

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**15,761**

**O'CONNOR RIVER GYPSUM PROJECT  
1986 GEOLOGICAL REPORT**

**N.T.S.: 114P/10E  
Lat., 59 39' , Long., 136 42'**

**For:**

**Queenstake Resources Ltd.  
900 - 850 West Hastings Street  
Vancouver, B.C. V6C 1E1**

**By:**

**Kootenay Geo-Services  
Box 63,  
Skookumchuck, B.C. V0B 2E0**

**August 31, 1986**

**FILMED**

**15761**

## 2.0 GENERAL GEOLOGY

The O'Connor River gypsum deposits lie within Alexander Terraine of the Insular Tectonic Belt. The Duke River and Denalit thrust faults strike northwest-southeast and are located approximately 80 km northeast of the gypsum deposits.

The gypsum bodies lie discordant within upper Paleozoic carbonate sediments. They appear to be Tertiary in age. Surrounding the carbonate sediments are many large and small granodiorite intrusions of lower Tertiary age (Tkope River Intrusives).

The gypsum bodies themselves contain or are bounded by amphibolite, tuff and quartz-feldspar-porphyry also of Tertiary age.

## 3.0 PROPERTY GEOLOGY

### 3.1 Stratigraphy

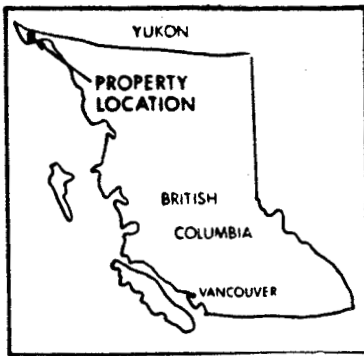
The upper Paleozoic (or older?) carbonate rocks consist chiefly of deformed, massive grey/blue-grey/black limestone which is occasionally argillaceous and siliceous. Dolomitization and marblization are common. Distinct strata of buff-pink hematitic limestone/dolomite lie north of the gypsum deposit.

Just southwest of the East Zone and possibly bordering on it lies a small Oligocene age gneissic granodiorite. Peripheral to it, the limestone country rock has been sheared and hydrothermally altered.

Other igneous rock within the area is found as: sills (up to 15m thick) of fine to coarse grained amphibolite showing obvious chill margins and containing pyrite and pyrrhotite; quartz-feldspar porphyry between the gypsum deposit and limestone to the south which consists of light brown-light grey porphyroblasts in a grey fine grained siliceous matrix. A thin mafic dike rock (rare) was noted crosscutting limestone 300 m north of the East Zone.

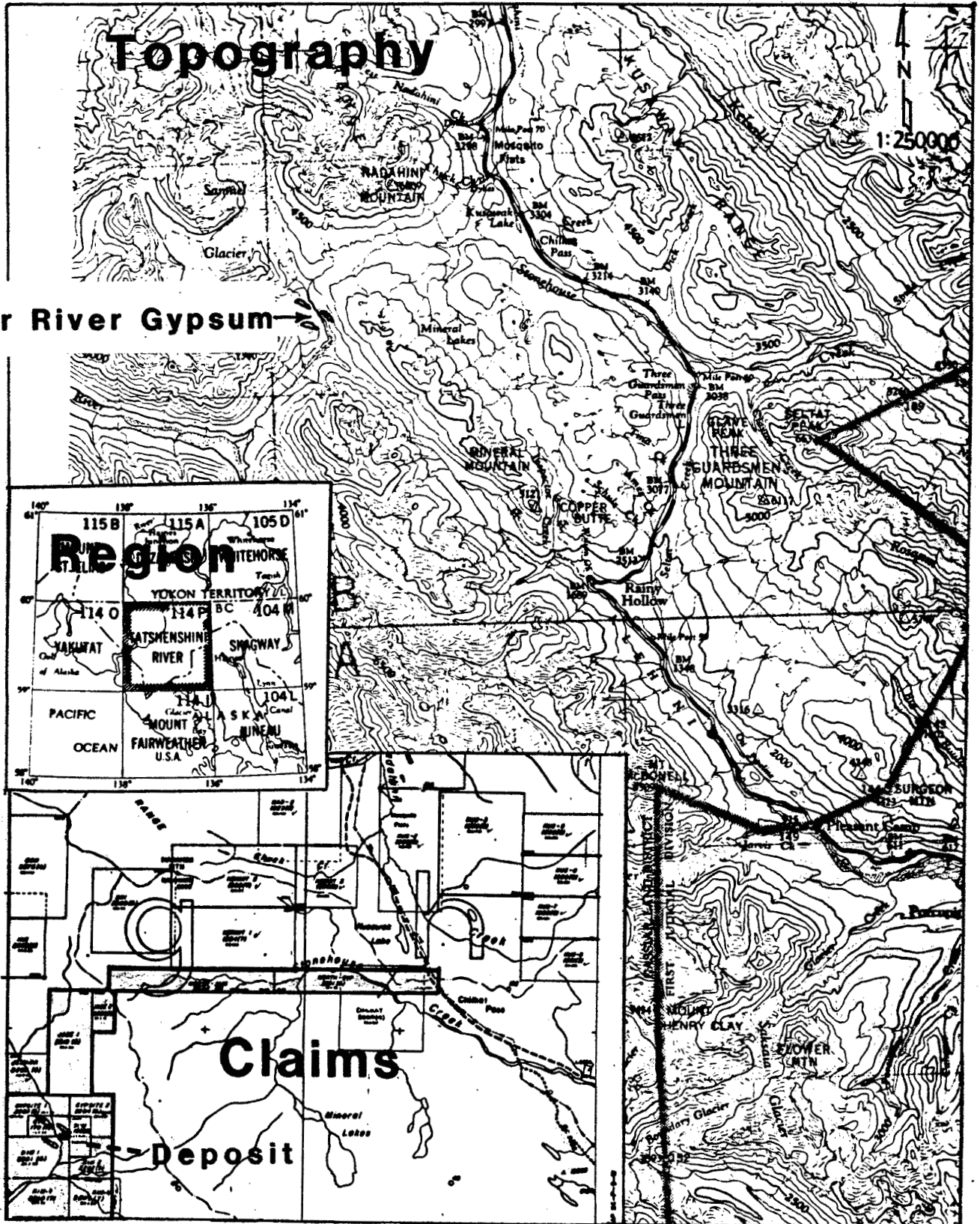
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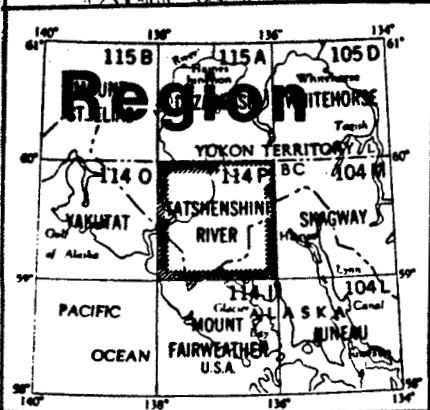


**FIG. 1**

**Location Map**



**O,Connor River Gypsum** →



**Claims**

→ **Deposit**

## 1.0 INTRODUCTION

### 1.1 Location and Access

The gypsum deposits are located on both sides of the O'Connor River near the headwaters of its north fork in north-western B..C. between elevations 800 and 1,200 meters (see Fig. 1). Parton Glacier is at the headwaters of the O'Connor River 2½ km north of the gypsum deposits. The East Zone is the most accessible of the three gypsum zones. The deposits are located approximately 96 air km northwest of Haines, Alaska. From mile 66 (km 106) on the Haines Road (a paved all weather highway joining Haines, Alaska with Haines Junction, Yukon) a winter access road meanders 12 km westerly to reach the gypsum deposits. The middle 6 km of this road traverses soft muskeg.

The shortest road distance to the gypsum would be to follow the Klehini R. valley on beyond the Maid of Erin road which is 6.4 km north of the old Haines Road loop at Rainy Hollow. However, this entire route traverses a steep side hill which would present problems of avalanching, debris flows and spring washouts. This route does appear to dry up quickly in the spring and stays relatively dry throughout the summer.

The haul distance to Haines, Alaska from the gypsum claims is 104 km. From Haines to the Lutak dock facility is another 6.4 km. Haines, Alaska to Vancouver is a distance of approximately 1,800 sea km.

### 1.2 Physiography

The entire access route to the gypsum claims from the Haines Road and the gypsum deposit area itself is located above tree line with only 'buck-brush' and alpine meadow vegetation present. The summer season is short (mid June to mid September) and winters are harsh with an average snowfall of 4.6 - 6.0 m.

### 1.3 Property

Table 1 gives claim status for the area of interest as of September 1, 1986. A claim map is included (page 4) which shows claim boundaries with respect to the gypsum zones.

**TABLE 1  
CLAIM STATUS**

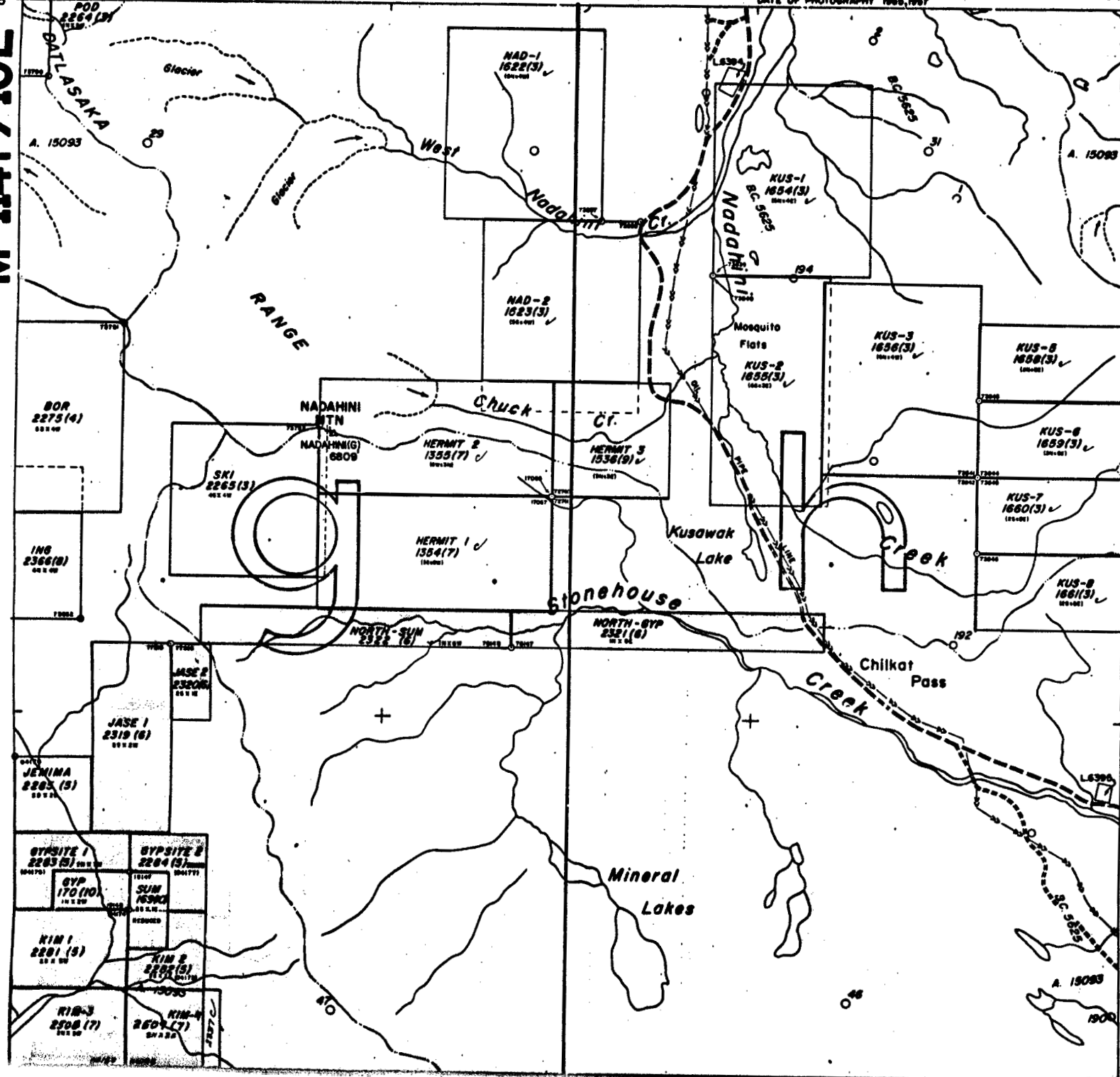
<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>	<u>EXPIRY DATE</u>
North Sum	2322	June 14, 1988
North Gyp	2321	June 14, 1988
Jase 1	2319	June 14, 1988
Jase 2	2320	June 14, 1988
Gypsite 1	2283	May 23, 1995
Gypsite 2	2284	May 23, 1995
Gyp	170	October 28, 1986
Sum	169	October 28, 1986
Kim 1	2281	May 23, 1995
Kim 2	2282	May 23, 1995
Kim 3	2508	July 26, 1987
Kim 4	2509	July 26, 1987

M 114P/10E



CLAIM MAP

- 4 -



POD 2264 (2)  
GLACIER  
DILLASAKA  
A. 15093

NAD-1  
1622(3)  
(100-001)

KUS-1  
1654(3)  
(100-001)

NAD-2  
1623(3)  
(100-001)

KUS-3  
1636(3)  
(100-001)

KUS-8  
1659(3)  
(100-001)

BOR  
2275(4)  
(100-001)

NADAHINI  
MTN  
NADAHINI(G)  
6809

HERMIT 2  
1355(7)  
(100-001)

HERMIT 3  
1356(9)  
(100-001)

KUS-6  
1659(3)  
(100-001)

ING  
2366(8)  
(100-001)

SKI  
2265(3)  
(100-001)

HERMIT 1  
1354(7)  
(100-001)

KUS-7  
1660(3)  
(100-001)

KUS-9  
1661(3)  
(100-001)

JASE 1  
2319(8)  
(100-001)

JEMIMA  
2285(5)  
(100-001)

GYPSITE 1  
2263(3)  
(100-001)

GYPSITE 2  
2264(3)  
(100-001)

KIM 1  
2201(9)  
(100-001)

KIM 2  
2202(5)  
(100-001)

KIM-3  
2506(7)  
(100-001)

KIM-4  
2507(7)  
(100-001)

Mineral  
Lakes

A. 15093

#### 1.4 History

J. J. McDougall for Ventures Limited (Falconbridge Ltd.) first discovered the showings in 1958. They were staked, mapped and sampled late in 1958. In 1959, 69 m of Ex size core was drilled mainly on the West Zone by Ventures Limited. Recovery was poor and assessment was incomplete. In 1964 Falconbridge conducted some trenching mainly to investigate the sphalerite showing found south of the East Zone. In 1965, 218.5 m of Ax and 59 m of Ex size core were drilled again mainly on the West Zone. Recovery was poor but results confirmed the general nature of the deposit to 30.5 m in depth. Results indicated high purity gypsum present but no assays were done for salt (NaCl). Interbedded amphibolite bodies were encountered here. The deepest hole reached 64 m with most being around 15 m in depth.

Late in 1984, a bulldozer was driven to the East Zone and a bulk sample of gypsum was excavated and shipped on behalf of Haines Gypsum Inc. During 1985, geological mapping was done by G. V. White for the Ministry of Energy, Mines and Petroleum Resources. The property was then brought under a common management by Haines Gypsum Inc. and joint ventured with Queenstake Resources Ltd. early in 1986.

#### 1.5 Present Work

It was decided to evaluate only the East Zone gypsum deposit due to the logistical problems in crossing the O'Connor River, budget constraints and the fact the diamond drilling had already been done on the West Zone.

A Longyear-38 diamond drill, D8 and D7 bulldozers were able to traverse the winter road to the property in mid July, 1986. Diamond drilling was carried out totalling 690 m of NQ and BQ size core. All gypsiferous core was split, crushed and assayed at 1.5m intervals. Surveying and geological mapping at 1:1000 scale was done as well over the East Zone.



Within the gypsum, tuffaceous layers are commonly found concordant with bedding consisting of biotite, chlorite, amphibole and sericite. As well, many other impurities exist interbedded with the gypsum such as strontianite, siderite, ankerite, limonite, scapolite and tremolite (see diamond drill logs-appendix A). It is likely that many uncommon hydrous minerals also occur within the gypsum zone in trace amounts.

### 3.2 Structure

Seventy-five poles to bedding and faulting were plotted on a stereo-net (see page 10). The gypsum bodies which are fault bounded cross-cut bedding and trend roughly parallel to the Duke River Fault to the northeast. Government mapping indicates an anticlinal structure just north of and parallel to the gypsum zones. Many thrust fault ramps likely underlie the area of interest and these would have acted as intrusive channelways.

Evidence of 'horst' faulting can be seen on the west bank of the O'Connor River 100 m south of the east gypsum zone. The north block has been uplifted several meters with respect to the south block. The gypsum zone at its eastern end pinches out in a wide fault zone and likely does not thicken again due to the lack of sinkholes.

