

SUPPLEMENTAL REPORT

ARK ENERGY LTD.

McKinney Mine Project
March - November, 1987

Prepared for: John B. Gammon,
Fame Program

by

Stanley L. Sandner
McKinney Mine Manager

FILMED

Dated: December 30, 1987

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,775

SUPPLEMENTAL REPORT
ARK ENERGY LTD.

MCKINNEY MINE PROJECT

March - November

1. Introduction

During 1984, '85, '86 and early 1987 geophysical ground surveys, surface geological mapping, multi element geochemical surveys, petrographic thin section analysis, extensive anomaly and vein trenching, and a 2,000 foot drilling program were carried out at the McKinney claims now held by Ark Energy Ltd. Detailed reports covering all this work are on hand. Earlier (prior to 1984) underground mapping, assay plans, level plans, longitudinal profiles etc. were also available prior to dewatering. The period March through November during which an amount well in excess of \$100,000 was spent by Ark Energy Ltd. is reported herein.

2. Form 3

All work done prior to March 1987 but referred to in the introduction is marked "not applicable" (N/A) on the said Form. Basically, ALL work done during the period March - November 1987 falls under "Other Exploration" costs (see attached schedules).

2.(a) March - November, 1987 - Cost Breakdowns

The major effort during this period was dewatering the old workings - rehabilitating shaft, drifts and other openings. Daily pumping logs were kept. Using previously prepared maps of the workings (part of which were done by myself earlier) we re-entered the dewatered workings and re-evaluated the mine in

relation to current (1987) mining practices, costs and current (\$450 ± US/oz) gold prices. Bulk samples were taken over all accessible portions of the vein along drifts and stopes (Assay sheet attached).

The entire dewatering program was done on a "no frills" fixed fee with provision for "unforeseen extras" basis. As a small crew was used each person did several jobs thus making individual cost breakdown difficult - if not impossible. Total labour, total management, supervision, total camp costs etc. is all we really know.

Almost all work, including much of the labour was done on a part-time or short term "contract basis". Payments were made on a "services rendered", labour and materials combined in monthly invoices. Again, we know are totals only.

Further, most of the dewatering equipment was rented with purchase options. Rentals were included in the "fixed fee" dewatering contract. After dewatering was completed - the Company (Ark Energy Ltd.) exercised the purchase option and acquired the equipment in place in order to maintain the workings free of water.

Each attached sheet response required in Form 3 was clearly headed and marked using the same numbers and letters used on the Form.

The general nature of Form 3 did not provide sufficient space to accommodate the responses to fit our particular project, with most items falling under "Other Exploration". It was necessary therefore to provide the "attached sheets". We have now included the non-applicable (N/A) portion of the Form. I was under the impression that a property report was submitted with the

original application for the FAME grant. It included location maps, claim maps, maps of the workings etc. that you requested in your letter of December 4, 1987.

My summary report of November 19, 1987 (the text of which has been reproduced below for your ease of reference) covers the work done during March - November, 1987.

