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GEOLOGICAL REPORT
on the
AL & JD PROPERTY

Omenica Mining Division,
British Columbia

Prepared for
Energex Minerals Ltd.

Prepared by
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Victoria, British Columbia

April 26, 1985

GEOLOGICAL REPORT
AL & JD PROPERTY

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SUMMARY

Energex Minerals Ltd. holds the Al & JD gold-silver prospects in the Toodoggone River area of north-central British Columbia. The properties are 300 kilometers north of Smithers, and access to the area is by fixed wing aircraft and helicopter.

The Toodoggone River area is recognized as a significant epithermal precious metals district. Proven desposits include the formerly producing Baker gold-silver mine and the Lawyers property which has a reported 1 million tonnes grading 7.27 grams/tonne gold and 254 grams/tonne silver. The Lawyers and several other significant gold-silver prospects in the area are hosted by early Jurassic Toodoggone volcanic rocks.

The Al and JD properties are known to include a number of epithermal gold and lesser silver deposits, several of which have been partially tested by trenching and drilling. Soil geochemical surveys have defined numerous areas with anomalous values in gold and silver.

A two-phase exploratory program is recommended for previously defined zones on the Al property, including the Bonanza-Ridge, Thesis and BV. First-phase work, to consist of geological studies and detailed diamond drilling, has estimated costs of $256,750. The second phase, contingent on results of the first, will include additional drilling and is estimated to cost $290,000.

Estimated costs for first-phase work include a modest expenditure for prospecting and geological evaluation of the JD property.

INTRODUCTION

Energex Minerals Ltd. holds, by way of an option agreement, the Al and JD properties which are comprised of 466 contiguous mineral claim units and situated in the Toodoggone River area of north-central British Columbia.

This report, prepared at the request of Energex Minerals Ltd., is based on a visit to the two properties August 8, 1982, and on the writer's previous work in the Toodoggone area over the past fourteen years, which has included numerous property examinations and supervision of several exploration programs.

Numerous public and private reports pertaining to the Al and JD properties and the general Toodogone area have been used in the preparation of this report. Much useful information was also provided by Messrs. T.C.Scott and B.J.Price and Ms. L.K.Eccles, consulting geologists, and by Mr. A.O.Birkeland of Energex Minerals Ltd.

LOCATION AND ACCESS

The Al and JD properties are situated 300 kilometres north of Smithers in the Toodoggone River area of north-central British Columbia (Figure 1).

The claims cover a 22 by 8 kilometre area, the geographic centre of which is at 57°26' North and 127°16' West (Figure 2).

Access to the Toodoggone area is by air to a 1600-metre gravel airstrip on the Sturdee River (Figure 2). The Al and JD properties, north of Toodoggone River, are most easily reached by a 30-kilometre helicopter flight from the airstrip which is capable of handling large aircraft.

A road currently links Baker Mine and the Lawyers property with the Sturdee airstrip (Figure 2). An application has been made to the Provincial Govenment for assistance in extending the Omineca mining road into the area from itspresent terminus, 70 kilometres to the southwest. A positive decision in this regard would have a profound impact on current logistics by affording conventional access to Prince George and points south.

MINERAL PROPERTY

The Al and JD properties include 32 mineral claims and 10 fractions, comprising the equivalent of 466 units in the Omineca and Liard Mining Divisions (Figure 3).

These claims are believed to have been located in accordance with procedures specified by the Mineral Act Regulations for the Province of British Columbia. The writer has not examined claim posts or lines but has reviewed some mineral claim records on file in the Mineral Titles Office, Victoria.

Energex Minerals Ltd. has a 100% working interest on both properties subject to a 15% net profits interest held by Kidd Creek Mines Ltd.

Details of the mineral claims are as follows:

Claim Name	# Units	Record Number	Expiry Date
Al 1	20	789	Jun 12/95
Al 2	20	790	Jun 12/95
Al 3	20	791	Jun 12/95
Al 4	20	792	Jun 12/95
Al 5	10	1439	Jul 18/90
Al 6	10	1440	Jul 18/90
Al 7	16	1871	Apr 21/90
Al 8	16	1872	Apr 21/95
Nii	6	3029	Jul 11/94
Bert	20	2012	Aug 13/95
Ernie	20	2011	Aug 13/95
Winkle	20	4099	Aug 13/91
Bull	20	2010	Aug 13/92
Chute	18	4100	Aug 13/92
Surprise	20	4098	Aug 13/87
Gerome	15	4097	Aug 13/87
Wankle	3	4095	Aug 13/86

Claim Name	# Units	Record Number	Expiry Date
Gas 1	20	5752	Sep 08/92
Antoine Louis	10	4096	Aug 13/88
Furlong	6	4274	Sep 08/86
Tour	18	4275	Sep 08/86
Shodee	4	4277	Sep 08/87
Sturdee	18	4276	Sep 08/87
Big Bird	6	4278	Sep 08/92
JM	20	1796	Jun 12/94
JS	6	3168	Sep 03/92
JD	20	1797	Jun 12/94
JB	20	3169	Sep 03/91
JR	6	2947	Jul 18/94
Kadah 1	15	3812	Jun 15/91
Kadah 2	9	3813	Jun 15/91
Grover (fr)	1	5748	Sep 08/92
McClair 1	4	3145	Sep 03/90
JU (fr)	1	3163	Sep 03/88
JC (fr)	1	3162	Sep 03/93
JK (fr)	1	3161	Sep 03/88
Tinkle	1	4093	Aug 13/87
JO (fr)	1	4272	Sep 08/90
RJ (fr)	1	4273	Sep 08/90
Hyuk 1 (fr)	1	3026	Jul 11/90
Hyuk 2 (fr)	1	3027	Jul 11/90
Hyuk 3 (fr)	1	3028	Jul 11/89

PHYSICAL FEATURES

The Toodoggone River area is on the east margin of the Spatsizi Plateau, an open, gently rolling upland surface, dissected by wide valleys. The Toodoggone area proper features more rugged relief, broken by broad alluvium-filled valleys. Products of alpine glaciation are steep-walled cirques on north-facing slopes, while southerly slopes are more gentle and rounded.

The JD property covers a prominent highland area between the broad valleys of Moosehorn Creek on the west, McClair Creek on the north and east, and Toodoggone River to the south. Topography is moderately rugged and elevations range from about 1400 metres above sea level on the valley floors to nearly 2000 metres in the southern part of the property.