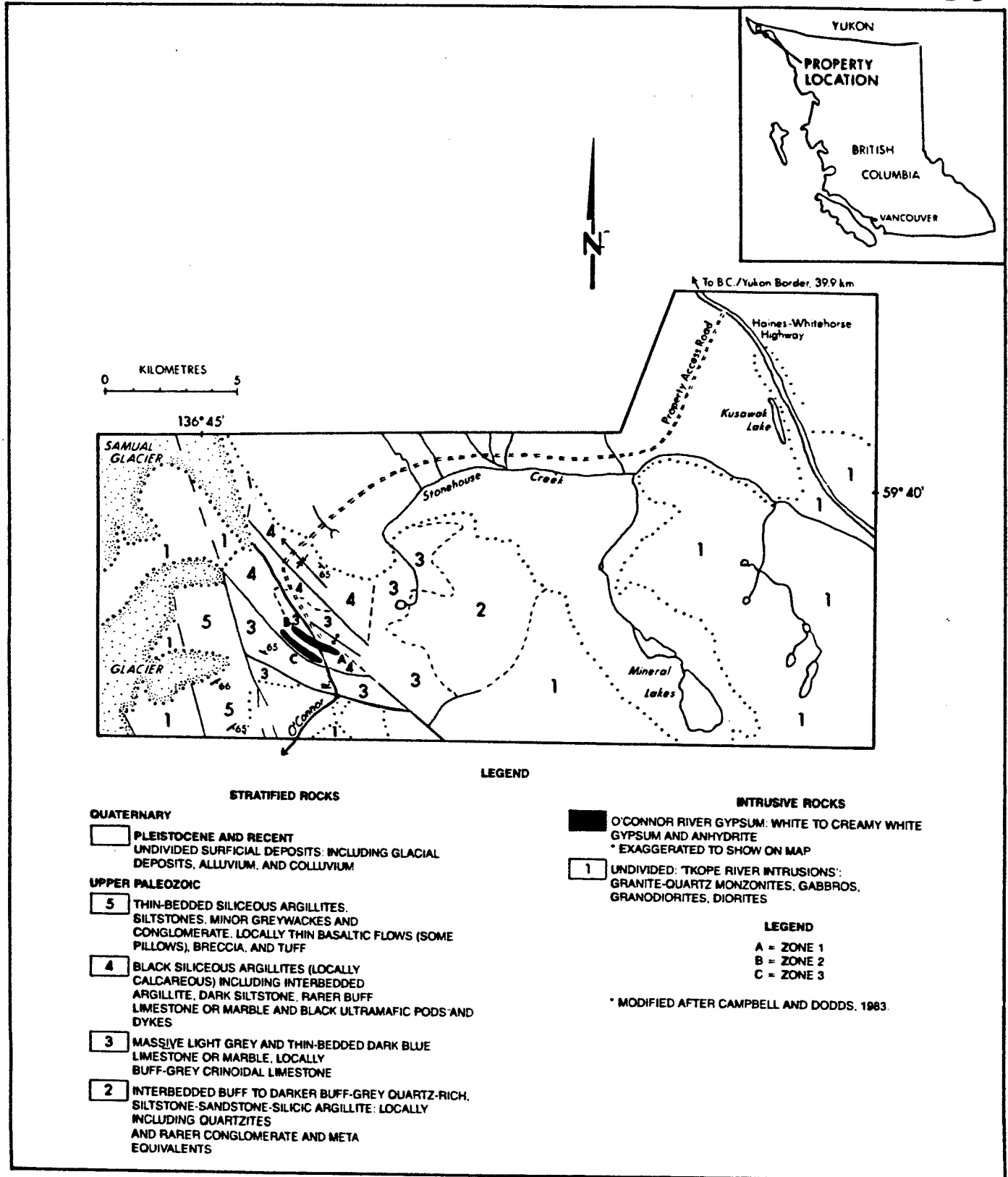
The East and West gypsum zones are on trend with each other and were the same deposit before erosion took out the central portion. There is an absence of interlithic folding within the gypsum zone which implies recent origin with unconfined swelling.

### 3.3 Overburden and Glaciation

Glaciation has ended only recently (in fact, Parton Glacier is only 2.5 km north of the gypsum deposits). Gypsum zones were protected from erosion by more competent limestone to the north and south.

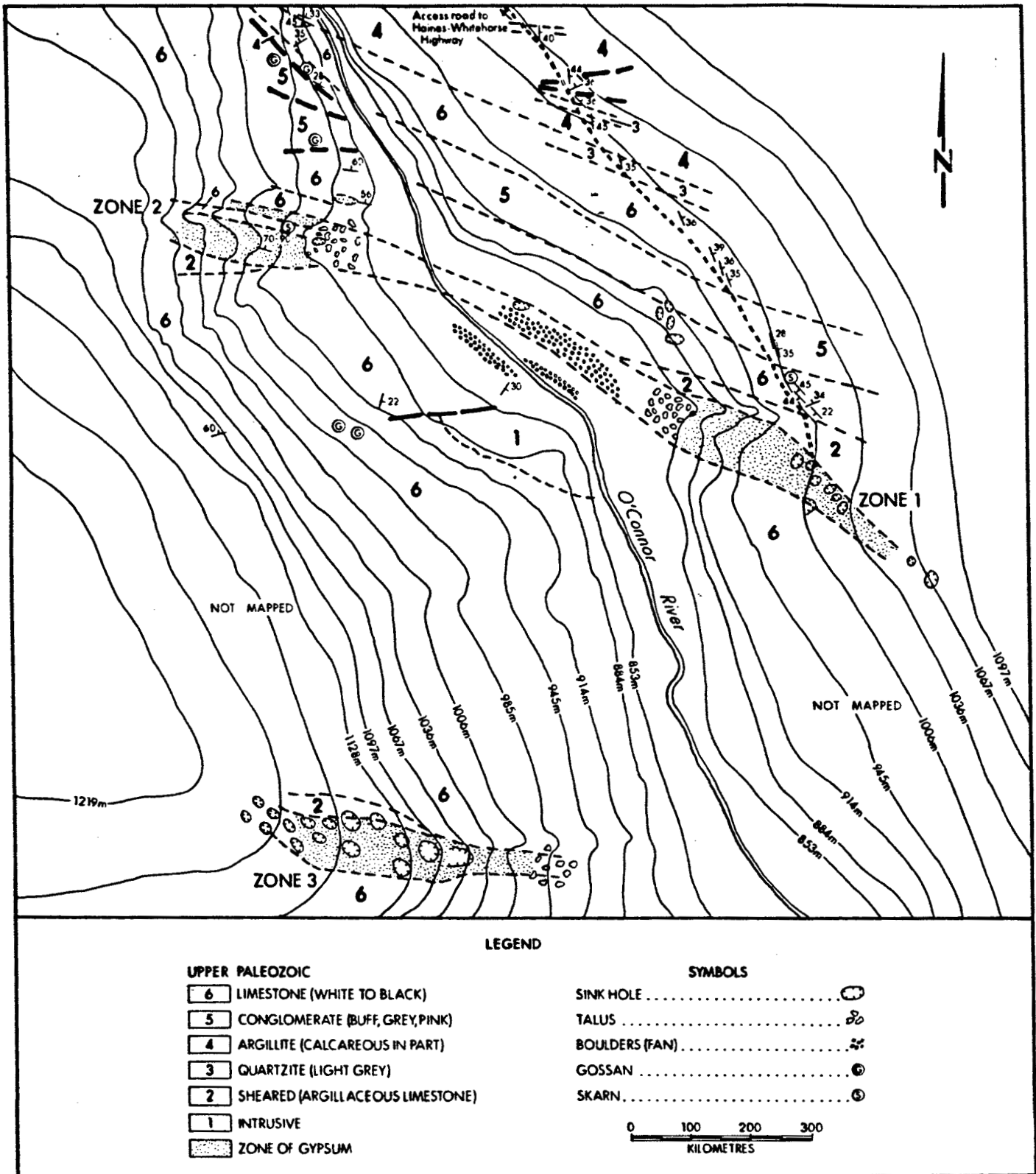
At least one period of glaciation is evident to the highest elevations of the East Zone. Here a glacial till is found which contains 20% sand, 40% silt and clay, 30% pebbles and cobbles and 10% boulders (up to 1 m diameter). On these upper slopes (34°) overburden thickness is 3-5 meters and this thins toward the river (slopes up to 40°).

# FIG. 2 Regional Geology



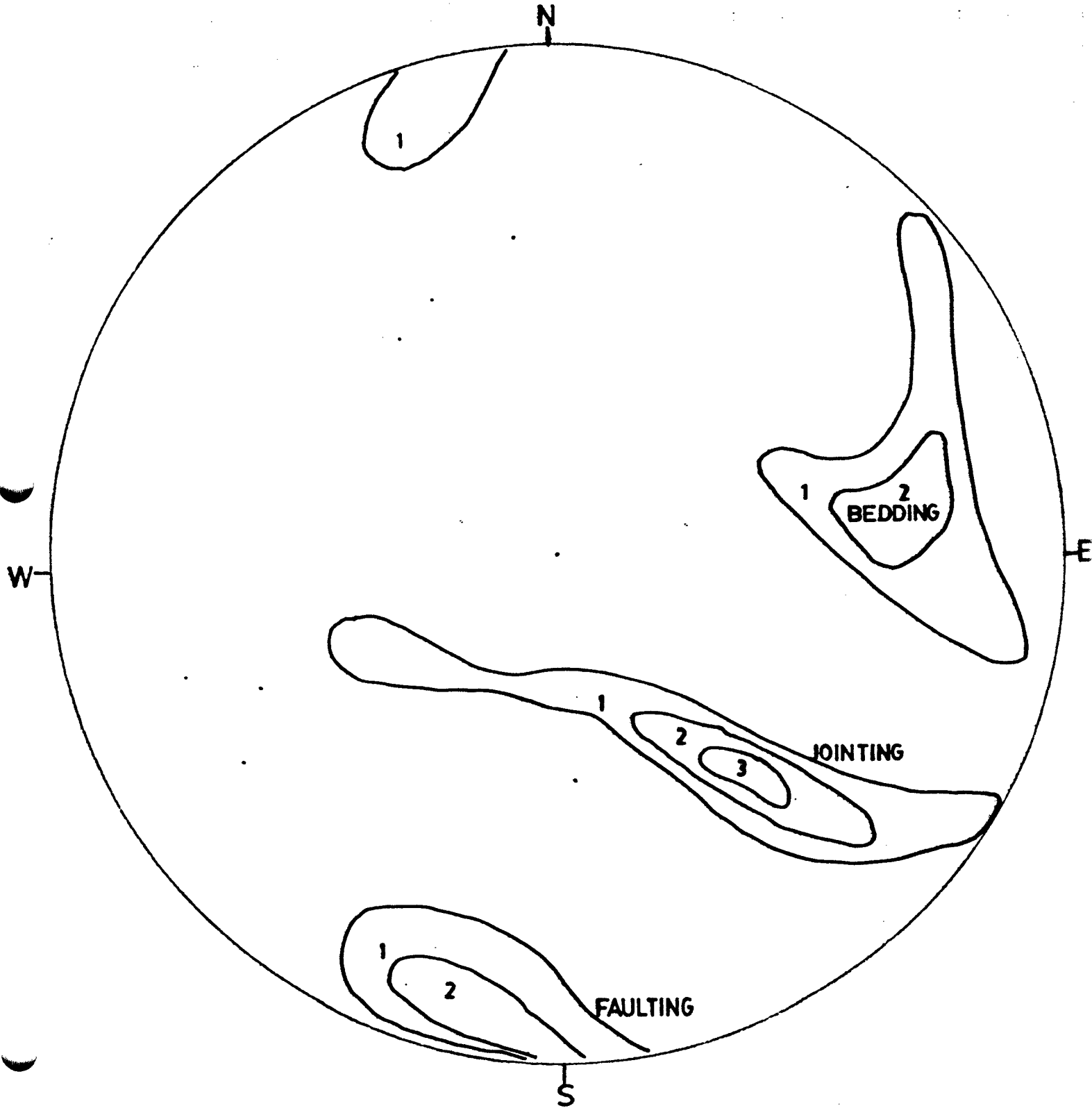
(G.V.White, B.C.M.E.M.P.R. Geol. Fieldwork 1985, Paper 1986-1)

# FIG. 3 PROPERTY GEOLOGY



(G.V. White , B.C.M.E.M.P.R. , Geol. Fieldwork, 1985, Paper 1986-1)

O'Connor River, BC.  
East Zone-Pole Plots  
(Kalsbeek Net)



#### 4.0 DIAMOND DRILLING

A total of 690 m on NQ and BQ was done using a Longyear-38 diamond drill (see table 2). Drilling strategy was to evaluate the length of the gypsum body as indicated by sinkholes and to discover its true thickness and grade at depth by locating both the hanging wall and footwall contacts. DDH-86-6 was drilled vertical to test the grade of the gypsum at depth and down dip.

Ore grade gypsum was considered to be any mining unit with an arithmetic average of over 72% gypsum. For ore reserve calculations a density of 2.1 tonne/m<sup>3</sup> was used. The average depth of hydration was found to be 41 meters from the paleosurface.

Six cross-sections and one longitudinal section were made to determine ore reserves (see Figures 4 and 5). From each cross-section the area of gypsum was determined (not including amphibolite) as follows:

AA'	=	3,879 m <sup>2</sup>
BB'	=	2,577 m <sup>2</sup>
CC'	=	3,995 m <sup>2</sup>
DD'	=	2,753 m <sup>2</sup>
EE'	=	2,103 m <sup>2</sup>
FF'	=	nil

The length of 390 m and an average gypsum area of 3,049 m<sup>2</sup> (AA'-EE') was used to calculate total reserves. It was thought that the strike length could be extended 50 m east of EE' based on sinkholes, and 50 m west of AA' because of gypsum outcrop north of and below AA'.

TABLE 2

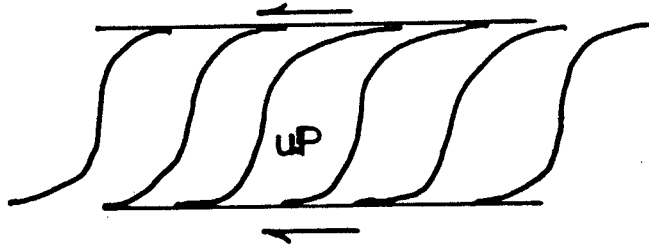
DIAMOND DRILLING SUMMARY

<u>HOLE #</u>	<u>INCLINATION</u>	<u>CASING</u>	<u>BEDROCK DRILLED (m)</u>	<u>DEFL'N</u>	<u>FINAL DEPTH (m)</u>	<u>COMMENTS</u>
86-1	-60, AZ180	19	102	-*-	102	NQ
86-2	-60, AZ180	3	70	-68	70	NQ
86-3	-45, AZ180	3	103	-55	105	NQ
86-4	-45, AZ180	3	27	-*-	27	NQ
86-5	-60, AZ200	2	105	-68	108	NQ & BQ
86-6	-90	5	144	-85	148	BQ
86-7	-60, AZ200	0.6	64	-63	67	BQ
86-8	-60, AZ180	0.6	61	-64	63	BQ
TOTAL =					690	

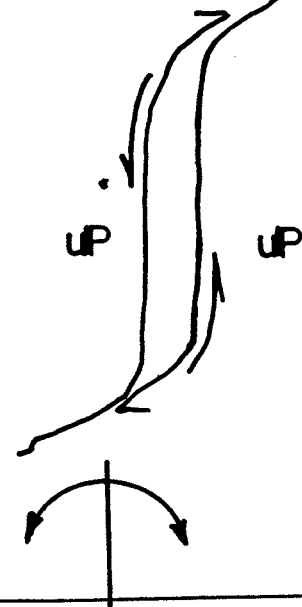
# DEPOSIT ORIGIN

(One Hypothesis)

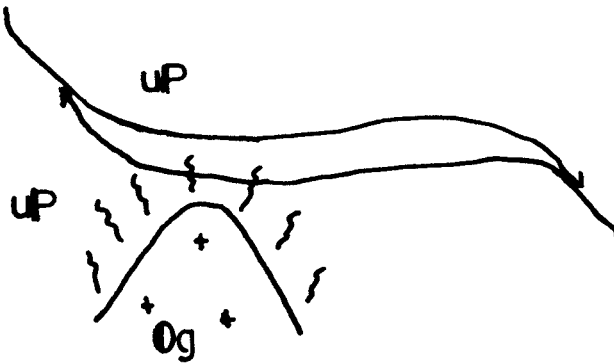
## ① Hinterland Duplex Thrust Faulting



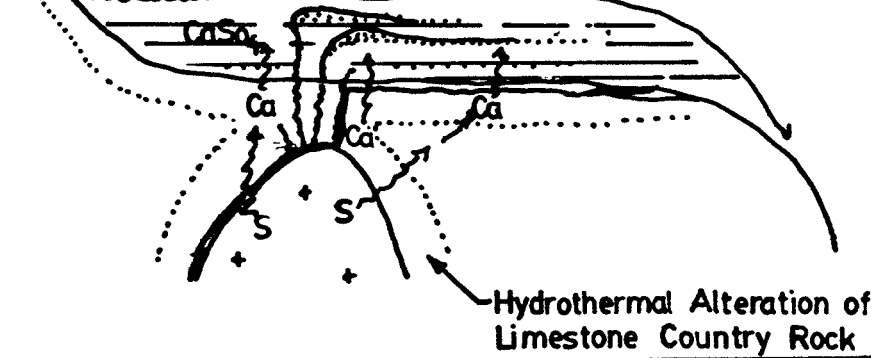
## ② Anticlinal Uplift - 'Horst' Development



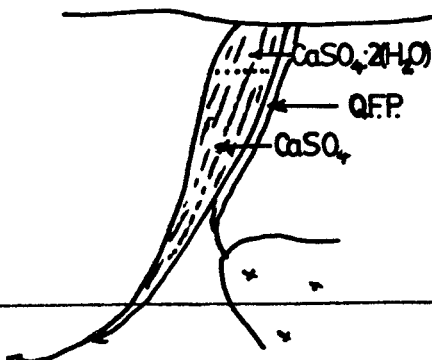
## ③ Overturning, Intrusion



## ④ Anhydrite Formation, Exhalation of Tuff & Extrusion of Amphibolite.



## ⑤ Further Tilting, Erosion & Hydration, Emplacement of Quartz-Feldspar-Porphyry.



From Figures 4 & 5:

East Zone Reserves =  $390 \text{ m} * 3,049 \text{ m}^2 * 2.1 \text{ tonne/m}^3 = 2.50 \text{ million tonnes}$   
(of 79% gypsum)

Blending of the intercalated amphibolite would reduce the overall grade to approximately 70% and increase the tonnage to 2.8 million tonnes. The blending of amphibolite should have no negative effects for wallboard industry use (as it would remain inert throughout the wallboard process); but would be detrimental for cement industry use as the % insolubles, iron oxides and alumina oxides would be increased. It would appear that this deposit is of marginal quality for cement manufacturers without any blending of amphibolite as  $\text{SO}_3$  seems to average 40% throughout the hydration zone (low) and the insolubles and oxides are quite high (especially in the southern/footwall side of the deposit where an increase in tuffaceous material is encountered). Amphibolite could be separated out during mining with relative ease due to its contrasting colour and hardness. It could be that the lab procedure used to test for insolubles and Fe/Al oxides was more rigorous than that used by cement companies thereby giving higher results and this should be checked.

