

85-1065-14638

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,638**

**Report on Diamond Drilling  
in the Bonanza Area of  
the AI Property, Toodoggone  
River Area, British Columbia**

**Liard Mining Division  
57°28'N.Lat., 127°22'W.Long.  
NTS 94E 6W**

**by Louise K. Eccles and  
George W.G. Sivertz**

**Owned by Energex Minerals Ltd.  
Work by Energex Minerals Ltd.**

**FILMED**

**November 1985**

**Vancouver, B.C.**

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## **Introduction**

Energex Minerals Ltd. conducted a major exploration program on the 26 claim A1 property in 1985.

The property lies between Albert's Hump and Moosehorn Creek in the Toodoggone River area of north-central British Columbia.

Mobilization commenced on June 11, 1985, and was completed through Smithers to the Sturdee airstrip on June 12, 1985. Aircraft used included a Hercules, DeHavilland Caribou, Beech Expeditor and Piper Navajo; Bell 205 and 206 helicopters ferried materials and fuel from the Sturdee airstrip to the camp site southeast of Albert's Hump.

Camp construction began on June 21st and was completed on July 15th. Exploration got underway on June 22nd and was completed on September 18th.

Exploration included prospecting, detailed geological mapping, rock sampling, geophysical surveys, backhoe trenching and diamond drilling.

This report describes the results of 271 meters of diamond drilling conducted in the Bonanza area, located on the A1 2 claim.

**Property**

The A1 property consists of 26 contiguous modified grid claims, comprising 298 units and 6 fractions. The Bull group, the subject of this report, includes 2 claims on the contiguous Moose property. A table of claim data follows:

<u>Claim Name</u>	<u>Record #</u>	<u>Record Date</u>	<u>Mining Division</u>	<u># of Units</u>	<u>Current Group</u>	<u>Expiry Date</u>
A1 1	789	12Jun79	Liard	20	Hump 84	1995
*A1 2	790	12Jun79	Liard	20	Bull	1995
A1 3	791	12Jun79	Liard	20	Hump 84	1995
A1 4	792	12Jun79	Liard	20	Hyuk 84	1996
A1 5	1439	18Jul80	Liard	10	Hyuk 84	1996
A1 6	1440	18Jul80	Liard	10	Hyuk 84	1996
A1 7	1871	21Apr81	Liard	16	Hyuk84	1996
A1 8	1872	21Apr81	Liard	16	Hump 84	1995
Bert	2012	13Aug81	Liard	20	Hump 84	1995
Ernie	2011	13Aug81	Liard	20	Hump 84	1995
Bull	2010	13Aug81	Liard	20	Bull	1992
Hyuk 1 (fr)	3026	11Jul83	Liard	1	Hyuk 84	1996
Hyuk 2 (fr)	3027	11Jul83	Liard	1	Hyuk 84	1996
Hyuk 3 (fr)	3028	11Jul83	Liard	1	Hyuk 84	1996
Nii	3029	11Jul83	Liard	6	Hyuk 84	1996
JO (fr)	4272	08Sep81	Omineca	1	Bull	1990
RJ (fr)	4273	08Sep81	Omineca	1	Bull	1990
Winkle	4099	13Aug81	Omineca	20	Sesame82	1991
Chute	4100	13Aug81	Omineca	18	Bull	1992
Surprise	4098	13Aug81	Omineca	20	A/L 82	1987
Gerome	4097	13Aug81	Omineca	15	A/L 82	1987
Wankle	4095	13Aug81	Omineca	3	A/L 82	1986
Tinkle (fr)	4093	13Aug81	Omineca	1	A/L 82	1987
Was II	6249	29Aug85	Omineca	8	Bull	Pending
Antoine Louis	4096	13Aug81	Omineca	10	A/L 82	1988
Furlong	4274	08Sep81	Omineca	6	A/L 82	1986
Was I	7248	29Aug85	Omineca	8	Bull	Pending
Calf Moose	3709	15Apr85	Omineca	12	Bull	1996

\*Subject claim, this report.

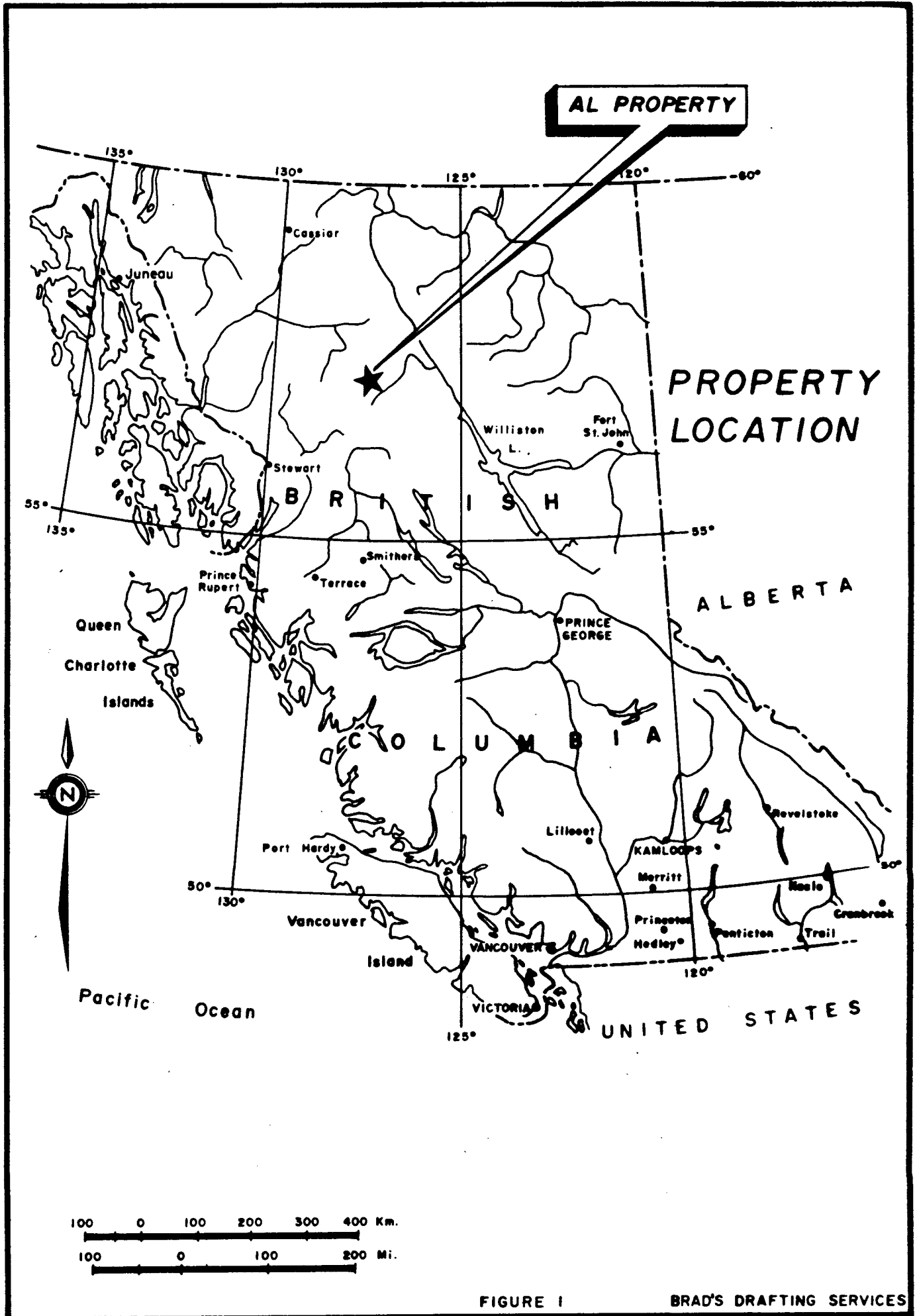


FIGURE 1

BRAD'S DRAFTING SERVICES

### **Location and Access**

The property is situated approximately 300 kilometers north of Smithers, at 57°28'N latitude and 127°22'W longitude.

The Toodoggone River area is served by the Sturdee airstrip, which lies 30 kilometers to the southeast of the Al camp. The Sturdee strip was built to accommodate Hercules aircraft, which were used to service DuPont's Baker mine.

Access to the property is presently by fixed wing aircraft from Smithers and by helicopter from Sturdee strip. A road linking the Toodoggone area (S.E.R.E.M.'s Lawyers deposit) with the present terminus of the Omineca Mining Road is under consideration by the B.C. Government. If this road is completed, materials and personnel could be trucked to the roadhead and ferried to the Al property by helicopter, a distance of only 18 kilometers.

### **Physiography, Vegetation and Climate**

The claim block covers a gently rolling, deeply dissected upland surface, which extends east from Albert's Hump to Tuff Peak, and south from Tuff Peak to Metsantan Mountain. The upland area is bounded by the valleys of Metsantan, Moyez/Abesti and Moosehorn Creeks, and is drained by Antoine Louis Creek and a southwest flowing tributary of Metsantan Creek.

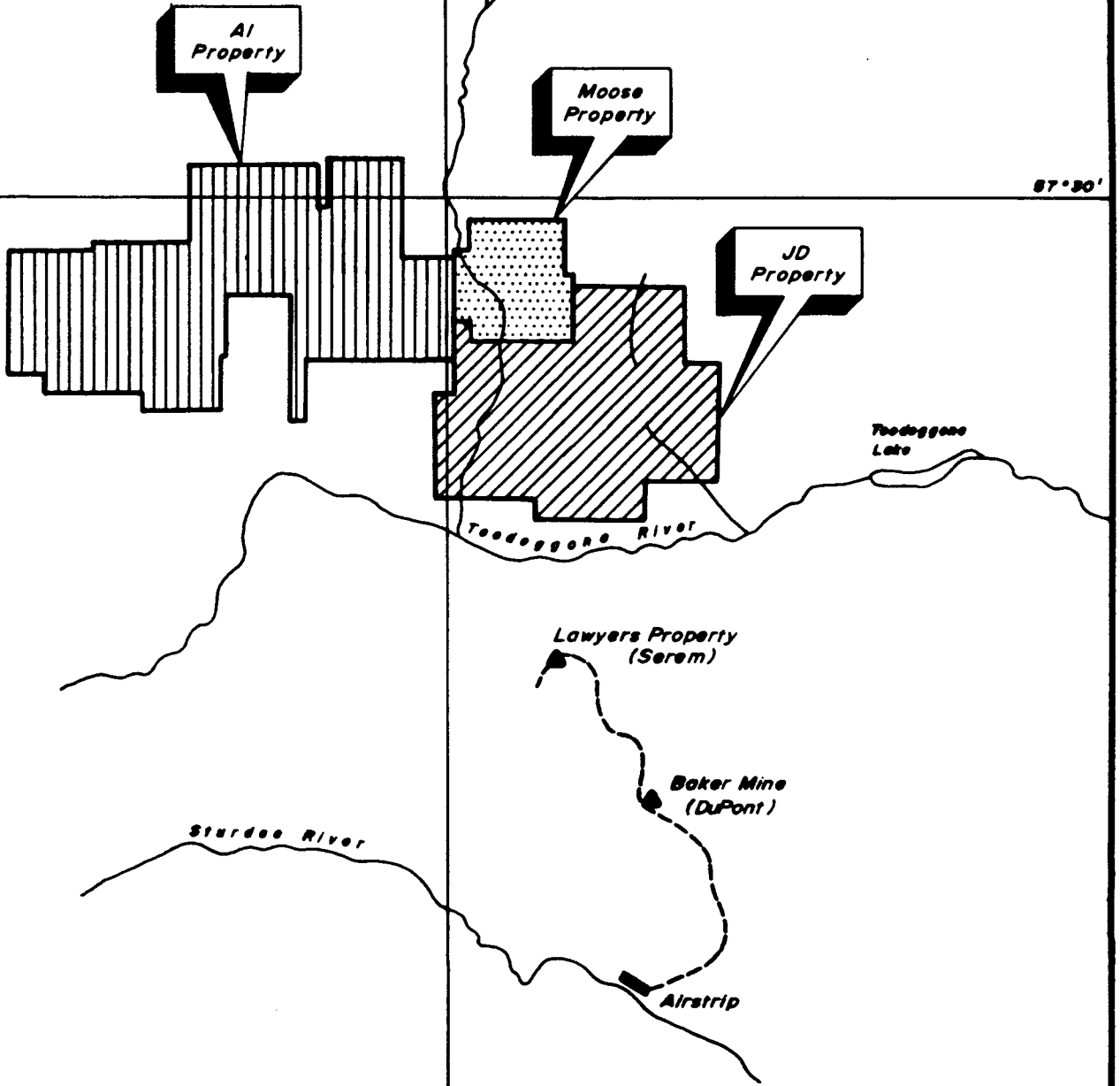
The greater part of the property lies above timberline at elevations of 1400 to 1700 meters. Vegetation here consists of low scrub and alpine grasses, with small stands of stunted Alpine Fir and krummholz. Forested areas fringing the alpine zone are dominated by spruce and fir, but stands of pine and poplar also occur.

The property is snowbound from early October until mid-June. The short summer season is typically cool and showery. Occasional snow showers occur throughout the summer months but accumulated snow does not linger for long.



127°18'

87°30'



**energex**  
MINERALS **LDJ**

LOCATION MAP

**AI, Moose,  
& JD Properties**



Scale 1:200,000

Date: October 1985.

Revised:

NTS: 24 E/W

Figure: 2

## **Previous Work**

Early work in the area of the present Al property consisted of a program of prospecting, hand trenching and rock sampling conducted by Newconnex on the Hump claims. This work, completed in 1973, was directed to the discovery of porphyry-type Cu-Mo deposits and was unsuccessful.

The Al 1-4 claims were staked by Energex Minerals Ltd. in 1979, and were optioned to Texasgulf Canada Ltd. in 1980, together with the Moose and JD properties. Texasgulf completed reconnaissance geochemical and geological surveys in that year, and staked the Al 5-6 claims to cover large alteration zones on the north flank of Metsantan Mountain.