The prominent features of the Al property are Alberts Hump, a low hill near the western margin fo the claims, which rises above an easterly trending broad, upland ridge bounded by deeply incised valleys. Relief is gentle to moderate and elevations range from 1400 to 1700 metres.

Locally dense alpine spruce extends from the valley floors to about 1600 metres elevation above which is typical open alpine country.

Bedrock exposures are confined to drainages, steeper slopes and ridge crests. Abundant felsenmeer is believed to be very close to bedrock.

The property areas are snow-free between mid-June and early October.

HISTORY

The Toodoggone area was initially explored for placer gold in the mid 1920s, when a Charles McLair reportedly recovered $17,500 in gold. An Edmonton syndicate conducted further work near the junction of McClair Creek and Toodoggone River in 1932. A public company, Two Brothers Valley Gold Mines Ltd., was formed in 1934 and a 30-man camp was entirely serviced by air from Takla Lake. Considerable test work, including drilling, was carried out in late 1934 with values of $0.50 to several dollars per cubic yard reported from gravels along both McClair Creek and Toodoggone River.

The lode potential of the region was also first investigated in the 1930s, principally by Consolidated Mining and Smelting, who explored lead-zinc mineralization near the north end of Thutade Lake and south of Baker Mine. This company also reportedly did some limited drilling on Oxide Peak, several kilometres north of the present JD property.

Intermittent exploration work continued in the region until the mid 1960s when it was investigated by a number of companies for porphyry copper-molybdenum potential. Gold-silver mineralization in quartz veins was recognized at the Chappelle (Baker Mine) property by Kennco Exploration (Western) Ltd. in 1969, and this property was explored by trenching, limited drilling and by 200 metres of underground cross-cutting and drifting by Conwest Exploration in 1973. The property was acquired by DuPont of Canada Exploration Ltd. in 1974 and extensive surface and underground work over the next five years led to a production decision in 1980. The construction of an airstrip in the Sturdee River valley enabled air transport of all equipment necessary to sustain a 90-tonnes-per-day mining and milling operation for three years.

Numerous other gold-silver discoveries were made in the area in the 1970s and 80s, including the Lawyers deposit which was discovered by Kennco in 1973 and optioned by Serem Ltd. in 1979. Work on this property to date has included considerable trenching, drilling and underground development, and a feasibility study is currently underway.

The Toodoggone area has been the scene of intense exploration activity during the past four years, with numerous companies exploring over 3000 mineral claim units. Exploration and development expenditures to date are estimated to be in the order of $33 million.

Parts of the areas now comprising the JD and Al properties were staked by Sumac Mines Ltd. in 1971, following a reconnaisance geochemical survey. Exploration work thorugh 1974 included soil and rock geochemistry, IP and magnetometer surveys, geological mapping, limited hand trenching and one 120-metre diamond drill hole on what is now the JD property.

The claims lapsed in 1977 and were re-staked in 1978 by T. C. Scott and Petra-Gem Exploration Ltd. Energex Minerals Ltd. acquired an option on the property in 1979, and did geological and geochemical surveys and limited hand trenching. At that time, the core of the Al property claims (Al 1 to 4) were staked by Energex.

Texasgulf Canada Ltd. (now Kidd Creek Mines Ltd.) negotiated an option agreement with Energex in 1980, and by the end of the 1984 field season, had completed extensive soil and rock geochemical surveys, geological mapping, limited geophysical surveys, hand and backhoe trenching, and 2878 and 1781 metres of diamond drilling on the Al and JD properties respectively.

Estimated expenditures to date in the area of the present Al and JD properties are between $3 and $4 million, with the bulk of expenditures incurred in the past four years.

REGIONAL GEOLOGICAL SETTING AND MINERAL DEPOSITS

The Toodoggone River area is situated near the eastern margin of the Inermontaine tectonic belt. Oldest rocks in the area are late Paleozoic limestones in the vicinity of Baker Mine. These are in fault contact with late Triasic Takla Group volcanic rocks exposed at Baker Mine and east and north of the Moose property.

A distinctive lithologic volcanic assemblage of early Jurassic age was first recognized by the writer in 1971, and informally called the 'Toodoggone volcanics'. These are subaerial pyroclastic assemblage of predominantly andesitic composition (Panteleyev, 1983), which unconformably overlie, or are in fault contact with older rocks. Toodoggone volcanic rocks are contained in a 100 X 25 kilometre northwest-trending belt extending from Thutade Lake in the south to Stikine River in the north.

Several major stratigraphic subdivisions of Toodoggone volcanics have been identified (Panteleyev, 1982; Diakow, 1983). These include a basal, predominantly andesitic flow and minor tuff unit, a middle unit of principally ashfall pyroclastics and flow rocks, and an upper, distinctive 'grey dacite' ash flow unit. Radiometric ages indicate Toodoggone volcanic rocks were deposited over a 20-million-year span, beginning in the earliest Jurassic (Panteleyev, 1983).

Toodoggone volcanics and older layered rocks are cut by Omineca granitic rocks of early Jurassic age and by subvolcanic intrusions related to Toodoggone volcanism.

Clastic sedimentary rocks of the Cretaceous - Tertiary Sustut Group overlie older layered rocks near the Stikine River and form the southwestern exposed margin of the Toodoggone volcanic belt.

Several styles of economic mineralization have been identified in the Toodoggone area (Schroeter, 1981), of which the most important are epithermal precious and base metal deposits related to volcanic processes associated with the eruption of the Toodoggone volcanic rocks. These deposits occur as fissure veins, quartz stockworks, breccia zones and areas of silicification in which principal ore minerals are fine-grained argentite, electrum, native gold and silver with lesser chalcopyrite, galena and sphalerite. Alteration suites are typical of epithermal deposits with internal silicification, clay minerals and locally alunite, grading outward to sericite and clay minerals, chlorite, epidote and pyrite.

Baker Mine is a fissure vein system developed in late Triassic Takla Group basic volcanic rocks, but mineralized quartz veins are spatially related to dykes believed to be feeders for nearby Toodoggone volcanic rocks. The principal quartz vein, with a 200-metre strike length and a width of 3 metres, had an indicated 90,000 tonnes (to a depth of 40 metres) grading 31 grams/tonne (0.90 oz/ton) gold and 617 grams/tonne (18 oz/ton) silver. Milling of 70,000 tonnes over a three-year period yielded recovered grades of 18.7 grams/tonne (0.55 oz/ton) gold and 356 grams/tonne (10.4 oz/ton) silver. Recovered grades were lower than anticipated due to initial recovery problems and greater than expected dilution during mining.