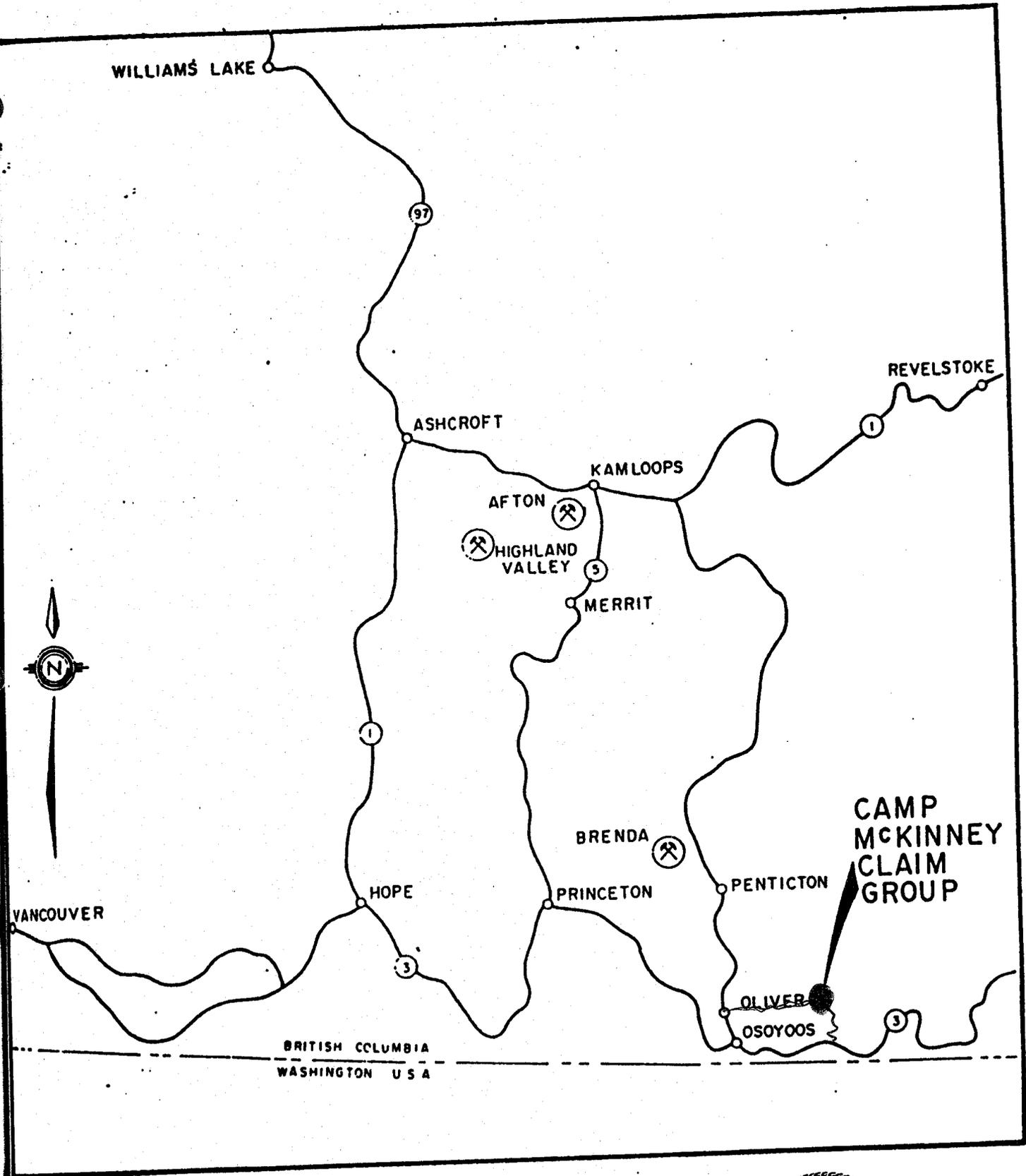
My records show that the duly signed front piece of Form 3 was included with the data. In any case, enclosed herewith are copies of the items you asked for.

3. Drilling

As stated earlier in this report a 2000' surface diamond drilling program was carried out by Ark Energy prior to March 1987. One very important intersection was made in Hole #5. This hole is marked 87-5. It may very well indicate the location of missing vein section Marked B on the vertical projection (Figure d attached). Other lessor important intersections were made in holes 6, 7, and 8 investigating mining potential of a known section of the vein just west of the 85° shaft.

Marked in green on the Plan View of Figure d are proposed drill holes from surface and underground. Undoubtedly these will be modified as drilling progresses.

We also plan to investigate the western section of the McKinney vein i.e., area marked G on the vertical projection. Drill sites have not yet been selected in that sector. The vein is known on surface for some 2000' to the west. It varies from 6 - 10' wide but surface samples indicated grade is considerably lower than