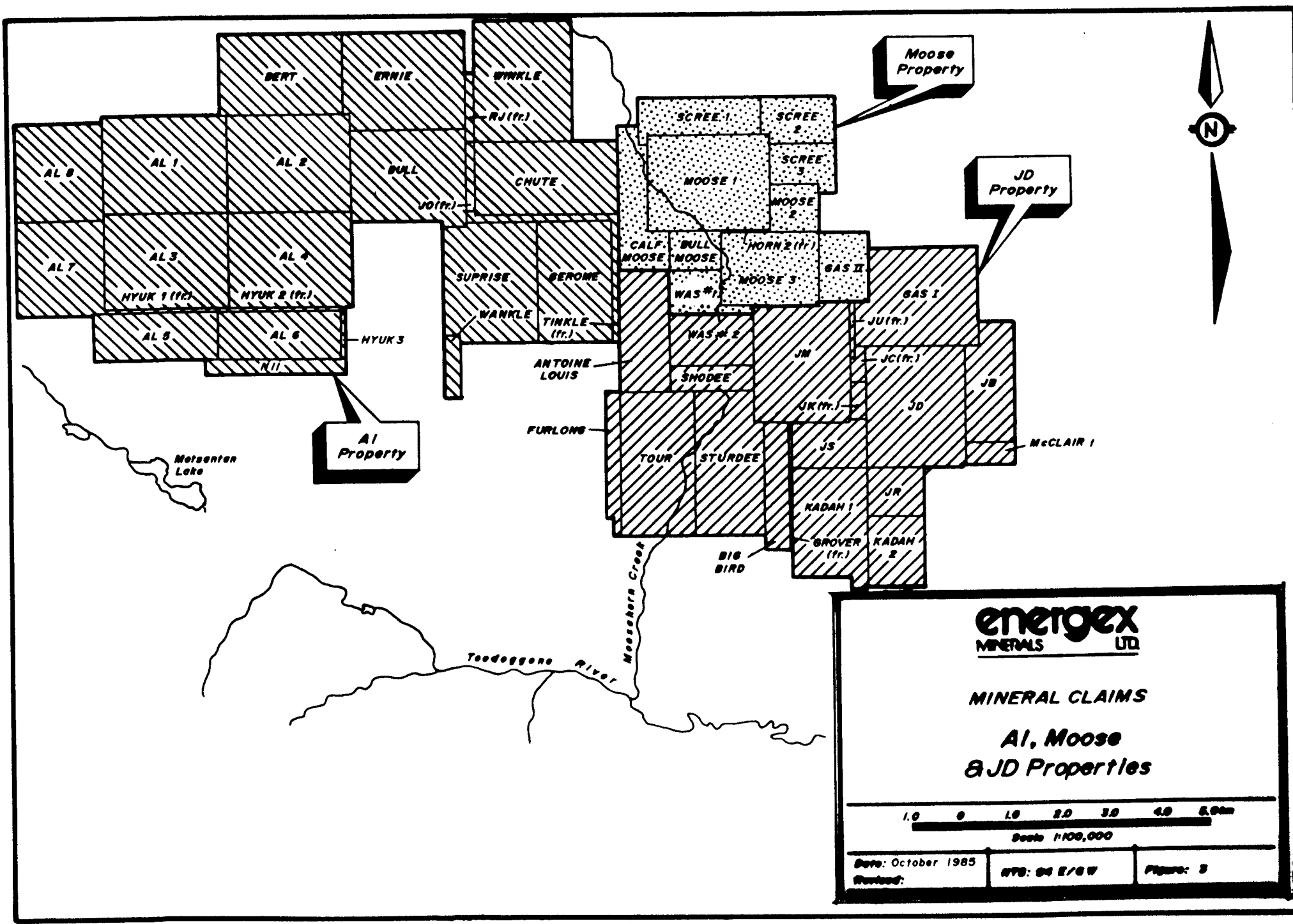
In 1981, more extensive and detailed grid-controlled geochemical surveys were conducted. Additional work included trenching and VLF-EM/magnetometer orientation surveys. The work produced encouraging results; the claim block was further enlarged by the addition of the Al 7-8, Bert, Ernie, Bull and Oscar claims.

The 1982 program consisted of geological mapping and rock geochemistry, reconnaissance and detailed soil geochemistry, IP surveys, backhoe trenching, diamond drilling, and a legal survey of legal corner posts. Drilling and trenching were concentrated on the Bonanza-Ridge alteration zones; additional holes were drilled on the Furlong and Hump zones. The drilling was technically successful but the results were erratic and only moderately encouraging. It had become apparent that extensive surface work was needed before mineralized zones were tested by drilling (Clark and Sutherland, 1983).

Accordingly, 1983 was a season of detailed surface exploration which included very extensive backhoe trenching and limited geological mapping and soil sampling. This work resulted in the discovery of the high grade "Verrenass" zone in the Bonanza-Ridge area, and the "Thesis II" mineralization south of the present camp area.

In 1984, extensive backhoe trenching and diamond drilling were conducted on five mineralized zones, including the Verrenass, Ridge and Thesis II, and the





**AI Property**

**Moose Property**

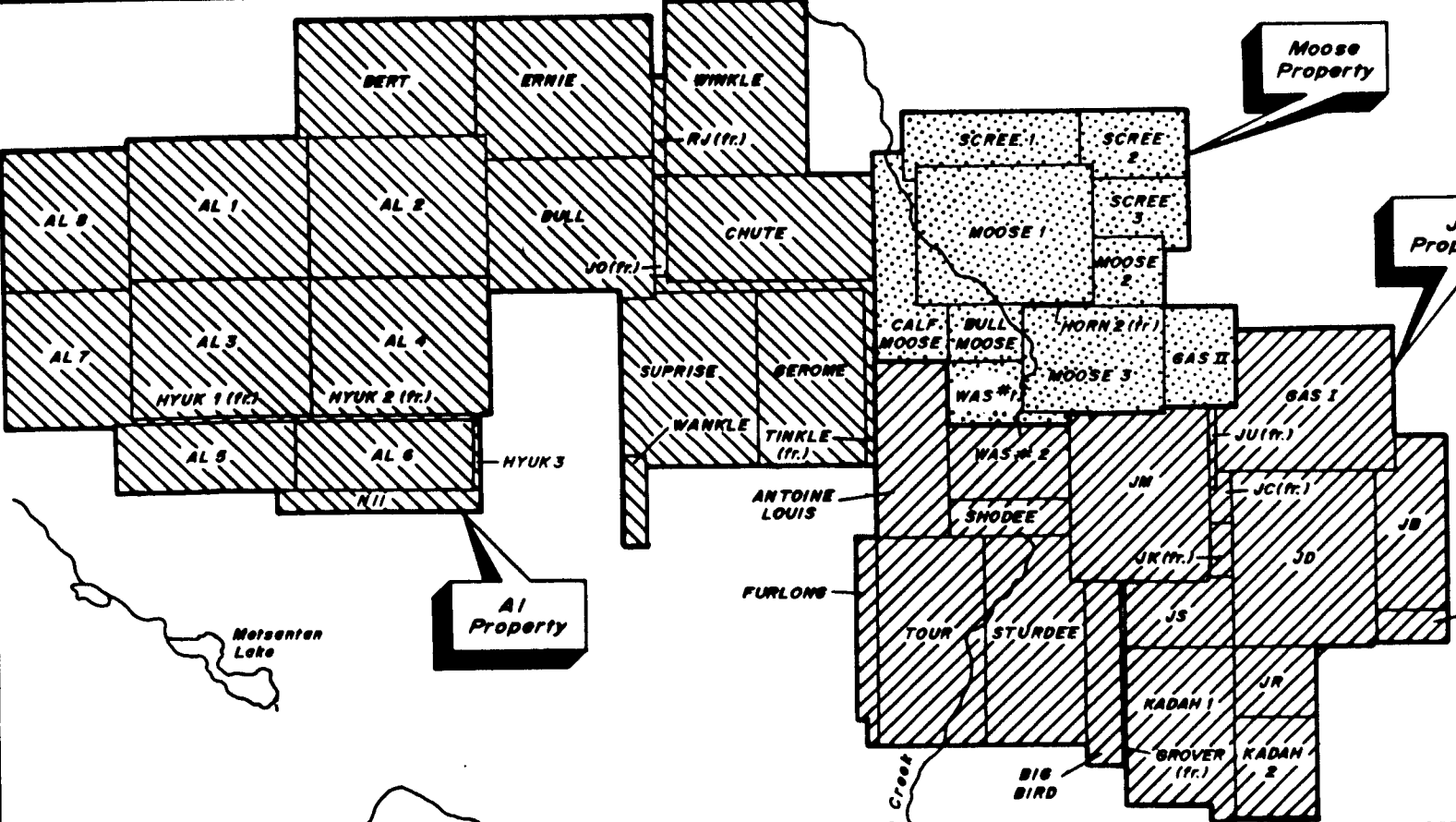
**JD Property**



Metsantse Lake

Toodoggone River

Moosehorn Creek



newly discovered Thesis III and BV (Barite Vein) zones. The drilling results varied; encouraging high grade intersections were made on the BV and Thesis III zones and assays from the other zones were of moderate grade (von Fersen, 1984).

The Al property, together with the Moose and JD groups, was returned to Energex Minerals Ltd. in late December 1984. Kidd Creek Mines Limited (formerly Texasgulf Canada Ltd.) retains a 15% net profits interest in the properties.

### **Geology and Mineralization**

The Al property is underlain by dominantly andesitic porphyritic volcanic rocks, including flows, tuff and agglomerate. These are of Lower to Middle Jurassic age and have been assigned to the "Toodoggone Volcanics" (Carter, 1972; Diakow, Pantaleyev and Schroeter, 1985).

The "Toodoggone Volcanics" have recently been subdivided into 8 units/formations, consisting of interlayered lava flows, ash flows and lapilli and crystal tuffs, with subvolcanic equivalents and associated volcanoclastic and epiclastic rocks.

Four of these units underlie the Al property; these include the basal Adoogatcho Creek Formation, the Moyez Creek Volcaniclastics, the Lawyers-Metsantan Quartzose Andesite and the Tuff Peak Formation.

The basal unit (1) is dominantly porphyritic reddish grey to dark brown quartzose biotite hornblende ash flow tuff, which is commonly welded to some degree. This unit outcrops on the west-central and northern section of the property (AL 1-4, 7-8, Bert, Ernie and Winkle claims). Overlying the basal unit on the north and east flanks of Tuff Peak, the Moyez Creek Volcanoclastic unit (2), consisting of conglomerate, crystal tuff, greywacke and minor limy sediments, outcrops in two east-trending bands.

The Lawyers-Metsantan Quartzose Andesite (3) underlies the Metsantan Mountain area, on the southern section of the property. This unit comprises mainly lava flows and flow breccias composed of porphyritic, green to grey biotite-hornblende plagioclase andesite, with minor lapilli tuff and rare welded tuff of similar lithology.

The Tuff Peak Formation (6), consisting of purple, grey and green augite biotite-hornblende plagioclase lava flows with minor crystal/lapilli tuff and subvolcanic sills and plugs, outcrops on the eastern section of the property. This unit in part directly overlies the basal unit and in part is in fault contact with it.

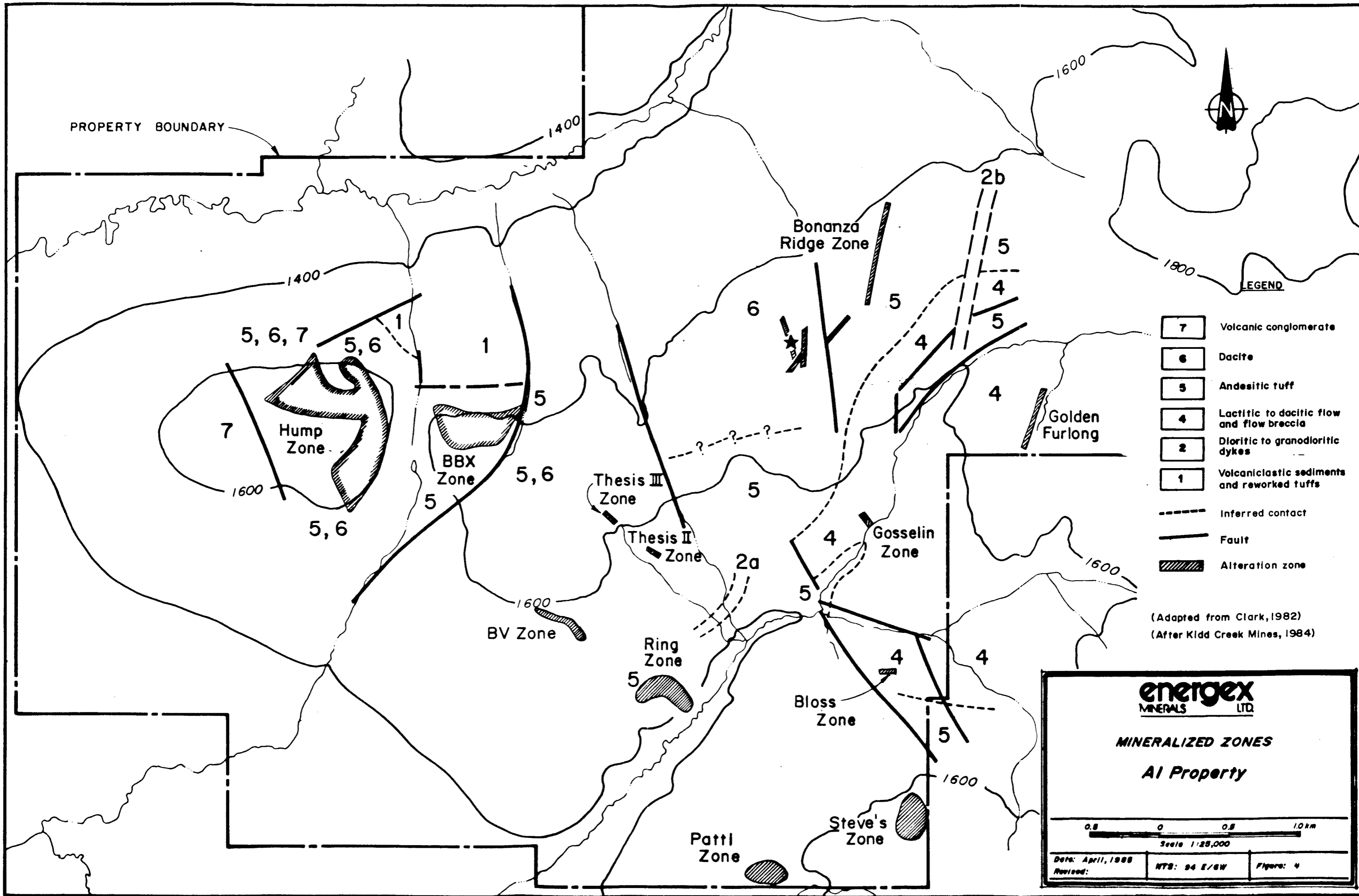
Alteration zones, some of large areal extent (25-75 ha), occur in large numbers on the property. They are characterized by strong, often complete argillization and silicification of the host rocks; pervasive alunization is also present on Albert's Hump (AL 1, 3 claims). Alteration zones are apparently structurally controlled, mainly by north-northwest to north-northeast trending faults.