The Lawyers deposit has gold-silver mineralization in banded chalcedony-quartz stockwork veins and breccia zones developed in Toodoggone volcanic rocks. Three potential ore zones have been defined to date and recently announced reserves (Schroeter, 1985) are 1 million tonnes grading 7.27 grams/tonne (0.21 oz/ton) gold and 254 grams/tonne (7.11 oz/ton) silver.

Numerous other epithermal gold-silver deposits in the area are hosted by lower and middle units of the Toodoggoone volcanic sequence. These include the Sha, Saunders, Moosehorn, Mets, Metsantan, Al, JD and Golden Lion prospects.

Most of these are on or adjacent to two regional northwest-striking fault zones; the Baker-Lawyers-Al structure on the west, and the McClair-Saunders Fault system on the east.

Soil, rock and stream sediment geochemistry have proven to be useful tools in the search for epithermal precious metal deposits in the area. Gold and silver give diagnostic signatures but analyses for copper, lead and zinc are also useful.

Studies of alteration mineral suites have helped to delineate precious metals bearing zones on both the Al and JD properties.

PROPERTY GEOLOGY AND MINERALIZATION

The geological settings and mineral zones of the Al and JD properties have been previously described in a general way by Schroeter (1982, 1983 & 1985) and Diakow (1984) and in detail by Sutherland (1984) and von Fersen (1984).

Diakow (1984) describes the area north of Toodoggone River as being underlain by five andesite units comprising subaerial lava flows, ash flow tuffs and pyroclastic ash fall deposits. The upper two units, trachy andesite lava flows and comagmatic intrusive rocks overlain by massive flows, underlie the area of the Al and JD properties.

Both properties include several gold-silver bearing zones. For purposes of discussion, each property will be described separately.

Al Property

Generalized geological features and principal mineralized zones are shown on Figure 4, adapted from Kidd Creek Mines Ltd. work (Sutherland, 1984).

The property is underlain by a subaerial volcanic sequence of porphyritic intermediate to felsic flows, tuffs and comagmatic intrusions.

Seven mappable units are recognized, but stratigraphic relationships are hampered by less than 10% bedrock exposure, faulting and the shallow dipping to subhorizontal nature of the sequence.

Comagmatic intrusions include coarser grained granodiorite dykes and finer grained intermediate to felsic dykes. Felsic dykes are commonly adjacent to some of the larger alteration/mineralization zones and may be part of the mineralizing processes as at Baker mine.

Known alteration zones and related mineralization are adjacent to northwest trending faults and lineaments reflected by drainages, and are clustered near the northwest projection of the Baker-Lawyers regional trend.

Several hydrothermal alteration assemblages typical of epithermal systems have been recognized (Sutherland, 1984) and in an idealized vertically descending sequence these include: quartz-alunite, quartz-clay, quartz-barite-clay, quartz (barite), quartz-hematite and quartz-sulfide. Intense alteration zones are generally linear and confined to fault and fracture systems.

Better mineralization is associated with zones of intense hydrothermal alteration. Higher grade gold mineralization identified to date on the property is associated with quartz-barite veins while lower grades are contained in quartz-hematite and quartz-sulfide zones.

As illustrated on Figure 4, a number of gold-bearing zones, associated with intense hydrothermal alteration, have been recognized to date on the Al property. The more significant of these at present are the Bonanza-Ridge, Thesis II and III and BV zones. Most known zones have undergone investigation; the Hump and Furlong zones were each tested by two diamond drill holes in 1982 with generally disappointing results (Schroeter, 1983).

The BV zone in the south-central part of the Al property (Figure 4), was discovered by prospecting in the vicinity of a three-station gold soil geochemical anomaly (Sutherland, 1984) Backhoe trenching has exposed the zone over a northwesterly strike length of 500 metres. Intense silicification and clay alteration of andesite flows extends over widths of up to 40 metres. Disseminated pyrite is a common constitutent. Central to the alteration zone is a zone of shearing marked by brecciation and barite-quartz-pyrite veins and stockworks which contain significant gold assays, particularly over the western part of the zone.

Best value obtained in trenching was 21.95 grams/tonne over 8.6 metres; eight diamond drill holes in the western section of the zone indicated similar grades over narrower widths (les than 2 metres) to depths ranging from 10 to 30 metres.

The Thesis II and III zones are 800 metres northeast of the BV zone (Figure 4). The Thesis II zone trends west-northwesterly for 150 metres and is lensoid in plan with a maximum width of 50 metres. Better gold values are associated with intense silicification and brecciation of andesite porphyry flows. Disseminated pyrite is altered to limonite.

Gold values from trenches range up to 9.03 grams/tonne over a width of 8.8 metres. Two diamond drill holes yielded lower gold values over narrower widths.

The Thesis III zone is 350 metres northwest of Thesis II and may be part of the same mineralizing structure. Two parallel zones of intense silicification and clay mineral alteration are present; the southern zone is linear in nature and contains only low gold values. The northern zone is irregular in plan and features fracturing and brecciation of an intensely silicified zone, cemented by quartz-barite veins. Native gold is directly related to amount of barite present and values of 11.73 grams/tonne over 15.4 metres and 36.42 grams/tonne over 26.4 metres have been recovered from trench samples. Four diamond drill holes further indicated the irregular nature of this zone. Barite content was noted to decrease with

depth with correspondingly lower gold values. The exception was one hole drilled below the best values obtained in trenching. This hole, A84-10, intersected 32.25 grams/tonne gold from surface to an inclined depth of 16.7 metres but core recovery was 30% and only three of fifteen samples recovered from this interval had values exceeding 10 grams/tonne gold.

The Bonanza-Ridge zones are situated two to three kilometres northeast of the Thesis zones (Figure 4). One of the more significant of the several zones in this area is the Verrenass, located at the southwest extremity of the Bonanza-Ridge zones. Trenching has indicated native gold hosted by quartz-barite within a silicified dacitic ash flow (Sutherland, 1984). The zone trends northwesterly and values in trenches range up to 81.87 grams/tonne gold over 3.7 metres. Four diamond drill holes below the trenched areas yielded significantly lower gold values and a notable lack of barite at depths of 10 to 20 metres.

