GEOLOGICAL AND GEOCHEMICAL REPORT
on the
SIZZLER CLAIMS
NTS: 115J/16

Latitude: 62°56'  Longitude: 138°19'

Dawson Mining District

June 17 to June 24, 1986

OWNER: KERR ADDISON MINES LTD.,
703-1112 W. Pender St.,
Vancouver, B.C.
V6E 2S1

J. PAUTLER
October, 1986
This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $7000.00.

DD Emond
Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.
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<td>9d</td>
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| Photo 1: View of SIZZLER from southeast | 3  |
Summary (Refer to Figure A)

The SIZZLER property was staked following the discovery of quartz stringers, stringer stockworks and silicified breccias over a 1.7km diameter. The 1986 program involved grid soil geochemistry and minor rock sampling.

The claims are underlain by metamorphic basement rocks which are intruded by numerous rhyolitic dykes. A quartz monzonite pluton underlies the extreme southern edge of the claims. The silicification on the property is hosted by the rhyolitic dykes and rarely by the basement gneisses.

Au values in rock of 1050 ppb and 400 ppb were obtained from the southwest margin of the exposed silicified zone. The soil geochemistry was only of limited value and did not identify any significant anomalous zones or major structural trends.

Further work on the property is of low priority but would involve the extension of the grid in the southwest corner to facilitate soil and rock sampling and the implementation of a VLF survey over the entire grid in order to determine if a major structure exists. The cost of such a program would be $4,000.00.

Gn., I. R. qfp. dys.

Soil sample.

Rock sample (outcrop, float)

Composite rock samples.

Ag(ppm), As (ppm), Sb (ppm), Au (ppb)

4.0, 51, 3.0, 80

Proposed grid extension.

LEGEND

R.qfp. dys. Rhyolite quartz feldspar porphyry dykes.

QM. Hornblende, biotite Quartz Monzonite.

Gn. Metamorphic basement rocks.

I. Local

abundant R.qfp. dys., Gn.
Location and Access:

The SIZZLER mineral claims, N.T.S. map sheet 115J/16, are located in western Yukon immediately north of Cripple Creek which flows southeasterly into the Yukon River near Selwyn. The property lies 95km north and 110km west of Carmacks, Y.T., which is 175km north of Whitehorse by road (Figure 1). Latitude and longitude of property centre are 62°56'; 138°19'.

Helicopter access is available from Carmacks or Dawson. In 1986 a Trans North helicopter was temporarily based at the Casino air strip, 30km southwest of the SIZZLER property. Access was by fixed wing aircraft from Whitehorse to the Casino strip and by helicopter to the property.

Legal Description:

The SIZZLER property, Dawson Mining District, consists of 28 contiguous claims with record numbers YA 87640 to YA 87667 (Figure 2). The claims were recorded on July 19, 1985. The nature of this report is to discuss the 2.5 years of work filed on July 4, 1986 in order to fulfill the assessment requirements.

Topography and Vegetation:

The SIZZLER property lies within the Dawson Range, western Yukon. The topography consists of gently rolling hills with elevations ranging from 2300' to 4000'.
Topography and Vegetation: - cont'd

Most of the property constitutes an old burn area. The second growth forest consists predominantly of alder with some willow brush. Stands of spruce trees remain and spruce deadfalls are abundant throughout the burn. The claims are largely overburden covered with very limited rock exposure.

PHOTO 1: View of SIZZLER from southeast.

History:

The SIZZLER claims were staked in July, 1985 by Kerr Addison Mines Ltd. following the discovery of quartz stringers and silicified breccias over a 1.7km diameter near the headwaters of three placer creeks.

In 1985 the property was mapped and sampled at a scale of 1:50,000 with a detail of the silicified zone at 1:20,000.