They typically contain intensely silicified cores surrounded by wide envelopes of argillic alteration. Subtypes, including silicification with pyrite, argillization with hematite/goethite, and silicification with hematite/goethite, have also been recognized.

Native gold, with minor silver, occurs within the silicified cores of many of the zones. This mineralization is almost always accompanied by barite, and the best grades are often found in highly porous rock, which apparently permitted easy access to mineralizing fluids.

To date, a total of 12 auriferous alteration zones, and many more geochemically anomalous zones, have been discovered. These are commonly shaped like elongated lenses in plan, and are commonly oriented northwest to north-northeast. One zone, the BV, is several hundred meters in length and is apparently an imbricated vein-fault system.

The Ghost and Verrenass structures, representing the two most significant structurally controlled, mineralized alteration zones in the Bonanza area, were drill-tested to a limited extent in 1985. A total of 271.33 meters of HQ diameter core was drilled in 7 holes.



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)

**energex**  
MINERALS LTD.

**MINERALIZED ZONES**

**AI Property**

---

0.5    0    0.5    1.0 km  
 Scale 1:25,000

---

Date: April, 1988    NTS: 94 E/6W    Figure: 4

Results to date indicate that post-ore faulting has disjointed the Verrenass and Ghost gold-bearing structures to the point where the highest grade gold mineralization (greater than 6 grams per tonne), which occurs as a trough-shaped core within a broad, lower grade alteration envelope, is restricted to pod-like bodies. The high grade ore 'pods' are distributed along strike and down dip, and are apparently offset from each other in different orientations. Evidence of high grade pods occurring at depth was substantiated in 1985 by drill hole A85-29. The structures confining the pods are strong where exposed on surface, and probably have greater strike lengths which are presently not represented in mapping. It would appear that the Ghost and Verrenass structures converge and intersect towards the south.

#### **Diamond Drilling - Bonanza Area**

A total of 271.33 meters of HQ diameter core was diamond drilled on the Ghost and Verrenass structures in the Bonanza area of the A1 Property, from mid to late July 1985.

Drill holes A85-23 and -24 tested the down dip projection of the Ghost zone; holes A85-25 thru -29 tested the Verrenass structure.

#### **Ghost Zone**

Holes A85-23 and -24, drilled at dip angles of  $-45^{\circ}$  and  $-55^{\circ}$  and azimuths of  $135^{\circ}$  and  $090^{\circ}$  respectively, confirmed the presence of a porous, silicified, brecciated zone with fine grained pyrite and trace to 1% barite. Gold values in Hole A85-23 ranged from less than 0.05 grams/tonne to 1.35 grams/tonne with the highest values restricted to the narrow, porous, silicified zone found between 20.0 and 22.0 meters down the drill hole. Gold values in Hole A85-24 ranged between 0.15 and 3.20 grams/tonne, with the highest values once again restricted to a narrow band of the most porous, silicified rock, with probable trace barite and fine grained bands and stringers of pyrite. The mineralized section was located between 17.5 and 20.5 meters down drill hole A-85-24.

In both holes, throughout their most mineralized sections, remnant, argillized feldspar phenocrysts indicate that the original rock type, before

pervasive silicification and clay floodings, was probably a feldspar hornblende porphyry. This unit has been mapped by BC Government geologists as the basal "Addoogatcho Creek Formation" (Diakow, Pantaleyev and Schroeter, 1985). Sometimes this unit varies within the drill holes, and shows elongate, tuffaceous fragments in distinct horizons, however, the bulk composition remains andesitic and the porphyritic texture is usually still observable.

The alteration types varying from clay (A<sub>2</sub>) to silicified (A<sub>5</sub>, A<sub>7</sub>) to slightly altered (A<sub>3</sub>) are distinct and show several repeating sequences down the holes.

Hole A85-23 shows three zones of argillized and/or silicified sections, each bounded above and below by unaltered maroon feldspar porphyry. The upper and middle altered sections display intense clay flooding on either side of a silicified core. The upper zone has an intensely silicified and porous core. The middle alteration zone, which is more sheared than the upper, has a core of rock containing only slightly more silica than the argillic 'envelopes'. Unlike the upper zone, the middle alteration sequence has no porosity or pyrite associated with it.

The lowest alteration zone in Hole A85-23 displays pervasive clay flooding and minor fine grained pyrite along fractures. Faults were noted immediately above and below the upper alteration section and above and within the middle altered section, indicating the alteration sequences reflect structures responsible for the channelling of ore fluids.

Hole A85-24 shows a similar alteration sequence. Unaltered, maroon porphyritic volcanics bound an upper clay/silica sequence and a lower, pervasively argillized porphyritic horizon. The lower argillic zone has no porosity or silicification and was not assayed. In the case of Hole A85-24, neither altered zone has obvious bounding or internal faults.

#### Verrenass Zone

The Verrenass structure has an extremely high grade gold-rich core of intensely silicified, porous barite-rich rock. One pit excavated on the

structure, named the 'Glory Hole', returned surface gold values up to 75.14 grams/tonne across 2.4 meters. The structure, which appears to merge with the Ghost zone at its southern end, has been traced for 150 meters. The high grade core of the Verrenass deposit has a maximum width of six meters. Drill testing between 1982 and 1984 failed to intercept impressive gold grades at depth beneath the structure even though favourable alteration sequences were encountered.

In 1985, Holes A85-25 and -26 were drilled from the same set up, at dips of  $-55^{\circ}$  and  $-75^{\circ}$  and at an azimuth of  $153^{\circ}$ , to intersect rock directly beneath the 'Glory Hole'. Both holes encountered similar geologic and alteration sequences. The holes were drilled obliquely to the strike of the Verrenass structure. Hole A85-25, collared in slightly argillized maroon volcanics (A<sub>2</sub>-A<sub>3</sub>), went through a zone of fault gouge and intersected porous, silicified rock with some argillized feldspar and coarsely crystalline barite. The porous, silicified baritic rock has all the earmarks of that hosting gold mineralization in the Glory Hole; however, values ranged between 0.15 and 4.15 grams/tonne, notably less than surface values.

The best values obtained in Hole A85-26 were 26.00 grams/tonne gold found between 6.0 and 6.63 meters down the hole. The average grade of a 6-meter section between 5.42 meters and 11.42 meters was 5.37 grams - once again markedly less than values obtained from the Glory Hole on surface.

Holes A85-27, -28 and -29 were drilled to test the southern limit of the Verrenass structure which shows gold values in a trench averaging 6.62 grams/tonne across 12 meters. Energex personnel postulated that structures hosting this mineralized zone were separate from those confining the Ghost and Verrenass mineralization; however, it now would appear that the zone is an extension of the Verrenass structure.

All holes drilled were from the same set up with the azimuth of Hole A85-27 being  $205^{\circ}$  and azimuth of A85-28, -29 being  $175^{\circ}$ . Holes -27 and -28 were drilled with  $-55^{\circ}$  dip angles and Hole -29 was drilled at  $-75^{\circ}$ .

All holes encountered similar geologic sequences, the most noticeable of which is a faulted slice of unaltered maroon volcanics located in the upper sections of the drill holes lying between zones of pervasively argillized and silicified rocks. A distinct, porous, silicified rock with fragments and bands of fine grained pyrite, some argillized feldspars, and crystalline barite is evident in one or more sections of all these holes. This distinctive pinkish-tan rock carried numerous flakes of visible gold in Hole A85-29 between 29.4 and 29.9 meters; this section assayed 136.6 grams/tonne. The gold mineralized, silicified zones which correlate between Holes A85-27, -28 and -29 occur between 29.8 and 32 meters in -27, and between 29.0 and 32.0 meters in -28, and between 27.0 and 30.0 meters in -29. Fragments and clots of fine grained pyrite are a distinct feature of these silicified zones. Some narrow, less porous, and more argillized silicified zones exist above and below the main zones in the three holes.

Table 1

**BONANZA AREA**  
**SIGNIFICANT DRILL INTERCEPTS (Au)**

<u>LOCATION</u>	<u>INTERSECTION</u>			<u>WEIGHTED AVERAGE</u>
	<u>From</u> <u>(m)</u>	<u>To</u> <u>(m)</u>	<u>Interval</u> <u>(m)</u>	<u>Grams/</u> <u>Tonne</u>
A85-23	20.01	23.01	3.00	0.77
A85-24	17.60	20.60	3.00	2.66
A85-25	1.83	12.69	10.86	1.32
includes	10.00	12.69	2.69	2.55
A85-26	5.42	11.51	6.09	5.37
includes	5.42	9.75	4.33	6.94
and	5.42	7.25	1.83	12.77
and	6.00	6.63	0.63	26.00
A85-27	29.85	31.85	2.00	2.59
A85-28	33.68	39.68	6.00	3.26
includes	37.68	39.68	2.00	5.01
A85-29	20.90	35.90	15.00	7.38
includes	23.90	29.90	6.00	14.88



## **Conclusions**

1. The fracture system that formed the conduit for Verrenass fluids is fault related.
2. The Verrenass structure is apparently steeply dipping to vertical as evidenced by rock alteration which is symmetrical about the mineralization.
3. Intensity of rock alteration increases towards the gold-bearing zone.
4. In areas of high grade gold, abundance of barite rises proportionately to gold content.
5. Weakly mineralized rocks are characterized by pore spaces which are lined with fine quartz crystals.
6. High grade gold mineralization found on surface is not a product of supergene enrichment. Gold mineralization has now been found at depths between 90 and 100 feet on the Verrenass structure. The gold deposition would appear to be related to ancient geothermal activity and it would appear that the mineralized zones are stacked with low grade intervals between.
7. Post ore faulting has disjointed the mineralized structures of the Bonanza area.
8. No drilling has been done to test the possibility that ore bodies are stacked within and along the Verrenass structure. Any drilling in the past assumed the structure to have continuous mineralization to depth. Drilling has confirmed the Verrenass structure continues to a depth of over 100 feet but that mineralization is difficult to trace in that it apparently occurs as pod-like bodies.
9. The Ghost structure appears in surface plans to be more regular in geometry and substantially wider but lower grade than the Verrenass

structure. Surface trenching is far more limited on this zone due to more overburden and hence extrapolation between surface showings is more generalized.

10. Drilling indicates Ghost mineralization pinches out rapidly with depth, forming a trough-shaped mineralized zone.
11. The Ghost and Verrenass structures merge towards the south.

### **Recommendations**

1. The Verrenass deposit should be tested by drilling to intersect the mineralized structure at depth, within the same interval that gold mineralization was encountered in Hole A85-29 (90 to 100 feet). It is suspected that the mineralized and altered Bonanza zones resulted from geothermal activities. Mineralization may be restricted to specific levels, stacked within confining fault-related fractures. Drilling should initially be concentrated in the vicinity of Hole A85-29 and narrow step outs (10 m.) in either direction from there along the strike of the Verrenass structure depending on the initial success of encountering mineralization.
2. Backhoe trenching is recommended to test the northwest strike extension of the Verrenass structure. It would appear that previous trenches were situated too far to the north and may have missed the possible extension. The amount of overburden cover is not known in the location of the proposed trenching.
3. To date work in the Bonanza area has concentrated on the Verrenass and Ghost structures. Other mineralized structures within the area require further work (drilling and trenching). Bearing in mind that the deposits are hot springs related (probably emplaced by geothermal pulses),

mineralization may occur as a series of stacked zones and surface exposures with gold values may not be present. Individual mineralized zones may be hard to trace due to their limited size.

4. Surface stripping and detailed mapping of the Verrenass structure is recommended before a bulk sampling program is implemented.

## BIBLIOGRAPHY

1. Carter, N. (1972); Toodoggone River Area and Chappelle, Geology, Exploration, and Mining in British Columbia 1971, p.63-70.
2. Diakow, L.J., Pantaleyev, A., and Schroeter, T.G. (1985); Geology of the Toodoggone River Area, NTS 94E. B.C.M.E.M.P.R. Preliminary Map 61.
3. Rodgers, T. (1972); Report on Geology and Geochemistry of the Met, San, and Tan Groups for Sumac Mines Ltd. B.C.M.E.M.P.R. Assessment Report 4060.
4. Rodgers, T., and Scott, T.C. (1973); Report on Geology and Geochemistry of the Met, San and Tan Groups for Sullivan and Rodgers. B.C.M.E.M.P.R. Assessment Report 4681.
5. Sutherland, I.G. and Clark, J.R. (1982); Report on Geological Mapping and Geochemical Sampling on the Al Property. B.C.M.E.M.P.R. Assessment Report 10226.
6. Sutherland, I.G. (1982); Report on Geology, Geochemistry and Diamond Drilling on the Bull, Chute, Surprise and Gerome Claims. B.C.M.E.M.P.R. Assessment Report 10708.
7. Sutherland, I.G. (1982); Report on Geology and Geochemistry of the Al Claims. B.C.M.E.M.P.R. Assessment Report 10709.
8. \_\_\_\_\_, (1983); Report on Geology, Geochemistry, Trenching and Diamond Drilling on the Al Property. B.C.M.E.M.P.R. Assessment Report 11157.
9. Yoshida, H. and Kawasaki, K. (1973); Geophysical Report on L.P. and Ground Magnetic Surveys on the Met, San and Tan Groups for Sullivan and Rodgers. B.C.M.E.M.P.R. Assessment Report 4680.