Principal zones on the Al property have a notable lack of silver mineralization, a direct correlation between gold and barite contents and a marked irregularity in both plan and section, a feature typical of epithermal deposits.

JD Property

The JD property is underlain by a shallow dipping sequence of andesite flows and flow breccias of at least 800 metres thickness which have been divided into two formations on the basis of textures and field relationships (von Fersen, 1984). These formations are separated by a low angle fault which dips north to northeast in the central part of the property (Figure 5).

Two styles of gold-silver mineralization are evident on the property, including steeply dipping quartz-calcite veins and zones of silicification and clay mineral alteration within and adjacent to the shallow dipping fault contact between the two principal volcanic formations.

Recent work has been directed to the Gumbo and Gasp zones (Figure 5) which are good illustrations of the two styles of mineralization. The Gumbo zone is marked by extensive silicification and clay alteration along the shallow diping fault zone over a northwest trending strike length of 400 metres and a maximum width of three metres. Gold-silver mineralization occurs in silicified andesites in the footwall of the fault zone. Some of the better values obtained in trenching in the southeast part of the zone were 17.84 grams/tonne gold and 69.5 grams/tonne silver over a 1.3-metre width. Down-dip potential of the zone was tested by drilling in 1984. The fault zone has an average 18° dip and a width of two to five metres. Galena, sphalerite, chalcopyrite and pyrite are contained in quartz-carbonite veinlets in both hangingwall and footwall rocks within and adjacent to the fault zone. Rare native gold was noted in silicified footwall rocks. Best intersection was 44.82 grams/tonne gold and 1.32 grams/tonne silver over 4.72 metres, with decreasing values noted toward the northwest. The potential of this zone is hampered by the fact that it is contained in a fault zone which dips into the hillside (Figure 5).

The Gasp zone, by contrast, has a steep northeast dip over its exposed 150-metre strike length. Mineralization is associated with quartz-carbonate veins and breccia fillings over widths of up to 20 metres, and consists of native gold and silver and galena, sphalerite, chalcopyrite and pyrite. Values obtained from trenching ranged up to 14.3 grams/tonne gold and 45. grams/tonne silver over a width of 12 metres, with lower values over narrower widths encountered in a two-hole drill program.

Several other gold-silver zones are known on the JD property (Figure 5); all have been surface prospected and sampled and most have been trenched with some limited drilling.

GEOCHEMISTRY

The use of soil geochemical surveys has proven to be a valuable exploration technique on the Al prospect. These surveys have covered much of the Al and JD prospects on grid patterns with a nominal sample spacing of 100 metres X 50

metres. The analysis of samples included detection for both precious and base metals.

Statistical analysis of data from the Al prospect by Kidd Creek Mines Ltd. indicate that values of approximately 13 ppb gold and 1.0 ppm silver represent threshold, while values greater than approximately 46 ppb gold and 3.0 ppm silver are moderately anomalous. Anomalous gold values are generally lower in areas of deep overburden, as on the lower timbered slopes of the Al prospect and slightly higher where overburden is shallower (1 metre or less) along ridge crests. Distinctly anomalous areas commonly have values in excess of 100 ppb gold.

Glacial dispersion of precious metals values in soils has been from south to north (Sutherland, 1984), and most source areas are the known mineralized zones on the property.

It is significant that the Thesis III zone was reflected by a single station anomaly of 115 ppb gold detected during reconnaissance surveys of the property. The BV zone had three anomalous gold values in soils. Follow-up work, including prospecting and rock geochemistry, resulted in the discovery of both these zones in 1984. Neither zone was considered significant enough for immediate follow-up after the initial reconnaissance survey several years ago.

The background values from precious metals on the JD prospect are considerably higher than on the Al. Values greater than 600 ppb gold and 6 ppm silver define distinctly anomalous areas, while values greater than 100 ppb gold and 2 ppm silver delineate related dispersion patterns. Anomalous values often exceed 1000 ppb gold.

In both areas, base metal soil anomalies dislay uncertain correlations with precious metal distributions.

Examination of a number of zones of near coincident gold and silver anomalies has included backhoe trenching and bedrock sampling. This work has disclosed the presence of significant precious metal bedrock showings, and other anomalous areas remain to be tested.

CONCLUSIONS

The Al and JD properties include several significant precious metals zones which have been explored to some degree by trenching and diamond drilling. Numerous other zones have been tested only by follow-up soil and rock geochemistry and prospecting.

Work by Kidd Creek Mines Ltd. over the past four years has demonstrated the value of soil geochemistry in detecting most of the known gold-silver zones on both properties. Soil geochemical results vary depending on terrain and consequently overdurden cover. Best results are obviously from higher areas where overburden depths of 1 meter or less are the rule. Most of the known zones are in these areas. The forested lower slopes of the Al property, where overburden attains much greater thicknesses, presents a problem. Elements with greater dispersions, such as silver and base metals, may be better indicators in these areas. Failing this, overburden drill sampling could be considered at some future time, coupled with site specific IP surveys.

Trenching and drilling to date on the Al property on four zones (Bonanza-Ridge, Thesis II and III and BV) indicate they are structurally controlled and they exhibit complex geometry in both plan and section.

Maximum alteration and mineralization appears to be confined to near surface, altheugh it should be remembered that typical epithermal deposits because of their complex geometry, are difficult to assess by drilling.

Collectively, these zones on the basis of work to date, represent 90,000 tonnes grading 14 grams/tonne gold. (Sutherland, 1984). Work by Kidd Creek suggests higher level mineralization than that at the Lawyers and Baker deposits to the south. This is reflected by the comparatively high gold/silver ratios and the relative abundance of barite. It may be of significance that all known zones on the Al property are at or near the 1600 metre elevation contour (Figure 4). If these zones are indeed representative of high level epithermal mineralization, "stacked" systems, with features similar to other Toodoggone deposits, could possibly exist at depth.

Work on the JD property includes trenching and diamond drilling on some of the more significant zones found to date (Gasp and Gumbo) which has indicated that gold mineralization is erratic in grade. The complex geology in the area requires more detailed surface work to decipher the structural complexities of the mineralized zones.