1986 Program:

Sixteen man days were spent on the SIZZLER property between June 17 and June 24, 1986. The program involved the establishment of a 1.0km x 0.6km grid, the collection of 213 soil samples from the grid and minor rock sampling.
Geology

Regional: The SIZZLER property is located within a large area of regionally folded Proterozoic and/or Paleozoic metamorphic basement rocks. These are intruded by a Triassic granodiorite to the east of the claims and a Tertiary granite further to the south. (Tempelman-Kluit, 1974)

Property: The property is predominantly underlain by the metamorphic basement rocks which consist of muscovite, quartz and quartz biotite gneiss + garnet, foliated granodiorite and local amphibolite and micaceous quartzite. A hornblende, biotite + feldspar porphyritic quartz monzonite intrudes the extreme southern edge of the claims. Tertiary rhyolite to rhyodacite quartz feldspar porphyry, (locally granite feldspar porphyry), dykes cut the basement rocks especially along two northwest trends across the central and western edge of the claims. This may reflect a north to northwest trend of dyking which is observed on the easterly trending ridge just north of the property. (Figure 3)

Mineralization and Alteration:

Silicification occurs over an area 1.7km in diameter and includes quartz stringers, stringer stockworks and strong to intensely silicified breccias hosted by rhyolitic quartz feldspar porphyry dykes and rarely by the basement gneisses. The stringers are sometimes chalcedonic, commonly drusy and range from a few millimeters to several centimeters in width. The rhyolite host is weak to very intensely silicified with weak to strong sericite alteration. The more strongly silicified breccias grade to quartz breccia with variably silicified rhyolitic fragments. Progressive replacement of the fragments
Granodiorite foliated with local Amphibolite, micaceous Quartzite.

Skarn silicified epidote sericite chlorite muscovite quartz weak, moderate trace altered pyrite breccia stringer, vein dyke.

Granodiorite foliated with local Amphibolite, micaceous Quartzite.
Mineralization and Alteration: - cont'd

is evident eventually producing quartz nodules with cryptocrystalline coatings and rounded and intensely silicified rhyolitic fragments with radiating drusy quartz coatings.

Gneiss constitutes the host rock in only two samples. It appears, therefore, that the rhyolite is a more favourable host rock probably due to its better friability.

Clay alteration of the rhyolites and epidote alteration of the gneissess occur peripheral to the silicified area.

One occurrence of fluorite was discovered which consists of quartz and drusy quartz coating crystals of fluorite.

Structure:

A favourable major structure that would concentrate mineralization has not been identified as yet. In fact, it has been difficult to determine a preferred trend to the silicification.

The foliation trends within the basement rocks are northwesterly as are some of the measured rhyolite dykes. However, these trends appear to be less favourable to silicification than northeasterly trends from 40-70°. Most veins and silicified dykes that could be measured were trending 40-45° and boulder trains were noted at 70°. However, on the east side of the claims the northwest trending fractures hosted quartz stringers as opposed to the northeast fractures.

The contoured As data from the grid soil geochemistry, (Figure 7), outlines weak easterly and a few weak northeasterly trends. Only two very weak northwest trends are evident.
Grid Soil Geochemistry:

Procedure: A total of 213 soil samples were collected at 50m intervals along north-south grid lines spaced 50m apart. The reason for this spacing was the uncertainty of the predominant structural direction. Grid dimensions were 1.0 x 0.6km.

The samples were generally collected from the B horizon which commonly contained talus material as well. Occasionally, the bottom A - top B and bottom B - top C horizons were taken. Sample depth varied from 10-40cm but 20-30cm depths were most common.

All samples were sent to Chemex Labs, North Vancouver, B.C. and analyzed for Au, Ag, As and Sb using standard atomic absorption procedures, Au being first preconcentrated by fire assay. Sample locations and results are plotted on Figures 5 6, 7, and 8.

Results: The results were rather disappointing with only a few spot highs in Au and Sb, negligible Ag values, (except for one 2.0 ppm high), and both spotty and contourable As data with weak trends. (The trends have been discussed under structure.)

Element correlation is relatively poor but a few do exist. They are as follows:
Location, Rock Geochemistry:

Procedure: Only eight rock samples were collected from the property in 1986. All samples consisted of grab samples of float material and were sent to Chemex Labs, North Vancouver, B.C. The samples were analyzed for Au, Ag, As, and Sb using standard atomic absorption procedures, Au being first preconcentrated by fire assay.

Results: The 1985 and 1986 sample locations and results are plotted on Figure 4. Anomalous results from the grid area are plotted on Figures 5, 6, 7, and 8.