The nature of the West Zone is the same as that of the East Zone although it was reported that complex deformation exists there (McDougall, 1966). The Kim Zone was never visited by this author due to inaccessibility and time constraints.

## 5.0 CONCLUSIONS

The East Zone contains 2.50 million tonnes of gypsum suitable for wallboard industry use and possibly for cement industry use. The gypsum body dips steeply north ( $60^\circ$ - $70^\circ$ ), is bounded by limestone south and north and contains 2-3 sills of amphibolite (up to 15m thick) and wisps of tuffaceous material nearer its southern half. The East Zone is a tabular body (approximately 400 meters x 100 meters x depth unknown), of which (from surface) only the top 41 meters has been hydrated from anhydrite into gypsum. It is a typical hydrothermal origin gypsum deposit similar to that at Falkland, B.C. or Chichagof Island, Alaska.



## 6.0 RECOMMENDATIONS

An engineering study should be carried out to determine road building and maintenance costs, equipment costs, stripping ratio (from 'life of pit' plan-waste rock/ore ratio), port facility capacity and costs, transportation costs, labour costs (seasonal operation only), etc. A study of market potential also has to be done. Queenstake Resources Ltd. will then be in a position to decide upon either mining the deposit on its own or selling it to major gypsum products company.

## 7.0 BIBLIOGRAPHY

- J. J. McDougall - "Preliminary Report on the O'Connor River Gypsum Deposits" (for Ventures Limited), 1958.
- J. J. McDougall - "Additional Preliminary Report on O'Connor River Deposits" (for Ventures Limited), 1959.
- J. J. McDougall - "Report on O'Connor River Gypsum Deposit" (for Falconbridge), 1966.
- G. V. White - "Preliminary Report - O'Connor River Gypsum Deposit" (B.C.M.E.M.P.R.; Geological Fieldwork - 1985).
- J. J. McDougall and  
D. A. Perkins - "Geological Report on O'Connor Gypsum" (for Haines Gypsum Inc.), 1986.

## STATEMENT OF COSTS

<u>ITEM</u>	<u>EXPENDITURE</u>
Meals, Groceries, etc.	\$ 5,623.35
Camping Supplies, Equipment, etc.	6,552.81
Accommodation	5,093.96
Transportation - Scheduled Air	5,657.50
- Vehicle Rentals	1,872.57
- Helicopter	10,569.50
Equipment Rentals	36,768.91
Fuel	10,265.07
Contract Drilling	
Surface 690 m @ 93.83	64,739.76
Consultant Services	19,506.64
Assay and Analyses	
Gypsum rock assays according to A.S.T.M	12,043.54
Communications	403.39
Office, Personnel, Supplies	<u>30,903.00</u>
	<u>\$210,000.00</u>

**APPENDIX A**

**DIAMOND DRILL LOGS**

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-1  
 DEPTH : 334 FT. (101.8m)

COLLAR ELEV.: 1054. m  
 LATITUDE : 1395. E  
 DEPARTURE : 825 N

BEARING: 180°  
 DIP : -60°

DATE: JULY 29, 1986  
 LOGGED BY: G. ROGERS  
 % CORE RECOVERY: 88%

% REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% Ar <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% INSOL.	% SO <sub>2</sub>	% H <sub>2</sub> O	% NaCl	% Ca
46 66	4-7 7-10	3 3	0-10.7 GYPSUM <small>(CASING: 10 FT. (STARTED IN BEDROCK) CO - 35. FT)</small>	9.8 - 14.8	3.0-4.5	0.32		83.6	4.88	38.6	17.5	<0.03	30.9
100 97	10-15 15-20	5 5	- V. WHITE WITH TRACE MUSCOVITE /	14.8-19.7	4.5-6.0	0.58		81.2	8.06	36.8	17.0	<0.03	29.6
35 86	20-25 25-30	5 5	BIOTITE / SERICITE / SIDERITE / ANKERITE AS	19.7-24.6	6.0-7.5	0.09	45°	70.7	1.30	32.1	14.8	<0.03	31.7
64 10	30-35 35-40	5 5	SPORADICALLY INTERLAYERED INCLUSIONS. (POSSIBLY	24.6-29.5	7.5-9.0	0.09	40°	88.9	2.08	40.6	18.6	<0.03	31.3
25 45	40-42 42-44	2 2	TRACE STRONTIANITE - PURPLE (W ALAZARIN RED-S)	29.5-34.5	9.0-10.5	0.10		87.4	1.76	46.8	18.3	<0.03	31.9
41 70	44-50 50-53	6 3	ESTIMATE 95% GYPSUM, MOSTLY OPAQUE, OCCAS	34.5-39.4	10.5-12.0	0.38		73.1	6.54	33.1	15.3	<0.03	31.3
50 70	53-57 57-60	4 3	SIGNALLY TRANSLUCENT; WELL DEFINED FOLIATION /	39.4-44.3	12.0-13.5	2.48		4.5	50.9	0.62	0.95	<0.03	19.5
92 98	60-65 65-70	5 5	LAYERING, V. HOMOGENEOUS COMPETENT GYPSUM (EXCEPT	44.3-49.2	13.5-15.0	0.84		76.6	8.1	12.5	5.57	<0.03	29.5
100 95	70-75 75-80	5 5	AS NOTED)	49.2-54.1	15.0-16.5	0.24		76.9	2.18	38.0	16.1	<0.03	32.4
100 57	80-85 85-90	5 5	10.7-13.5 OVERBURDEN (SINK HOLE EXT-	54.1-59.1	16.5-18.0	0.38	45°	71.2	3.94	34.3	14.9	<0.03	30.7
65 100	90-93 93-97	3 4	(35'-43' FT) ENSION) - ROUNDED GRANITE / LIMESTONE	59.1-64.0	18.0-19.5	0.60	45°	86.9	4.34	41.4	18.2	<0.03	30.9
98 100	97-100 100-105	3 5	PEBBLES; SAND AND GRANATIC 'GOUCE.	64.0-68.9	19.5-21.0	0.85	50°	82.2	5.40	37.4	17.2	<0.03	30.9
90 100	105-110 110-115	5 5	13.5-60.6 GYPSUM (SAME AS ABOVE)	68.9-73.8	21.0-22.5	0.22	60°/45°	84.6	7.18	39.2	17.7	<0.03	30.1
85 100	115-120 120-125	5 5	(44.3 - 138 FT.)	73.8-78.7	22.5-24.0	0.22		90.8	1.82	41.2	19.0	<0.03	32.0
96 62	125-130 130-135	5 5	[17.0 - 18.2] FRACTURED GROUND	78.7-83.7	24.0-25.5	0.10		91.2	0.72	43.7	19.1	<0.03	32.4
87 78	135-140 140-145	5 5	[19.0 - 19.7] " " " "	83.7-88.6	25.5-27.0	0.07		90.8	0.82	42.3	19.0	<0.03	32.5
100 100	145-148 148-153	3 5	26.9-27.5 FAULT ZONE (LIMEY, MYCTANIZED GRANULITE/GYPSUM)	88.6-93.5	27.0-28.5	0.55		72.1	4.42	33.9	15.1	<0.03	30.8
100 100	153-158 158-163	5 5	32.8-33.0 (20% MUSCOVITE/ANKERITE/SIDERITE/SERICITE)	93.5-98.4	28.5-30.0	0.37		61.6	4.34	28.7	12.9	<0.03	31.0
			31.6-31.7 ( " " " " )	98.4-103.4	30.0-31.5	0.39		76.4	3.00	37.1	16.0	<0.03	34.1
			35.8-35.9 ( " " " " )	103.4-108.3	31.5-33.0	0.88		82.6	8.42	38.5	17.3	<0.03	30.1
			40.5-41.0 (V. FRACTURED GROUND, (SOME FAULT SOURCE; LOST CIRCULATION)	108.3-113.2	33.0-34.5	0.33	50°, 35°	86.0	2.10	41.9	18.0	<0.03	32.2

# Queenstake Resources Ltd.

## DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-1 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REF	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% <sub>FeO</sub>	Core Angle	% GYPSUM	% MAGNE.	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
100	163-168	5		113.2-	34.5-								
96	168-173	5	GYPSUM CONSTD. (S.A.P.)	118.2	36.0	0.03	50°	91.2	1.44	46.0	19.1	<0.03	31.4
100	173-178	5		118.2-	36.0-								
100	178-183	5	43°-43.5 FAULT (P. GYPSIFEROUS GOUSSÉ)	123.0	37.5	0.04		89.3	1.62	46.5	18.7	<0.03	32.3
100	183-188	5		123.0-	37.5-								
100	188-193	5	44.5-45.0* FAULT (BIOTITE & SIDERITE RICH)	128.0	39.0	0.02	55°	71.2	1.30	48.2	14.9	<0.03	31.3
100	193-198	5		128.0-	39.0-								
100	198-200	2	*(POSSIBLY JUST WASH FROM ABOVE DURING CHANGE) TURE	132.9	40.5	0.08		73.6	0.90	47.7	15.4	<0.03	32.8
82	200-205	5		132.9-	40.5-								
71	205-208	3	45.5-46.5	137.8	42.0	0.38		57.3	3.00	29.2	12.0	<0.03	30.7
80	208-212	4		137.8-	42.0-								
69	212-216	4	46.9-47.8 } 100% CRYSTALLINE (SELENITE & ANHYDRITE)	142.7	43.5	0.36		37.4	1.16	32.6	7.83	<0.03	32.6
98	216-220	4		142.7-	43.5-								
100	220-225	5	48.7-49.0	147.6	45.0	0.47		55.4	5.52	28.2	11.6	<0.03	28.2
100	225-227	2		147.6-	45.0-								
92	227-231	4	49.5-49.8 (20% SERICITE/SIDERITE MUSCOVITE LAMINAE)	152.6	46.5	0.08	50°	33.7	2.22	51.6	7.06	<0.03	51.6
75	231-233	2		152.6-	46.5-								
85	233-238	5	@ 54° MINOR TOFFACEOUS LAYERS (CHLORITIC - 1/2" THICK)	157.5	48.0	0.17	45°	40.0	1.28	53.9	8.37	<0.03	53.9
100	238-243	5		157.5-	48.0-								
98	243-247	4	56°-56.5 (20% SERICITE/SIDERITE) MUSCOVITE/SCAPOLITE	162.4	49.5	0.14	50°	71.7	2.06	49.2	15.0	<0.03	49.2
73	247-250	3		162.4-	49.5-								
100	250-255	5	57°-60.5 V. CRYSTALLINE (ANHYDRITE?)	167.3	51.0	0.45	40°	65.9	1.84	34.2	13.8	<0.03	34.2
98	255-258	3		167.3-	51.0-								
100	258-263	5		172.3	52.5	0.42	40°	56.8	5.14	28.8	11.9	<0.03	28.8
97	263-268	5		172.3-	52.5-								
98	268-273	5	60.6-71.3 AMPHIBOLITE SILL (WITH TR.)	177.1	54.0	0.36		78.3	3.88	39.8	16.4	<0.03	39.8
98	273-278.5	5.5		177.1-	54.0-								
99	278.5-284	5.5	LENSY INCLUSIONS OF SECONDARY GYPSUM 20% MADE (BIOTITE/AMPHIBOLE) CRYSTALS TO 0.8mm	182.1	55.5	0.11	40°	55.9	2.40	46.5	11.7	<0.03	46.5
68	284-290.5	6.5		182.1-	55.5-								
100	290.5-295	4.5	LONG; ESTIMATE ~ 3% PYRRHOTITE (P. IS UBIQUITOUS FROM 60°-71.3). DISTINCTIVE 1.5mm CHILL	187.0	57.0	0.55	40°	64.5	4.68	40.1	13.5	<0.03	40.1
99	295-300	5		187.0-	57.0-								
96	300-305	5	MARGINS (TOP & BOTTOM); MOD. FRACTURED.	191.9	58.5	0.14	40°	40.1	1.94	47.4	8.4	<0.03	47.4
100	305-310	5		191.9-	58.5-								
100	310-315	5	@ 71.3 CONTACT IS CONFORMABLE	196.8	60.0	0.21		29.2	1.28	45.6	6.12	<0.03	45.6
100	315-320	5		196.8-	60.0-								
100	320-323	3		201.8	61.5	1.63	40°	41.2	23.8	32.7	8.62	<0.03	32.7
100	323-325	2		201.8-	61.5-								
100	325-329	4		208.7	63.0	N/S		0	-	-	-	-	-
100	329-331	2		208.7-	63.0-								
100	331-332	1		211.6	64.5	N/S		0	-	-	-	-	-
100	332-333	1		211.6-	64.5-								
100	333-334	1		216.6	66.0	N/S		0	-	-	-	-	-

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-1  
 DEPTH :  
 PAGE 3

COLLAR ELEV. :  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% WHOL.	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
			71.3-92.6 GYPSUM (WITH MINOR INTER-LAYERED SIDERITE / ANKERITE / BISTITE & MUSCOVITE, ETC.)	216.5-221.5	68.0-67.5	N/S		0	—	—	—	—	—
			77.0-81.3 : MOSTLY SERICITE, CHLORITE	221.5-226.4	67.5-69.0	N/S		0	—	—	—	—	—
			SIDERITE, DOLOMITE, BISTITE, MUSCOVITE, SCAPOLITE, FTZ, ESTIM. ~30% GYPSUM (MASSIVE) ANHYDRITE?	226.4-231.3	69.0-70.5	N/S	35° FRACT.	0	—	—	—	—	—
			88.0-90.0 : SAME AS ABOVE	231.3-236.2	70.5-72.0	N/S	45° FRACT.	0	—	—	—	—	—
				236.2-241.2	72.0-73.5	1.43	005° FRACT.	43.3	11.9	22.1	9.06	<0.03	13.4
				241.2-246.1	73.5-75.0	2.02	40°	11.8	13.3	5.8	2.47	<0.03	35.2
				246.1-251.0	75.0-76.5	1.1	40° 60°	17.0	5.5	40.9	3.57	<0.03	35.5
				251.0-255.9	76.5-78.0	4.66	38°	17.0	37.2	26.1	3.75	<0.03	31.7
				255.9-260.8	78.0-79.5	3.65	40°	38.7	29.9	29.3	8.10	<0.03	23.3
				260.8-265.8	79.5-81.0	4.05		22.2	33.6	26.5	4.65	<0.03	21.8
				265.8-270.1	81.0-82.5	2.33	65°	22.2	21.4	24.7	4.64	<0.03	27.2
				270.1-275.6	82.5-84.0	1.20	70°	28.7	8.4	37.9	6.00	<0.03	33.2
				275.6-280.5	84.0-85.5	1.60		35.5	15.2	23.2	7.44	<0.03	28.0
				280.5-285.5	85.5-87.0	0.30		4.3	2.5	55.4	0.9	<0.03	39.4
			92.6-101.8 QUARTZ-FELDSPAR PORPHYRY	285.5-290.4	87.0-88.5		30°	42.2	9.9	30.0	8.84	<0.03	31.0
			GREY/TAN; V.F.G. MATRIX WITH SILICEOUS & FELDSPATHIC	290.4-295.3	88.5-90.0			17.3	14.9	7.7	3.62	<0.03	28.7
			PORPHYROBLASTS (GRANOPHYRIC TEXTURE) (TO 0.5" φ); TR. BY THROUGHOUT	295.3-300.2	90.0-91.5		30°	84.1	4.7	41.2	17.6	<0.03	30.8
			94.5-95 : FAULT (SECONDARY GYPSIFEROUS LAYER)	300.2-305.1	91.5-93.0		70°	45.4	24.9	22.5	9.5	<0.03	24.3
			98.5-101.4 : V.FRACTURED GROUND	305.1-310.1	93.0-94.5	NS		—	—	—	—	—	—
				310.1-315.0	94.5-96.0	NS		—	—	—	—	—	—
				315.0-319.9	96.0-97.5	NS	005° FRACT.						







## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-2 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% INSOL.	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
78	200-205	5	28°-29° ALTERATION ZONE (SCAPOLITE)	113.2-	34.5-		80°	45°	6.2		9.55	<0.03	30°
95	205-210	5		118.2	36.0								
93	210-215	5	DOLomite, SIDERITE, ANKERITE, SERICITE } V. COMPACTENT Rk.	118.2-	36.0-			50.2	2.7		10.5	<0.03	28°
89	215-220	5		123.0	37.5								
100	220-225	5	29°-63° GYPSUM / ANHYDRITE (HARDNESS INCREASES AFTER ~40m); OCCASIONALLY CRYSTALLINE (ANHYDRITE)	123.0-	37.5-		30°	41.4	0.3		8.7	0.045	30°
65	225-230	5		128.0	39.0								
				128.0-	39.0-		80°	48.2	0.2		10.1	<0.03	35°
				132.9	40.5								
				132.9-	40.5-		40°	52.1	8.4		10.9	<0.03	29.3
				137.8	42.0								
				137.8-	42.0-			72.6	4.4		15.2	<0.03	29.6
				142.7	43.5								
				142.7-	43.5-		30°	72.6	15.5		15.2	<0.03	24°
				147.6	45.0								
				147.6-	45.0-		35°	67.4	5.2		14.1	<0.03	28.5
				152.6	46.5								
				152.6-	46.5-			61.1	3.6		12.8	<0.03	29.5
				157.5	48.0								
				157.5-	48.0-		55°	75°	0.4		15.7	<0.03	30.9
				162.4	49.5								
				162.4-	49.5-		60°	86.9	0.3		18.2	<0.03	29.3
				167.3	51.0								
				167.3-	51.0-			85°	1.4	45°	17.8	<0.03	32.6
				172.3	52.5								
				172.3-	52.5-		45°	44.5	7.8	22.4	9.3	<0.03	30.1
				177.1	54.0								
				177.1-	54.0-		45°	57.3	22.7	28.4	12°	<0.03	25.2
				182.1	55.5								
				182.1-	55.5-			58.8	6.8	29.5	12.9	<0.03	31.5
				187.0	57.0								
				187.0-	57.0-		45°	24.6	13.9	13°	5.2	<0.03	27.2
				187.0	58.5								
				191.9-	58.5-			78.8	6.3	42.2	16.5	<0.03	30.9
				196.9	60.0								
				196.9-	60.0-		55°	77.9	13°	40°	16.3	<0.03	28.2
				201.8	61.5								
				201.8-	61.5-			76.4	8°	38.3	16°	<0.03	30.9
				206.7	63.0								
				206.7-	63.0-		45°	14.6	53.7	4.5	3.1	<0.03	14.9
				211.6	64.5								
				211.6-	64.5-			5.5	63.9	0.42	1.2	<0.03	9.6
				216.6	66.0								





## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-3 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>5</sub>	Core Angle	% GYPSUM	% INSOL	% SO <sub>2</sub>	% H <sub>2</sub> O	% NaCl	% CaO
B3	186.5-194	5.5		113.2-	34.5-								
100	194-199	5	64 <sup>9</sup> -68 <sup>8</sup> GYPSIFEROUS/AMPHIBOLITE TUFF	118.2	36.0	N/S							
100	199-204	5		118.2-	36.0-								
100	204-209	5	TR. PY. UBIQUITOUS; CHLORITE, DK. GRN/BLACK AMPHIBOLITE	123.0	37.5	N/S							
100	209-214	5		123.0-	37.5-								
98	214-219.5	5.5	BIOTITE - PHLOGOPITE - SERICITE INTER LAYERED	128.0	39.0	N/S							
95	219.5-220.5	5		128.0-	39.0-								
100	220.5-225.5	5	WITH GYPSUM (SECONDARY?) AS WISPS	132.0	40.5	N/S							
75	225.5-230	4.5		132.8-	40.5-								
100	230-235	5	LAMINAE; LAYERS UP TO 1 cm THICK; LIMY	137.8	42.0	.25		76.5	2.1	38.6	16.0	<0.03	32.3
97	235-240	5		137.8-	42.0-								
100	240-245	5	THROUGHOUT (35°) (80°)	142.7	43.5	.07	35°	88.4	0.8	44.7	18.5	"	32.7
88	245-250	5		142.7-	43.5-								
99	250-255	5	67.4: F <sub>3</sub> (?) CROSSCUTS S <sub>0</sub>	147.6	45.0	.05	40°	88.4	0.8	38.0	18.5	"	32.9
100	255-260	5		147.6-	45.0-								
100	260-265	5	68 <sup>8</sup> -74 <sup>6</sup> GYPSUM/ANHYDRITE (MOSTLY	152.6	46.5	.16		75.5	1.66	39.8	15.8	"	32.0
99	265-270	5		152.6-	46.5-								
98	270-275	5	TRANSLUCENT) TR. BIOTITE - PHLOGOPITE - SIDERITE	157.5	48.0	.20		59.7	1.96	41.1	12.5	"	33.3
98	275-280	5		157.5-	48.0-								
98	280-284	4	SERICITE; (H=2 1/2-3) ANHYDRITE; MINOR KAOLINITE	162.4	49.5	.05	30°	81.7	0.90	41.2	17.1	"	32.5
98	284-289	5	+ LT. GREEN TALC (SECONDARY MINERAL - FRACTURE	162.4-	49.5-								
100	289-291	2	INFILLING & ON SLIP SURFACES; OCC. LIMY (CaCO <sub>3</sub> )	167.3	51.0	.10	50°	79.8	1.46	36.3	16.7	"	32.3
100	291-296	5		167.3-	51.0-								
98	296-300	4	74 <sup>6</sup> -76 <sup>5</sup> GYPSIFEROUS/AMPHIBOLITE TUFF	172.3	52.5	.21	40°	71.7	2.54	35.1	15.0	"	31.8
99	300-305	5		172.3-	52.5-								
98	305-310	5	76 <sup>5</sup> -82 <sup>6</sup> BIOTITE - AMPHIBOLITE - SERICITE - PHLOGOPITE	177.1	54.0	.24		71.7	2.90	44.3	15.0	"	31.7
97	310-315	5		177.1-	54.0-								
100	315-320	5		182.1	55.5	.16	55° 60°	90.8	1.60	41.5	19.0	"	32.3
98	320-325	5		182.1-	55.5-								
100	325-330	5	82 <sup>6</sup> -82 <sup>6</sup> AMPHIBOLITE SILL, MASSIVE	187.0	57.0	.13	50° 50°	84.6	1.80	40.8	17.7	"	31.7
98	330-335	5		187.0-	57.0-								
100	335-340	5	INCR. CHLORITE / P <sub>1</sub> AT TOP, INCR. BIOTITE / H <sub>6</sub> AT	191.9	58.5	.27		83.1	2.32	40.5	17.4	"	31.7
100	340-345	5		191.9-	58.5-								
			BOTTOM; ~4 1/2 P <sub>1</sub> .	196.9	60.0	.46		76.5	6.54	46.0	16.0	"	34.7
				201.8	61.5	.12	45°	58.3	1.70	45.9	12.2	"	33.8
				201.8-	61.5-								
				206.7	63.0	.11	35°	72.2	1.78	34.2	15.1	"	32.2
				206.7-	63.0-								
				211.6	64.5	.44	65°	54.5	5.22	24.3	11.4	"	32.2
				211.6-	64.5-								
				216.6	66.0	2.64		50.3	21.70	22.3	10.5	"	24.3

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-3  
 DEPTH : PAGE 3

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC.	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% INSOL.	% GYPSUM	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
				216.5-221.5	66.0-67.5	3.88	65° 70°	36.4	45.0	22.3	9.6	<0.03	17.7
				221.5-226.4	67.5-69.0	4.18	50°	39.5	35.0	21.1	7.5	"	18.1
				226.4-231.3	69.0-70.5	0.86	40°	6.3	31.8	36.6	6.7	"	33.8
				231.3-236.2	70.5-72.0	0.32	55°	7.0	26.2	48.2	5.5	"	35.2
				236.2-241.2	72.0-73.5	0.97		10.6	22.7	29.5	4.8	"	32.2
				241.2-246.1	73.5-75.0	2.42	85°	22.3	43.5	22.9	9.1	"	25.0
				246.1-251.0	75.0-76.5	3.33		33.3	36.8	25.1	7.7	"	20.7
				251.0-255.9	76.5-78.0	0.33	45°	3.4	15.4	52.0	3.2	"	38.3
			82°-105° GYPSUM / ANHYDRITE	255.9-260.8	78.0-79.5	2.53	45°	21.1	13.9	38.1	2.9	"	30.4
			TRANSLUCENT & OPAQUE, MASSIVE & CG. CRYSTALLINE	260.8-265.8	79.5-81.0	1.42		20.1	9.9	39.2	2.1	"	31.0
			40% INTERLAYERED SERICITE - PHLOGOPITE - BIOTITE	265.8-270.1	81.0-82.5	4.35		31.1	18.3	12.6	3.8	"	23.5
			-CHLORITE - SIDERITE; LIMEX (CaCO <sub>3</sub> ); SOME AMPHIBOLE,	270.1-275.6	82.5-84.0	4.85	35°	11.4	58.8	32.2	12.3	"	30.1
				275.6-280.5	84.0-85.5	0.27		3.6	15.8	44.8	3.3	"	36.9
			(95°-95.8°) KAOLINITE / TALC LAYER	280.5-285.5	85.5-87.0	0.48	35° 36°	13.0°	7.5	45.8	1.6	"	34.4
				285.5-290.4	87.0-88.5	0.44	35°	4.1	10.6	38.8	2.2	"	36.4
				290.4-295.3	88.5-90.0	0.62	55°	19.2	10.7	9.2	2.2	"	28.0
				295.3-300.2	90.0-91.5	0.54	65°	10.4	16.8	32.4	3.5	"	32.7
				300.2-305.1	91.5-93.0	0.11		1.9	17.3	49.3	3.6	"	37.6
				305.1-310.1	93.0-94.5	0.81	25°	17.9	11.4	30.6	2.4	"	31.1
				310.1-315.0	94.5-96.0	0.82	55°	10.5	16.0	39.3	3.4	"	33.9
				315.0-319.9	96.0-97.5	0.94	75°	21.4	31.3	35.3	6.5	"	28.6







## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-5  
 DEPTH: 355' (108? m)

COLLAR ELEV.: 1124.0  
 LATITUDE: 1585 E  
 DEPARTURE: 700 N

BEARING: 200°  
 DIP: -60°  
 DECLIN: -68°

DATE: AUG. 7, 86  
 LOGGED BY: G. RODGERS  
 % CORE RECOVERY: 88%

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% JASOL	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% Ca
100 33	0-8 8-10	5 2	0-3° OVERBURDEN	9.8 - 14.8	3.0-4.5	N/S							
55 85	10-15 15-20	5 5	3°-15' AMPHIBOLITE (OXIDIZED)	14.8- 19.7	4.5-6.0	N/S							
85 81	20-25 25-30	5 5	WEATHERED; V. SOFT, HORNBLende - BIOTITE	19.7- 24.6	6.0-7.5	N/S							
67 100	30-35 35-40	5 5	KAOLINITE - CHLORITOID	24.6- 29.5	7.5-9.0	N/S							
100 90	40-45 45-50	5 5	15'-26' LIMESTONE BRECCIA;	29.5- 34.5	9.0-10.5	N/S							
95 75	50-55 55-59.5	5 4.5	ANGULAR FRAGMENTS OF GY. LIMESTONE	34.5- 39.4	0.5-12.0	N/S							
98 95	59.5-64.5 64.5-70	5 5.5	IN A LIMONITIC/CLAY MATRIX; SERICITE/ SERICITE ALTERATION THROUGHOUT (FRACTURED)	39.4- 44.3	2.0-13.5	N/S							
100 80	70-75 75-80	5 5	*SOFT THROUGHOUT.	44.3- 49.2	13.5- 15.0	N/S							
30 19	80-85 85-90	5 5	26'-32.3 GYPSUM (MASSIVE; WHITE	49.2- 54.1	15.0- 16.5	N/S							
50 50	90-92 92-93	2 1	(OPAQUE) (28°-28.8°) FAULT	54.1- 59.1	16.5- 18.0	N/S							
100 95	93-94 94-96	1 2	30.4: MnO, CaCO <sub>3</sub> & Fe <sub>2</sub> O <sub>3</sub>	59.1- 64.0	18.0- 19.5	N/S							
13 95	96-100 100-105	4 5		64.0- 68.9	19.5- 21.0	N/S							
99 86	105-107 107-110	2 3		68.9- 73.8	21.0- 22.5	N/S							
92 99	110-115 115-125	5 10	REDUCED TO @ 110' (ANCHORED NW CASING) BQ	73.8- 78.7	22.5- 24.0	N/S							
80 100	125-134 134-144.5	9 10.5		78.7- 83.7	24.0- 25.5	N/S							
100 90	144.5-155 155-165	10.5 10	31.6-34.6 AMPHIBOLITE (w CHL margins	83.7- 88.6	25.5- 27.0	N/S							
100 95	165-175 175-185	10 10	TOP & BOTTOM; P <sub>1</sub> = 3% THROUGHOUT.	88.6- 93.5	27.0- 28.5	0.67	68.8	5.9	33.7	14.4	40.03	31.3	
100 80	185-195 195-196.5	10 1.5		93.5- 98.4	28.5- 30.0		65.1	82.7	5.4	40.6	17.3	"	31.2
100 100	196.5-205 205-215	8.5 10		98.4- 103.4	30.0- 31.5			70.2	6.3	34.8	14.7	"	30.6
100 95	215-225 225-235	10 10		103.4- 108.3	31.5-33.0		45.1	58.8	16.2	29.7	12.3	"	26.6
				108.3- 113.2	33.0- 34.5			64.5	11.5	32.0	13.5	"	30.1

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 865 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% $CaO$	Core angle	% GYPSUM	% $CaSO_4$	% $SO_3$	% $H_2O$	% NaCl	% $CaO$
95	235-237	2	34.6-105' GYPSUM / ANHYDRITE (occ.)	113.2-	34.5-	1.06	67°	64.5	11.5	32.0	13.5	<0.03	30.1
95	237-245	8		118.2	36.0								
100	245-255	10	TUFFACEOUS LAYERS (810 & CO <sub>2</sub> RICH LAYERS TO 100m THICK) TR. Py.	118.2-	36.0-	0.65	62°	86.0	5.3	42.2	18.0	"	30.8
98	255-265	10		123.0	37.5								
95	265-275	10	(70.5-73.0) AMPHIBOLITE (CALCITE)	123.0-	37.5-	0.23		87.4	2.2	42.9	18.3	"	32.4
95	275-285	10		128.0	39.0								
100	285-295	10	(Py & 2')	128.0-	39.0-	0.15		87.9	1.5	43.2	18.4	"	32.4
100	295-305	10		132.0	40.5								
99	305-315	10	(77.5) CRYSTALLINE ANHYDRITE	132.9-	40.5-	0.23	60°	84.6	6.3	41.6	17.7	"	30.4
98	315-325	10		137.8	42.0								
100	325-335	10	HARDER / GREYER / SPOT ANALYSIS → ANHYDRITE	137.8-	42.0-	0.52	60°	84.1	5.9	43.2	17.6	"	31.1
98	335-345	10		142.7	43.5								
100	345-355	10		142.7-	43.5-	0.47		77.4	10.2	38.6	16.2	"	28.4
				147.6	45.0								
	LOH			147.6-	45.0-	0.18	60°	83.1	7.0	43.9	17.4	"	30.9
				152.6	46.5								
				152.6-	46.5-	0.40		87.0	4.1	43.4	18.2	"	31.4
				157.5	48.0								
				157.5-	48.0-	0.31	50°	79.3	4.3	39.5	16.6	"	31.3
				162.4	49.5								
				162.4-	49.5-	0.09	40°	76.5	1.9	39.1	16.0	"	33.1
				167.3	51.0								
				167.3-	51.0-	0.74	65°	75.5	8.5	41.8	15.8	"	30.1
				172.3	52.5								
			SPT ANALYSIS @ 185' = 90% GYPSUM	172.3-	52.5-	0.11		73.1	3.8	44.4	15.3	"	31.8
				177.1	54.0								
				177.1-	54.0-	0.1	55°	66.9	2.0	39.8	14.0	"	32.7
				182.1	55.5								
				182.1-	55.5-	0.1	65°	67.4	1.3	45.6	14.1	"	34.7
				187.0	57.0								
				187.0-	57.0-	0.41		69.8	5.5	35.3	5.9	"	31.7
				191.9	58.5								
				191.9-	58.5-	0.54		77.4	3.4	38.9	4.2	"	32.4
				196.9	60.0								
				196.9-	60.0-	0.24		48.3	5.1	33.0	4.8	"	32.9
				201.8	61.5								
				201.8-	61.5-	0.14	30°	40.2	3.6	40.3	1.3	"	35.3
				206.7	63.0								
				206.7-	63.0-	1.04	45°	31.6	5.0	42.8	1.5	"	35.4
				211.6	64.5								
				211.6-	64.5-	0.20	60°	27.5	3.2	44.9	2.1	"	36.4
				216.6	66.0								