Exploratory work to date on both the Al and JD properties suggests that both have potential for extension of known zones and for discovery of additional zones.

Work by Kidd Creek has provided an excellent data base which should be utilized as the foundation for continued exploration work.

Both properties warrant additional work, with the most emphasis at this time directed to the Al property.

RECOMMENDED PROGRAM

A two phase exploration program is recommended for the Al property. Phase I work should consist principally of additionel detailed diamond drilling on the BV, Thesis III and Bonanza-Ridge zones to gain a better understanding of the geometry of these zones. Consequently, closely spaced holes will be required, many of which should be drilled from the opposite side of the structure from the previous Kidd Creek holes.

Available exposures in trenches should be re-examined in an attempt to determine possible orientation of mineralized shoots within the enclosing structure.

Phase II work, contingent on results of Phase I, would involve additional drilling and possibly preliminary assessment of untested geochemical anomalies elsewhere on the Al property.

It is proposed that work on the JD property in 1985 should consist principally of a re-examination of mineralized zones defined to date by way of detailed prospecting and geological mapping. This work should assist in a better understanding of the property which will aid in proper future assessment.

COST ESTIMATE

Phase I

BV Zone

Geological Mapping, Sampling	$ 5,000
Diamond Drilling (200 m @ $125/m)	25,000
Sample Analyses	3,000

Thesis III Zone

Geological Mapping, Sampling	5,000
Diamond Drilling (200 m @ $125/m)	25,000
Sample Analyses	3,000

Bonanza Ridge Zone

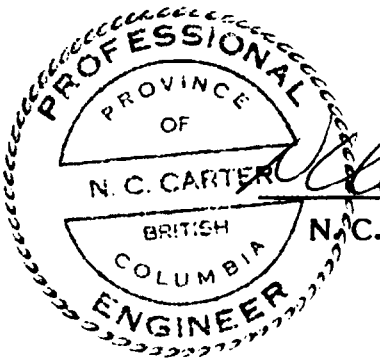
Geological Mapping, Sampling	5,000
Diamond Drilling (200 m @ $125/m)	25,000
Sample Analyses	3,000

JD Property

Prospecting, Geology, Sampling	25,000
Camp Costs	35,000
Air Support	36,000
Supervision, Administration	28,000
Contingencies	33,750
	$ 256,750

PHASE II (contingent on results from Phase I)

Additional Diamond Drilling and Support Costs	$ 290,000
TOTAL, PHASES I & II	$ 546,750



N. C. Carter, Ph.D., P.Eng.

CERTIFICATE

I, NICHOLAS C. CARTER, do hereby certify:

1. THAT I am a Consulting Geologist resident at 1410 Wende Road, Victoria, British Columbia,

2. THAT I am a graduate of the University of New Brunswick with B.Sc. (1960), Michigan Technological University with M.S. (1962), and the University of British Columbia with Ph.D. (1974),

3. THAT I am a registered Professional Engineer in the Association of Professional Engineers of British Columbia,

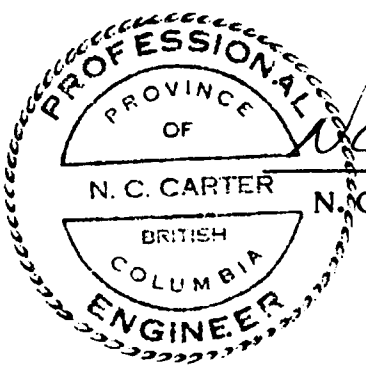
4. THAT I have practised my profession in eastern and western Canada and in parts of the United States over the past twenty-four years,

5. THAT this report is based on a visit to the Al and the JD properties on August 7th, 1982, on published and unpublished reports and maps, and on my background knowledge of the Toodoggone River area,

6. THAT I have no direct interest or indirect interest in the Al or the JD properties, or in Energex Minerals Ltd.

7. THAT permission is hereby granted to Energex Minerals Ltd. to use this report in support of any Filing Statement, Statement of Material Facts or Prospectus to be filed with the Office of the Superintendent of Brokers for the Province of British Columbia and the Vancouver Stock Exchange.

DATED at Victoria, British Columbia, this 26th day of Apr. 1, 1985.



N. C. Carter, Ph.D., P.Eng.

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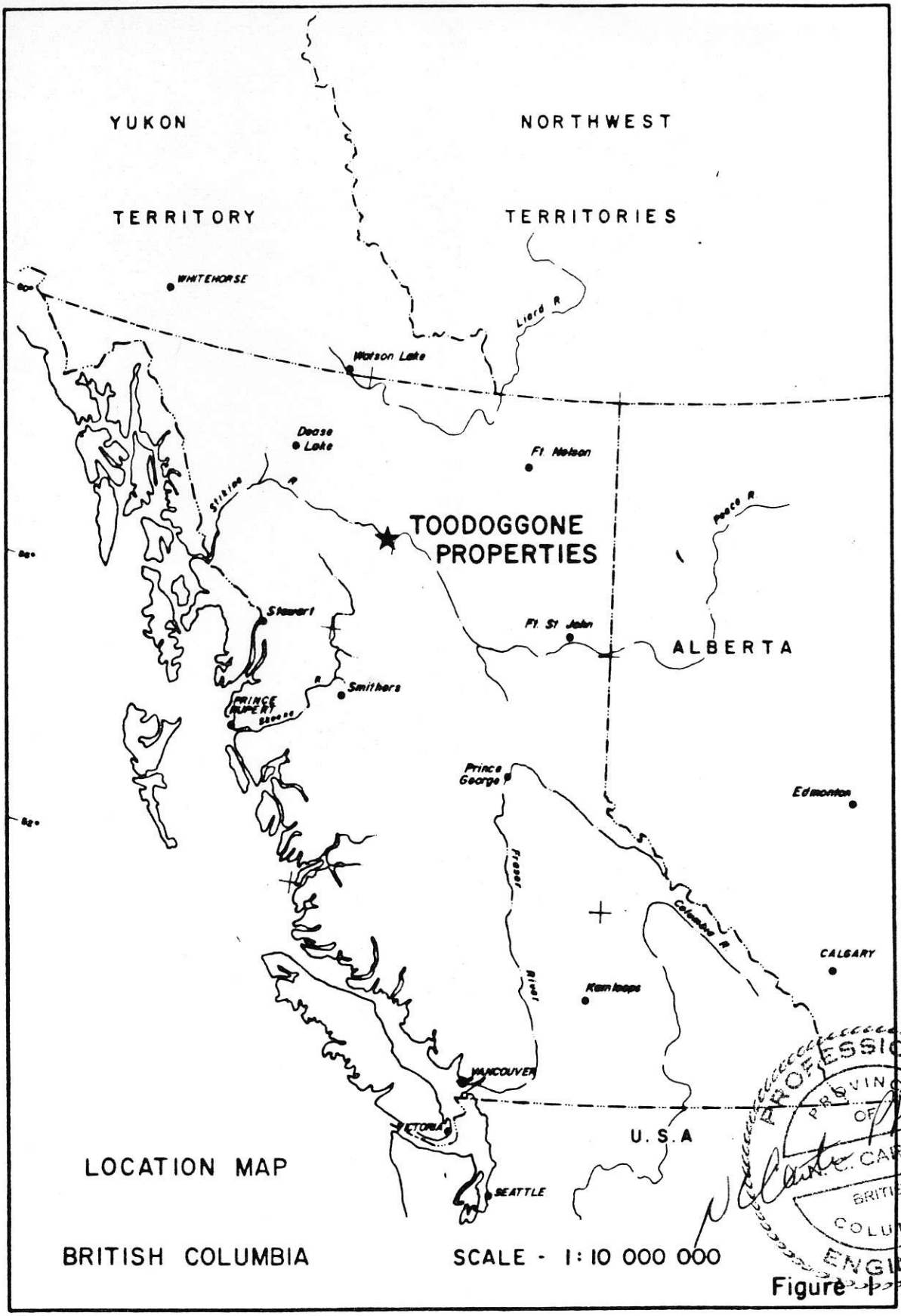
LIST OF ILLUSTRATIONS