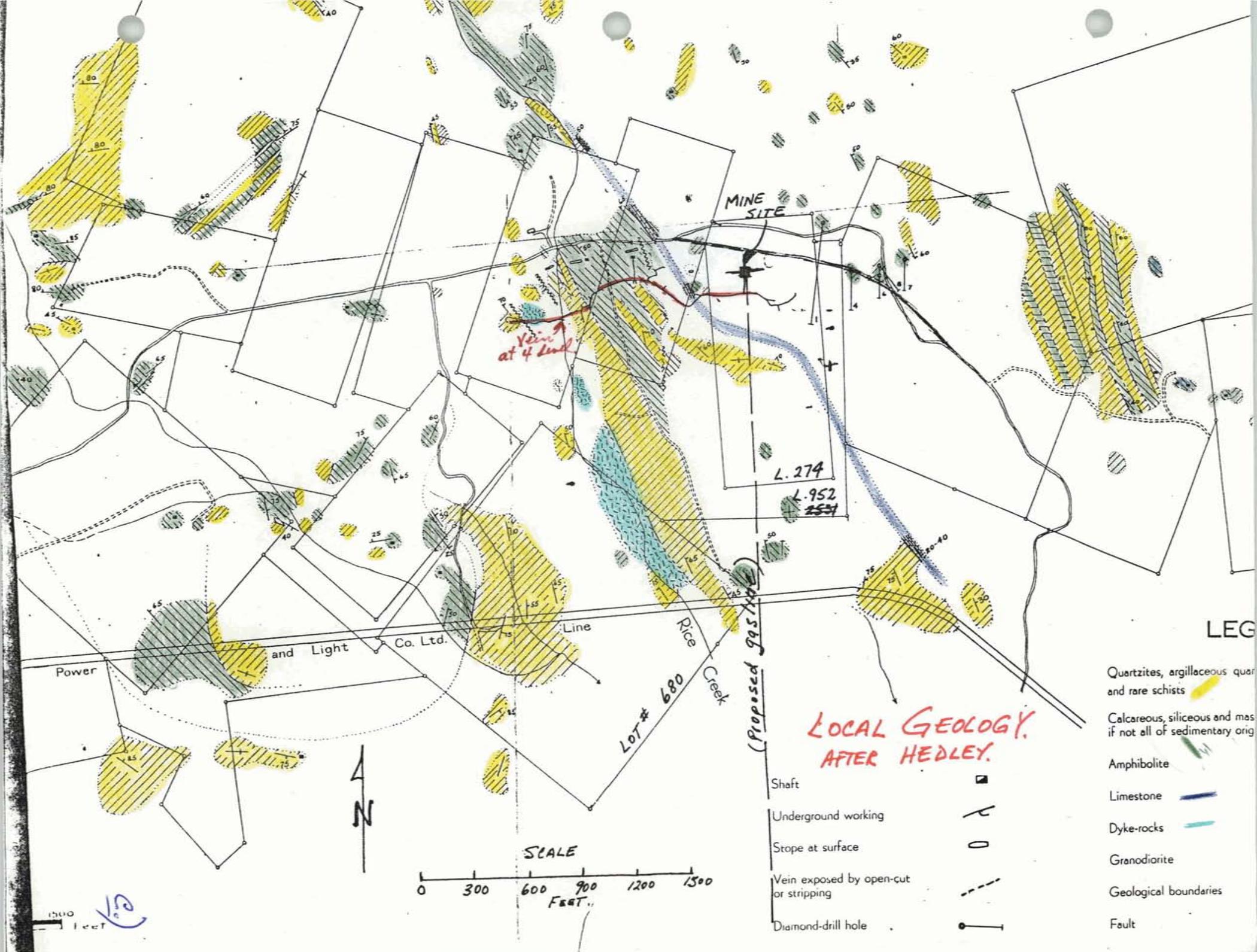


ARK ENERGY LTD.
 CAMP MCKINNEY CLAIM GROUP
 LOCATION MAP

Scale: 1" = 30 miles



a)



Vein
at 4 level

MINE
SITE

L. 274

L. 952
~~2531~~

Power

and Light
Co. Ltd.

Line

Rice
Creek

LOT # 680

(Proposed 995)