**CERTIFICATE**

I, Louise K. Eccles, of 1050 Barnet Highway, Port Moody, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia with a Bachelor of Science degree in Geology in 1976.
2. I have been continuously employed as a geologist since 1976 working in areas of Western Canada, the United States and Ontario.
3. I am a member in good standing, of the Canadian Institute of Mining and Metallurgy and am a Fellow of the Geological Association of Canada.
4. I have been employed by Energex Minerals Ltd. since February 1985, as a Project Geologist on the Company's Toodoggone program.
5. I am a co-author of this report and supervised the described work program.

November 25, 1985  
Vancouver, B.C.

  
\_\_\_\_\_  
Louise K. Eccles

**CERTIFICATE**

I, George W.G. Sivertz, residing at 6100 Twintree Place, Richmond, British Columbia, do hereby declare:

1. I am a geologist and have practiced my profession for 10 years;
2. I received a B.Sc. (honours) degree in Geology from the University of British Columbia;
3. I am a member of the C.I.M.M. and a Fellow of the G.A.C.;
4. I am a co-author of this report and was directly involved in the 1985 A1 property exploration program on a full time basis.

November 25, 1985  
Vancouver, B.C.

  
George W.G. Sivertz

**APPENDIX 1**  
**Statement of Expenditures**

## APPENDIX 1

## Statement of Expenditures

Field Personnel

(Includes pro-rata portion of Pre-season planning, mobilization and camp construction time, as well as actual field time).

	<u>Man Days</u>	<u>Rate</u>	<u>Total</u>
A.O. Birkeland	1	350	\$ 350.00
J. Black	8	67	536.00
L. Eccles	8	175	1,400.00
M. LeDoze	8	100	800.00
L. Louie	8	100	800.00
B.J. Price	8	225	1,800.00
			<u>7,486.00</u>

Food and Accomodation

Camp Construction/Materials	10% of \$50,566.00	5,056.60
Food	10% of \$11,799.00	1,179.90
		<u>6,236.50</u>

Mobilization/Demobilization

Hotel, meals	10% of \$ 9,225.81	922.58
Truck rentals/gas	10% of \$ 681.28	68.13
Northern Mtn. Helicopters	10% of \$47,035.66	4,703.57
Okanagan Helicopters	10% of \$ 824.00	82.40
Air North Charter Ltd.	10% of \$14,230.00	1,423.00
		<u>7,199.68</u>

Aircraft Support

Central Mtn. Air	10% of \$ 4,210.32	421.03
ALC Airlift invoices 3136, 3139, 3211, 3215		2,626.50
		<u>3,047.53</u>



Equipment and Supplies

Camp Supplies/Expendables	10% of \$ 9,716.91	\$ 971.69
Camp Fuel/Communications	10% of \$11,042.00	<u>1,104.20</u>
		<u>2,075.89</u>

Instrument Rentals

Rock Saw	10% of \$ 500.00	50.00
Theodolite & Distance Meter		<u>150.00</u>
		<u>200.00</u>

Laboratory Analysis

CDN Resource Labs		<u>2,489.73</u>
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Contract Jobs

Kevin Coswan - Surveying		600.00
J.T. Thomas - Diamond Drilling Direct		27,590.00
- Labour, Cat		700.00
- Bits \$3/ft. x 890		<u>2,670.00</u>
		<u>31,560.00</u>

Report Preparation

Louise K. Eccles	7 days @ \$175/day	1,225.00
George W.G. Sivertz	5 days @ \$175/day	875.00
Drafting, printing, materials		<u>600.00</u>
		<u>\$62,995.33</u>

**APPENDIX 2**

**Diamond Drill Logs and Core Assays**

**DRILL LOG**

PROJECT <i>AL-GHOST</i>	GROUND ELEV.
HOLE NO. <i>A-85-23</i>	BEARING <i>135°</i>
LOCATION	DIP <i>-45°</i>
	TOTAL LENGTH <i>51.22 m 168'</i>
LOGGED BY <i>L. E. COLLES</i>	HORIZONTAL PROJECT
DATE <i>JULY 18/85</i>	VERTICAL PROJECT
CONTRACTOR <i>J. THOMAS DIAMOND DRILLING</i>	ALTERATION SCALE
CORE SIZE <i>1.0</i>	<p>0 1 2 3 absent slight moderate intense</p>
DATE STARTED <i>JULY 17/85</i>	
DATE COMPLETED <i>JULY 17/85</i>	TOTAL SULPHIDE SCALE
DIP TESTS	<p>0 1 2 3 4 traces only &lt; 1% 1% - 3% 3% - 10% &gt; 10%</p>
COMMENTS <i>Drilled to test for shallow dipping zone opposite in direction to what Kidd Creek anticipated</i>	LEGEND

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.	% BA
					A	B	C	D	E			
1				CASING								
2.44												
3	90			A3/A2 - Light pink porphyry - Black Mn stain on fractures - mostly A2						3		
3.96				- highly fractured at 10-20° to core axis								
5	95			- more intensely bleached along fracture envelopes						2		
5.46												
6	100									2		
7												
7.01												
8	95									3		
8.53				A2 - Bleached & clayed Lt grey feldspar porph with frags. Frags are barely recognizable due to intense bleaching - Minor Limonite stain on fractures at upper levels						3		
9	98		clay gouge									
10.06												
10	100									2		
11												
11.58												
12	100									1		
13												
13.11												
14	100											
14.63				A3 - massive fragmental feldspar porph - granitic "Dikeite" altered feldspar								
15	100		clay gouge									
16				A2 - Bleached grey porph - fine grained Volc - gets harder with A7 increasing at depth						1		
16.16			Rock appears fine grained & is "talc" - very soft.									
17	90									2		
17.60												
18	95									3		
19												
19.21												
20	95			A2/A7 - porphyritic + fragmental texture again distinct but rock is severely bleached						2		
20.73				A7 - minor A2 as remnant clayed feldspar - porosity 50% (up to) - some + 4. shattered A7.								
21	90									3		
22				A7/A2 -								
22.25												
23	90									3		
24				A2								

TK

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		AV g/t			
	10%								
	19%								
	2%								
		16.01	17.01	1.0	13825	40.05			
		17.01	18.01	1.0	13826	0.15			
		18.01	19.01	1.0	13827	40.05			
		19.01	20.01	1.0	13828	40.05			
		20.01	20.51	0.49	13829	1.20			
		20.51	21.01	0.51	13830	0.80			
	7%	21.01	21.51	0.50	13831	0.95			
		21.51	22.01	0.5	13832	1.35			
		22.01	23.01	1.0	13833	0.15			
	30%								





MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		Av g/t		
	10%	23.01	24.01	1.0	13834	40.05		
		24.01	25.01	1.0	13835	40.05		
		32.92	33.92	1.0	13836	40.05		
		33.92	34.92	1.0	13837	0.25		
		34.92	35.92	1.0	13838	0.40		
		35.92	36.42	0.5	13839	0.40		
		36.42	36.92	0.5	13840	0.60		
		36.92	37.42	0.5	13841	40.05		
		37.42	37.92	0.5	13842	0.55		
		37.92	38.92	1.0	13843	0.40		
		43.13	44.13	1.0	13844	40.05		
		44.13	45.13	1.0	13845	40.05		
		45.13	46.13	1.0	13846	40.05		
		46.13	47.13	1.0	13847	0.40		





**DRILL LOG**



PROJECT AL-GHOST	GROUND ELEV.
HOLE NO. A-85-24	BEARING 090°
LOCATION	DIP -55
	TOTAL LENGTH 40.24m 132'
LOGGED BY L. ECCLES	HORIZONTAL PROJECT
DATE JULY 18/85	VERTICAL PROJECT
CONTRACTOR J. T. THOMAS DIAMOND DRILLING	<p><b>ALTERATION SCALE</b></p>  <p>absent slight moderate intense</p>
CORE SIZE HQ	<p><b>TOTAL SULPHIDE SCALE</b></p>  <p>traces only &lt; 1% 1% - 3% 3% - 10% &gt; 10%</p>
DATE STARTED JULY 18/85	
DATE COMPLETED JULY 18/85	
DIP TESTS	
COMMENTS	LEGEND

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A	B	C	D	E		
1				CASING							
2	2.13			A2/A5 - Rubbly section. White to buff remnant phenocrysts - clayed / Rock is mostly grey except for some pinkish hue - Mostly A2							
3	3.96			Red - Rusty fault gouge - gumbo - semi fracture at top end						3	
4	4.88			rubbly fault gouge							
5	6.40			A2/A3 - Clayed feldspars - Rock is generally a maroon color w/ white remnant feldspar phenocrysts along fractures - very broken & fractured - rock is fragmental w/ semi-rounded frags up to 3cm						3	
6	7.92			- Some feldspars are greenish due to altering to Dickite						3	
7	9.45									1	
8	10.97			Clay Gumbo - maroon to grey							
9	12.5			A2/A7 - alteration front at 45° to core - cse blebs of py / cp? in open spaces						1	
10	14.02			Rock appears fine grained - sericitic + talcose						3	
11	15.55			- rusty along fractures - rock has a pink hue - mostly A2 - especially in the fine grained section!						3	
12	17.07			A2/A7 - large clots up to 5cm wide of fine grained masses of py + cp						2	
13	18.59			Rock is generally pinkish grey color - slightly porous - 1% - more siliceous towards depth						2	
14	20.12			A7/A2 - same as above except A7 predominates						1	
15	21.64			A2 / minor A3 - grey to maroon fragmental to porphyritic volcs. Frags look elongated & squeezed at 50° to 60° to core - green Dickite replacing some feldspar phenocrysts						1	



MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
		FROM	TO	WIDTH		AU gm/t				
	TR									
		11.60	12.60	1.0	13814	0.27				
		12.60	13.60	1.0	13815	0.80				
Py <sup>3</sup> minor Py occur as coarse blebs within amphibole also on RV 5T near TR	3% Py	13.60	14.60	1.0	13816	0.27				
	TR	14.60	15.60	1.0	13817	1.60				
		15.60	16.60	1.0	13818	0.67				
	7	16.60	17.60	1.0	13819	0.80				
	10% Py	17.60	18.60	1.0	13820	3.20				
		18.60	19.60	1.0	13821	2.93				
		19.60	20.60	1.0	13822	1.85				
		20.60	21.60	0.5	13823	0.15				

**DRILL LOG**

PROJECT AL- VERRENASS	GROUND ELEV.
HOLE NO. A-85-25	BEARING 153°
LOCATION GLORY HOLE	DIP -55°
	TOTAL LENGTH 20.42 m 67'
LOGGED BY L. ECCLES	HORIZONTAL PROJECT
DATE JULY 19 /85	VERTICAL PROJECT
CONTRACTOR J.T. THOMAS DIAMOND DRILLING	<p><b>ALTERATION SCALE</b></p>  <p>0 1 2 3</p> <p>absent</p> <p>slight</p> <p>moderate</p> <p>intense</p>
CORE SIZE	
DATE STARTED JULY 18/85	<p><b>TOTAL SULPHIDE SCALE</b></p>  <p>0 1 2 3 4</p> <p>traces only</p> <p>&lt; 1%</p> <p>1% - 3%</p> <p>3% - 10%</p> <p>&gt; 10%</p>
DATE COMPLETED JULY 18 /85	
DIP TESTS	LEGEND
COMMENTS	


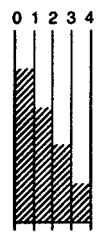
DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
1				CASING							
2											
2.183				Az - Intensely bleached white - lite grey spherulic porph						5	
3	60			- patches of minor A2/A7 noted where rock becomes vesicular	A2/A5						
3.35					A5/A2						
4	60			- Rock is very "Gaugery" in upper 8m & shows limonite staining along fracture surfaces.						3	
4.88	30										
5.48											
6	10										
6.71					A7/A2					3	
7	50			* 5.48 - 6.71 major loss							
7.62											
8	75			* 6.71 - 7.62 major loss							
8.23				A2/A7 - light grey - white - light bleached	A7/A2					3	
9	80			* 8.23 - 10.00 loss							
10				A7 - vesicular - Ba xstals + clay filling some cavities - 10% porosity							
10.00	95			A2/A7 - Bleached porph							
11				A7 - Vesicular - Ba xstals + clay filling some cavities - 7% porosity - lower alteration front with A2 at 10' to core						2	30 35 40
11.28											
12	100			A2/A7 - Bleached porph - Some frag - rock has a slightly pink hue to it.	A2						
12.80											
13	100			A2 - Bleached fragmental porph volcs - slightly pink hue							
14				clay gouge fault - grey - veins	A2/A3						
14.33											
15	100			A3 / some A2 - Masson, Porphyratic, fragmental volcanics							
15.85											
16	100										
17				clay gouge masson							
17.38											
18	100										
18.90											
19	100										
20.42				--- END OF HOLE - 20.42m ---							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		Ag	gms/t	
		1.83	2.59	0.76	13849	1.45		
		2.59	3.35	0.76	13850	0.15		
		3.35	4.80	0.95	13851	1.35		
	TR	4.80	5.48	1.18	13852	1.20		
		5.48	6.71	1.23	13853	0.15		
		6.71	7.62	0.91	13854	0.40		
		7.62	8.00	0.38	13855	0.65		
		8.00	9.00	1.00	13856	1.45		
		9.00	10.00	1.00	13857	1.35		
		10.00	11.00	1.0	13858	4.15		
		11.00	11.85	0.85	13859	1.05		
		11.85	12.69	0.84	13860	2.15		
	TR	12.69	13.62	0.93	13861	0.15		
		13.62	14.62	1.00	13862	0.15		

sulfide occurs in fine grained patches up to 3cm wide.

