysical surveys be carried out on portions of the Captain property in order to better outline porphyry-style targets which may have the potential to host a viable copper-gold deposit. Proposed survey areas are adjacent to known IP chargeability anomalies partially delineated by Placer and Noranda to the east and northeast of Windy Lake.

In the southern part of the property, roughly paralleling the Salmon River, there may be a NW-SE trending mineralized corridor connecting known copper-gold showings, including the massive sulphide float mentioned above. Only a small portion of this target area has been previously surveyed by IP methods. Additional IP geophysical survey work should be carried out in this area.



*B. K. Bowen*

## 4.0

## INTRODUCTION

### 4.1 Location and Access

The Captain property is located in north-central British Columbia about 65 km northeast of the town of Fort St. James (Figure 1). Specifically, the property is located on map sheet 93J/13W at coordinates 54° 57' N and 123° 50' W and is in the Cariboo Mining Division.

Access to the property is via 55 km along Highway 97 North from Fort St. James and then via the Germansen-Cripple Forest Service road. The latter leads northeasterly over a distance of about 25 km to the property. Driving time from Fort St. James is about 1¼ hours. Spur roads lead into the property, portions of which have been clear-cut logged.

### 4.2 Claims

At the time current work was filed on the Captain claims, the property consisted of 7 converted legacy claims and 8 contiguous MTO mineral claims which collectively covered an area of 5,497.3 hectares (Figure 2 and Table 1). The original owners of these claims were Gordon Richards of Delta, B.C. and Barney Bowen of Surrey, B.C. In early July, 2007, the claims were vended into Orestone Mining Corp., a private mining exploration company based in Surrey, B.C. Orestone subsequently staked a much larger land position in the area to cover areas prospective for porphyry-style copper-gold mineralization.