**LOCAL GEOLOGY,
AFTER HEDLEY.**

LEG

Quartzites, argillaceous quartzites
and rare schists

Calcareous, siliceous and massive
if not all of sedimentary origin

Amphibolite

Limestone

Dyke-rocks

Granodiorite

Geological boundaries

Fault

Shaft

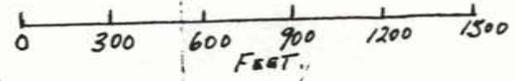
Underground working

Stope at surface

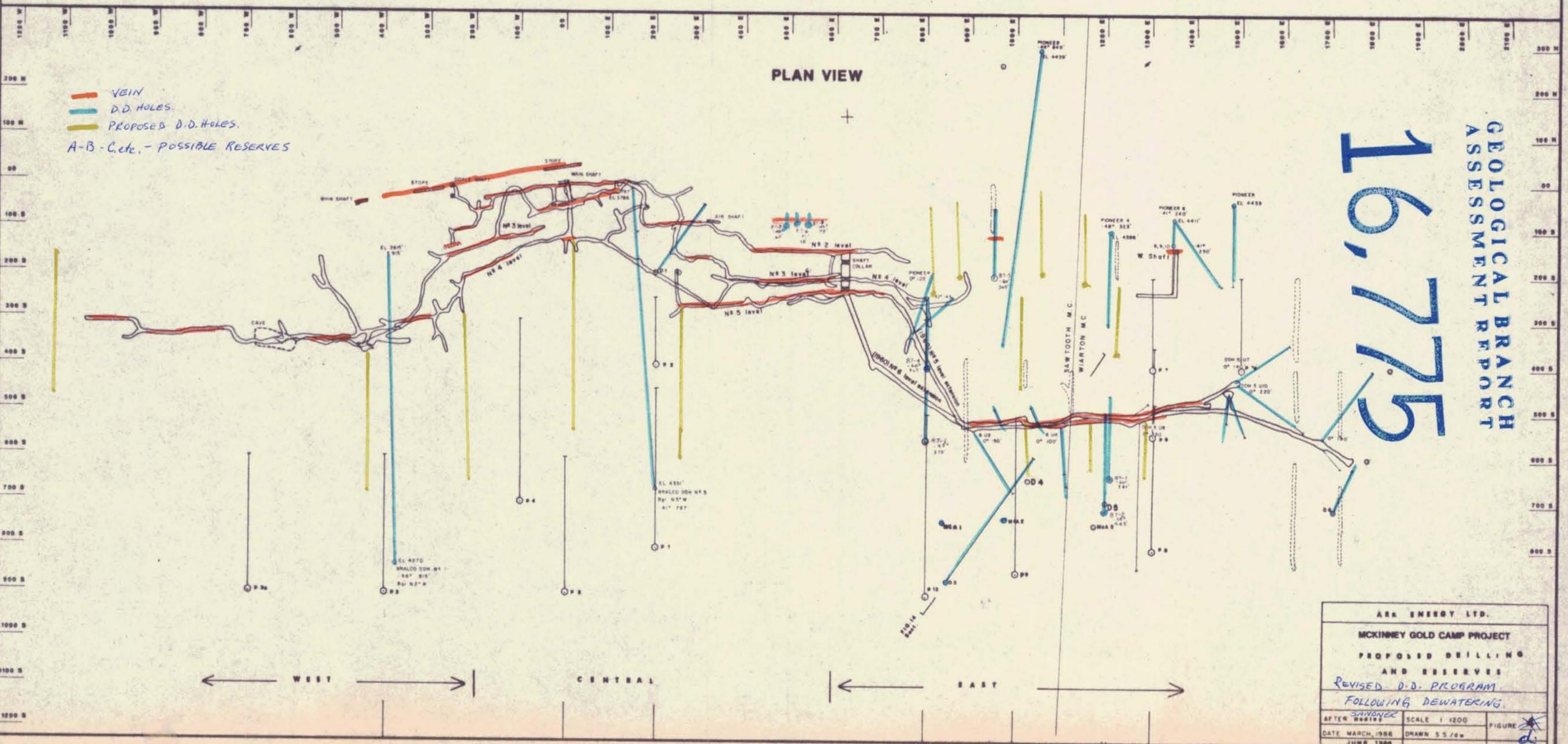
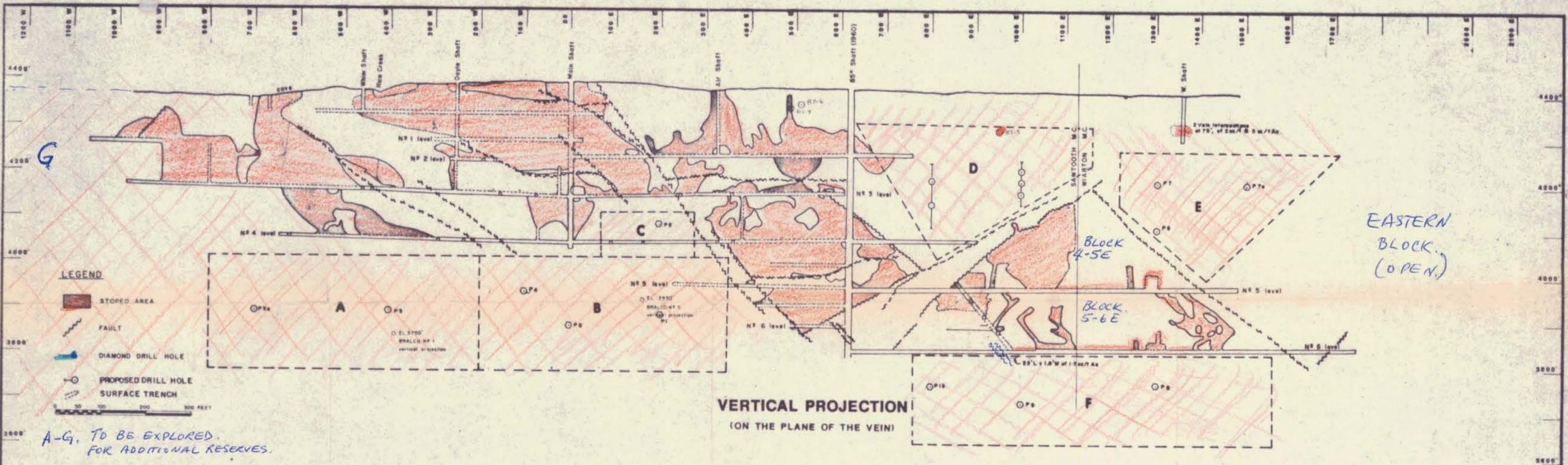
Vein exposed by open-cut
or stripping