PROFESSIONAL ENGINEER
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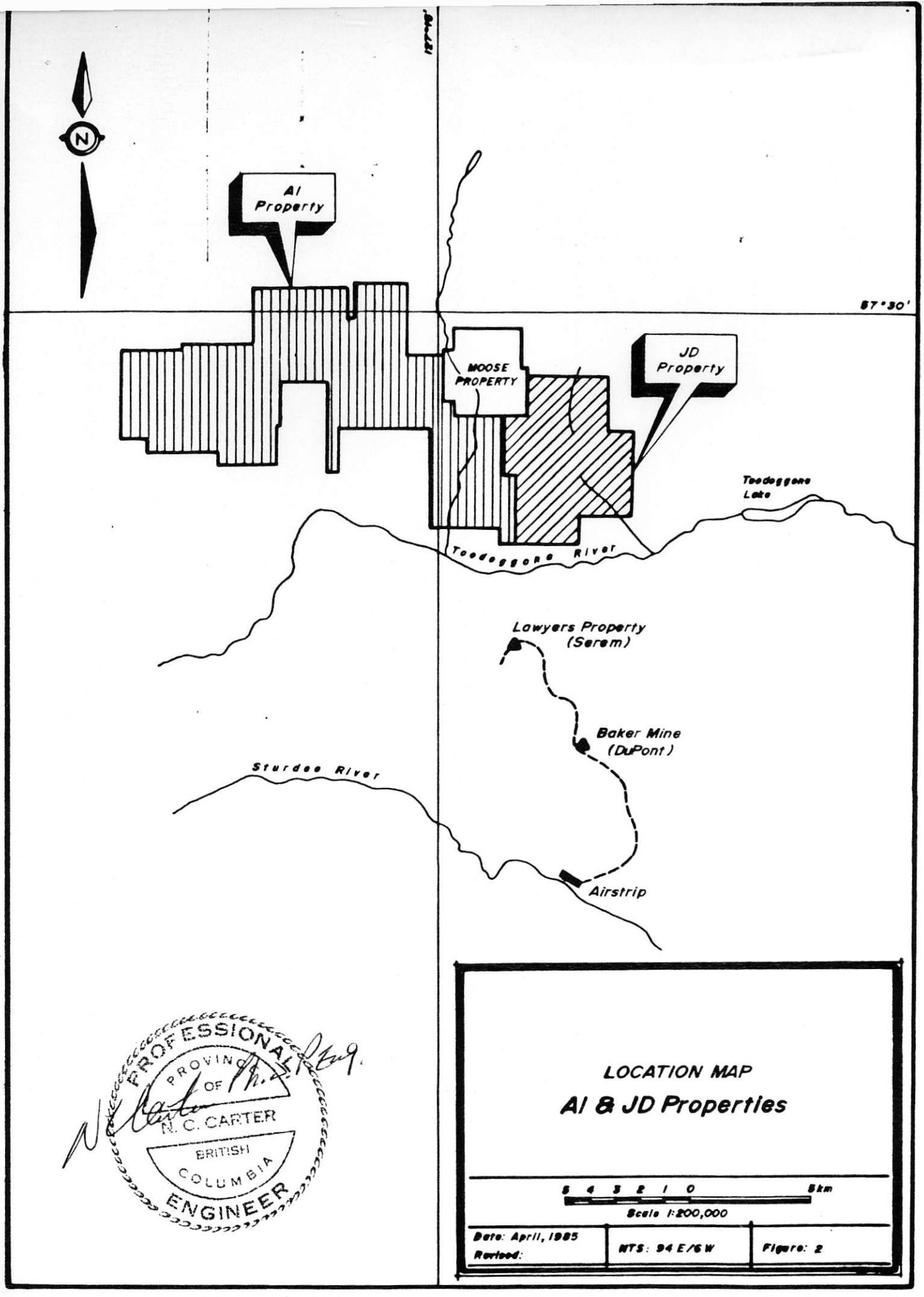
Figure 1