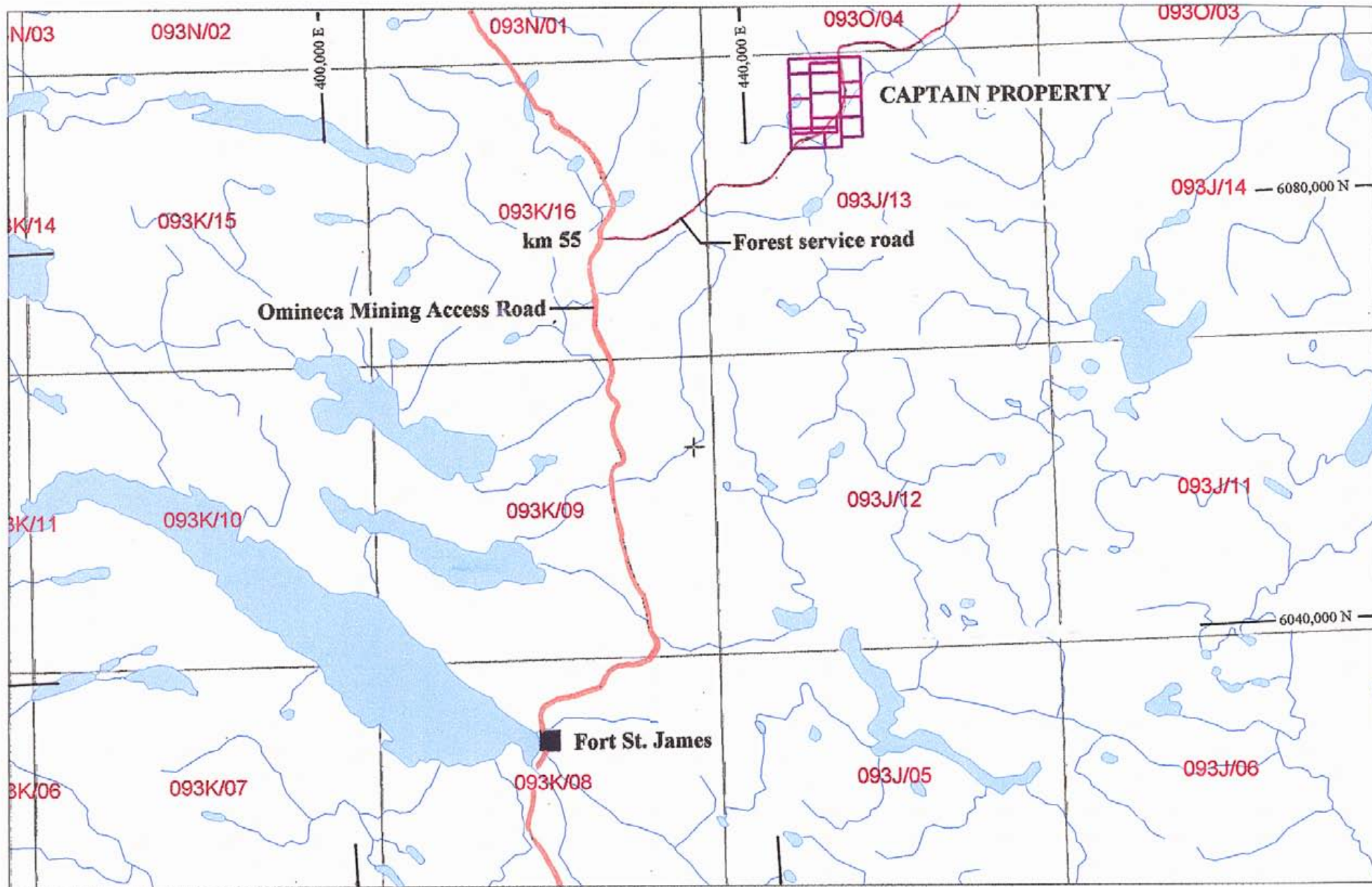
### 4.3 Topography and Vegetation

Topography consist of rolling low hills with elevations ranging from about 900 to 1100 m. The property lies in the headwaters area of the Salmon River which drains out from Windy Lake in the western part of the property.

Hills are heavily forested with spruce, fir and pine with a few logging clear-cuts on some parts of the property. Additional logging will probably take place in the future. Tag alder occurs in some areas of up to several hectares.

### 4.4 History and Geology

Copper mineralization was first located in the claims area in the mid 1980's by well-known prospector Richard Haslinger Sr. of Fort St. James. The initial discovery was in float and outcrop along or immediately north of the Salmon River. Placer Dome and Noranda worked on separate areas of the property in the late 1980's and early 1990's, spending approximately \$1,000,000 on targeted areas. Their work included blanket till geochemical, induced polarization, VLF-EM and magnetic surveys followed by limited diamond and percussion drilling programs. The drilling intersected widespread copper-gold mineralization, including 9.8 m grading 0.26% Cu and 0.40 g/t Au in DDH 89-9.



SCALE 1 : 500,000

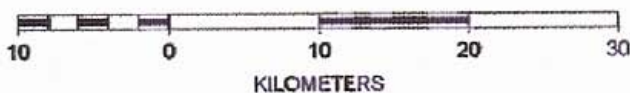
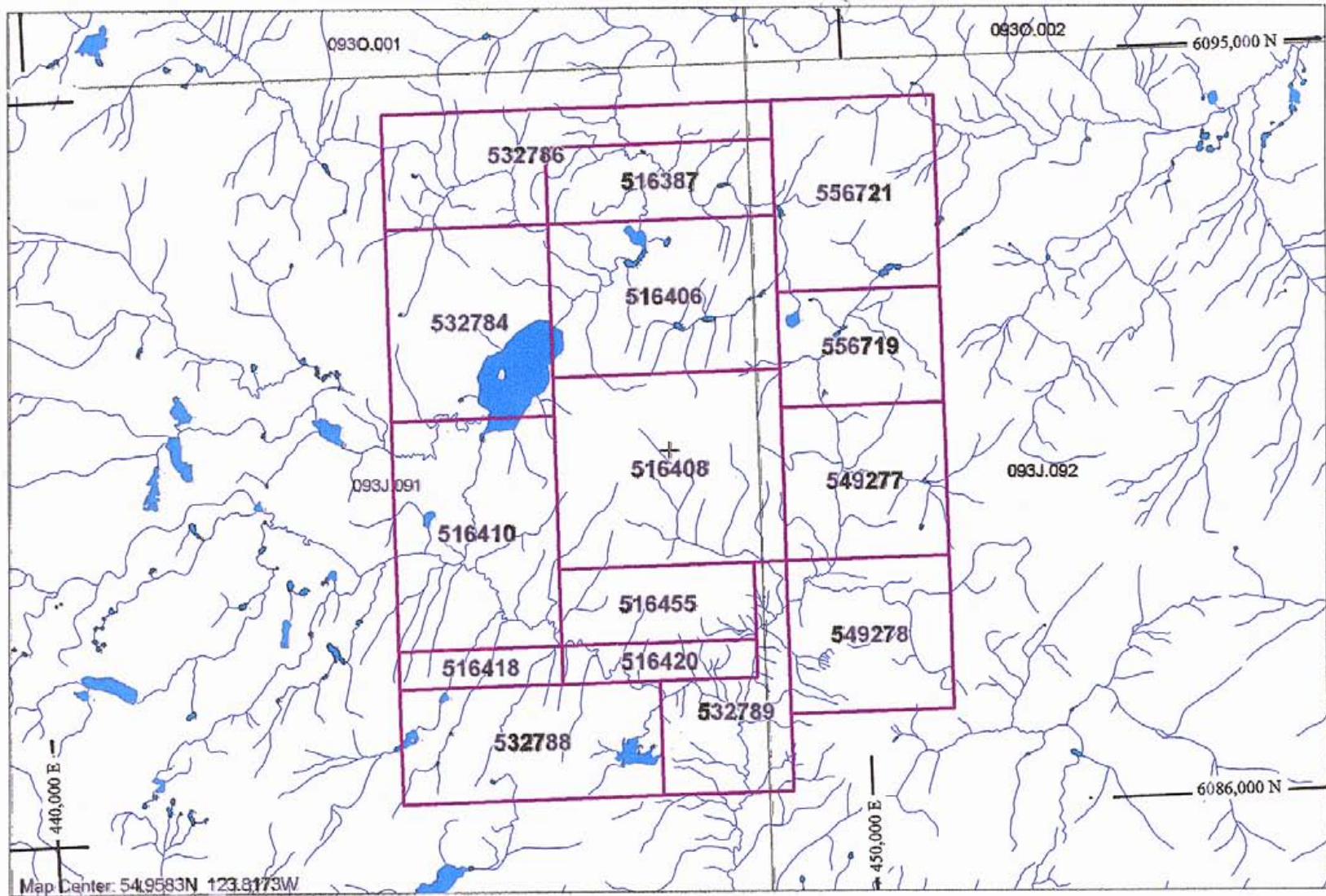