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-5  
 DEPTH : PAGE 3

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% Inset	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
			GYPSUM / ANHYDRITE CONT'D.	216.5- 221.5	66.0- 67.5	0.18	65°	28.1	1.6	50.3	5.9	40.03	37.1
				221.5- 226.4	67.5- 69.0	0.12		19.9	1.8	53.1	4.2	"	
				226.4- 231.3	69.0- 70.5	0.43	50°	22.9	3.4	48.1	4.8	"	37.4
				231.3- 236.2	70.5- 72.0	7.3		6.3	68.0	5.5	1.3	"	9.1
				236.2- 241.2	72.0- 73.5	2.8	65°	6.9	29.0	22.3	1.5	"	26.0
				241.2- 246.1	73.5- 75.0	1.2		10.2	10.1	38.1	2.1	40.03	34.3
				246.1- 251.0	75.0- 76.5	1.9		9.5	4.4	39.6	2.0	"	36.3
				251.0- 255.9	76.5- 78.0	1.5	60°	3.4	9.6	37.1	0.7	"	34.9
				255.9- 260.8	78.0- 79.5		60°						
				260.8- 265.8	79.5- 81.0	0.5		2.0	4.0	50.6	0.4	"	38.1
				265.8- 270.1	81.0- 82.5								
				270.1- 275.6	82.5- 84.0	1.7		2.5	11.7	37.6	0.5	"	33.5
				275.6- 280.5	84.0- 85.5		40°						
				280.5- 285.5	85.5- 87.0	0.1	75°	2.5	0.7	54.5	0.5	"	40.1
				285.5- 290.4	87.0- 88.5								
				290.4- 295.3	88.5- 90.0	1.7	50°	7.1	8.4	31.3	1.5	"	34.4
				295.3- 300.2	90.0- 91.5								
				300.2- 305.1	91.5- 93.0	1.1	55°	9.4	15.4	26.8	2.0	"	31.3
				305.1- 310.1	93.0- 94.5		65°						
				310.1- 315.0	94.5- 96.0	1.1	75°	11.8	28.6	33.0	0.4	"	34.3
				315.0- 319.9	96.0- 97.5		40°						





## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-6 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% K <sub>2</sub> O	Core Angle	% GYPSUM	% MnSO <sub>4</sub>	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
100	312-317	5	117'-119" AMALBOLITE TUFF (LIMEY)	113.2-	34.5-	0.9	25°	82.2	6.0	42.8	17.2	<0.03	31.1
100	317-327	10		118.2-	36.0-								
100	327-337	10		118.2-	36.0-	1.7		32.8	13.6	44.0	6.9	"	31.2
100	337-347	10		123.0-	37.5-								
100	347-357	10	119.4'-131" ANHYDRITE (D.15% SIDERITE/ ANIKORITE/CHLORITE ETC.	123.0-	37.5-	0.8	45°	81.7	5.4	42.7	17.1	"	31.1
100	357-367	10		128.0-	39.0-								
100	367-377	10		128.0-	39.0-	0.4		83.6	2.6	43.4	17.5	"	32.7
100	377-387	10		132.0-	40.5-								
100	387-397	10		132.9-	40.5-	0.04	5°	85.5	0.3	46.6	17.9	"	33.8
100	397-407	10		137.8-	42.0-								
100	407-417	10	131'-132" AMALBOLITE TUFF	137.8-	42.0-	0.1		72.2	1.6	40.7	15.1	"	35.6
100	417-427	10		142.7-	43.5-								
100	427-437	10		142.7-	43.5-	1.2	50°	60.2	10.9	42.7	12.6	"	30.4
100	437-447	10		147.6-	45.0-								
100	447-457	10	132°-148" ANHYDRITE (SAP) ESTIM	147.6-	45.0-	0.8		23.8	5.3	50.4	4.99	"	36.2
100	457-467	10		152.6-	46.5-								
100	467-477	10	25% SIDERITE/BIOTITE/CHLORITE ETC.	152.6-	46.5-			35.5	4.5	21.5	7.4	"	18.3
100	477-487	10		157.5-	48.0-								
	END			157.5-	48.0-	N/S							
				162.4-	49.5-	N/S	50°						
				162.4-	49.5-	N/S							
				167.3-	51.0-	N/S							
				167.3-	51.0-	N/S							
				172.3-	52.5-	N/S							
				172.3-	52.5-	N/S	55°						
				177.1-	54.0-	N/S							
				177.1-	54.0-	N/S	55°	41.9	14.3	34.7	8.8	"	29.3
				182.1-	55.5-	1.5							
				182.1-	55.5-	1.5							
				187.0-	57.0-	0.6		11.9	5.9	43.6	2.5	"	35.9
				187.0-	57.0-	0.6							
				187.0-	57.0-	0.4		6.1	4.5	23.7	1.3	"	33.6
				191.9-	58.5-	0.4							
				191.9-	58.5-	0.4							
				196.9-	60.0-	1.9		18.1	1.8	46.8	3.8	"	37.4
				196.9-	60.0-	1.9							
				196.9-	60.0-	1.9							
				201.8-	61.5-	0.8	55°	8.3	8.3	38.4	1.7	"	34.2
				201.8-	61.5-	0.8							
				206.7-	63.0-	0.1		3.6	1.9	52.1	0.8	"	38.8
				206.7-	63.0-	0.1							
				211.6-	64.5-	0.1		6.1	2.4	52.6	1.3	"	39.1
				211.6-	64.5-	0.1							
				216.6-	66.0-	0.1	55°	3.6	1.6	51.7	0.8	"	39.3
				216.6-	66.0-	0.1							

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-6 PAGE 3  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC.	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	R <sub>10</sub>	Core Angle	% GYPSUM	% IN SOL	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
			ANHYDRITE CONTD.	216.5- 221.5	68.05	0.1	60°	5.4	1.3	21.3	1.2	40.03	33.9
				221.5- 226.4	67.95	0.2		6.6	6.0	49.6	1.4	"	37.7
				226.4- 231.3	69.05	0.2	55°	7.1	3.3	20.4	1.5	"	32.8
				231.3- 236.2	70.5- 72.0	0.3		4.4	6.1	39.4	0.9	"	35.9
				236.2- 241.2	73.05	0.2		3.5	3.5	46.4	0.7	"	37.7
				241.2- 246.1	73.5- 75.0	0.1	65°	0.8	20.5	52.3	0.7	"	28.3
				246.1- 251.0	75.0- 76.5	0.2		1.7	12.9	53.1	0.4	"	35.5
				251.0- 255.9	76.5- 78.0	0.3	50°	16.1	7.5	42.9	3.4	"	34.9
				255.9- 260.8	78.0- 79.5								
				260.8- 265.8	79.5- 81.0	0.3	50°	7.8	4.3	46.1	3.6	"	37.4
				265.8- 270.1	81.0- 82.5								
				270.1- 275.6	82.5- 84.0	0.2		13.0	13.8	52.1	2.7	"	33.9
				275.6- 280.5	84.0- 85.5								
			(91°-92°) 7cm THICK AMPHIBOLITE	280.5- 285.5	85.5- 87.0	1.1	45°	3.7	16.9	33.1	0.8	"	31.1
			DIPS (X-CUTS BEDDING) (05°) OR 50° - CONTAINS	285.5- 290.4	87.0- 88.5								
			ROUNDED BY BEDDING (TO 1cm LONG); 1/2cm WIDE	290.4- 295.3	88.5- 90.0	4.7	50°	5.6	113.3	19.5	1.2	"	19.3
				295.3- 300.2	90.0- 91.5								
				300.2- 305.1	91.5- 93.0	2.8	45°	19.4	22.3	20.4	4.1	"	28.6
				305.1- 310.1	93.0- 94.5								
				310.1- 315.0	94.5- 96.0	0.8		16.9	11.5	36.4	3.5	"	30.8
				315.0- 319.9	96.0- 97.5								









## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-7 PAGE 2  
 DEPTH :

COLLAR ELEV.:  
 LATITUDE :  
 DEPARTURE :

BEARING:  
 DIP :

DATE:  
 LOGGED BY:  
 % CORE RECOVERY:

REC.	FOOTAGE	LGTH.	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>5</sub>	Core Angle	% GYPSUM	% FeS <sub>2</sub>	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% CaO
				113.2- 118.2	34.5- 36.0	N/S							
				118.2- 123.0	36.0- 37.5	N/S							
				123.0- 128.0	37.5- 39.0	N/S							
				128.0- 132.0	39.0- 40.5	N/S							
				132.9- 137.8	40.5- 42.0	N/S							
				137.8- 142.7	42.0- 43.5	N/S							
				142.7- 147.6	43.5- 45.0	N/S							
				147.6- 152.6	45.0- 46.5	N/S							
				152.6- 157.5	46.5- 48.0	N/S							
				157.5- 162.4	48.0- 49.5	1.1		79.3	8.7	38.0	16.0	<0.03	30.3
			ONLY FOUR SAMPLES TAKEN	162.4- 167.3	49.5- 51.0	0.6		80.4	4.3	42.8	18.5	"	31.6
				167.3- 172.3	51.0- 52.5	0.7		85.5	4.7	41.5	17.9	"	31.4
				172.3- 177.1	52.5- 54.0	0.7		73.0	2.5	35.9	15.4	"	34.4
				177.1- 182.1	54.0- 55.5	N/S							
				182.1- 187.0	55.5- 57.0	N/S							
				187.0- 191.9	57.0- 58.5	N/S							
				191.9- 196.8	58.5- 60.0	N/S							
				196.8- 201.8	60.0- 61.5	N/S							
				201.8- 206.7	61.5- 63.0	N/S							
				206.7- 211.6	63.0- 64.5	N/S							
				211.6- 216.6	64.5- 66.0	N/S							

E.O.H.

## Queenstake Resources Ltd.

### DIAMOND DRILL CORE LOG

LOCATION: O'CONNOR RIVER, B.C.  
 HOLE NO.: 86-8  
 DEPTH : 204' (62.7 m)

PAGE 1  
 BQ

COLLAR ELEV.: 1031  
 LATITUDE : 1318E  
 DEPARTURE : 783N

BEARING: 180°  
 DIP : -60°  
 DEFN : -64

DATE: AUG. 9/86  
 LOGGED BY: G. RODGERS  
 % CORE RECOVERY: 55%

REC	FOOTAGE	LGTH	ROCK DESCRIPTION	Imp. SAMPLE	Metric SAMPLE	% R <sub>2</sub> O <sub>3</sub>	Core Angle	% GYPSUM	% INSOL.	% SO <sub>3</sub>	% H <sub>2</sub> O	% NaCl	% Ca
23 8	23-25 25-27	2 12.2	0.-1.1 <sub>m</sub> OVERBURDEN	9.8- 14.8	3.0-4.5	N/S							
10 27	37-47 47-55	10 8	1.1-11.5 AMPHIBOLITE (SAP.)	14.8- 19.7	4.5-6.0	N/S							
82 80	55-62 62-67	7 5	(7.6-7.7) FAULT	19.7- 24.6	6.0-7.5	N/S							
83 58	67-77 77-80	10 3	11.5-14.0 LIMESTONE BRECCIA (HIGHLY FRACTURED)	24.6- 29.5	7.5-9.0	N/S							
83 83	80-83 83-87	3 4		29.5- 34.5	9.0-10.5	N/S							
95 90	87-97 97-20.5	10 1.5	14.0-40.5 GYPSUM (COLOR CHANGES @ 35'-37.5')	34.5- 39.4	10.5-12.0	N/S							
95 82	78-104 104-107	5.5 3	OCC. TREE MATL.	39.4- 44.3	2.0-13.5	N/S							
95 70	107-117 117-127	10 10	(29.7-40.0) GYPSUM	44.3- 49.2	13.5- 15.0	2.6	54°	13'	26'	11.3	<0.03	30°	
15 7	137-137 137-147	0 10		49.2- 54.1	15.0- 16.5	0.6	84'	5'	40°	17.6	"	31°	
40 80	147-150 150-153	3 3	40.5-62.2 AMPHIBOLITE	54.1- 59.1	16.5- 18.0	0.3		80.3	3'	38.4	16.8	"	32°
25 10	153-157 157-167	4 10	(41.5 → FAULT)	59.1- 64.0	18.0- 19.5	0.5	40°	87.4	6.3	41.6	18.3	"	31°
10 38	167-172 172-176	5 4		64.0- 68.9	19.5- 21.0	1.0		79.3	10.6	37.1	16.6	"	29°
10 75	176-179 179-181	3 2		68.9- 73.8	21.0- 22.5	0.8	45°	84.5	8.1	39.8	17.7	"	29°
30 50	181-185 185-188	4 3		73.8- 78.7	22.5- 24.0	1.3	45°	79.3	12.3	37.6	16.6	"	30°
85 25	188-193 193-198	5 5		78.7- 83.7	24.0- 25.5	1.3	40°	77.9	10.3	37.7	16.3	"	29°
15 60	198-201 201-204	3 3		83.7- 88.6	25.5- 27.0	0.6		83.1	7.3	40.2	17.4	"	30.8
				88.6- 93.5	27.0- 28.5	0.6	45°	84.1	8.7	41.3	17.6	"	30.8
				93.5- 98.4	28.5- 30.0	0.7		70.7	10.9	40.3	14.8	"	20.9
				98.4- 103.4	30.0- 31.5	0.5		29.2	9.6	45.9	6.1	"	35.1
				103.4- 108.3	31.5- 33.0	0.3	45°	55.9	8.3	45.7	11.7	"	34.2
				108.3- 113.2	33.0- 34.5	0.2	40°	88.9	3.1	43.8	18.6	"	33.5



**APPENDIX B**

**ASSAY RESULTS**

## RESULTS OF TESTING:

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
1	1-1.5-3.0	<0.01	17.20	<0.03	31.00	37.90	4.38	0.29	1.64	82.18
2	1-3.0-4.5	<0.01	17.50	<0.03	30.90	38.60	4.88	0.32	0.99	83.62
3	1-4.5-6.0	<0.01	17.00	<0.03	29.60	36.80	8.06	0.58	0.96	81.23
4	1-6.0-7.5	<0.01	14.80	<0.03	31.70	32.10	1.30	0.09	4.88	70.71
5	1-7.5-9.0	<0.01	18.60	<0.03	31.30	40.60	2.08	0.09	1.20	88.87
6	1-9.0-10.5	<0.01	18.30	<0.03	31.90	40.80	1.76	0.10	1.27	87.44
7	1-10.5-12.0	<0.01	15.30	<0.03	31.30	33.10	6.54	0.38	1.82	73.10
8	1-12.0-13.5	0.02	0.95	0.03	19.50	0.62	50.90	2.48	4.38	4.54
9	1-13.5-15.0	<0.01	5.57	<0.03	29.50	12.50	8.10	0.84	11.40	26.61
10	1-15.0-16.5	<0.01	16.10	0.03	32.40	38.00	2.18	0.24	3.02	76.93
11	1-16.5-18.0	<0.01	14.90	<0.03	30.70	34.30	3.94	0.38	3.87	71.19
12	1-18.0-19.5	<0.01	18.20	0.03	30.90	41.40	4.34	0.60	1.06	86.96
13	1-19.5-21.0	<0.01	17.20	<0.03	30.90	37.40	5.40	0.85	1.39	82.18
14	1-21.0-22.5	<0.01	17.70	0.03	30.10	39.20	7.18	0.22	0.81	84.57
15	1-22.5-24.0	0.05	19.00	<0.03	32.00	41.20	1.82	0.22	0.85	90.78
16	1-24.0-25.5	0.01	19.10	<0.03	32.40	43.70	0.72	0.10	0.77	91.26
17	1-25.5-27.0	0.01	19.00	<0.03	32.50	42.30	0.82	0.07	0.80	90.78
18	1-27.0-28.5	0.01	15.10	<0.03	30.80	33.90	4.42	0.55	3.27	72.15
19	1-28.5-30.0	0.02	12.90	<0.03	31.00	28.70	4.34	0.37	5.54	61.64
20	1-30.0-31.5	0.02	16.00	<0.03	34.10	37.10	3.00	0.39	3.05	76.45
21	1-31.5-33.0	0.02	17.30	<0.03	30.10	38.50	8.42	0.88	0.87	82.66
22	1-33.0-34.5	<0.01	18.00	<0.03	32.20	41.90	2.10	0.33	1.02	86.00
23	1-34.5-36.0	0.01	19.10	<0.03	31.40	46.00	1.44	0.03	0.72	91.26
24	1-36.0-37.5	0.01	18.70	<0.03	32.30	46.50	1.62	0.04	0.40	89.35
25	1-37.5-39.0	0.01	14.90	<0.03	31.30	48.20	1.30	0.02	0.70	71.19
26	1-39.0-40.5	<0.01	15.40	<0.03	32.80	47.70	0.90	0.08	1.51	73.58
27	1-40.5-42.0	0.02	12.00	<0.03	30.70	29.20	3.00	0.38	8.09	57.34
28	1-42.0-43.5	0.03	7.83	<0.03	32.60	32.60	1.16	0.36	7.62	37.41
29	1-43.5-45.0	<0.01	11.60	<0.03	30.70	28.20	5.52	0.47	7.10	55.42
30	1-45.0-46.5	0.01	7.06	<0.03	35.90	51.60	2.22	0.08	1.03	33.73
31	1-46.5-48.0	0.05	8.37	<0.03	35.80	53.90	1.28	0.17	0.27	39.99
32	1-48.0-49.5	0.06	15.00	<0.03	34.00	49.20	2.06	0.14	0.27	71.67
33	1-49.5-51.0	0.23	13.80	<0.03	30.80	34.20	1.84	0.45	4.03	65.94
34	1-51.0-52.5	0.07	11.90	<0.03	30.80	28.80	5.14	0.42	6.43	56.86
35	1-52.5-54.0	0.04	16.40	<0.03	26.20	39.80	3.88	0.36	1.85	78.36
36	1-54.0-55.5	0.04	11.70	<0.03	37.10	46.50	2.40	0.11	0.92	55.90
37	1-55.5-57.0	0.02	13.50	<0.03	21.90	40.10	4.68	0.55	2.34	64.50

## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
38	1-57.0-58.5	0.06	8.40	<0.03	35.20	47.40	1.94	0.14	1.88	40.14
39	1-58.5-60.0	0.08	6.12	<0.03	27.50	45.60	1.28	0.21	3.15	29.24
40	1-60.0-61.5	0.31	8.62	<0.03	31.70	32.70	23.80	1.63	1.87	41.19
41	1-72.0-73.5	0.14	9.06	<0.03	13.40	22.10	11.90	1.43	5.70	43.29
42	1-73.5-75.0	0.03	2.47	<0.03	35.20	5.82	13.30	2.02	16.10	11.80
43	1-75.0-76.5	0.03	3.57	<0.03	35.50	40.90	5.52	1.11	5.30	17.06
44	1-76.5-78.0	0.04	3.75	<0.03	31.70	26.10	32.20	4.66	3.45	17.92
45	1-78.0-79.5	0.07	8.10	<0.03	23.30	29.30	29.90	3.65	2.62	38.70
46	1-79.5-81.0	0.11	4.65	<0.03	21.80	26.50	33.60	4.05	2.94	22.22
47	1-81.0-82.5	0.16	4.64	<0.03	27.20	24.70	21.40	2.33	5.41	22.17
48	1-82.5-84.0	0.24	6.00	<0.03	33.20	37.90	8.44	1.20	3.65	28.67
49	1-84.0-85.5	0.06	7.44	<0.03	28.00	23.20	15.20	1.60	6.17	35.55
50	1-85.5-87.0	0.05	0.90	<0.03	39.40	55.40	2.46	0.30	0.78	4.30
51	1-87.0-88.5	0.03	8.84	<0.03	31.00	30.00	9.80	0.62	4.82	42.24
52	1-88.5-90.0	0.06	3.62	<0.03	28.70	7.72	14.90	1.83	11.80	17.30
53	1-90.0-91.5	0.29	17.60	<0.03	30.80	41.20	4.72	0.66	1.18	84.09
54	1-91.5-93.0	0.13	9.51	<0.03	24.30	22.50	24.90	1.08	4.96	45.44
55	2-3.5-4.5	0.09	16.70	<0.03	31.80	38.00	2.76	0.35	2.72	79.79
56	2-4.5-6.0	0.05	19.40	<0.03	32.00	44.70	1.46	0.10	0.52	92.69
57	2-6.0-7.5	0.09	18.30	0.03	32.10	43.00	1.40	0.07	1.65	87.44
58	2-7.5-9.0	0.10	18.70	<0.03	31.60	44.20	1.70	0.27	1.03	89.35
59	2-9.0-10.5	0.09	13.40	<0.03	25.10	32.40	21.50	0.89	1.90	64.03
60	2-10.5-12.0	0.06	3.01	<0.03	22.80	6.85	32.80	2.24	8.79	14.38
61	2-12.0-13.5	0.12	5.57	<0.03	21.40	12.10	33.90	2.20	6.91	26.61
62	2-64.5-66.0	0.18	5.47	<0.03	20.40	11.80	36.90	2.88	5.34	26.14
63	2-15.0-16.5	1.83	0.77	<0.03	28.10	0.40	19.10	2.56	11.93	3.68
64	2-16.5-18.0	0.14	0.35	0.045	26.40	0.43	21.10	2.00	12.91	1.67
65	2-18.0-19.5	0.08	0.51	<0.03	27.10	0.54	21.90	2.02	11.37	2.44
66	2-19.5-21.0	<0.01	17.20	0.06	30.40	40.90	6.44	0.87	1.45	82.18
67	2-21.0-22.5	0.02	16.70	<0.03	27.90	39.40	10.40	1.38	1.34	79.79
68	2-22.5-24.0	0.99	3.35	<0.03	26.10	6.92	23.50	3.25	9.63	16.01
69	2-24.0-25.5	0.15	8.88	0.03	27.30	21.60	18.90	1.80	5.40	42.43
70	2-25.5-27.0	0.03	5.66	<0.03	28.10	13.50	15.40	2.67	10.34	27.04
71	2-27.0-28.5	<0.01	16.40	0.03	33.40	45.90	1.10	0.13	0.98	78.36
72	2-28.5-30.0	0.03	5.92	<0.03	25.80	13.50	21.10	3.56	8.11	28.29
73	2-30.0-31.5	0.01	18.50	0.03	29.80	45.40	2.24	0.14	0.36	88.39
74	2-31.5-33.0	0.01	11.30	0.03	30.20	27.20	6.84	0.52	5.58	53.99



## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
75	2-33.0-34.5	0.02	9.84	<0.03	28.90	22.90	10.30	0.79	6.59	47.02
76	2-34.5-36.0	0.01	9.55	<0.03	30.00	22.10	6.20	0.51	8.45	45.63
77	2-36.0-37.5	0.02	10.50	<0.03	28.90	41.70	2.74	0.26	2.81	50.17
78	2-37.5-39.0	0.03	8.66	0.045	30.10	50.10	0.28	0.03	1.19	41.38
79	2-39.0-40.5	0.03	10.10	<0.03	35.00	49.50	0.24	0.02	0.96	48.26
80	2-40.5-42.0	0.02	10.90	<0.03	29.30	30.10	8.36	0.60	5.35	52.08
81	2-42.0-43.5	0.01	15.20	0.03	29.60	35.80	4.36	0.97	3.78	72.63
82	2-43.5-45.0	0.03	15.20	<0.03	24.00	35.90	15.50	2.07	1.82	72.63
83	2-45.0-46.5	0.02	14.10	0.03	28.50	33.20	5.16	0.69	4.60	67.37
84	2-46.5-48.0	0.01	12.80	0.03	29.50	39.60	3.58	0.25	2.85	61.16
85	2-48.0-49.5	0.18	15.70	<0.03	30.90	45.90	0.44	0.04	1.03	75.01
86	2-49.5-51.0	0.49	18.20	<0.03	29.30	44.30	0.28	0.03	1.17	86.96
87	2-51.0-52.5	1.01	17.80	<0.03	32.60	45.00	1.36	0.03	1.08	85.05
88	2-52.5-54.0	0.07	9.32	<0.03	30.10	22.40	7.80	1.25	8.20	44.53
89	2-54.0-55.5	0.05	12.00	<0.03	25.20	28.60	22.70	2.82	2.99	57.34
90	2-55.5-57.0	0.02	12.30	<0.03	31.50	29.50	6.84	0.42	4.38	58.77
91	2-57.0-58.5	0.06	5.16	<0.03	27.20	13.00	13.90	1.15	9.78	24.65
92	2-58.5-60.0	1.34	16.50	<0.03	30.90	42.20	6.32	0.36	0.59	78.84
93	2-60.0-60.5	0.33	16.30	<0.03	28.20	40.00	13.00	0.78	0.58	77.88
94	2-1.5-63.0	0.08	16.00	<0.03	30.30	38.30	8.00	0.98	1.78	76.45
95	2-63.0-64.5	0.81	3.05	<0.03	14.90	4.50	53.70	4.17	4.68	14.57
96	2-64.5-66.0	3.74	1.16	<0.03	9.58	0.42	63.90	5.07	4.58	5.54
97	2-66.0-67.5	1.59	1.41	<0.03	13.50	0.43	60.00	5.52	5.27	6.74
98	2-67.5-69.0	0.22	0.95	<0.03	14.70	0.51	61.40	3.10	3.61	4.54
99	3-3.0-4.5	0.01	15.70	<0.03	30.10	37.40	8.76	0.36	1.85	75.01
100	3-4.5-6.0	0.01	19.50	<0.03	32.70	46.40	0.74	0.06	0.45	93.17
101	3-6.0-7.5	<0.01	18.10	<0.03	31.80	42.10	3.44	0.37	1.41	86.48
102	3-7.5-9.0	<0.01	18.40	<0.03	32.10	43.30	2.90	0.35	1.09	87.92
103	3-9.0-10.5	<0.01	16.80	<0.03	31.60	39.10	2.94	0.27	2.84	80.27
104	3-10.5-12.0	<0.01	13.10	<0.03	32.30	30.90	1.96	0.12	6.34	62.59
105	3-12.0-13.5	<0.01	16.20	0.045	31.50	38.30	3.66	0.27	2.70	77.40
106	3-13.5-15.0	<0.01	16.20	<0.03	32.40	38.40	1.38	0.09	3.30	77.40
107	3-15.0-16.5	0.02	12.60	<0.03	31.50	29.70	2.80	0.18	6.38	60.20
108	3-16.5-18.0	0.02	17.80	<0.03	31.60	42.20	3.96	0.26	0.83	85.05
109	3-18.0-19.5	0.02	9.01	0.03	30.70	21.40	5.48	0.42	9.34	43.05
110	3-19.5-21.0	0.02	9.81	<0.03	30.90	22.90	5.40	0.34	9.56	46.87
111	3-21.0-22.5	0.02	16.00	0.03	32.20	38.10	2.54	0.16	2.76	76.45

## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
112	3-22.5-24.0	0.02	16.60	<0.03	32.30	39.40	2.28	0.27	2.41	79.31
113	3-24.0-25.5	0.01	16.30	<0.03	31.50	39.10	5.32	0.35	1.77	77.88
114	3-25.5-27.0	0.16	13.20	<0.03	31.20	31.80	2.70	0.13	5.73	63.07
115	3-27.0-28.5	0.01	17.80	<0.03	32.10	42.20	2.26	0.16	1.35	85.05
116	3-28.5-30.0	0.03	16.20	<0.03	30.60	38.20	6.12	0.40	1.92	77.40
117	3-30.0-31.5	0.02	18.40	<0.03	32.10	43.90	2.92	0.26	0.54	87.92
118	3-31.5-33.0	0.08	12.60	<0.03	25.10	30.40	24.20	0.88	1.11	60.20
119	3-40.5-42.0	0.03	16.00	<0.03	32.30	38.60	2.10	0.25	2.68	76.45
120	3-42.0-43.5	0.03	18.50	<0.03	32.70	44.70	0.80	0.07	0.95	88.39
121	3-43.5-45.0	0.05	18.50	<0.03	32.90	44.70	0.80	0.05	0.92	88.39
122	3-45.0-46.5	0.04	15.80	<0.03	32.00	38.00	1.66	0.16	3.29	75.49
123	3-46.5-48.0	0.07	12.50	<0.03	33.30	39.80	1.96	0.20	3.09	59.73
124	3-48.0-49.5	0.14	17.10	<0.03	32.50	41.10	0.90	0.05	1.23	81.70
125	3-49.5-51.0	0.26	16.70	<0.03	32.30	41.20	1.46	0.10	2.19	79.79
126	3-51.0-52.5	0.20	15.00	<0.03	31.80	36.30	2.54	0.21	3.49	71.67
127	3-52.5-54.0	0.02	15.00	<0.03	31.70	35.10	2.90	0.24	3.48	71.67
128	3-54.0-55.5	0.03	19.00	<0.03	32.20	44.30	1.60	0.16	0.68	90.78
129	3-55.5-57.0	0.02	17.70	<0.03	31.70	41.50	1.80	0.13	1.85	84.57
130	3-57.0-58.5	0.04	17.40	<0.03	31.70	40.80	2.32	0.27	1.92	83.14
131	3-58.5-60.0	0.04	16.00	<0.03	31.10	40.50	6.54	0.46	1.60	76.45
132	3-60.0-61.5	0.04	12.20	<0.03	34.70	46.00	1.70	0.12	1.58	58.29
133	3-61.5-63.0	0.04	15.10	<0.03	33.80	45.90	1.28	0.11	1.05	72.15
134	3-63.0-64.5	0.03	11.40	<0.03	32.20	34.20	5.22	0.44	3.89	54.47
135	3-64.5-66.0	0.04	10.50	<0.03	24.30	24.30	21.70	2.64	4.47	50.17
136	3-66.0-67.5	0.04	9.60	<0.03	17.70	22.30	36.40	3.88	2.75	45.87
137	3-67.5-69.0	0.03	7.52	<0.03	18.10	21.10	39.50	4.18	2.98	35.93
138	3-69.0-70.5	0.05	6.65	<0.03	33.80	36.60	6.32	0.86	3.87	31.77
139	3-70.5-72.0	0.02	5.49	<0.03	35.20	48.20	6.96	0.32	1.43	26.23
140	3-72.0-73.5	0.19	4.76	<0.03	32.20	29.50	10.60	0.97	5.05	22.74
141	3-73.5-75.0	0.02	9.11	<0.03	25.00	22.90	22.30	2.42	4.49	43.53
142	3-75.0-76.5	0.02	7.71	<0.03	20.70	25.10	33.30	3.33	2.61	36.84
143	3-76.5-78.0	0.05	3.22	<0.03	38.30	52.00	3.38	0.39	0.88	15.39
144	3-78.0-79.5	0.03	2.91	<0.03	30.40	38.10	21.10	2.53	2.38	13.90
145	3-79.5-81.0	<0.01	2.08	<0.03	31.00	39.20	20.10	1.42	2.39	9.94
146	3-81.0-82.5	0.03	3.82	<0.03	23.50	12.60	31.10	4.35	6.22	18.25
147	3-82.5-84.0	0.05	12.30	<0.03	30.10	32.20	11.40	4.85	6.51	58.77
148	3-84.0-85.5	0.07	3.30	<0.03	36.90	44.80	3.60	0.27	2.63	15.77

## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
149	3-85.5-87.0	0.09	1.57	<0.03	34.40	45.80	13.00	0.48	1.03	7.50
150	3-87.0-88.5	0.07	2.22	<0.03	36.40	38.80	4.12	0.44	4.14	10.61
151	3-88.5-90.0	0.09	2.24	<0.03	28.00	9.22	19.20	0.62	9.20	10.70
152	3-90.0-91.5	0.14	3.51	<0.03	32.70	32.40	10.40	0.54	5.59	16.77
153	3-91.5-93.0	<0.50	3.62	<0.03	37.60	49.30	1.94	0.11	2.08	17.30
154	3-93.0-94.5	0.77	2.39	<0.03	31.10	30.60	17.90	0.81	3.40	11.42
155	3-94.5-96.0	0.75	3.35	<0.03	33.90	39.30	10.50	0.82	3.05	16.01
156	3-96.0-97.5	0.44	6.54	<0.03	28.60	35.30	21.40	0.94	1.75	31.25
157	3-96.0-97.5	0.05	0.65	<0.03	31.70	42.80	22.00	0.33	0.52	3.11
158	3-99.0-100.	0.09	1.93	<0.03	27.00	35.40	31.30	0.59	0.81	9.22
159	3-100.5-102	0.07	4.33	<0.03	23.70	24.20	41.20	1.21	1.27	20.69
160	3-102.0-103	0.11	2.80	<0.03	22.90	26.20	40.60	1.61	1.46	13.38
161	3-103.5-105	0.12	1.87	<0.03	19.70	15.60	51.60	1.41	1.50	8.93
162	4-27.1-27.4	0.07	17.90	<0.03	30.10	42.20	6.72	0.95	0.97	85.53
163	7-48.0-49.5	0.19	16.60	<0.03	30.30	38.00	8.68	1.12	1.09	79.31
164	7-49.5-51.0	0.07	18.50	<0.03	31.60	42.80	4.30	0.55	0.57	88.39
165	7-51.0-52.5	0.05	17.90	<0.03	31.40	41.50	4.70	0.72	1.10	85.53
166	7-52.5-54.0	0.06	15.40	<0.03	34.40	35.90	2.52	0.22	2.28	73.58
167	5-27.0-28.5	0.07	14.40	<0.03	31.30	33.70	5.90	0.67	3.88	68.80
168	5-28.5-30.0	0.05	17.30	<0.03	31.20	40.60	5.42	0.63	1.48	82.66
169	5-30.0-31.5	0.03	14.70	<0.03	30.60	34.80	6.28	0.54	3.55	70.24
170	5-31.5-33.0	0.04	12.30	<0.03	26.60	29.70	16.20	2.88	3.92	58.77
171	5-34.5-36.0	0.09	13.50	<0.03	30.10	32.00	11.52	1.06	1.83	64.50
172	5-36.0-37.5	0.04	18.00	<0.03	30.80	42.20	5.28	0.65	0.74	86.00
173	5-37.5-39.0	0.04	18.30	<0.03	32.40	42.90	2.16	0.23	1.20	87.44
174	5-39.0-40.5	0.04	18.40	<0.03	32.40	43.20	1.52	0.15	1.24	87.92
175	5-40.5-42.0	0.03	17.70	<0.03	30.40	41.60	6.32	0.73	1.04	84.57
176	5-42.0-43.5	0.03	17.60	<0.03	31.10	43.20	5.90	0.52	0.52	84.09
177	5-43.5-45.0	0.04	16.20	0.03	28.40	38.60	10.20	0.47	2.36	77.40
178	5-45.0-46.5	0.03	17.40	<0.03	30.90	43.90	7.00	0.18	0.68	83.14
179	5-46.5-48.0	0.04	18.20	<0.03	31.40	43.40	4.08	0.40	0.67	86.96
180	5-48.0-49.5	0.05	16.60	<0.03	31.30	39.50	4.34	0.31	1.79	79.31
181	5-49.5-51.0	0.08	16.00	<0.03	33.10	39.10	1.88	0.09	1.96	76.45
182	5-51.0-52.5	0.10	15.80	<0.03	30.10	41.80	8.54	0.74	0.80	75.49
183	5-52.5-54.0	0.18	15.30	<0.03	31.80	44.40	3.84	0.11	1.60	73.10
184	5-54.0-55.5	0.15	14.00	<0.03	32.70	39.80	2.00	0.10	2.85	66.89
185	5-55.5-57.0	0.07	14.10	<0.03	34.70	45.60	1.30	0.10	1.14	67.37

## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SAMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
186	5-57.0-58.5	0.06	14.60	<0.03	31.70	35.30	5.50	0.41	2.80	69.76
187	5-58.5-60.0	0.08	16.20	<0.03	32.40	38.90	3.44	0.54	2.42	77.40
188	5-60.0-61.5	0.09	10.10	<0.03	32.90	33.00	5.06	0.24	4.38	48.26
189	5-61.5-63.0	0.09	8.42	<0.03	35.30	40.30	3.60	0.14	1.46	40.23
190	5-63.0-64.5	0.08	6.62	<0.03	35.40	42.80	5.02	1.04	3.01	31.63
191	5-64.5-66.0	0.08	5.75	<0.03	36.40	44.90	3.72	0.20	1.02	27.47
192	5-66.0-67.5	0.13	5.89	<0.03	37.10	50.30	1.62	0.18	1.02	28.14
193	5-67.5-69.0	0.12	4.16	<0.03	37.90	53.10	1.76	0.12	0.82	19.88
194	5-69.0-70.5	0.09	4.80	<0.03	37.40	48.10	3.36	0.43	1.64	22.93
195	5-70.5-72.0	0.05	1.31	<0.03	9.10	5.50	68.00	7.26	2.27	6.26
196	5-72.0-73.5	0.05	1.45	<0.03	26.00	22.30	29.00	2.79	5.63	6.93
197	5-72.0-73.5	0.05	2.14	<0.03	34.30	38.10	10.10	1.17	4.26	10.22
198	5-75.0-76.5	0.07	1.98	<0.03	36.30	39.60	4.44	1.94	4.68	9.46
199	5-76.5-79.5	0.06	0.71	<0.03	34.90	37.10	9.56	1.49	5.14	3.39
200	5-79.5-82.5	0.04	0.42	<0.03	38.10	50.60	3.98	0.46	1.89	2.01
201	5-82.5-85.5	0.05	0.53	<0.03	33.50	37.60	11.70	1.67	4.71	2.53
202	5-85.5-88.5	0.07	0.53	<0.03	40.10	54.50	0.74	0.11	1.34	2.53
203	5-88.5-91.5	0.08	1.48	<0.03	34.40	31.30	8.42	1.67	7.38	7.07
204	5-91.5-94.5	0.07	1.96	<0.03	31.20	26.80	15.40	1.13	7.33	9.36
205	5-94.5-97.5	0.04	0.38	<0.03	34.30	33.00	8.60	1.09	4.57	1.82
206	5-97.5-100.	0.05	0.69	<0.03	35.90	36.10	6.12	1.05	5.39	3.30
207	5-100.5-103	0.76	1.02	<0.03	34.00	40.20	10.50	1.69	3.70	4.87
208	5-103.5-108	0.06	7.71	<0.03	17.10	23.20	43.40	4.00	1.98	36.84
209	8-13.5-15.0	0.02	11.30	<0.03	30.00	26.10	13.10	2.57	6.10	53.99
210	8-15.0-16.5	0.02	17.60	<0.03	31.50	40.00	5.64	0.61	1.78	84.09
211	8-16.5-18.0	0.04	16.80	<0.03	32.50	38.40	3.34	0.26	2.39	80.27
212	8-18.0-19.5	0.04	18.30	<0.03	31.10	41.60	6.34	0.51	0.73	87.44
213	8-19.5-21.0	0.02	16.60	<0.03	29.50	37.10	10.60	1.02	0.99	79.31
214	8-21.0-22.5	0.02	17.70	<0.03	29.30	39.80	8.12	0.79	0.68	84.57
215	8-22.5-24.0	0.01	16.60	<0.03	30.70	37.60	12.30	1.25	1.17	79.31
216	8-24.0-25.5	0.04	16.30	<0.03	29.90	37.70	10.30	1.33	1.21	77.88
217	8-25.5-27.0	0.07	17.40	<0.03	30.80	40.20	7.34	0.57	0.54	83.14
218	8-27.0-28.5	0.04	17.60	<0.03	30.80	41.30	8.66	0.57	0.51	84.09
219	8-28.5-30.0	0.03	14.80	<0.03	30.90	40.30	10.90	0.67	0.58	70.71
220	8-30.0-31.5	0.02	6.10	0.03	35.10	45.90	9.62	0.47	0.30	29.15
221	8-31.5-33.0	0.03	11.70	<0.03	34.20	45.70	8.34	0.29	0.33	55.90
222	8-33.0-34.5	0.04	18.40	0.03	33.50	43.80	3.10	0.17	0.37	88.87

## RESULTS OF TESTING (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
223	8-34.5-36.0	0.03	13.50	<0.03	26.10	31.50	22.60	1.10	1.09	64.50
224	8-36.0-37.5	0.03	15.60	<0.03	29.80	35.90	13.80	1.09	1.12	74.54
225	8-37.5-39.0	0.01	10.30	0.03	30.80	24.00	11.40	0.83	6.55	49.21
226	8-39.0-40.5	0.02	10.70	<0.03	29.90	24.90	13.00	0.78	6.19	51.12
227	6-4.5-6.0	0.14	17.70	<0.03	32.10	40.80	1.76	0.26	1.90	84.57
228	6-6.0-7.5	0.09	18.90	<0.03	31.10	43.50	3.58	0.54	0.84	90.30
229	6-7.5-9.0	0.21	14.60	<0.03	30.40	34.50	8.92	1.18	2.68	69.76
230	6-9.0-10.5	0.05	19.30	<0.03	32.00	44.40	1.92	0.15	0.55	92.22
231	6-10.5-12.0	0.05	19.60	<0.03	32.00	45.20	1.02	0.19	0.34	93.65
232	6-12.0-13.5	0.10	15.30	<0.03	34.50	35.90	0.96	0.08	2.40	73.10
233	6-13.5-15.0	0.10	18.50	<0.03	30.60	43.30	5.24	0.35	0.41	88.39
234	6-15.0-16.5	0.06	19.00	<0.03	32.20	45.10	0.74	0.04	0.95	90.78
235	6-16.5-18.0	0.05	18.60	<0.03	31.10	43.40	4.04	0.54	0.81	88.87
236	6-18.0-19.5	0.05	19.30	<0.03	32.50	42.70	1.14	0.16	1.69	92.22
237	6-19.5-21.0	0.04	19.80	<0.03	33.20	46.20	0.26	0.04	0.44	94.60
238	6-21.0-22.5	0.05	19.60	<0.03	32.70	46.50	0.32	0.02	0.12	93.65
239	6-22.5-24.0	ERR	1.60	<0.03	33.00	46.10	0.76	0.09	0.28	7.64
240	6-24.0-25.5	0.05	17.60	0.03	31.70	41.80	5.56	0.28	0.32	84.09
241	6-25.5-27.0	1.05	11.70	<0.03	23.60	29.30	27.10	1.41	0.64	55.90
242	6-27.0-28.5	0.36	16.50	<0.03	31.50	39.30	6.74	0.76	0.59	78.84
243	6-28.5-30.0	0.06	16.20	<0.03	31.20	43.80	6.00	0.97	0.62	77.40
244	6-30.0-31.5	0.03	16.60	<0.03	28.40	39.30	12.10	1.21	0.96	79.31
245	6-31.5-33.0	0.02	17.50	<0.03	29.80	41.50	8.72	1.02	0.77	83.62
246	6-33.0-34.5	0.05	18.50	0.03	31.60	44.50	4.06	0.55	0.53	88.39
247	6-34.5-36.0	0.04	17.20	<0.03	31.10	42.80	6.02	0.86	0.78	82.18
248	6-36.0-37.5	0.04	6.86	<0.03	31.20	44.00	13.60	1.74	1.05	32.78
249	6-37.5-39.0	0.04	17.10	<0.03	31.10	42.70	5.40	0.79	0.74	81.70
250	6-39.0-40.5	0.04	17.50	<0.03	32.70	43.40	2.60	0.39	0.53	83.62
251	6-40.5-42.0	0.03	17.90	0.03	33.80	46.60	0.28	0.04	0.12	85.53
252	6-42.0-43.5	0.03	15.10	<0.03	35.60	40.70	1.58	0.14	0.81	72.15
253	6-43.5-45.0	0.12	12.60	<0.03	30.40	42.70	10.90	1.23	1.06	60.20
254	6-45.0-46.5	0.03	4.99	<0.03	36.20	50.40	5.32	0.77	0.71	23.84
255	6-46.5-48.0	0.12	7.42	<0.03	18.30	21.50	41.50	1.93	0.70	35.45
256	6-54.0-55.5	0.03	8.76	<0.03	29.30	34.70	14.30	1.46	3.03	41.86
257	6-55.5-57.0	0.02	2.50	<0.03	35.90	43.60	5.94	0.61	3.31	11.95
258	6-57.0-58.5	0.01	1.28	<0.03	33.60	23.70	4.54	0.39	11.15	6.12
259	6-58.5-60.0	0.01	3.79	<0.03	37.40	46.80	1.84	1.92	3.21	18.11

## RESULTS OF TESTING: (CON'T)

## QUEENSTAKE RESOURCES - GYPSUM PROJECT

SAMPL #	CLIENT ID	%FREE H2O	%COMBINED H2O	SODIUM CHLORIDE NaCl	CALCIUM OXIDE CaO	SULPHUR TRIOXIDE SO3	SILICA AND INSOL	IRON AND ALUMINUM OXIDES R2O3	MAGNESIUM OXIDE MgO	PERCENT GYPSUM
260	6-60.0-61.5	0.04	1.74	<0.03	34.00	38.40	8.28	0.82	4.34	8.31
261	6-61.5-63.0	0.03	0.75	<0.03	38.80	52.10	1.90	0.13	1.71	3.58
262	6-63.0-64.5	<0.01	1.27	<0.03	39.10	52.60	2.40	0.14	1.15	6.07
263	6-64.5-66.0	<0.01	0.76	<0.03	39.30	51.70	1.56	0.08	1.86	3.63
264	6-66.0-67.5	<0.01	1.17	<0.03	33.90	21.30	1.30	0.09	12.43	5.59
265	6-67.5-69.0	<0.01	1.37	<0.03	37.70	49.60	6.04	0.24	1.01	6.55
266	6-69.0-70.5	<0.01	1.48	<0.03	32.80	20.40	3.28	0.20	11.70	7.07
267	6-70.5-72.0	<0.01	0.93	<0.03	35.90	39.40	6.10	0.31	4.26	4.44
268	6-72.0-73.5	<0.01	0.73	<0.03	37.70	46.40	3.52	0.22	2.75	3.49
269	6-73.5-75.0	<0.01	0.16	<0.03	28.20	52.30	20.50	0.10	1.65	0.76
270	6-75.0-76.5	<0.01	0.36	<0.03	35.50	53.10	12.90	0.18	1.05	1.72
271	6-76.5-79.5	<0.01	3.37	<0.03	34.90	42.90	7.52	0.34	3.02	16.10
272	6-79.5-82.5	<0.01	1.63	<0.03	37.40	46.10	3.92	0.31	3.12	7.79
273	6-82.5-85.5	<0.01	2.73	<0.03	33.90	52.10	13.80	0.17	0.88	13.04
274	6-85.5-88.5	<0.01	0.77	<0.03	31.10	33.10	16.90	1.12	4.44	3.68
275	6-88.5-91.5	<0.01	1.17	<0.03	19.30	19.50	43.30	4.71	3.21	5.59
276	6-91.5-94.5	0.01	4.05	<0.03	28.60	20.40	22.30	2.83	3.96	19.35
277	6-94.5-97.5	<0.01	3.54	<0.03	30.80	36.40	16.50	0.80	3.00	16.91
278	6-97.5-100.	<0.01	0.95	0.03	31.80	30.50	15.80	0.97	4.78	4.54
279	6-100.5-103	<0.01	1.55	<0.03	30.40	33.20	21.10	1.37	2.85	7.41
280	6-103.5-106	<0.01	1.60	0.03	30.50	31.60	10.60	1.07	5.27	7.64
281	6-106.5-109	<0.01	0.78	<0.03	30.40	12.50	11.10	0.97	12.68	3.73
282	6-109.5-112	<0.01	0.85	<0.03	31.40	45.60	20.70	0.69	2.07	4.06
283	6-112.5-115	<0.01	0.71	<0.03	28.60	34.50	25.50	5.67	2.63	3.39
284	6-115.5-118	0.05	1.27	<0.03	27.70	38.20	26.00	2.48	1.70	6.07
285	6-118.5-121	0.04	1.05	<0.03	30.60	40.70	20.70	2.28	1.88	5.02
286	6-121.5-124	0.04	3.49	<0.03	35.80	54.00	8.86	0.07	0.85	16.68
287	6-124.5-127	0.02	0.78	0.03	36.60	54.30	10.60	0.12	0.93	3.73
288	6-127.5-130	0.02	0.18	<0.03	34.70	30.00	5.20	0.42	7.77	0.86
289	6-130.5-133	0.01	1.10	<0.03	29.20	21.10	21.10	1.85	6.65	5.26
290	6-133.5-136	0.02	0.74	0.03	31.20	40.00	20.60	1.74	1.33	3.54
291	6-136.5-139	0.02	1.13	0.03	36.00	50.00	9.56	0.51	0.81	5.40
292	6-139.5-142	0.02	0.62	<0.03	31.40	19.50	17.40	1.28	7.27	2.96
293	6-142.5-145	0.04	2.52	<0.03	30.30	20.90	14.70	0.99	7.84	12.04
294	6-145.5-148	0.02	1.70	<0.03	30.20	15.50	14.20	1.05	10.30	8.12