1720

**DRILL LOG**

PROJECT <i>AL - VERRENASS</i>	GROUND ELEV.
HOLE NO. <i>A-85-26</i>	BEARING <i>153°</i>
LOCATION <i>GLORY HOLE</i>	DIP <i>- 75°</i>
	TOTAL LENGTH <i>25 m = 82'</i>
LOGGED BY <i>L. ECCLES</i>	HORIZONTAL PROJECT
DATE <i>JULY 19 / 85</i>	VERTICAL PROJECT
CONTRACTOR <i>J.T. THOMAS DIAMONDS DRILLING</i>	<b>ALTERATION SCALE</b>  <ul style="list-style-type: none"> <li>0 absent</li> <li>1 slight</li> <li>2 moderate</li> <li>3 intense</li> </ul>
CORE SIZE <i>HQ</i>	
DATE STARTED <i>JULY 18/85</i>	<b>TOTAL SULPHIDE SCALE</b>  <ul style="list-style-type: none"> <li>0 traces only</li> <li>1 &lt; 1%</li> <li>2 1% - 3%</li> <li>3 3% - 10%</li> <li>4 &gt; 10%</li> </ul>
DATE COMPLETED <i>JULY 18/85</i>	
DIP TESTS	
COMMENTS <i>TESTING GLORY HOLE MINL</i>	LEGEND







MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		AV g/t		
		1.52	2.52	1.0	13863	0.40		
		2.52	3.52	1.0	13864	0.15		
		3.52	4.18	0.66	13865	0.25		
Py occurs as large fig. blebs & disc - more abundant at top of section	5%	4.18	4.84	0.66	13866	0.15		
	15% Py	4.84	5.42	0.58	13867	0.40		
		5.42	6.00	0.58	13868	4.95		
		6.00	6.63	0.63	13869	26.00		
		6.63	7.25	0.62	13870	6.65		
		7.25	7.75	0.50	13871	1.35		
		7.75	8.25	0.50	13872	2.40		
		8.25	8.75	0.50	13873	3.85		
		8.75	9.25	0.50	13874	3.60		
		9.25	9.75	0.50	13875	2.15		
	10%	9.75	10.75	1.00	13876	1.45		
		10.75	11.51	0.76	13877	1.60		
		11.51	12.30	0.79	13878	0.95		
		12.30	13.06	0.76	13879	0.65		
		13.06	19.06	1.00	13880	<0.05		



**DRILL LOG**

PROJECT AL - Vermass / G110ST	GROUND ELEV.
HOLE NO. A-85-27	BEARING R05°
LOCATION	DIP -55
	TOTAL LENGTH 40.24m - 132'
LOGGED BY L. Eccles	HORIZONTAL PROJECT
DATE JULY 19/85	VERTICAL PROJECT
CONTRACTOR J.T. THOMAS DIAMOND DRILLING	<p><b>ALTERATION SCALE</b></p>  <p>0 1 2 3 absent slight moderate intense</p>
CORE SIZE HQ	<p><b>TOTAL SULPHIDE SCALE</b></p>  <p>0 1 2 3 4 traces only &lt; 1% 1% - 3% 3% - 10% &gt; 10%</p>
DATE STARTED JULY 18/85	
DATE COMPLETED JULY 19/85	
DIP TESTS	LEGEND
COMMENTS Samples 13881 - 13915 (35).	

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
1				CASING							
3.05	95			A2 - Bleached fragmental Saldapar porph - Limonite stain on fracture planes up to 7.5m						2	
4.57											
5.79	100		fault gouge	- gypsum/talc on fracture <del>is</del> (scaly)							
6.70	90									2	
8.23	95									3	
9.75	100			- fractures at 10.5m to 12.00m } A2 A7 - rock becomes slightly more siliceous - dark grey fine grained						2	
11.28	100										
12.00										2	
14.33	90		Gray to manganese green fault gouge	A3 - Manganese porphyritic volcanics - Distinct marker between holes 27, 28, 29 - fault boundary						1	
15.05	100										
17.38	100			A2 - Rock is totally porphyritic towards bottom of section (very few frags)						3	
18.90	100									3	
20.42	90		very crumbly - fault	A2A2 - distinct unit							
21.95	100			A2 contact of different rock types at 50 to core							
				A7/A2 - Rock has abundant angular frags & dark grey sulfide rich groundmass - mostly A7							DISTINCT UNIT

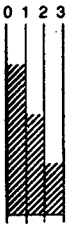
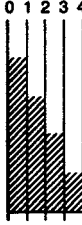
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		AV GHT		
	TR							
	Pv	3.5	4.57	1.07	13881	0.40		
		4.57	5.57	1.0	13882	0.25		
		5.57	6.57	1.0	13883	0.25		
		6.57	7.57	1.0	13884	0.25		
		7.57	8.57	1.0	13885	0.25		
		8.57	9.57	1.0	13886	0.25		
fine py. as part of matrix between blocks Prago.		9.57	10.57	1.0	13887	0.40		
		10.57	11.57	1.0	13889	0.20		
		11.57	12.57	1.0	13889	0.40		
Fine grained patches + blebs + discs of py.	up to 7% py	12.57	13.57	1.0	13890	0.65		
		13.57	14.07	0.5	13891	0.15		
	TR							
	10% py	15.85	16.85	1.0	13892	0.55		
		16.85	17.85	1.0	13893	0.25		
		17.85	18.85	1.0	13894	0.40		
		18.85	19.35	0.5	13895	0.40		
		19.35	19.85	0.5	13896	0.25		
	2% py	19.85	20.85	1.0	13897	0.15		
		20.85	21.85	1.0	13898	0.25		
		21.85	22.85	1.0	13899	0.15		
py + cpy	up to 7% py	21.85	22.85	1.0	13900	0.15		

DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
23.47	100			A2 - Fine grained porphyritic 'andesite' - totally bleached - talcose or gypsum-rich - slippery to touch							
25.0											
26.52	100										
28.05	100										
29.57	100										
30	Δ			Upper contact at 10% core	A1/A2 - Vesicular porphyry - most open						
31	Δ				Spaces filled w/ clay - Abundant blebs of Fe sulfide						
32	Δ			Lower contact at 5-70% core	- porosity up to 10% - looks like a 'bed' in volc suite						
33					A2 - Fragmental porphyritic rock						
34					- extremely bleached so that original textures are obliterated almost						
35					- wet rock has a slightly pinkish hue						
36					- 0 porosity						
40.24					--- END OF HOLE 40.24m ---						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS			
		FROM	TO	WIDTH		AV g/t			
		22.85	23.35	0.50	13901	0.15			
	Fe	23.35	24.35	1.0	13902	0.25			
		24.35	25.35	1.0	13903	0.15			
		25.35	26.35	1.0	13904	40.05			
		26.35	27.35	1.0	13905	40.05			
		27.35	28.35	1.0	13906	40.05			
		28.35	29.35	1.0	13907	0.15			
		29.35	29.85	0.5	13908	40.05			
mineralogy	UP TO	29.85	30.35	0.5	13909	3.05			
	8%	30.35	30.85	0.5	13910	1.35			
	R1	30.85	31.35	0.5	13911	2.00			
		31.35	31.85	0.5	13912	3.95			
	1%	31.85	32.35	0.5	13913	1.35			
		32.35	33.35	1.0	13914	40.05			
	R4	33.35	34.35	1.0	13915	40.05			



**DRILL LOG**

PROJECT AL - VERRENASS / G1105J Lon Zone	GROUND ELEV.
HOLE NO. A-85-28	BEARING 175°
LOCATION	DIP -55°
	TOTAL LENGTH 44.82 m - 147'
LOGGED BY L. ECCLES	HORIZONTAL PROJECT
DATE JULY 19/85	VERTICAL PROJECT
CONTRACTOR J.T. THOMAS DIAMOND DRILLING	<p><b>ALTERATION SCALE</b></p>  <p>0 1 2 3 absent slight moderate intense</p>
CORE SIZE HQ	
DATE STARTED JULY 19/85	<p><b>TOTAL SULPHIDE SCALE</b></p>  <p>0 1 2 3 4 traces only &lt; 1% 1% - 3% 3% - 10% &gt; 10%</p>
DATE COMPLETED JULY 19/85	
DIP TESTS	
<p>COMMENTS</p> <p>Samples 13916 - 13956 (35)           0001 - 0006 (6)                                   <u>          </u>                                   Total 41</p>	<p>LEGEND</p>



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ
					A	B	C	D	E		
1				CASING							
2											
3.05	40			A2 - Bleached feldspar porph						3	
3.4	50			- limonite along fracture planes							
3.66	80										
4.27	90										
5.74	15			Guy's fault A2/A7 - sudden abundance of diss py - porosity 1% - faint banding with fine grained pyrite						2	
6.71	95										
8.23	95			clay gouge A7 - vesicular - porosity 3% A3 - Fresh looking, purple feldspar porph - - small frags elongate at 70° to core - this section bounded top + bottom by faults at ± to axis (top) & 45° to axis (bottom)							
9.75	100										
11.28	100			clay gouge A2 - porphyritic volc - bleached - pinkish							
12.80	100			A2 - Very fine grained - tal case, grey volc - massive							
14.33	100			A2 - bedding + frags become visible - still very bleached							
15.85	100										
17.38	100			- Bedding at 45° to core Lower contact at 3° to core axis							
18.90	100			A7/minor A2 - Bedded fragmental 'volc' with fine grained sulfide rich, silicified groundmass - bedding at 45° to core - distinct							
20.42	100			horizontal or 5° to core axis A2 - Bleached feldspar porph							
21.95	100										
22				A7/minor A2 - Fragmental w/ sulfide-rich groundmass - Distinct							



DEPTH (m)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A	B	C	D	E		
23.47				Some porous vesicular frag							
25.00	100			A2 - talcose f.g. porph							
26.52	100			A7/A2 - top alt front 45° to core - pinky / grey colour							
28.05	100			A2 - talcose f.g. porph							
29.57	100			A7 - porous vesicular porphyry - porosity 10-15% - pinky grey colour - some less porous frag - dark grey f.g. sulfide bands							
32.62	100			← 2cm width of A7 + f.g. cpy. at 25-30° to core Ba? A2 - Bleached porphyry - pinkish hue.							
34.14	100			← 1cm wide Ba vein 5-10° to core A7/A2 - feldspar porph - slightly vesicular (but not as porous as A2 above) - porosity 10% A2 - Bleached Fragmental, feldspar porph. - pinkish hue							
35.67	100			A7/A2 - porosity 1% - distinct layered feldspar phenos - minor porosity where gone							
37.19	100			A7 - porous (up to 15%) pinkish grey "porph" w/ Ba (solid white) in some open spaces - frag of f.g. sulfide							
38.72	100			A2 - Bleached fragmental feldspar porph.							
40.24	100			A3 - purple feldspar porph							
41.77	100			← red clay zone A3/A2 pinkish feldspar porph - feldspar phenos altered to green diatoms							
43.29	100			"maybe a dyke - distinct from main porph." - "pitted" feldspar phenos							
44.82	100			--- END OF HOLE 44.82m ---							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		AV g/t		
		23.18	24.18	1.0	13934	0.55		
		24.18	25.18	1.0	13935	0.15		
		25.18	26.18	1.0	13936	40.05		
		26.18	27.18	1.0	13937	<0.05		
		27.18	28.18	1.0	13938	40.05		
		28.18	29.18	1.0	13939	40.05		
Diss epy + py and blebs (dangle) of same	5%	29.18	29.68	0.5	13940	0.15		
		29.68	30.18	0.5	13941	0.25		
		30.18	30.68	0.5	13942	40.05		
		30.68	31.18	0.5	13943	0.25		
		31.18	31.68	0.5	13944	0.25		
		31.68	32.18	0.5	13945	0.25		
		32.18	32.68	0.5	13946	0.40		
		32.68	33.68	1.0	13947	0.25		
no sulfides		33.68	34.68	1.0	13949	1.85		
		34.68	35.68	1.0	13949	3.05		
- large clots of fig. py + qpy - clayed feldspars preventing open spaces	15%	35.68	36.68	1.0	13950	1.05		
		36.68	37.68	1.0	0001	3.60		
	2%	37.68	38.18	0.5	0002	6.95		
		38.18	38.68	0.5	0003	4.15		
epy + py disse + clots	5%	38.68	39.18	0.5	0004	2.15		
		39.18	39.68	0.5	0005	6.80		
py + qpy	10%	39.68	40.68	1.0	0006	0.95		

**DRILL LOG**

PROJECT AL - Verrenass / GHOST	GROUND ELEV.
HOLE NO. A-85-29	BEARING 175°
LOCATION	DIP -75°
	TOTAL LENGTH 162' 49.39'
LOGGED BY L. ECCLES	HORIZONTAL PROJECT
DATE JULY 20/85	VERTICAL PROJECT
CONTRACTOR J.T. THOMAS DIAMOND DRILLING	<p><b>ALTERATION SCALE</b></p>  <p>absent slight moderate intense</p>
CORE SIZE HQ	<p><b>TOTAL SULPHIDE SCALE</b></p>  <p>traces only &lt; 1% 1% - 3% 3% - 10% &gt; 10%</p>
DATE STARTED JULY 19/85	
DATE COMPLETED JULY 20/85	
DIP TESTS	<p><b>LEGEND</b></p>
<p>COMMENTS Samples</p>	

DEPTH (M)	% CORE REC	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACTURE INTENSITY	% VEIN QTZ.
					A	B	C	D	E		
1				CASING							
3	95			A2 - fractures II to core - not along fractures - bleached feldspar porph - feels talcy in places						2	
5	95		combed fault							2	
7	100	clay lined gouge 450 m/s		A7 - slightly vesicular - 7% porosity - revealed box							3 1/2 Ba
9	100	manom clay gouge		A3 - purple feldspar porph - minor manom porph frags. - faulted on upper and lower contacts						1	
11	100		- faulted	A2 - so bleached some part of rock took fine grasses - fragmental feldspar porph - talcose						1	
13	100										
15	100										
17	100										
19	100										
21	100			A7 minor A2 - vesicular - porosity 3% - some clayed feldspar in "open spaces" - 1/2 of alt frnt 45° to core							
22	100			A2 - fine grained talcose, bleached porph.							
23	100			A7 - pinkish grey, vesicular 'porph' - minor pinkish solid frags - frags of dark grey chalcocite qtz							

Bandings at 25°  
to core (Sulfide bands)

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		AU G/T		
		3.2	4.2	1.0	0007	0.45		
	1% Py	4.2	5.2	1.0	0008	0.25		
		5.2	6.2	1.0	0009	0.15		
		6.2	6.70	0.5	0010	0.15		
clots of Bauls, Finely disseminated	10% Py	6.70	7.20	0.5	0011	1.35		
		7.20	7.70	0.5	0012	0.65		
	TR							
	TR							
		14.65	15.65	1.0	0013	0.15		
		15.65	16.65	1.0	0014	20.05		
		19.90	20.90	1.0	0015	0.95		
		20.90	21.40	0.5	0016	3.35		
		21.40	21.90	0.5	0017	3.65		*
large f.g. clots of Py + CpY?	8% Py	21.90	22.40	0.5	0018	1.95		
	1%	22.40	22.90	0.5	0019	1.35		
lg blebs of Py + CpY	5-10% Py + CpY	22.90	23.40	0.5	0020	1.45		





MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS		
		FROM	TO	WIDTH		AU g/t	Ag	g/g
		23.40	23.90	0.5	0021	1.45		
		23.90	24.40	0.5	0022	4.80		
		24.40	24.90	0.5	0023	6.25		
		24.90	25.40	0.5	0024	3.85		
Ba - altered to talc or clay		25.40	25.90	0.5	0025	7.45		
- Mm or 6A	5%	25.90	26.40	0.5	0026	2.0		
ABUNDANT specks of VG* <sup>should</sup> <sub>June 2009</sub> Minor x-stallic Ba in cavities	P1	26.40	26.90	0.5	0027	3.20		
- massive clots of f.g. P1	5%	26.90	27.40	0.5	0028	2.15		
		27.40	27.90	0.5	0029	2.9		
		27.90	28.40	0.5	0030	4.65		
clots of f.g. P1	7%	28.40	28.90	0.5	0031	2.80		
		28.90	29.40	0.5	0032	1.85		
		29.40	29.90	0.5	0033	129.3	143.9	1366
		29.90	30.90	1.0	0034	1.20		
		30.90	31.90	1.0	0035	1.75		
		31.90	32.90	1.0	0036	1.05		
		32.90	33.90	1.0	0037	1.60		
		33.90	34.90	1.0	0038	3.45		
		34.90	35.90	1.0	0039	5.75		



**APPENDIX 3**  
**Analytical Procedures**

# CDN RESOURCE LABORATORIES LTD.

#8, 7550 RIVER ROAD, DELTA, B.C. V4G 1C8 / TEL. (604) 946-4448

## ASSAY PROCEDURES

### Sample preparation

Rocks: sample is crushed, riffled to give approximately 250g, ring pulverized to approximately -100 mesh.