Figure 1 ORESTONE MINING CORP.

CAPTAIN PROPERTY  
LOCATION MAP

Cariboo Mining Division  
93J/13





SCALE 1 : 75,000



Figure 2

ORESTONE MINING CORP.

CAPTAIN PROPERTY  
CLAIM MAP

Cariboo Mining Division  
93J/13







Mineralized holes are in the Triassic-Jurassic Takla Group volcanics of Quesnellia Terrane, the host of numerous alkalic copper-gold porphyries in B.C. such as Copper Mountain, Mount Polley and Mount Milligan. The latter lies about 30 km northwest of the Captain property. Outcrops of one or more dioritic intrusions occur along the Salmon River and silicified dioritic to granodioritic intrusive rocks have been identified in the central part of the property. A veneer of till transported from the south in a direction of 010° covers most of the property. Glacio-fluvial outwash is widespread along the floodplain of the Salmon River and in other areas throughout the property.

Bowen and Richards, working in the area over the last 15 years, recognized the large untested potential described above and acquired the ground soon after the claims lapsed in July 2003.

Large areas of anomalous IP chargeability remain to be tested. Of particular interest is a large hole in information northeast of Windy Lake that is fringed by geochemically anomalous gold and copper in tills on three sides and by an IP chargeability anomaly on the east and south sides.

Assessment report #21430A refers to massive sulphide float south of Windy Lake, as indicated on Figure 3, grab samples of which reportedly grade up to 1.8% Cu and 32.17 g/t Au. This style of mineralization provides a secondary target on the property. The boulders consist of 90% or more pyrite and pyrrhotite with visible chalcopyrite, and are noticeably magnetic. A linear array of magnetic high anomalies coincident with strong gold and copper till anomalies extends from the massive sulphide showings area northwards towards Windy Lake. These anomalies were used to guide drilling programs carried out by Placer in 1990 and Columbia Gold Mines in 1996 to explore for the source of the massive sulphide boulders. Drilling did not encounter massive sulphide mineralization. All holes were drilled as easterly-directed angle holes. The regional fabric, identified on GSC maps, trends northerly with a steep (70° +/-) dip. Future holes targeting the source of massive sulphide boulders in this area might be better angled toward the west in order to cut the foliation at a higher angle.

In 2004-05, Bowen and Richards carried out limited MMI geochemical sampling programs in the southern part of the Captain property, targeting possible source areas for the massive sulphide float and also testing a heavily overburden-covered area up-ice from the original copper showings exposed along the Salmon River. It was hoped that the MMI method of sampling might be more specific than conventional soil surveys conducted by earlier workers. Results were inconclusive.