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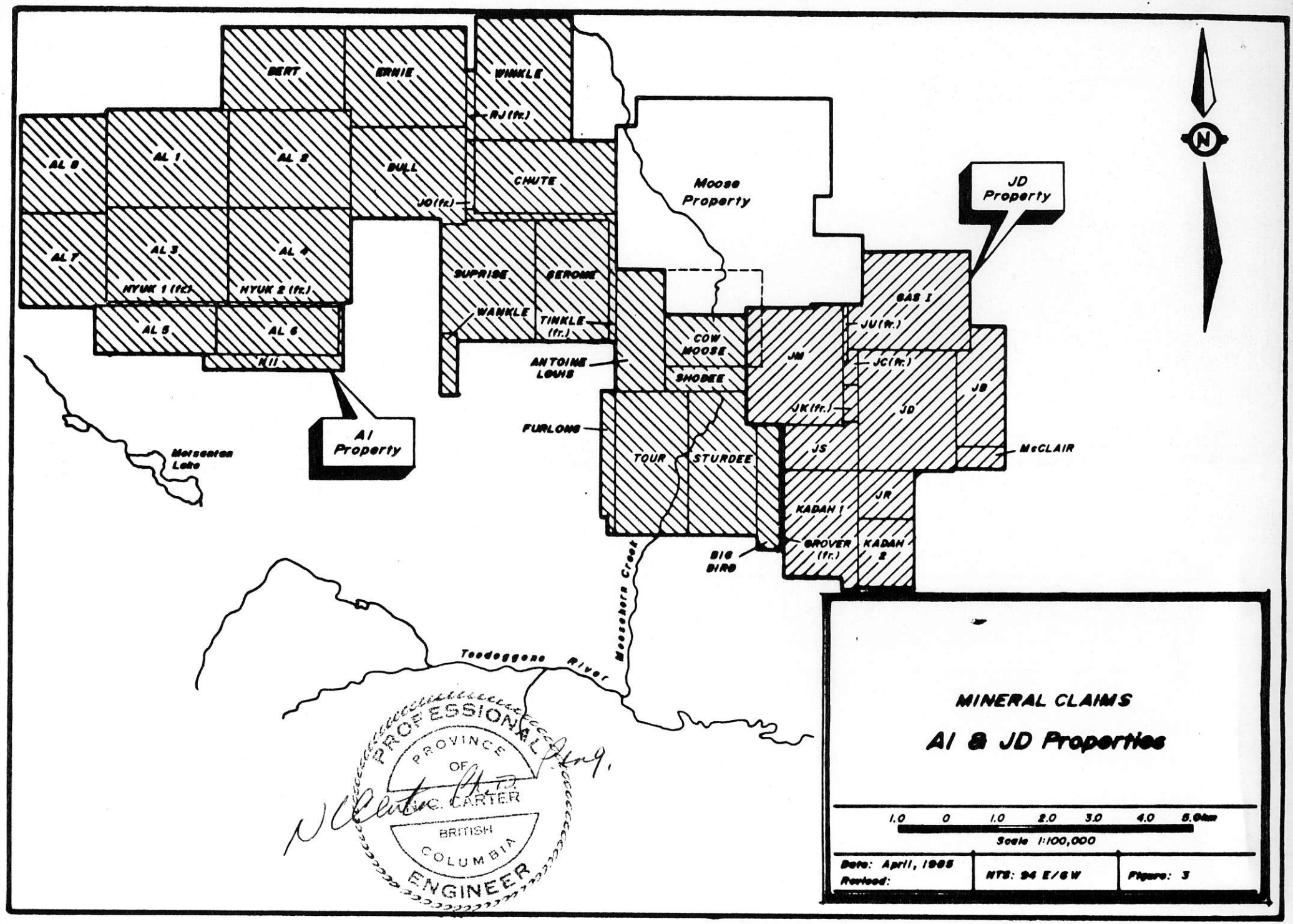