The only anomalous sample from 1986, (6GIR), contained 400 ppb Au and is located at L16W/11+40N. The sample was collected from three boulders of strong to intensely silicified rhyolite quartz feldspar porphyry, with weak to moderate sericite alteration and irregular white quartz stringers, (+ drusy), up to 1cm wide.
Rock Geochemistry: - cont'd

A 1050 ppb Au value was obtained from an outcrop of similar material in 1985, (5J15R), at L15W/11+50N. Less silicified float, (5J14R), with fewer quartz stringers to the southeast of the outcrop contained 150 ppb Au.

Despite the abundant silicified float around L12W/13N only one sample was anomalous, containing 200 ppb Au. The sample was collected from seven boulders of silicified rhyolite quartz feldspar porphyry with quartz stringers, (+ drusy). A 60 ppb Au soil anomaly occurs downslope from this sample and may be related to the same boulder trains.

The only Ag value >2.0 ppm, (5G16R), was collected from brecciated rhyolite float near L15+50W/16N. The float is intensely silicified, sericitized and is cut by + drusy quartz stringers. The Ag, As, Sb, Au values were 4.0, 51, 3.0, 80 respectively. Two samples of quartz stringered (+ drusy) rhyolite in this area also contain 25 ppb Au.

Only two correlations exist between anomalous soil and rock results. A 2.0 ppm Ag and 53.0 ppm As value correspond to a rock sample containing 400 ppb Au at L16W/11+40N. The only other soil-rock correlation is a weak 0.2 ppm Ag anomaly around the highest Ag values on the property and weakly anomalous Au results:

<table>
<thead>
<tr>
<th></th>
<th>Ag</th>
<th>As</th>
<th>Sb</th>
<th>Au</th>
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<tbody>
<tr>
<td>5G16R</td>
<td>4.0</td>
<td>51</td>
<td>3.0</td>
<td>80</td>
</tr>
<tr>
<td>5G17R</td>
<td>2.0</td>
<td>3</td>
<td>1.4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>5G9R</td>
<td>1.5</td>
<td>210</td>
<td>5.8</td>
<td>25</td>
</tr>
<tr>
<td>5J13R</td>
<td>0.2</td>
<td>4</td>
<td>0.8</td>
<td>25</td>
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</table>
A soil sample taken directly above the outcrop containing 1050 ppb Au was not even weakly anomalous in Au, Ag, As or Sb. This may reflect a very erratic gold distribution. The soil may be taken above a barren part of the quartz stringer stockwork. Since some anomalies did appear in the soils, the usefulness of soil sampling in this area is not questioned.
Anomalous 1985 sample.

Rock sample J3R with assay.

Soil sample (Grid coordinate = sample No.)

Direction of line construction.

FIG. 5

KERR ADDISON MINES LTD

SIZZLER CLAIMS

GRID GEOCHEMISTRY

Au ppb

SCALE = 1:5000  DATE = SEPT, 1986
DRAWN BY = J.P.  DATA = L.G.
NTS = 115 J 16  REVISED -
Contour interval - 0.1 ppm

Soil sample (Grid coordinate + sample No.)
Direction of line construction.

FIG. 6

KERR ADDISON MINES LTD

SIZZLER CLAIMS

GRID GEOCHEMISTRY

Ag ppm

SCALE - 1:5,000
DRAWN BY - P.H.
DATE - SEPT., 1986
DATA - J.P., L.G.
NTS - 115 J/8
REVISED -
FIG. 7

Contour interval = 10 ppm.

- Anomalous 1985 sample.
- Rock sample Yo - 6 J3R with assay.
- Soil sample (Grid coordinate = sample No.)
- Direction of line construction.

KERR ADDISON MINES LTD
SIZZLER CLAIMS
GRID GEOCHEMISTRY
As ppm

SCALE = 1:5,000
Drawing by J.J., L.G.
NTS = 115 J 16
DATE - SEPT, 1986
DATA - J.P., L.S.
REVISED -
Anomalous 1985 sample.
Rock sample Yo - 6 J3R with assay.
Soil sample (Grid coordinate + sample No.)
Direction of line construction.

Contour interval - 0.5 ppm

FIG. 8

SIZZLER CLAIMS
GRID GEOCHEMISTRY

KERR ADDISON MINES LTD

SCALE - 1:5000
DRAWN BY - REVIS -
DATE - SEPT. 1985
DATA - J.R., I.G.