Diamond-drill hole

SCALE



1500 feet



16,775

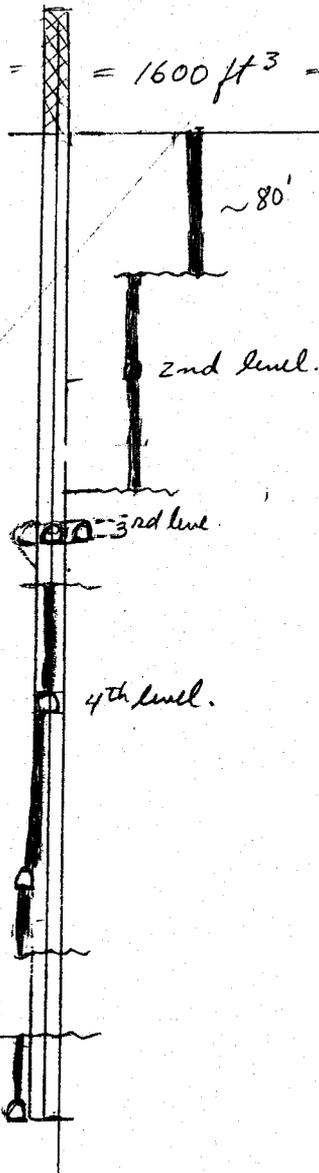
GEOLOGICAL BRANCH
ASSESSMENT REPORT

ARK ENERGY LTD.		
MCKINNEY GOLD CAMP PROJECT		
PROPOSED DRILLING AND RESERVES		
REVISED D.D. PROGRAM		
FOLLOWING DEWATERING		
AFTER REPAIRS	SCALE 1:1200	FIGURE
DATE MARCH 1988	DRAWN S.S./GM	
JUNE 1988		

REV. JULY-1987
Nov-1987

$80 \times 100 \times 2 = 1600 \text{ ft}^3 = 131.1 \text{ Tons}$
 1.7 oz
 $222.9 \times \$440 \approx \$100,000.$
 $130 \times 50 = 6500.$

Profile at shaft.



LOOKING WEST. S → N

X-SECTION - VEIN POSITION.
AT 85° SHAFT.

the eastern mine zone.