#### **4.5 Summary of Work Done**

In early July 2006, the writer compiled and prepared a presentation map of IP chargeability anomalies previously completed by Placer and Noranda in the targets areas described above. The compilation showed large areas of IP chargeability response which to date have not been drill-tested. This information was presented to Gary Nordin, VP Exploration for Portal Resources Ltd. of Vancouver, B.C. who subsequently expressed

his desire to travel to the property to carry out prospecting and rock geochemical sampling work. On September 11 and 12, 2006, Mr. Nordin and the writer completed two prospecting traverses totaling 5.5 km on portions of the Captain property. Cost of the work totaled \$7,456.54. Results are discussed in Section 5.0.

## **5.0 PROSPECTING & ROCK GEOCHEMICAL SAMPLING**

### **5.1 Introduction**

On September 11 and 12, 2006, Mr. Nordin and the writer completed two prospecting traverses in the southern and north-central parts of the property. A 1.3 km-long traverse was completed in the vicinity of the Salmon River, on converted legacy claims with tenure numbers 516420 and 516455 (see Figure 3). The objective here was to examine reported mineralized outcrops along the Salmon River and to traverse the general area in which previous diamond drilling, hand trenching and prospecting had indicated the presence of encouraging copper-gold mineralization.

On the Captain legacy claims with tenure numbers 516406 and 516408, a 4.2 km-long prospecting traverse was completed in two areas of anomalous IP chargeability response partially delineated in earlier survey work by Placer and Noranda.

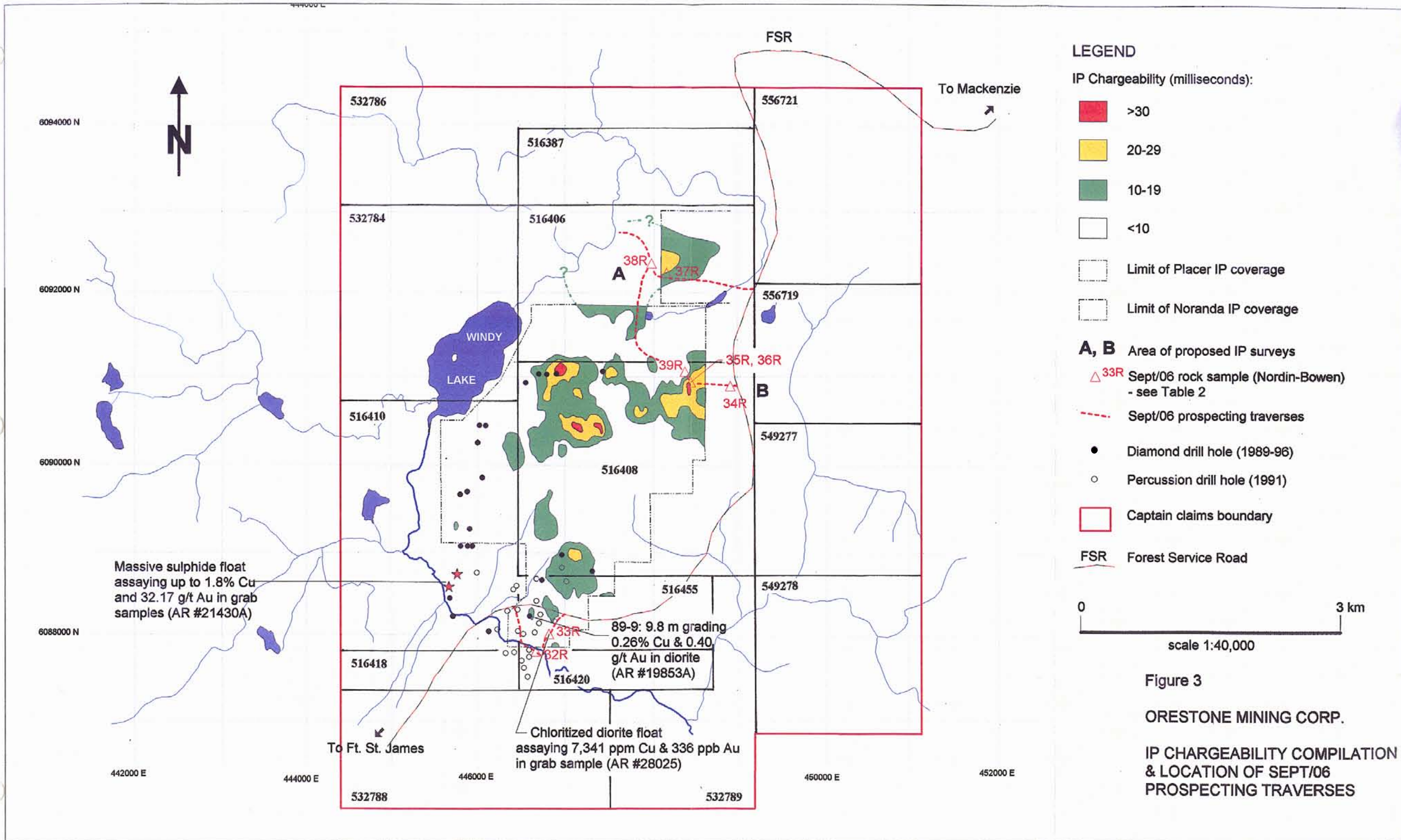
Traverse and rock sample locations are shown on Figure 3. Table 2 gives rock sample descriptions and copper-gold analytical results for the 8 float or outcrop samples collected by Nordin and Bowen. All samples were placed in 10 by 13 inch, 6 ml plastic bags, securely tied and labeled and then later hand delivered to ALS Chemex Labs in North Vancouver for FA-AAS gold and 35 element ICP analyses. The ALS Chemex analytical certificate and chemical procedures are compiled in Appendix 1.