Sb ppm

99 1866
Conclusion and Recommendations

The best results on the property occur in the southwest corner of the grid. This zone contains values of 1050 ppb, 400 ppb and 150 ppb Au in rock and 2.0 ppm Ag and 53 ppm As values from soil. No work has been conducted off the southwest corner of the grid. If further work is undertaken extension of the grid in this area should be conducted to facilitate soil and rock sampling, (i.e. L16+50W and the south half of L17W should at least be added).

The lack of any strong geochemical trends may reflect the absence of a major structure. If any further work is conducted a VLF survey should be implemented to determine the exisitance of such.

In general the anomalous values are low and erratic, though sampling is hindered by limited rock exposure. The discovery of a major structure would enhance the property but may not offset the high access costs. Although a limited program is outlined for 1987, the property constitutes a low priority.

Recommended Program:

Southwest grid extension, soil rock sampling
3 man days, 10 rocks, 40 soils $1,350

VLF (EM-16) Survey over entire grid
3 man days 400

Access: Helicopter, truck 1,500

Report, drafting, overhead 450

Other 300

$4,000
Appendix I
Selected References

Grexton, L. and Pautler, J., 1985; Yukon gold-silver regional project (Y-06), 1985 program; Kerr Addison Mines Limited In House report.

Tempelman-Kluit, D.J., 1974; Reconnaissance Geology of Aishihik Lake, Snag and part of Stewart River map-areas, west-central Yukon; G.S.C. Paper 73-41.
Appendix II

Statement of Expenses

Wages:

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Pautler</td>
<td>4912 62nd St.</td>
<td>June 17-24, 1986</td>
</tr>
<tr>
<td></td>
<td>Ladner, B.C.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vancouver, B.C.</td>
<td></td>
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16 man days @ $115/man day + 10% $2,024

Food: 16 man days @ $16/man day 256

Camp Supplies: 16 man days @ $15/man day 240

Field Supplies: (flagging, topofil, sample bags etc) 16 man days @ $15/man day 240

Expeditor: 8 days @ $400/mo. 106

Geochemical Analyses:

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<th>Description</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
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<tr>
<td>213 soils @ $16 each</td>
<td></td>
<td>$3,408</td>
<td></td>
</tr>
<tr>
<td>8 rocks @ $21 each</td>
<td></td>
<td>168</td>
<td>3,576</td>
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Air Charter:

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<th>Cost</th>
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<td>Trans North Helicopters Ltd.</td>
<td>0.9 hrs. @ $585./hr.</td>
<td>528</td>
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<tr>
<td>Air North (fixed wing)</td>
<td>600 miles</td>
<td>1,174</td>
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</table>

Maps: 1:5,000 enlargement 50

TOTAL: $8,194
Appendix III

Statement of Qualifications

I, Jean Marie Pautler, graduated from Laurentian University, Sudbury, Ontario, in May, 1980 with an Honours Bachelor of Science degree in Geology. I have worked as a geologist in the Canadian Cordillera over the past seven years.

I was actively involved in the 1986 field program on the SIZZLER property.

Jean Pautler
Geologist.
REPORT ON RECONNAISSANCE OF BURWASH CREEK FOR COAL FLOAT AND NORTHERN ACCESS TO AMPHITHEATRE MOUNTAIN AREA

NORMAN H. URSEL ASSOCIATES LIMITED

November 23, 1971
REPORT ON RECONNAISSANCE OF BURWASH CREEK FOR COAL FLOAT AND NORTHERN ACCESS TO AMPHITHEATRE MOUNTAIN AREA (TERRITORIAL COAL EXPLORATION LICENCE NO. 19)

Previous Work

Amphitheatre Mountain and surrounding terrain were aerially examined by the writer in the course of two encircling helicopter passes during field work in 1970. Black horizons are visible at several elevations in the "amphitheatre" developed on the southeast face of the mountain. Cairnes (1915, as reported in Bostock, 1957, p.380) stated that the section in the amphitheatre included "... at least 12 seams over 12 inches in thickness, that contain in the aggregate at least 30 feet and probably nearly 50 feet of lignite of good quality."* Cairnes measured one seam 4 feet 5 inches in thickness (ibid.). Muller (1967, p. 113) thought Cairnes' estimate of aggregate thickness too optimistic since "... much of the coal is shaly and of poor quality.", and the best seam seen by him in the amphitheatre was 22 inches thick, including a 1 inch shale parting. In reporting the results of a study of radioactivity in coal, Cameron and Birmingham (1970, p.21) write of "... a fairly complete section with ten thin seams or coaly layers on Amphitheatre Mountain. ..."