Soils: sample is dried then sieved through -80 mesh screen.

### Analytical procedures

#### Assay:

Au, Ag - fire assay, gravimetric finish on 20g sample.

Cu, Pb, Zn - a 1.00g sample is digested in 10 ml nitric acid and 25 ml hydrochloric acid for about one hour and then taken to dryness. It is taken up in 25 ml hydrochloric acid, bulked to 100 ml with distilled water, then presented to the AA.

#### Geochem:

Au - a 15g sample is inquarted and fire assayed. The prill is parted in a test tube with 0.5 ml nitric acid. The gold is taken into solution with the addition of 1.5 ml hydrochloric acid. Sample is bulked to 5.0 ml with distilled water, then presented to AA.

Ag, Cu, Pb, Zn - a 0.5g sample is ashed then transferred to a test tube. Sample is digested with 1.0 ml nitric acid and 2.0 ml hydrochloric acid in a hot water bath for two hours. Sample is bulked to 10.0 ml with distilled water and presented to AA.

**APPENDIX 4**  
**Assay Certificates**

**GEOCHEMICAL REPORT**

TO: Energex Minerals Ltd.  
 #703, 850 West Hastings  
 Vancouver, B.C.  
 V6C 1E1

FILE NO.: 85-108

DATE: July 30, 1985

ATTENTION: B. Price cc. A.O. Birkland

PROJECT: A1 (036)

Sample Description	Ag ppm		Ag ppm
13765	5.1	13805	4.0
13766	1.7	13806	5.8
13767	1.9	13807	11.2
13768	2.0	13808	5.3
13769	3.3	13809	8.0
13770	15.9	13810	5.1
13771	5.8	13811	5.6
13772	4.1	13812	2.1
13773	2.4	13813	18.6
13774	4.4	13814	0.1
13775	2.9	13815	0.6
13776	6.4	13816	1.1
13777	5.2	13817	1.9
13778	3.3	13818	4.0
13779	2.4	13819	4.5
13780	2.9	13820	7.6
13781	0.1	13821	6.4
13782	0.7		
13783	0.5		
13784	1.9		
13785	1.9		
13786	1.2		
13787	6.2		
13788	7.7		
13789	8.1		
13790	5.0		
13791	2.4		
13792	1.7		
13793	3.2		
13794	6.2		
13795	2.1		
13796	2.0		
13797	3.4		
13798	2.0		
13799	4.9		
13800	6.7		
13801	3.0		
13802	0.3		
13803	0.9		
13804	9.4		

Results of file 85-108 are geochemical determinations:  
 Ag: aqua regia digestion, AA.

*Duncan Sanderson*

**ASSAY REPORT**

TO: Energex Minerals Ltd.  
 #703, 850 West Hastings  
 Vancouver, B.C.  
 V6C 1E1

FILE NO.: 85-108A

DATE: July 29, 1985

ATTENTION: B. Price cc. A.O. Birkland

PROJECT: A1 (036)

Sample Description	Au g/tonne	Au g/tonne
13765	<0.05	13805 } #A20 0.27
13766	<0.05	13806 } 0.27
13767	0.27	13807 } <0.05
13768	0.40	13808 } 0.40
13769	6.00	13809 } 4.93
13770	21.33	13810 } #A21 0.93
13771	11.47	13811 } 4.80
13772	2.00	13812 } 2.53
13773	1.20	13813 } 0.80
13774	3.33	13814 } 0.27
13775	4.27	13815 } 0.80
13776	16.27	13816 } 0.27
13777	4.80	13817 } #A24 1.60
13778	0.67	13818 } 0.67
13779	2.67	13819 } 0.80
13780	5.47	13820 } 3.20
13781	0.20	13821 } 2.93
13782	0.10	
13783	<0.05	
13784	0.27	
13785	1.47	
13786	0.93	
13787	1.20	
13788	1.47	
13789	6.13	
13790	21.20	
13791	0.53	
13792	0.93	
13793	1.07	
13794	5.20	
13795	3.93	
13796	0.53	
13797	5.20	
13798	0.10	
13799	1.20	
13800	1.07	
13801	0.10	
13802	<0.05	
13803	<0.05	
13804	0.10	

Results of file 85-108A are assays:  
 Au: fire assay, gravimetric finish.

Rejects retained one-month,  
 pulps one year, unless  
 specific arrangements made.

*Duncan Sandison*  
 Certified Assayer of British Columbia



**GEOCHEMICAL REPORT**

TO: Energex Minerals Ltd.  
 #703, 850 West Hastings  
 Vancouver, B.C.  
 V6C 1E1

FILE NO.: 85-110

DATE: July 31, 1985

ATTENTION: B. Price cc. A.O. Birkland

PROJECT: A1 (036)

Sample Description	Ag ppm	Ag ppm
0001	1.6	13823 - A24 0.6
0002	3.6	13824 0.3
0003	1.1	13825 0.6
0004	0.8	13826 1.5
0005	2.8	13827 0.3
0006	0.7	13828 0.5
0007	0.7	13829 3.8
0008	0.5	13830 1.8
0009	0.6	13831 2.9
0010	1.1	13832 2.9
0011	10.2	13833 1.5
0012	5.6	13834 0.4
0013	1.9	13835 0.5
0014	1.5	13836 - A23 0.9
0015	3.4	13837 0.3
0016	5.8	13838 0.5
0017	8.4	13839 0.4
0018	2.1	13840 0.4
0019	1.3	13841 0.4
0020	2.2	13842 1.1
0021	5.1	13843 0.4
0022	3.6	13844 2.1
0023	4.1	13845 0.7
0024	3.0	13846 1.5
0025	2.4	13847 2.0
0026	1.8	13848 0.2
0027	2.3	13849 0.4
0028	2.8	13850 0.6
0029	2.3	13851 2.0
0030	2.4	13852 1.9
0031	1.0	13853 - A25 2.2
0032	1.1	13854 1.4
0033	7.2	13855 1.8
0034	0.6	13856 4.4
0035	1.9	13857 1.4
0036	1.6	13858 5.4
0037	8.7	13859 0.8
0038	9.8	13860 1.7
0039	3.0	13861 0.8
13822 - #A24	4.7	13862 6.9

*Duncan Sanderson*.....

**GEOCHEMICAL REPORT**

Sample Description	Ag ppm		Ag ppm
13863	1.8		13907 0.2
13864	0.5		13908 4.6
13865	0.2		13909 39
13866	0.4		13910 12.4
13867	3.0		13911 1.7
13868	9.2		13912 4.2
13869	3.6	A26	13913 0.7
13870	0.4		13914 3.5
13871	0.4		13915 34
13872	1.2		13916 2.1
13873	0.7		13917 0.6
13874	0.6		13918 2.4
13875	0.6		13919 2.8
13876	0.6		13920 17.6
13877	0.6		13921 0.5
13878	1.3		13922 0.7
13879	1.8		13923 0.3
13880	0.5		13924 0.1
13881	0.3		13925 0.2
13882	0.5		13926 1.6
13883	0.6		13927 8.5
13884	0.5		13928 15.7
13885	0.6		13929 9.2
13886	0.5		13930 14.4
13887	0.4		13931 0.8
13888	0.4		13932 2.1
13889	0.6		13933 0.5
13890	1.0		13934 0.5
13891	0.6		13935 0.7
13892	0.2	A27	13936 1.5
13893	0.7		13937 1.5
13894	5.0		13938 12.9
13895	17.8		13939 0.5
13896	18.8		13940 1.2
13897	9.4		13941 1.1
13898	0.7		13942 1.2
13899	16.4		13943 1.1
13900	0.6		13944 3.8
13901	0.4		13945 14.2
13902	0.2		13946 88
13903	0.3		13947 1.6
13904	6.5		13948 1.7
13905	3.2		13949 2.5
13906	5.1		13950 0.8

Results of file 85-110 are geochemical determinations:  
 Ag: aqua regia digestion, AA.

*Duncan... Sanderson.....*

**ASSAY REPORT**

TO: Energex Minerals Ltd.  
 #703, 850 West Hastings  
 Vancouver, B.C.  
 V6C 1E1

FILE NO.: 85-110A

DATE: July 31, 1985

ATTENTION: B. Price cc. A.O. Birkland

PROJECT: A1 (036)

Sample Description	Au g/tonne		Au g/tonne
0001	3.60	13823 - #A24	0.15
0002	6.95	13824 - ?	<0.05
0003	4.15	13825	<0.05
0004	2.15	13826	0.15
0005	6.80	13827	<0.05
0006	0.95	13828	<0.05
0007	0.40	13829	1.20
0008	0.25	13830	0.80
0009	0.15	13831	0.95
0010	0.15	13832	1.35
0011	1.35	13833	0.15
0012	0.65	13834	<0.05
0013	0.15	13835	<0.05
0014	<0.05	13836	<0.05
0015	0.95	13837	0.25
0016	3.35	13838	0.40
0017	3.65	13839	0.40
0018	1.95	13840	0.80
0019	1.35	13841	<0.05
0020	1.45	13842	0.55
0021	1.45	13843	0.40
0022	4.80	13844	<0.05
0023	6.25	13845	<0.05
0024	3.85	13846	<0.05
0025	7.45	13847	0.40
0026	2.00	13848 - ?	0.15
0027	3.20	13849	1.45
0028	2.15	13850	0.15
0029	2.95	13851	1.35
0030	4.65	13852	1.20
0031	2.80	13853	0.15
0032	1.85	13854	0.40
0033	129.3	13855	0.65
0034	1.20	13856	1.45
0035	1.75	13857	1.35
0036	1.05	13858	4.15
0037	1.60	13859	1.05
0038	3.45	13860	2.15
0039	5.75	13861	0.15
13822 #A24	1.85	13862	0.15

Rejects retained one month,  
 pulps one year, unless  
 specific arrangements made.

*Duncan Sanderson*  
 Certified Assayer of British Columbia

**ASSAY REPORT**

Sample Description	Au g/tonne		Au g/tonne
13863	0.40		
13864	0.15	13907	0.15
13865	0.25	13908	<0.05
13866	0.15	13909	3.05
13867	0.40	13910	1.35
13868	4.95	13911	2.00
13869	26.00	13912	3.95
13870	6.65	13913	1.35
13871	1.35	13914	<0.05
13872	2.40	13915	<0.05
13873	3.85	13916	<0.05
13874	3.60	13917	0.15
13875	2.15	13918	0.15
13876	1.45	13919	1.05
13877	1.60	13920	0.25
13878	0.95	13921	1.05
13879	0.65	13922	0.15
13880	<0.05	13923	<0.05
13881	0.40	13924	2.55
13882	0.25	13925	<0.05
13883	0.25	13926	<0.05
13884	0.25	13927	<0.05
13885	0.25	13928	<0.05
13886	0.25	13929	<0.05
13887	0.40	13930	<0.05
13888	0.20	13931	<0.05
13889	0.40	13932	<0.05
13890	0.65	13933	0.25
13891	0.15	13934	0.55
13892	0.55	13935	0.15
13893	0.25	13936	<0.05
13894	0.40	13937	<0.05
13895	0.40	13938	<0.05
13896	0.25	13939	<0.05
13897	0.15	13940	0.15
13898	0.25	13941	0.25
13899	0.15	13942	<0.05
13900	<0.05	13943	0.25
13901	0.15	13944	0.25
13902	0.25	13945	0.25
13903	0.15	13946	0.40
13904	<0.05	13947	0.25
13905	<0.05	13948	1.85
13906	<0.05	13949	3.05
		13950	1.05