4. Geological Mapping

In an effort to determine mineable reserves already developed in existing stopes and levels, measurements were made to existing maps as well. Three and Four levels exist only in the "Old Mine" (prior to 1960) workings. Investigations were carried out in view of possible access to Block D Considering intersection of Block D in hole 87-5. Extending 2 level may prove to be the most practical initial exploration access.

Little new wall rock geology was necessary in that existing maps contained that data. Wall rocks throughout the McKinney area are generally NW-SE striking interbanded greenstones and quartzites of the Anarchist formation. The E - W vein cuts through the series and appears to have little relation to the mineralization of the vein. See Local Geology, Hedley, Figure c.

5. GENERAL SUMMARY REPORT

The McKinney gold mine produced some 160,000 tons of ore which yielded about 90,000 oz. of gold. The narrow (2' - 3') vein is highly faulted both along its East-West strike as well as down dip. This condition made the vein difficult to follow and left large sections unknown. Coupled to the physical problems of following the ore, the price of gold at \$35 an ounce (1960's) caused substantial tonnages of reserves to be sub-economic at the time mining was done. Now with gold at some \$600 Cdn. per ounce the -1/2 oz/ton formerly not mined, can be considered.

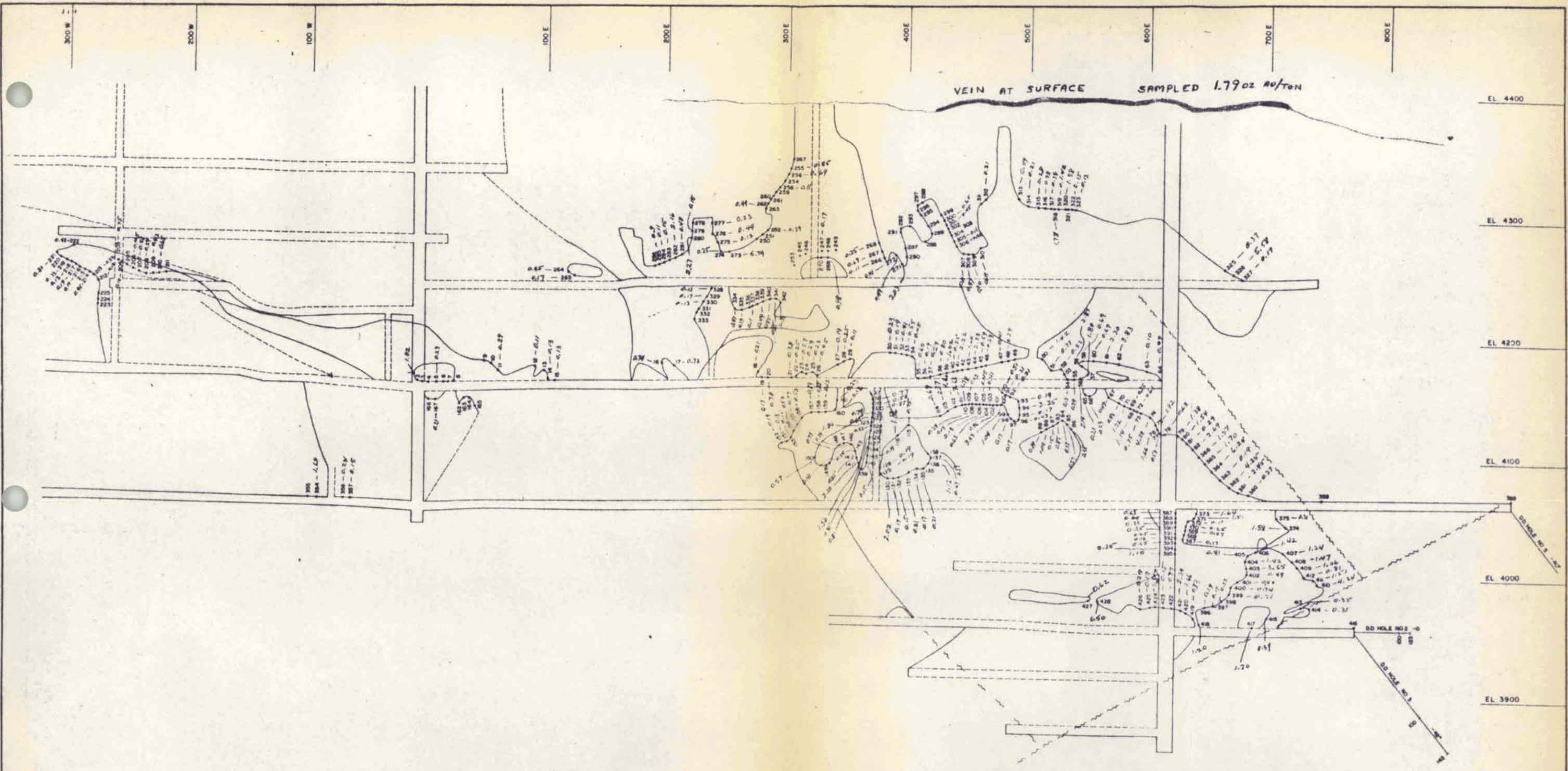
As only general or at best speculated tonnage figures