### **5.2 Results**

#### **5.2.1 *Southern Prospecting Traverse***

The main observations of the September 2006 prospecting work in the area near the Salmon River are summarized as follows:

- (a) The area is mainly drift-covered except for a number of outcrops exposed along the north and south banks of the Salmon River.
- (b) Sample 06B-32R is a random chip sample of foliated diorite with up to 10% pyrite exposed on the south bank of the river. It returned values of 267 ppm Cu and 0.013 ppm gold, both of which may be considered weakly anomalous. For that portion of the river traversed, no outcrops were observed to contain visible copper mineralization.
- (c) Sample 06B-33R is a select grab of angular, chlorite-altered diorite float which is strongly pyritic and contains malachite staining. It returned 6,560 ppm Cu and 0.333 ppm Au, values similar to nearby mineralized diorite float sampled in September 2005. The latter yielded values of 7,341 ppm Cu and 336 ppb Au.



Massive sulphide float assaying up to 1.8% Cu and 32.17 g/t Au in grab samples (AR #21430A)

89-9: 9.8 m grading 0.26% Cu & 0.40 g/t Au in diorite (AR #19853A)

Chloritized diorite float assaying 7,341 ppm Cu & 336 ppb Au in grab sample (AR #28025)

To Ft. St. James

To Mackenzie

FSR



6094000 N

6092000 N

6090000 N

6088000 N

442000 E

444000 E

446000 E

450000 E

452000 E

532786

556721

516387

532784

516406

556719

516410

549277

516408

516455

549278

516418

516420

532788

532789

WINDY LAKE

A

B

38R

37R

39R

35R, 36R

34R

33R

32R

**Table 2**  
**Captain Property**  
**September 2006 Rock Sample Descriptions**  
**& Copper-Gold Analytical Results**

Sample No. (see Fig. 3)	Sample Type	UTM Co-ord. (NAD 83)		Analytical Results		Description
		East	North	Cu (ppm)	Au (ppm)	
06B-32R	Random chip (outcrop)	446495	6088157	287	0.013	Foliated diorite with up to 10% pyrite; sample taken on south bank of Salmon River
06B-33R	Select grab (float)	446665	6088287	6560	0.333	Chlorite-altered diorite; strongly pyritic with malachite stain; select grab of angular float
06B-34R	Select grab (float)	448826	6091136	361	0.017	Andesite(?) - strongly pyritic; select grab of 0.2 m diameter rusty boulder in clear-cut near LCP Captain 1 & 2 legacy claims
06B-35R	Random chip (outcrop)	448390	6091178	244	0.006	Silicified intrusive (dioritic to granodioritic) with up to 10% disseminated pyrrhotite & lesser pyrite; minor chalcopyrite on "dry" fractures locally; rock is weakly magnetic
06B-36R	Random chip (outcrop)	448378	6091166	279	<0.005	Similar to 06B-35R, except only trace chalcopyrite noted
06B-37R	Random chip (outcrop)	448087	6092481	140	<0.005	Relatively fresh to weakly chloritized andesite with 1-2% disseminated pyrite
06B-38R	Random chip (outcrop)	447945	6092600	162	<0.005	Andesite; somewhat bleached with 1-3% disseminated pyrite
06B-39R	Random chip (outcrop)	448419	6091321	105	0.006	Andesite(?) with minor pyrite

### *5.2.2 Northern Prospecting Traverse*

The main observations of the prospecting survey in the areas of anomalous IP chargeability response east of Windy Lake are summarized as follows:

- (a) In all areas prospected, outcrop is very limited and most outcrops encountered on the traverse were sampled.
- (b) Sample 06B-35R is considered important because, visually at least, it demonstrates that there is copper mineralization spatially associated with the large IP chargeability anomaly which remains open for extension to the east. At this sample locality, silicified intrusive outcrop, dioritic to granodioritic in composition, contains up to 10% disseminated pyrrhotite and lesser pyrite with minor chalcopyrite on "dry" fractures. Copper mineralization had not previously been recognized in this area. The 2006 sample returned values of 244 ppm Cu and 0.006 ppm Au.
- (c) Sample 06B-34R is a select grab of a 0.2 m diameter rusty boulder of strongly pyritic andesite(?) which yielded values of 361 ppm Cu and 0.017 ppm Au. Both values may be considered to be weakly anomalous.
- (d) Samples 06B-37R and 38R were taken from small outcrops of andesite exhibiting minor chloritic alteration, local bleaching and 1-3% disseminated pyrite. Copper analyses are low, in the 140 to 162 ppm range, and no gold was detected.

## **6.0**

### **PROPOSED WORK**

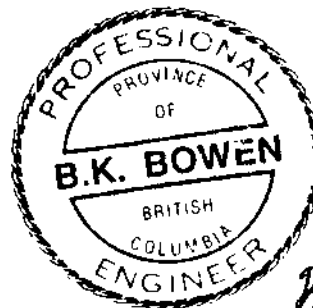
It is proposed that additional IP geophysical surveys be carried out on portions of the Captain property in order to better outline porphyry-style targets which may have the potential to host a viable copper-gold deposit. Two higher priority areas are identified by the letters "A" and "B" on Figure 3. They are in areas adjacent to known IP chargeability anomalies partially delineated by Placer and Noranda. The identification of visible copper mineralization and weakly elevated copper-gold values at sample locations 06B-35R and 34R respectively enhances the IP chargeability anomaly spatially associated with these samples.

In the southern part of the property, roughly paralleling the Salmon River, there may be a NW-SE trending mineralized corridor connecting known copper-gold showings, including the massive sulphide float shown on Figure 3. Only a small portion of this target area has been previously surveyed by IP methods. Additional IP geophysical survey work should be carried out in this area.

## COST STATEMENT

The cost for the work summarized in Section 4.5 is as follows:

	<u>\$CDN</u>	<u>\$CDN</u>
1) <u>Prospecting Salaries:</u>		
- B. K. Bowen, P. Eng.		
- 2.0 days fieldwork @ \$600/day (Sept. 11& 12/06)	1,200.00	
- 2.0 days mob-demob @ \$600/day	1,200.00	
- Gary Nordin, P. Geo		
- 2.0 days fieldwork @ \$600/day (Sept. 11 & 12/06)	1,200.00	
- 1.5 days mob-demob @ \$600/day	<u>900.00</u>	
	4,500.00	4,500.00
2) <u>Analytical (ALS Chemex):</u>		
- 8 rock samples (FA-AAS Au and ME-ICP41 analyses)	160.00	160.00
3) <u>Truck Rental (National):</u>		
- 4 x 4 truck	189.04	
- insurance	50.00	
- gas	<u>112.31</u>	
	351.35	351.35
4) <u>Support Costs:</u>		
- motel (3 nights in Fort St. James)	360.00	
- meals: \$25/man-day (Sept. 10-12/06) x 6 man-days	150.00	
- Iridium satellite phone rental	208.77	
- truck radio rental	17.50	
- tire repair & call-out	158.92	
- field supplies	<u>25.00</u>	
	920.19	920.19
5) <u>Report Cost:</u>		
- B.K. Bowen, P. Eng.		
- 1.0 day @ \$600/day (IP compilation)	600.00	
- 1.5 days @ \$600/day (compilation of prospecting results, drafting & report writing)	900.00	
- Office supplies, copying & printing	<u>25.00</u>	
Sub-total:	1,525.00	<u>1,525.00</u>
<b>TOTAL COST:</b>		<b>\$7,456.54</b>



*B. K. Bowen*

- (1.) Struick, R. Energy, Mines and Resources Canada Open File # 2439: Geology of the McLeod Lake Map Sheet (93J), 1994.
- (2) Joanne Nelson, Kim Bellefontaine, Kim Green and Mary Maclean (1990): Regional Geological Mapping Near the Mount Milligan Copper-Gold Deposit (93K/16, 93N/1), in Geological Fieldwork 1990, BCGS Branch Paper 1991-1
- (3.) B.C. Ministry of Energy and Mines Assessment Reports (14449, 15996, 16597, 17873, 19220, 19853, 20768, 21430, 21470, 22022, 24751, 27575, 28025) submitted by various companies or individuals in support of work claimed over the period 1985-2005