**APPENDIX C**

**FIGURES 4 AND 5**

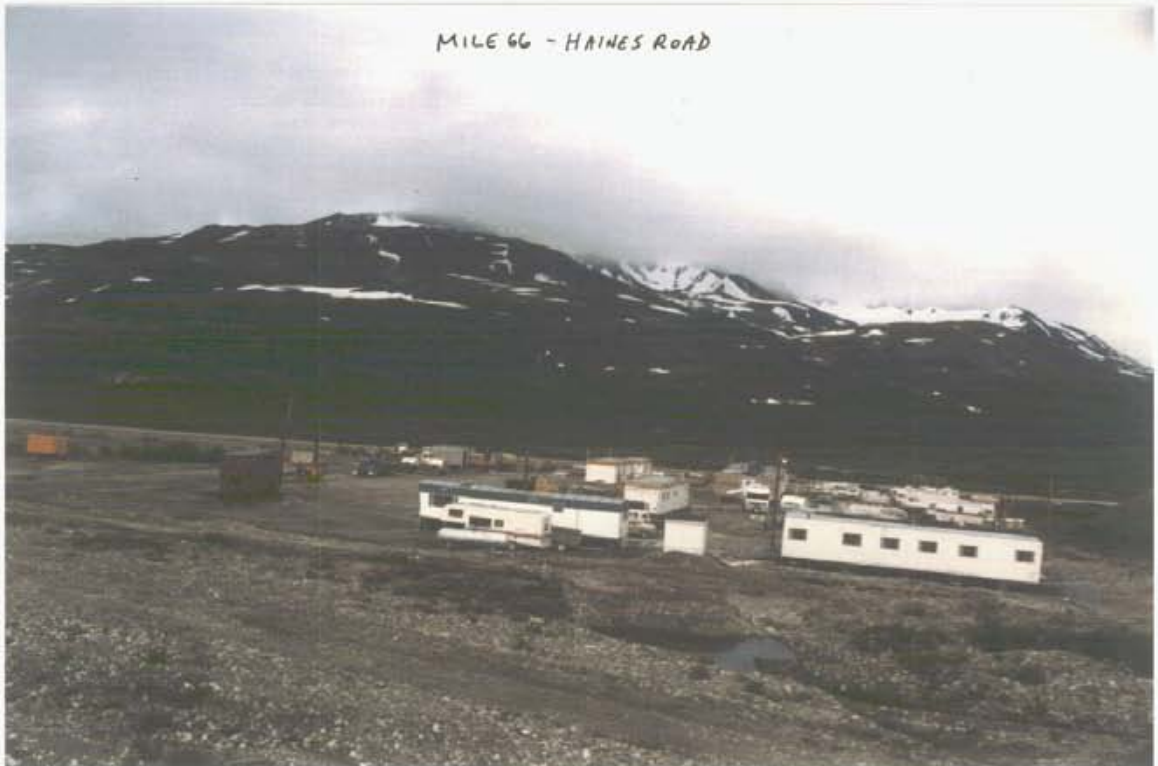




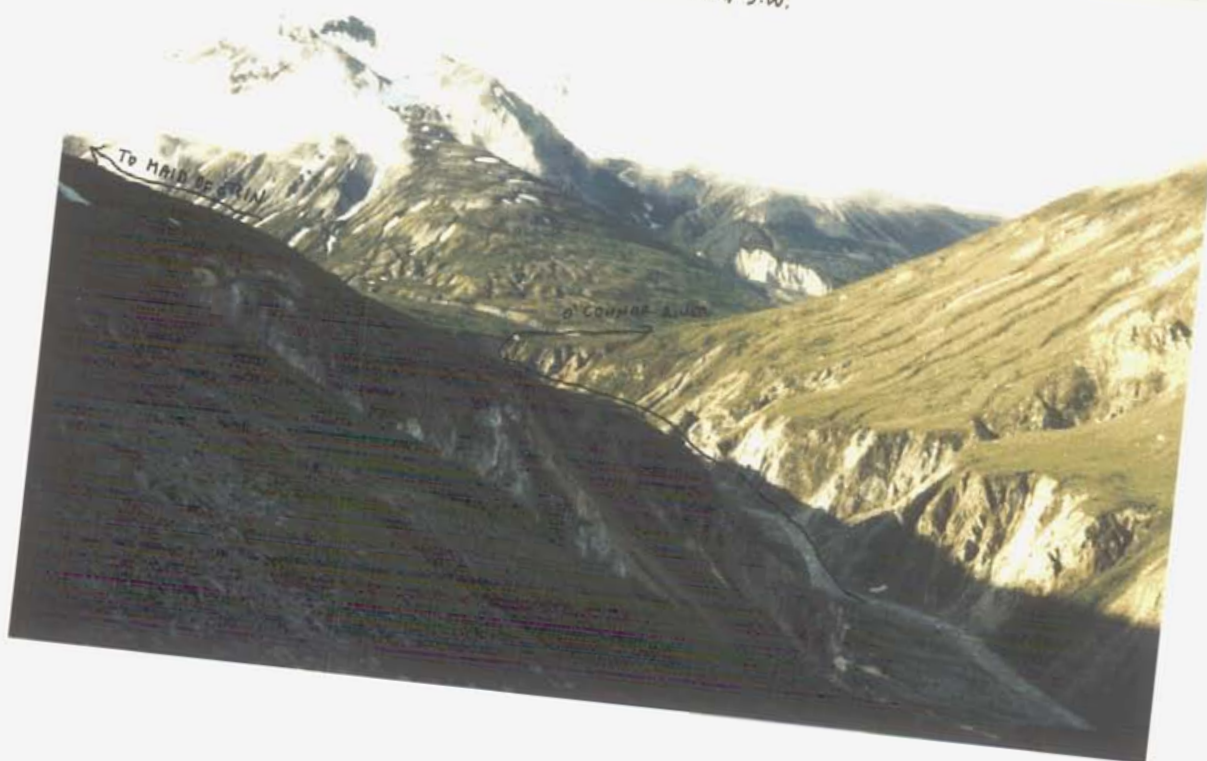
LOOKING SOUTH



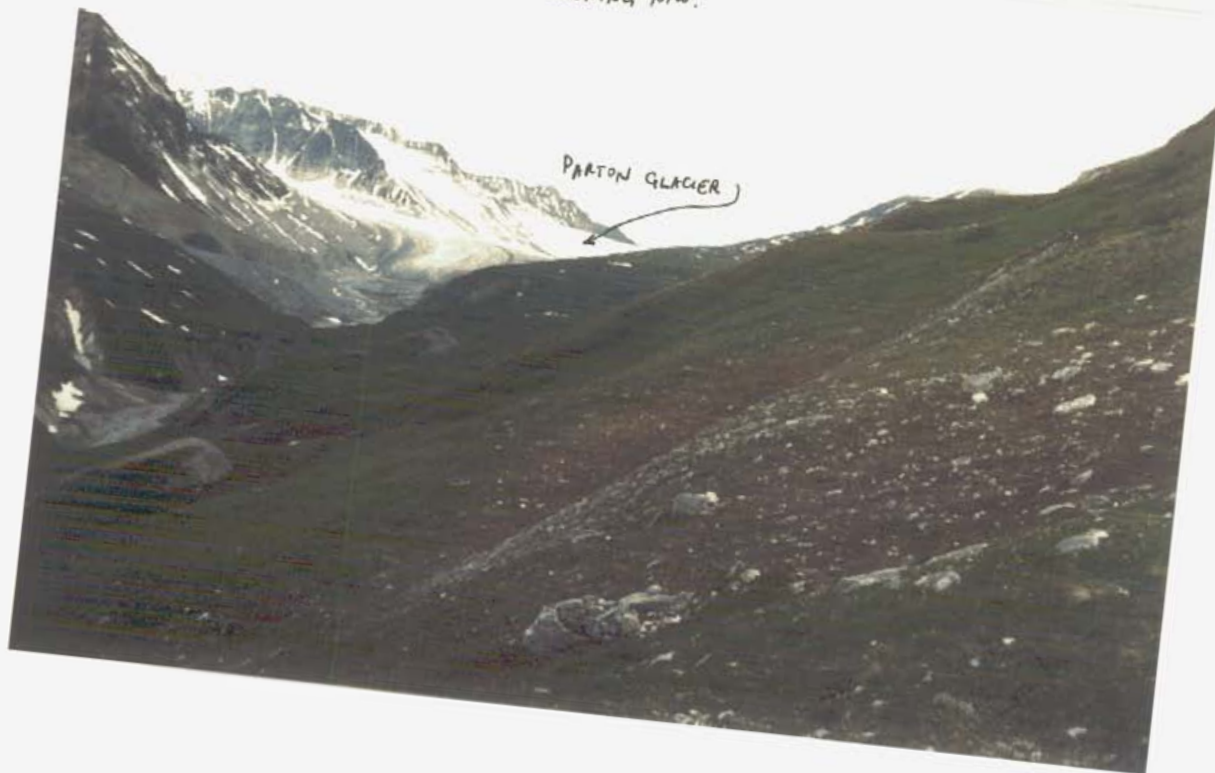
MILE 66 - HAINES ROAD



LOOKING S.W.

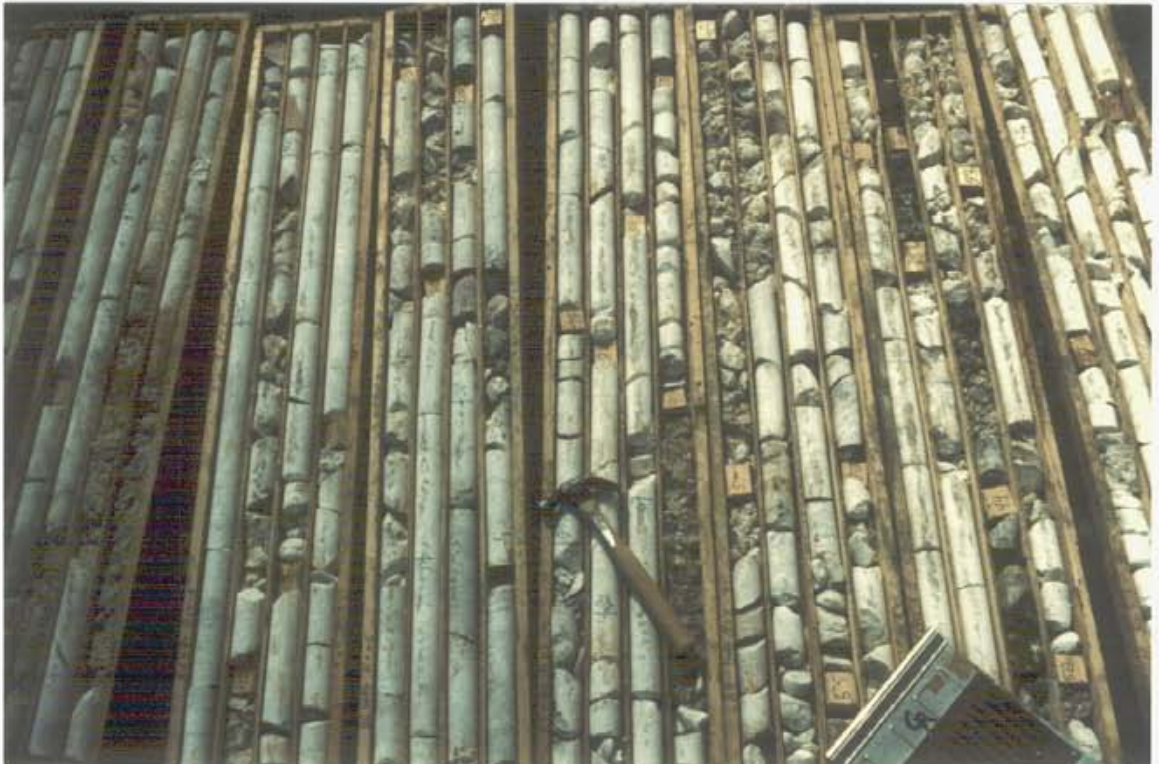


LOOKING N.W.



EAST ZONE  
(LOOKING S.E.)

D0H-86-1



EAST ZONE AS SEEN FROM WEST ZONE



EAST ZONE FROM HELICOPTER  
(DDM-86-4 SET-UP) (LOOKING SW)





KIM ZONE

(LOOKING WEST)

WEST ZONE

UPom

WV

WV



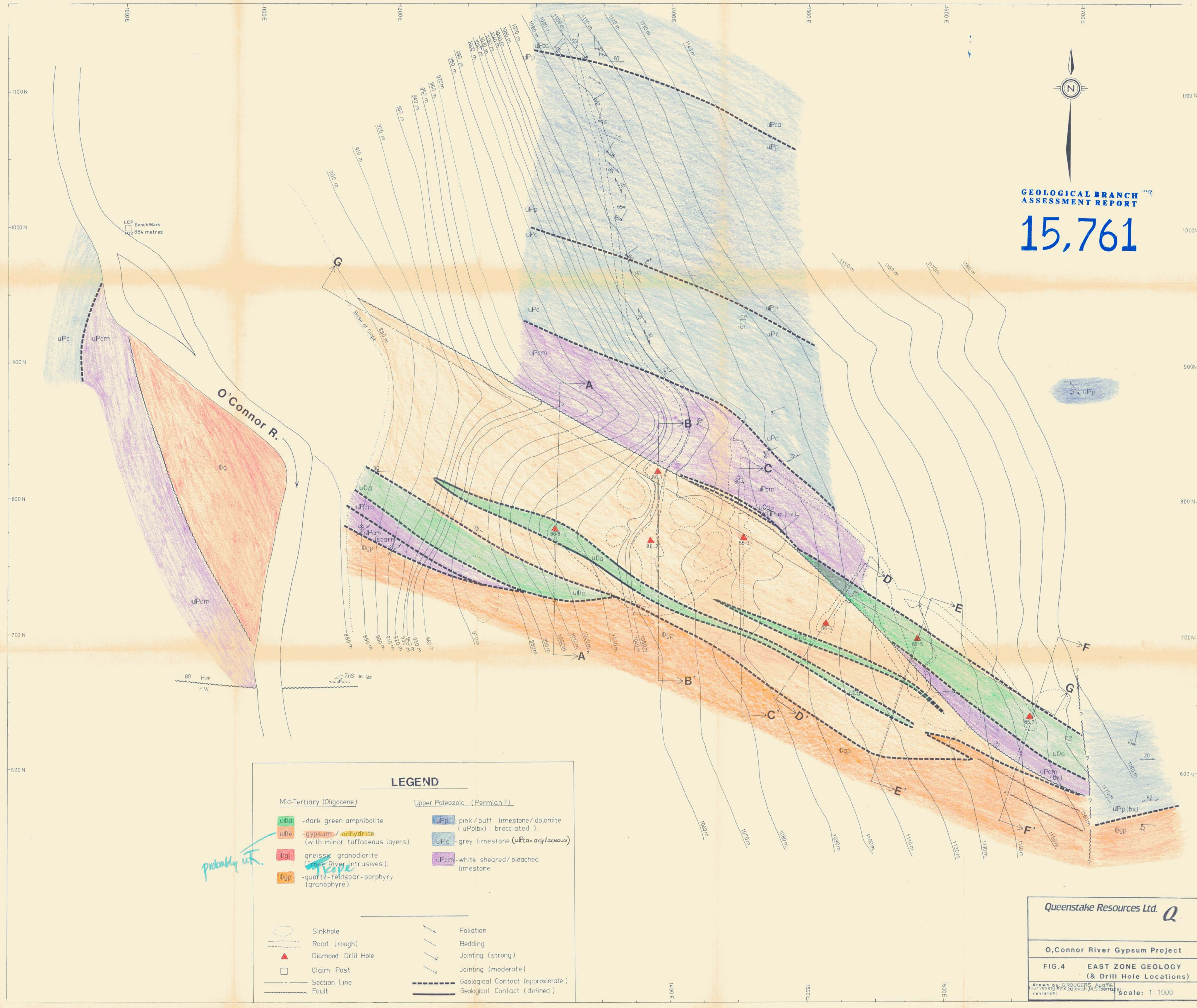


**APPENDIX D**

**PHOTOGRAPHS**



GEOLOGICAL BRANCH  
 ASSESSMENT REPORT  
**15,761**



LCP Bench Mark  
102 884 metres

O'Connor R.

80 H.W.  
F.W.

ZnS in Qz

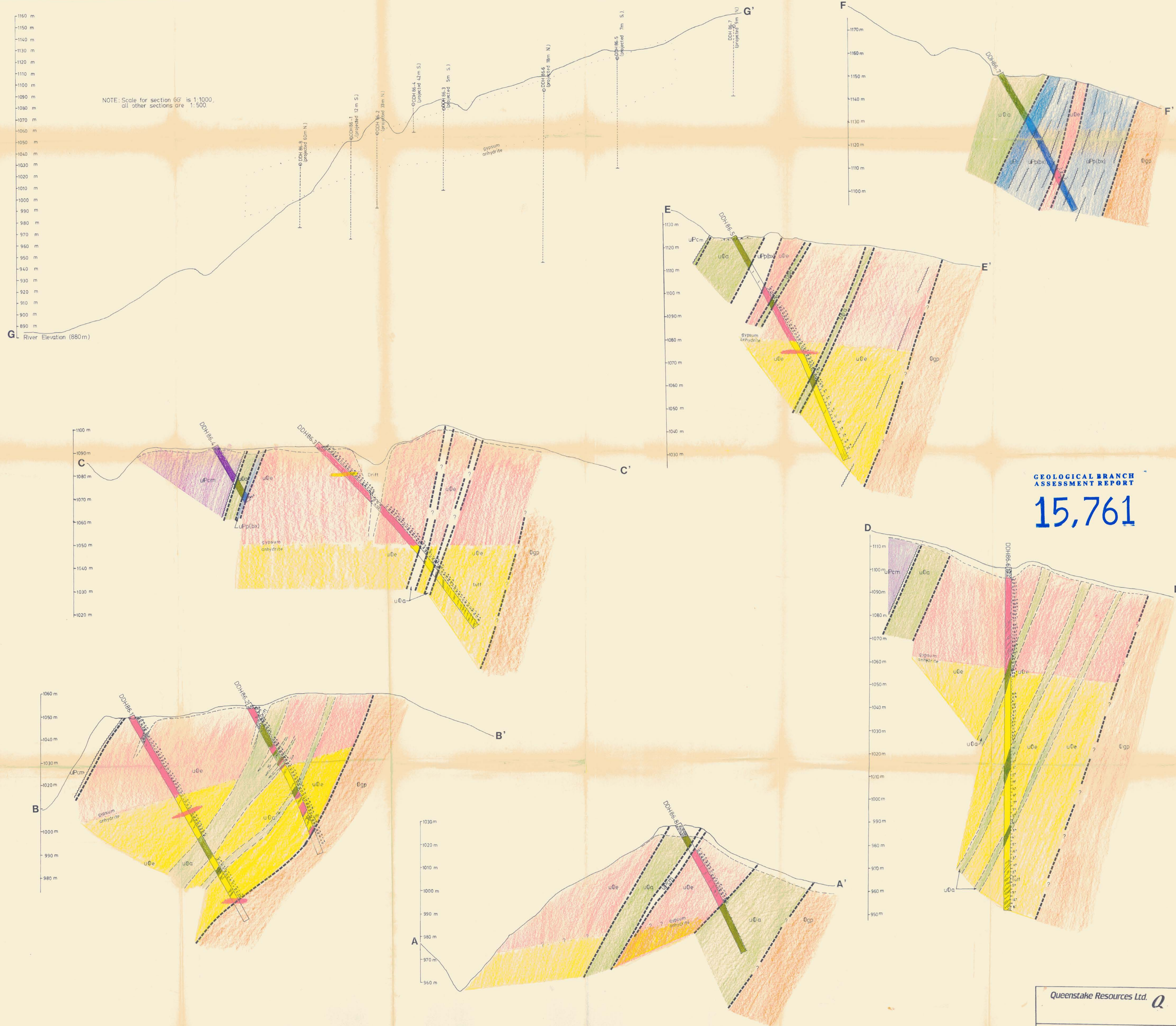
*probably uT.*

Mid-Tertiary (Oligocene)		Upper Paleozoic (Permian?)	
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> u0a	-dark green amphibolite	<span style="background-color: #FFB6C1; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> uPp	-pink/buff limestone/dolomite (uPp(bx) : brecciated)
<span style="background-color: #FFDAB9; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> u0e	-gypsum/anhydrite (with minor tuffaceous layers)	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> uPc	-grey limestone (uPc-a: argillaceous)
<span style="background-color: #FF69B4; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> u0g	-gneissic granodiorite (Tuck-River intrusives)	<span style="background-color: #E6E6FA; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> uPcm	-white sheared/bleached limestone
<span style="background-color: #FF8C00; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> u0gp	-quartz-feldspar-porphry (granophyre)		

	Sinkhole		Foliation
	Road (rough)		Bedding
	Diamond Drill Hole		Jointing (strong)
	Claim Post		Jointing (moderate)
	Section Line		Geological Contact (approximate)
	Fault		Geological Contact (defined)

**Queenstake Resources Ltd.** *Q*  
**O'Connor River Gypsum Project**  
**FIG.4 EAST ZONE GEOLOGY (& Drill Hole Locations)**  
drawn by G. RODGERS, Aug 96  
 surveyed by K. Galovich, S. Bennett  
 revision: \_\_\_\_\_  
 Scale: 1:1000



GEOLOGICAL BRANCH  
 ASSESSMENT REPORT  
**15,761**