#A26

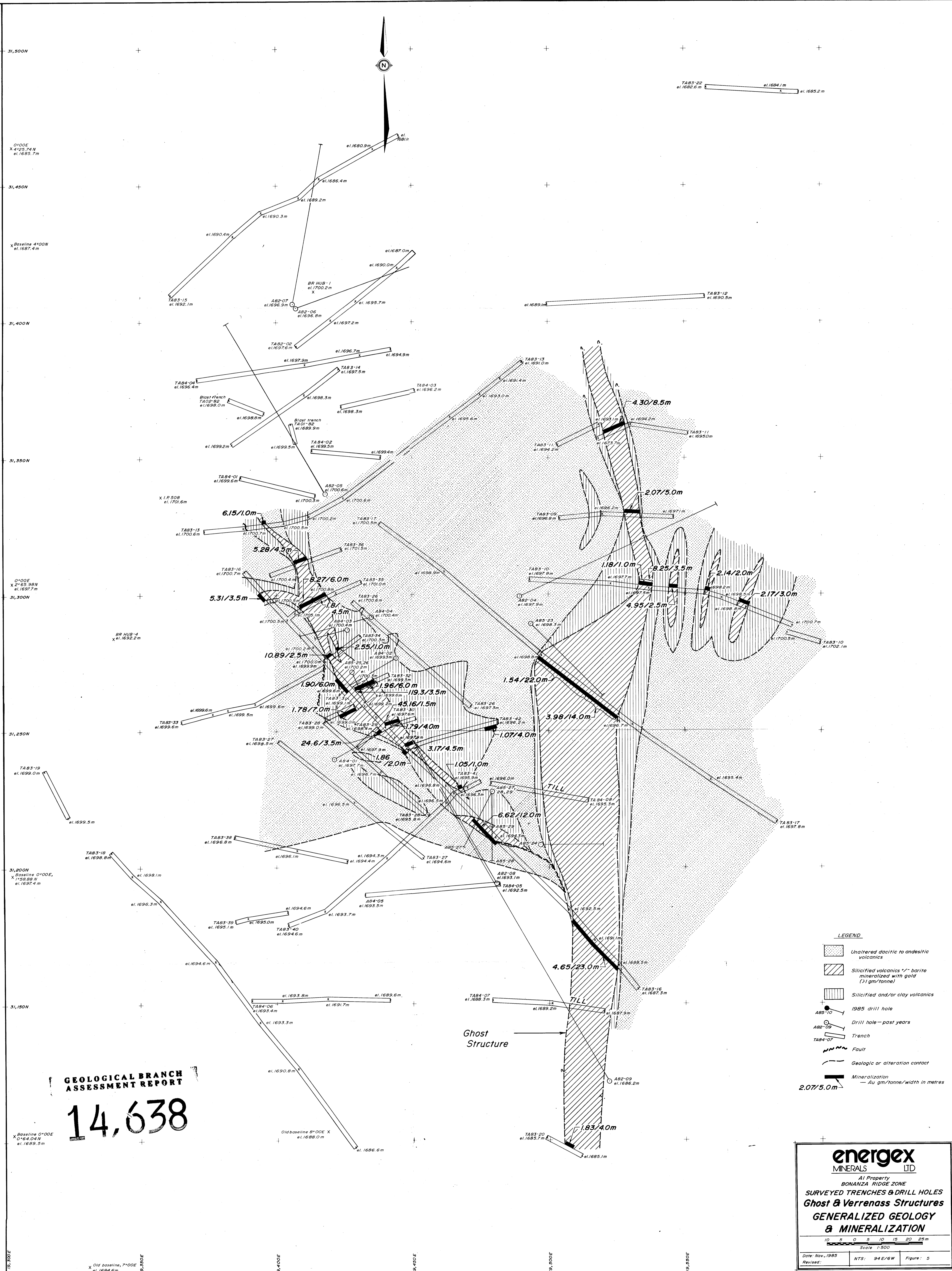
#A27

#A28

#A27

Results of file 85-110A are assays:  
 Au: fire assay, gravimetric finish.

*Duncan Sanderson*  
 Certified Assayer of British Columbia



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

14,638

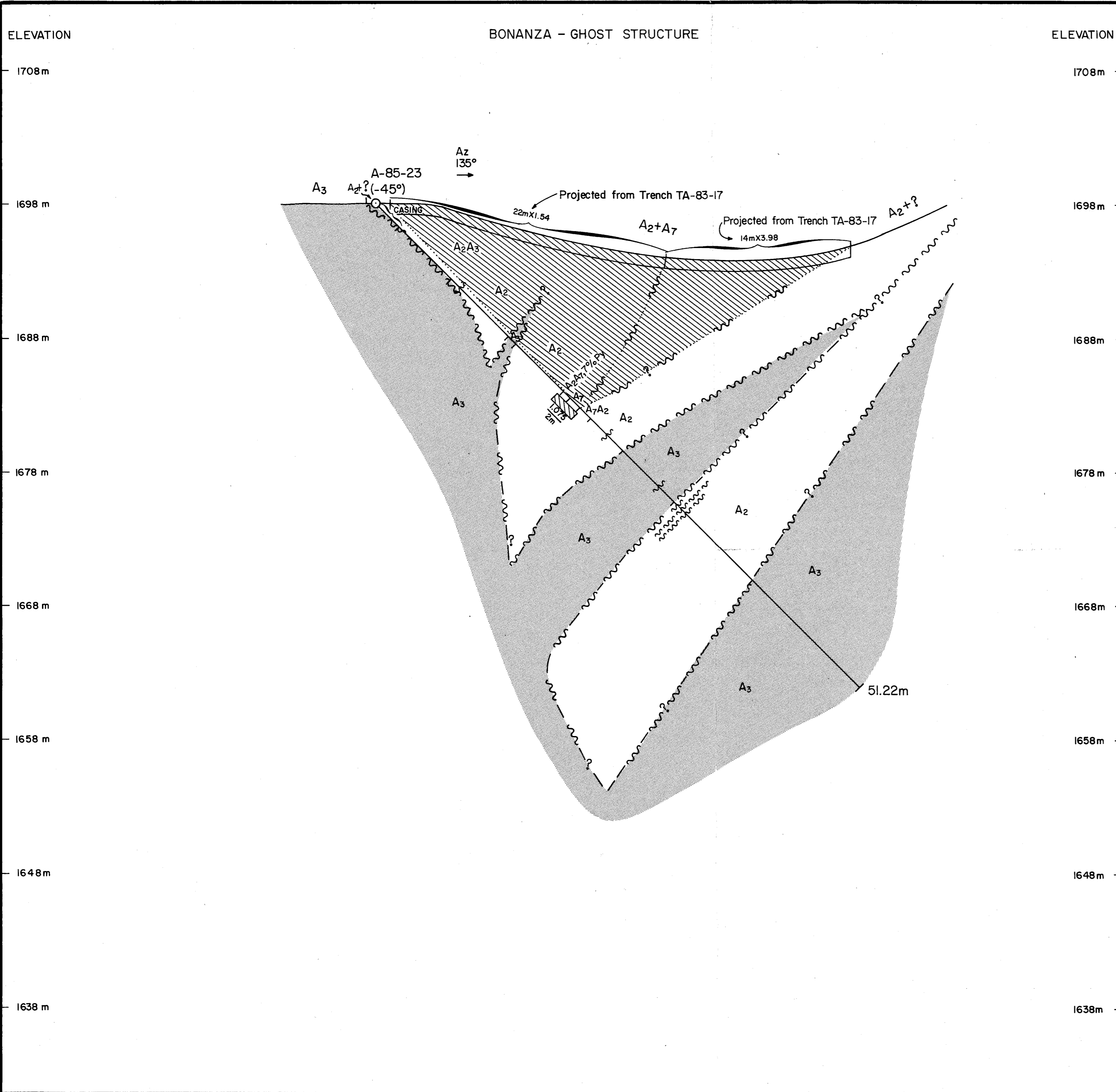
- LEGEND**
- Unaltered dacitic to andesitic volcanics
  - Silicified volcanics +/- barite mineralized with gold (>1 gm/tonne)
  - Silicified and/or clay volcanics
  - 1985 drill hole
  - Drill hole - past years
  - Trench
  - Fault
  - Geologic or alteration contact
  - Mineralization - Au gm/tonne/width in metres

**energex**  
MINERALS LTD.

All Property  
BONANZA RIDGE ZONE  
SURVEYED TRENCHES & DRILL HOLES  
**Ghost & Verreras Structures**  
GENERALIZED GEOLOGY  
& MINERALIZATION

10 0 5 10 15 20 25 m  
Scale 1:500

Date: Nov, 1985  
Revised: NTS: 94E/GW Figure: 5



ELEVATION

1708 m

1698 m

1688 m

1678 m

1668 m

1658 m

1648 m

1638 m

**LEGEND**

**LITHOLOGY**

ALTERED ANDESITIC FLOW

**ALTERATION**

- A<sub>3</sub> minor propylitic alteration
- A<sub>2</sub> Argillic
- A<sub>5</sub> Silicification
- A<sub>7</sub> Silicification + pyrite
- Ba Barite

$\frac{2.55}{2.69m}$  Mineralized zone  $\frac{Au (gm/te) (ASSAY)}{metres}$

Highly mineralized zone

Alteration or geologic contact

Gold mineralization boundary

Fault

NOTE: All geologic projections inferred.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

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BONANZA AREA - GHOST STRUCTURE

DRILL SECTION FOR  
HOLE A-85-23

DRILLED JULY 17, 1985

0 5 10 15 metres  
SCALE 1 : 200

DATE: NOV., 1985  
REVISED:

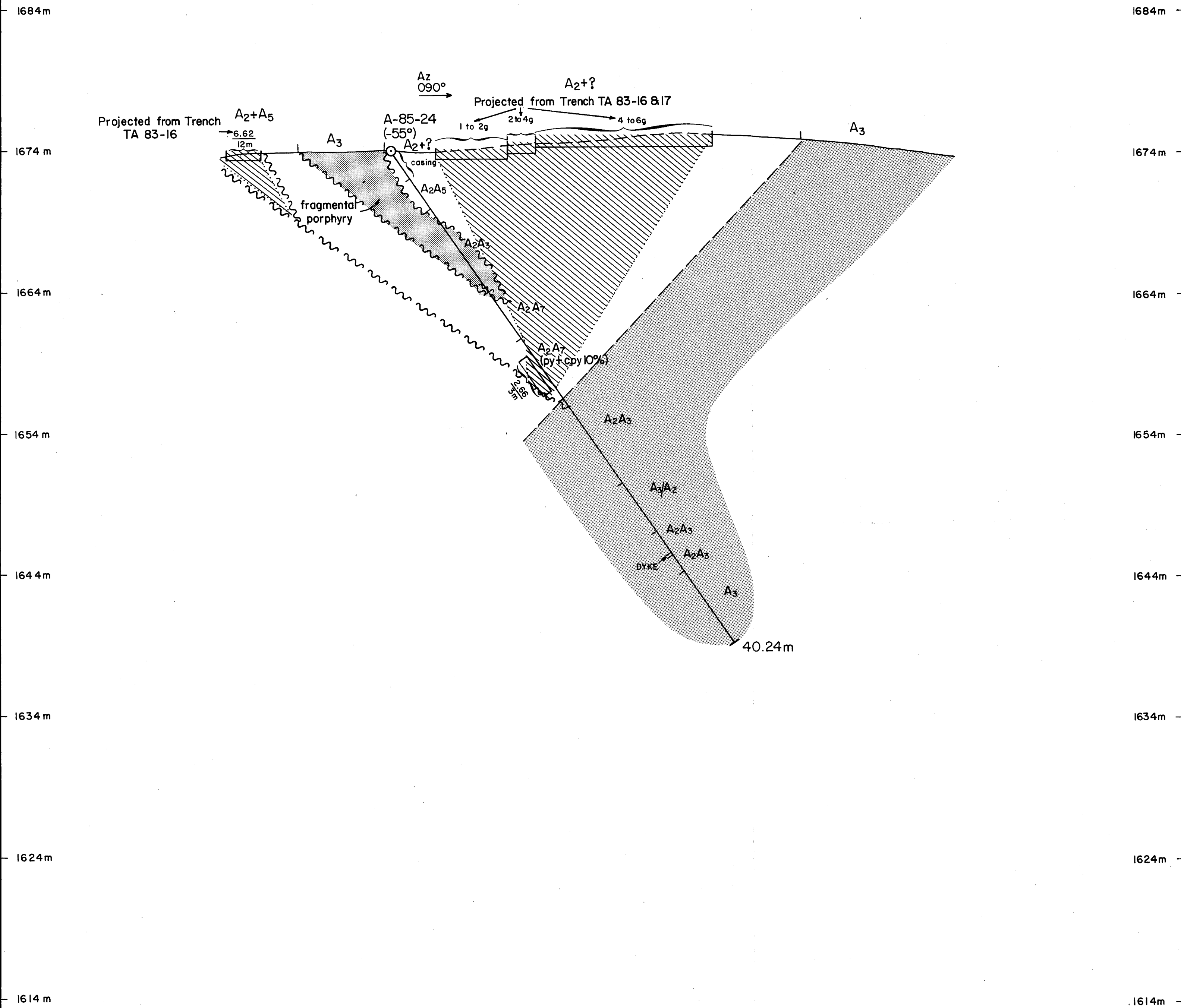
NTS:

FIGURE: 6

ELEVATION

BONANZA AREA - GHOST STRUCTURE

ELEVATION



LEGEND

LITHOLOGY

ALTERED ANDESITIC FLOW

ALTERATION

A3 minor propylitic alteration

A2 Argillic

A5 Silicification

A7 Silicification + pyrite

Ba Barite

$\frac{2.55}{2.69m}$  Mineralized zone  $\frac{Au (gm/te)}{metres}$  (ASSAY)

Highly mineralized zone

Alteration or geologic contact

Gold mineralization boundary

Fault

NOTE: All geologic projections inferred.