9.0

**STATEMENTS OF QUALIFICATION**

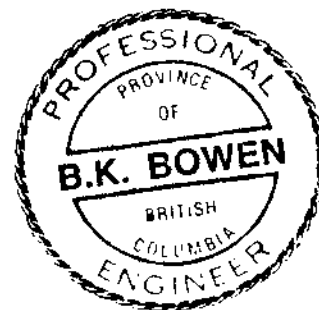
I, Brian K. Bowen, of Surrey, in the Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Consulting Geological Engineer with an office at 12470 99A Avenue, Surrey, British Columbia, V3V 2R5, Telephone (604) 930-0177.
2. I am a graduate of the University of British Columbia with a degree of Bachelor of Applied Science in Geological Engineering, obtained in 1970. I have been practicing my profession continuously in Canada and elsewhere since graduation.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
4. This report is based upon my review and compilation of all available data relating to the Captain property and upon my personal knowledge of the property gained from on-site prospecting work carried out on the Captain property on the days of September 11 and 12, 2006.
5. I am a Director of Orestone Mining Corp. and own a significant portion of its present share capital.

Dated at Surrey, British Columbia, this thirty-first day of July, 2007.

July 31, 2007  
Surrey, B.C.  
BKB/bb

B. K. Bowen, P. Eng.  
Consulting Geologist



*B.K. Bowen*

Statements of Qualification (continued):

I, Gary D. Nordin, an independent consulting geologist, resident at 24-3750 Edgemont Blvd., North Vancouver, V7R 2P8 in the province of British Columbia, do certify that:

1. I am a graduate of the Faculty of Science, University of Alberta, 1970, with a B. Sc. Degree in Geology, Honours.
2. I am registered with the Association of Professional Engineers and Geoscientists of British Columbia, Registration No. 19495 and I am a Fellow of the Geological Association of Canada, Registration No. 0357. I have practiced my profession in North America, South America, Europe and Asia for major and junior mining companies for 37 years.
3. The information for this report was obtained from personal experience gained while prospecting on the Captain property on the days of September 11 and 12, 2006, in the company of B.K. (Barney) Bowen, Consulting Geologist and Director of Orestone Mining Corp., on behalf of Portal Resources Ltd. of Vancouver, B.C.
4. I am not aware of any material fact or material change with respect to the subject matter of this technical report, which is not reflected in the report or omission to disclose information, which would make the technical report misleading.

Dated at Vancouver, B.C. this thirty-first day of July, 2007.

Gary D. Nordin, P. Geol., F.G.A.C.

**APPENDIX 1**

**ALS CHEMEX  
ANALYTICAL CERTIFICATE  
&  
CHEMICAL PROCEDURES**

VA06092425 - Finalized

CLIENT : "PORTAL - Portal De Oro Resources"

# of SAMPLES : 9

DATE RECEIVED : 2006-09-15 DATE FINALIZED : 2006-10-04

PROJECT : "Captain"

CERTIFICATE COMMENTS :

PO NUMBER :

page 1 of 2

SAMPLE NUMBER	Au-AA23 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm
06B-32R	0.013	<0.2	1.36	5	<10	130	<0.5	<2
06B-33R	0.333	4.6	1.42	27	<10	30	<0.5	<2
06B-34R	0.017	<0.2	1.48	8	<10	100	<0.5	<2
06B-35R	0.006	<0.2	0.69	2	<10	30	<0.5	<2
06B-36R	<0.005	<0.2	1.27	12	<10	20	<0.5	<2
06B-37R	<0.005	<0.2	1.01	7	<10	30	<0.5	<2
06B-38R	<0.005	<0.2	1.02	8	10	110	<0.5	<2
06B-39R	0.006	<0.2	0.96	4	<10	60	<0.5	<2

SAMPLE NUMBER	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm	ME-ICP41 Hg ppm
06B-32R	2.41	<0.5	23	18	267	3.87	<10	<1
06B-33R	0.73	<0.5	68	51	6560	6.37	10	<1
06B-34R	0.83	0.6	19	112	361	5.67	<10	<1
06B-35R	1.1	<0.5	20	40	244	2.59	<10	<1
06B-36R	1.01	<0.5	39	53	279	4.32	<10	<1
06B-37R	1.07	<0.5	18	69	140	2.81	<10	<1
06B-38R	1.28	<0.5	19	19	162	2.14	<10	<1
06B-39R	1.14	<0.5	10	60	105	2.7	<10	<1