* "Lignite" of Cairnes is now known to be sub-bituminous coal (see Bostock, 1952, p.42).
Better coal seam thicknesses were measured by Muller (1950, as reported by Bostock, 1952, p. 44) at a locality about 1\(\frac{1}{2}\) miles south of the centre of the amphitheatre "... at an elevation of 5,500 feet on a fork of Berry Creek, a small tributary of Badlands Creek, which comes down from the slope of Mount Hoge opposite Amphitheatre Mountain." Muller (1967, p. 113) later refers to this same locality as "... at the head of south tributary of Granite Creek.", and on his accompanying map (1177A) shows the name "Granite Cr." for the stream shown previously on Bostock's (1952) map (1012A) as "Badlands Creek." At this locality Muller (ibid.) measured a 5' seam (a) and a 4'2" seam (b) separated by 5'8" of shale, with a few thin shale partings in the coal. A 3'0" bed (c) of coal interbedded with coaly shale and brown shale, and with ice in its lower part, is separated from seam (b) by 0'8" of clay. Seam (a), highest in the section of the three, has a roof of unconsolidated sand and gravel, and has a floor of blocky, fairly well bedded shale (5'8" thick) which forms the roof for seam (b). Coal bed (c) is underlain by 8 inches of clay, in turn underlain by 9 inches of coaly shale.
Recent Work

Since a helicopter was not locally available (Speelman, 1971, p.2-3) to provide access to the above discussed area of coal occurrence south of Badlands Creek, it was decided to reconnoiter ground access to the northern part of the licence area in preparation for future reconnaissance work. It was planned to prospect for coal float in streams at the same time. Coal had not previously been reported in Amphitheatre formation terrain lying on the north slope of Amphitheatre Mountain. Recent work in the northeast sector of the Niamodlaoc Mountain coal area to the east (Speelman, 1971, p.7-8) had shown that prospecting for, and tracing of stream float coal can be an effective way of finding coal outcrops.

On August 10, 1971, the writer and Mr. Scott Lyle drove on the Burwash Creek Road from its junction with the Alaska Highway to the base camp of the Cooper Creek Mining Co., a distance of about 2.3 miles. From this point south and westward to a point about 0.5 mile west of the base camp for Mr. Bessner's placer mining operation, a distance of about 4 miles, the bed of Burwash Creek was prospected by ground traverse. The stream gravels had been disturbed and reworked by previous placer mining activity for
virtually the entire distance. No coal float was found.
Traverse return leg was by the Burwash Creek Road, which is largely built of stream gravel.

The area was entered again on August 20, 1971 when an attempt was made to travel with Cooper Creek Mining Co. personnel by 4 x 4 truck to the vicinity of Cooper Creek, whence a ground traverse up one of the tributaries of Burwash Creek flowing off the north slope of Amphitheatre Mountain was planned. The connection was missed however, due to the local practice, unknown to us, of observing double Daylight Saving Time.

It is recommended that a reconnaissance crew have a 4 x 4 truck for use on the Burwash Creek road for access to the northern part of the licence area. Helicopter fly-camps or daily set-outs from Burwash Lodge will be required for reconnaissance work in the southern part of the area. Alternatively, an airboat for shallow-draft travel on the Duke River could provide transportation to the mouth of Badlands Creek, from which reconnaissance traverses into the southeastern portion of the licence area appear to be feasible. This river-travel alternative or supplement to helicopter access has the advantage of allowing a continuous
ground-level assessment of one possible road construction route. Mr. F. J. LeMoignan, of Destruction Bay, owns an airboat which could be made available with sufficient advance notice.

November 23, 1971

Respectfully submitted,
Norman H. Ursel Associates Limited

Edwin L. Speelman, B.Sc.
References