GEOLOGICAL BRANCH ASSESSMENT REPORT

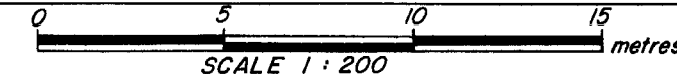
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BONANZA AREA - GHOST STRUCTURE

DRILL SECTION FOR  
HOLE A-85-24

DRILLED JULY 18, 1985



DATE: NOV, 1985  
REVISED:

NTS:

FIGURE: 7

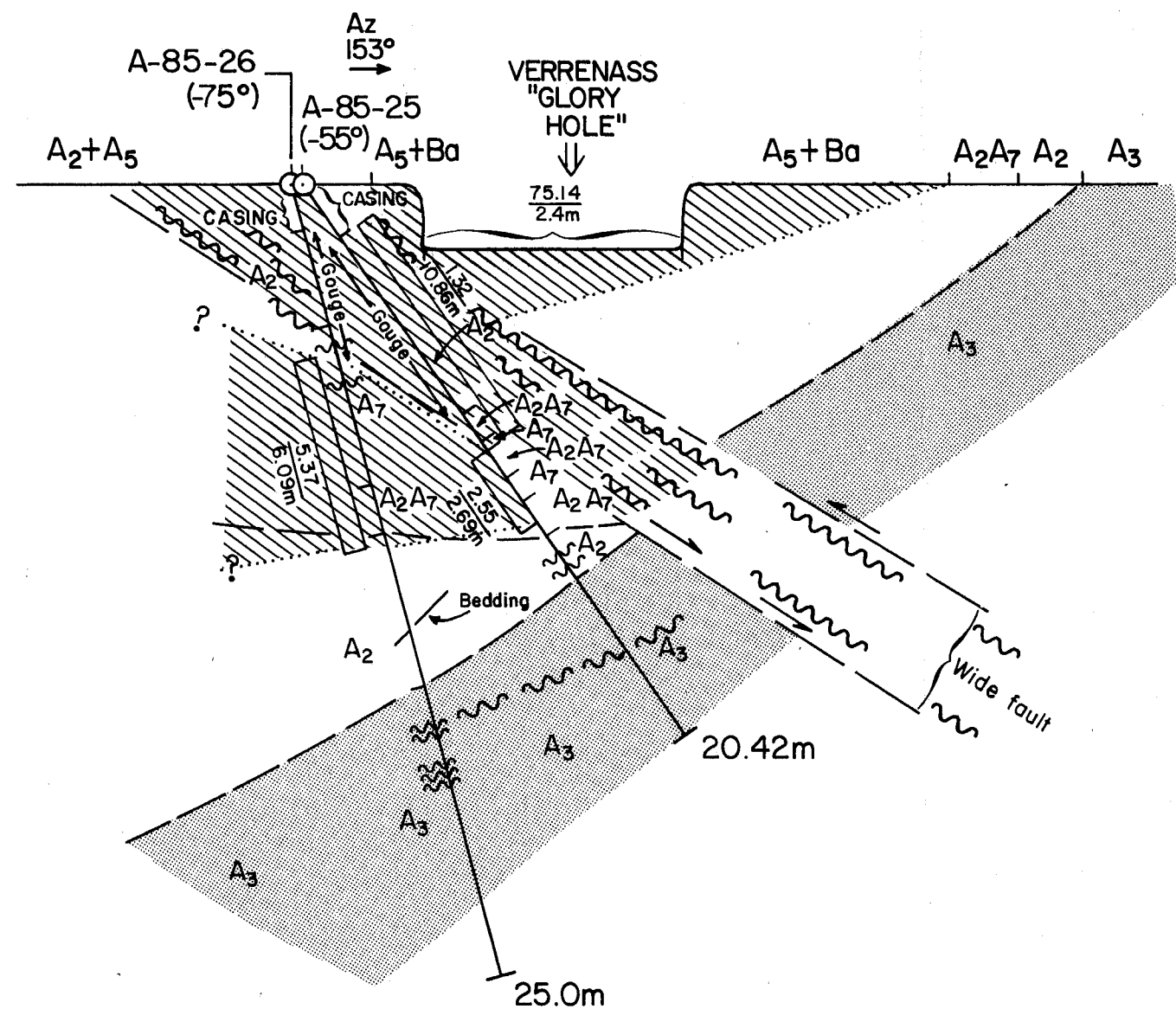
ELEVATION

BONANZA AREA - VERRENASS STRUCTURE

ELEVATION

1710 m  
1700 m  
1690 m  
1680 m  
1670 m  
1660 m  
1650 m  
1640 m

1710 m  
1700 m  
1690 m  
1680 m  
1670 m  
1660 m  
1650 m  
1640 m



LEGEND

- LITHOLOGY**  
 ALTERED ANDESITIC FLOW
- ALTERATION**  
 A<sub>3</sub> minor propylitic alteration  
 A<sub>2</sub> Argillic  
 A<sub>5</sub> Silicification  
 A<sub>7</sub> Silicification + pyrite  
 Ba Barite
- Mineralized zone**  $\frac{2.55}{2.69m}$  Au (gm/te) (ASSAY) metres  
 Highly mineralized zone  
 Alteration or geologic contact  
 Gold mineralization boundary  
 Fault
- NOTE: All geologic projections inferred.

GEOLOGICAL BRANCH ASSESSMENT REPORT

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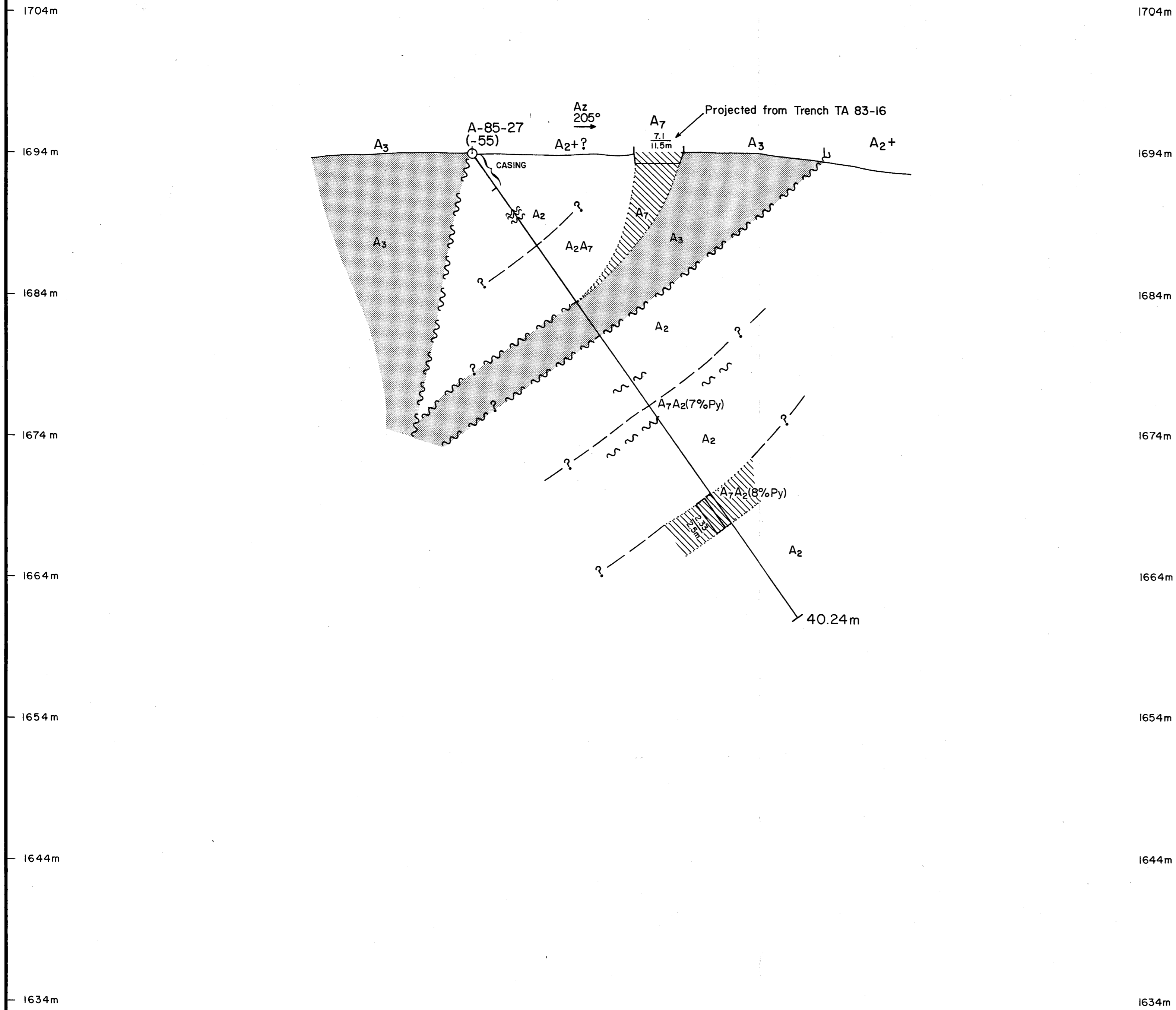
**energex**  
 MINERALS LTD.  
 AL PROPERTY  
 BONANZA RIDGE  
 DRILL SECTION FOR  
 HOLES A-85-25, A-85-26  
 DRILLED JULY 18, 1985  
 SCALE 1:200  
 DATE: NOV, 1985  
 REVISED:  
 NTS:  
 FIGURE: 8



ELEVATION

BONANZA AREA-VERRENASS/GHOST STRUCTURES

ELEVATION



LEGEND

LITHOLOGY

ALTERED ANDESITIC FLOW

ALTERATION

- A<sub>3</sub>** minor propylitic alteration
- A<sub>2</sub>** Argillic
- A<sub>5</sub>** Silicification
- A<sub>7</sub>** Silicification + pyrite
- Ba** Barite

$\frac{2.55}{2.69m}$  Mineralized zone  $\frac{\text{Au (gm/te) (ASSAY)}}{\text{metres}}$

Highly mineralized zone

Alteration or geologic contact

Gold mineralization boundary

Fault

NOTE: All geologic projections inferred.

GEOLOGICAL BRANCH ASSESSMENT REPORT

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BONANZA AREA  
DRILL SECTION FOR  
HOLE A-85-27

DRILLED JULY 19, 1985

0 5 10 15 metres  
SCALE 1 : 200

DATE: NOV, 1985  
REVISED:

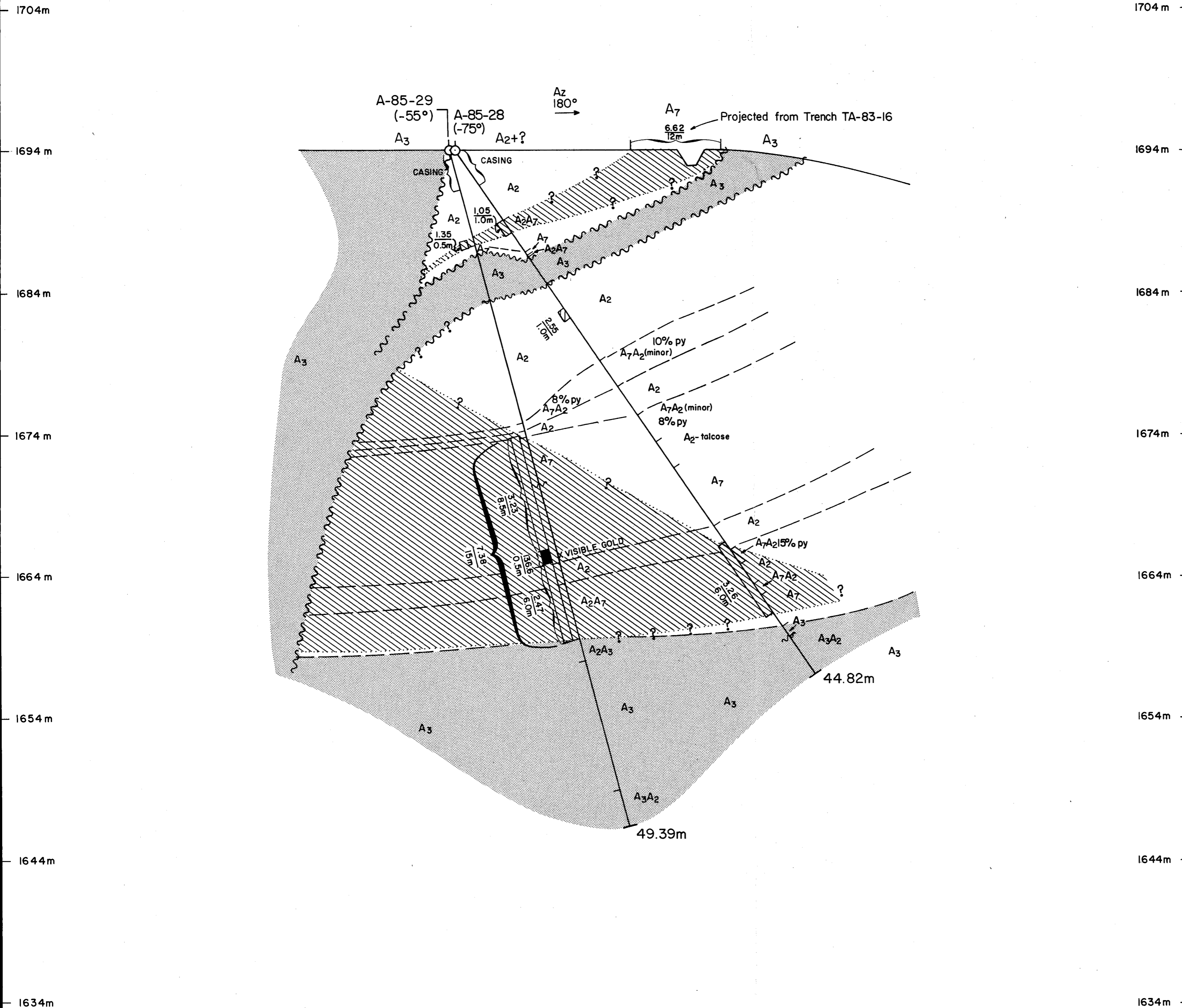
NTS:

FIGURE: 9

ELEVATION

BONANZA AREA-VERRENASS/GHOST STRUCTURES

ELEVATION



LEGEND

LITHOLOGY

ALTERED ANDESITIC FLOW

ALTERATION

- A<sub>3</sub> minor propylitic alteration
- A<sub>2</sub> Argillic
- A<sub>5</sub> Silicification
- A<sub>7</sub> Silicification + pyrite
- Ba Barite

2.55  
2.69m Au (gm/te) (ASSAY)  
metres

- Mineralized zone
- Highly mineralized zone
- Alteration or geologic contact
- Gold mineralization boundary
- Fault

NOTE: All geologic projections inferred.

GEOLOGICAL BRANCH ASSESSMENT REPORT

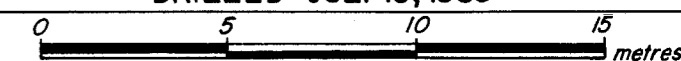
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BONANZA AREA

DRILL SECTION FOR  
HOLES A-85-28, A-85-29

DRILLED JULY 19, 1985



SCALE 1:200

DATE: NOV, 1985  
REVISED:

NTS:

FIGURE: 10