SAMPLE NUMBER	ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm
06B-32R	0.85	10	1.05	347	3	0.04	18	1780
06B-33R	0.06	<10	1.3	274	3	0.07	128	1440
06B-34R	0.09	<10	0.81	691	1	0.03	31	990
06B-35R	0.17	<10	0.3	120	1	0.03	90	1250
06B-36R	0.25	<10	1	250	2	0.04	42	1170
06B-37R	0.17	<10	0.63	274	<1	0.02	41	1020
06B-38R	0.23	<10	0.51	330	<1	0.06	21	1490
06B-39R	0.31	<10	0.47	248	<1	0.06	21	1030

VA06092425 - Finalized

CLIENT : "PORTAL - Portal De Oro Resources"

# of SAMPLES : 9

DATE RECEIVED : 2006-09-15 DATE FINALIZED : 2006-10-04

PROJECT : "Captain"

CERTIFICATE COMMENTS :

PO NUMBER :

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SAMPLE NUMBER	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Ti ppm	U ppm
06B-32R	2	2.71	<2	4	99	0.1	<10	<10
06B-33R	2	3.77	6	4	119	0.13	<10	<10
06B-34R	<2	0.25	<2	9	85	0.25	<10	<10
06B-35R	<2	0.91	<2	2	51	0.19	<10	<10
06B-36R	<2	1.14	<2	5	37	0.22	<10	<10
06B-37R	6	0.45	<2	3	39	0.14	<10	<10
06B-38R	<2	0.44	<2	3	73	0.18	<10	<10
06B-39R	2	0.29	<2	4	38	0.16	<10	<10

SAMPLE NUMBER	ME-ICP41	ME-ICP41	ME-ICP41
	V ppm	W ppm	Zn ppm
06B-32R	72	<10	18
06B-33R	69	<10	60
06B-34R	116	<10	49
06B-35R	34	<10	8
06B-36R	70	<10	25
06B-37R	35	<10	39
06B-38R	44	<10	58
06B-39R	44	<10	18



**Fire Assay Procedure – Au-AA23 & Au-AA24  
Fire Assay Fusion, AAS Finish**

**Sample Decomposition:** Fire Assay Fusion (FA-FUS01 & FA-FUS02)  
**Analytical Method:** Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit	Default Overlimit Method
Au-AA23	Gold	Au	ppm	30	0.005	10.0	Au- GRA21
Au-AA24	Gold	Au	ppm	50	0.005	10.0	Au- GRA22



**Geochemical Procedure - ME-ICP41  
Trace Level Methods Using Conventional ICP-AES Analysis**

**Sample Decomposition:** Nitric Aqua Regia Digestion (GEO-AR01)  
**Analytical Method:** Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample is digested with aqua regia for in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

**NOTE:** In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.2	100	Ag-OG46
Aluminum	Al	%	0.01	25	
Arsenic	As	ppm	2	10000	
Boron	B	ppm	10	10000	
Barium	Ba	ppm	10	10000	
Beryllium	Be	ppm	0.5	1000	
Bismuth	Bi	ppm	2	10000	
Calcium	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	1000	
Cobalt	Co	ppm	1	10000	
Chromium	Cr	ppm	1	10000	
Copper	Cu	ppm	1	10000	Cu-OG46
Iron	Fe	%	0.01	50	



Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Gallium	Ga	ppm	10	10000	
Mercury	Hg	ppm	1	10000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10000	
Magnesium	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50000	
Molybdenum	Mo	ppm	1	10000	
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-OG46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	10000	
Scandium	Sc	ppm	1	10000	
Strontium	Sr	ppm	1	10000	
Thorium	Th	ppm	20	10000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10000	
Uranium	U	ppm	10	10000	
Vanadium	V	ppm	1	10000	
Tungsten	W	ppm	10	10000	
Zinc	Zn	ppm	2	10000	Zn-OG46





Elements listed below are available upon request

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Cerium	Ce	ppm	10	10000	
Hafnium	Hf	ppm	10	10000	
Indium	In	ppm	10	10000	
Lithium	Li	ppm	10	10000	
Niobium	Nb	ppm	10	10000	
Rubidium	Rb	ppm	10	10000	
Selenium	Se	ppm	10	10000	
Silicon	Si	ppm	10	10000	
Tin	Sn	ppm	10	10000	
Tantalum	Ta	ppm	10	10000	
Tellurium	Te	ppm	10	10000	
Yttrium	Y	ppm	10	10000	
Zirconium	Zr	ppm	5	10000	