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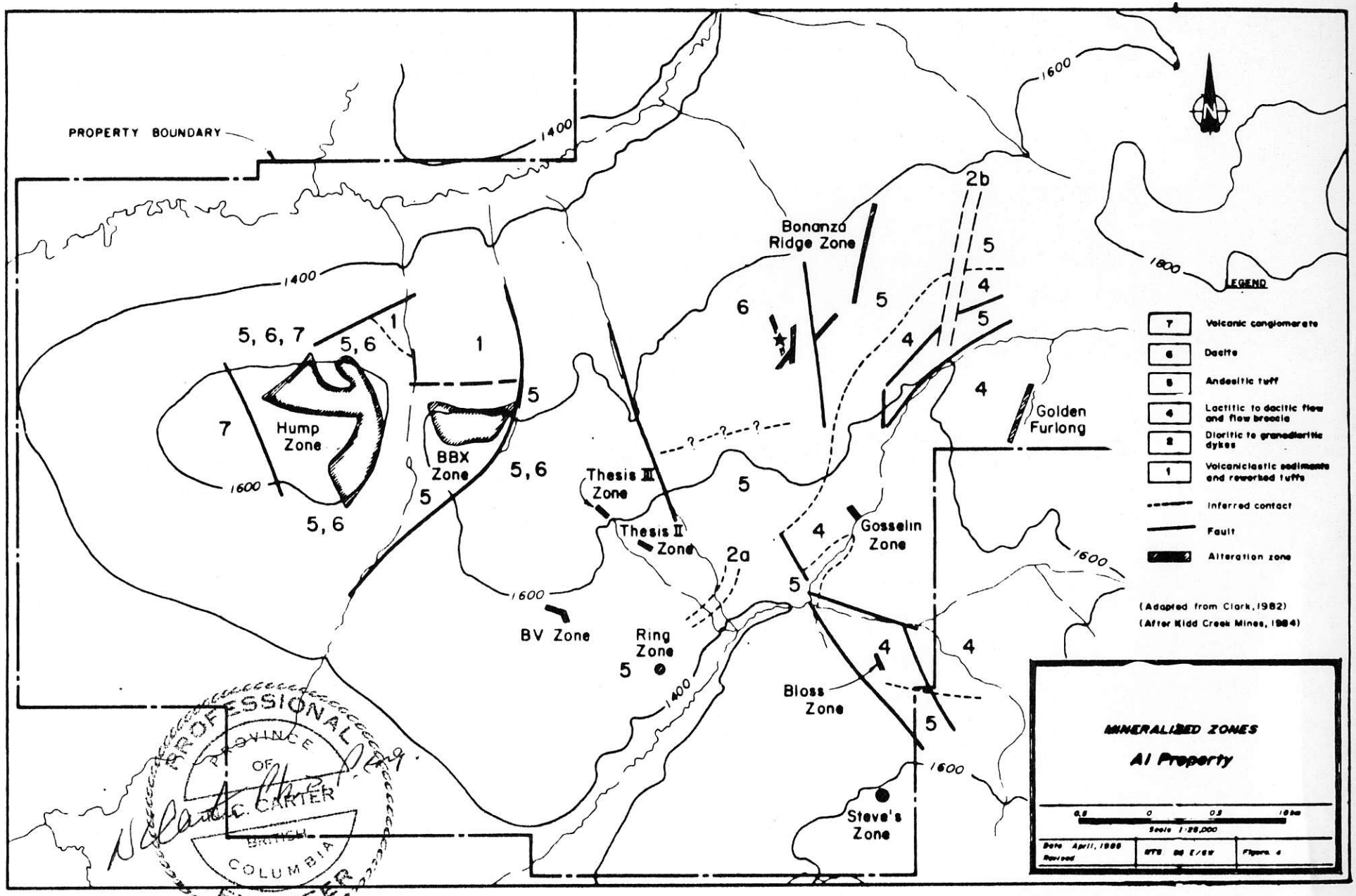
PROPERTY BOUNDARY
1400
1600
1800
Bonanza Ridge Zone
Hump Zone
BBX Zone
Thesis III Zone
Thesis II Zone
Gosselin Zone
Golden Furlong
BV Zone
Ring Zone
Bloss Zone
Steve's Zone
5, 6, 7
5, 6
1
2b
2a
4
5
6
7
LEGEND
7 Volcanic conglomerate
6 Dacite
5 Andesitic tuff
4 Lactitic to dacitic flow and flow breccia
2 Dioritic to granodioritic dykes
1 Volcaniclastic sediments and reworked tuffs
Inferred contact
Fault
Alteration zone
(Adapted from Clark, 1982)
(After Kidd Creek Mines, 1984)
MINERALIZED ZONES
Al Property
Scale 1:25,000
Date April, 1988
Revised
Figure 4
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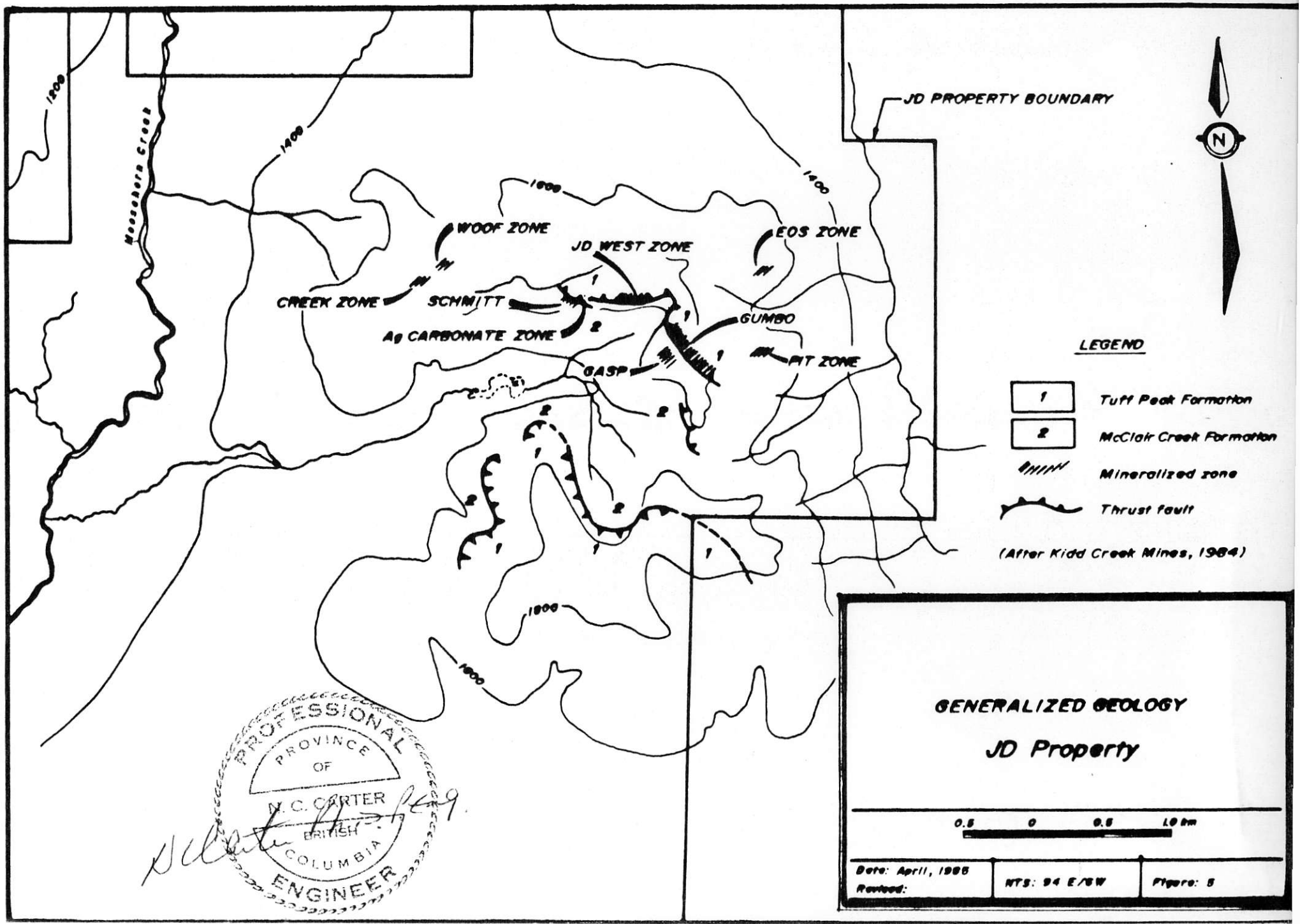
Allan C. CARTER


JD PROPERTY BOUNDARY
N
1800
1400
1600
1400
WOOF ZONE
JD WEST ZONE
EOS ZONE
CREEK ZONE
SCHMITT
GUMBO
Ag CARBONATE ZONE
GASP
PIT ZONE
1800
1600
LEGEND
1 Tuff Peak Formation
2 McClair Creek Formation
Mineralized zone
Thrust fault
(After Kidd Creek Mines, 1984)
GENERALIZED GEOLOGY
JD Property
0.5 0 0.5 1.0 km
Date: April, 1988
Revised:
NTS: 94 E/6W
Figure: 5
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N. C. CARTER