were available - it was necessary to dewater the workings and obtain meaningful data.

Water filled the shaft and workings to 60 feet from the surface. (The depth of the shaft is 600'). Mineable ore was believed to exist above and below the 3rd level, on the fourth, fifth, sixth level and below. Following extensive planning and preparation to get equipment and personnel capable of carrying out the program, pumping commenced on February 28th, 1987. An estimated 15 million gallons had to be removed and then maintained water free. (It was determined later that some 50,000 gallons inflow daily).

Pumping continued on a 24 hour basis until mid-April when the water level was down to 600 feet. As the water level went down the shaft had to be rehabilitated, and cleaned up. General condition of the shaft (sunk in 1960) was quite good. Each former production level had to be inspected, cleaned out and evaluated for remaining reserves and the potential access to additional reserves. A surface drilling program had earlier encountered "drill indicated" portions of the vein, previously unknown.

The previously mined stopes had to be re-entered and unmined portions of the vein evaluated. Several months were required to carry out the detailed and sometimes tedious chore of re-evaluation in view of present conditions, current costs and the price of gold. It has been concluded that some possible 20,000 tons of mineable \pm 1/2 oz. developed ore exists in the immediate accessible areas. A much larger "potential" ore reserve could be developed, above, below and offset from the previously mined area. To date only Part of 3 and 4 level in Old Mine, plus Blocks 4-5E and Block 5-6E have been investigated (see attached Figure d). Bulk samples were made up of numerous



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McKINNEY GOLD MINE LTD.	
LONGITUDINAL GEOLOGICAL	
ASSAY PLAN CENTER SECTION.	
GEOLOGIST S.L. SANDNER DRAWN E.B. CATAPIA CHECKED S.L. SANDNER	SCALE 1" = 40 FEET DATE SEPT 28, 1983 REV JUN 87

EL 4400
EL 4300
EL 4200
EL 4100
EL 4000
EL 3900
EL 3800

samples taken from existing sections of the vein in drifts and stopes (see Assay Sheets attached).

The FAME program will help re-establish this important mine.

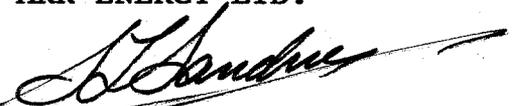
6. Attached Figures

- a) Location map
- b) Claim map
- c) Local Geology map
- d) Vertical Projection and Plan View showing stopes and potential additional reserve targets, plus drill holes and proposed drill program
- e) X-Section - vein at 85° shaft
- f) Assay Sheet - bulk samples, 5 and 6 levels

*FOLDED SHEETS: - BULK SAMPLE & RESERVE PROJECTION N.S.
- ASSAY PLAN CENTRE SECTION
- 5 & 6 LEVEL GEOLOGY. (1960 E)*

Respectfully submitted,

ARK ENERGY LTD.


Stanley L. Sandner,
B.Sc. Honours Geology
Mine Manager

SLS/sml



Province of
British Columbia
Ministry of
Energy, Mines and
Petroleum Resources



FAME PROGRAM
(FINANCIAL ASSISTANCE FOR MINERAL EXPLORATION)

15902-15
Grant
Identification
No. _____

FORM 3
APPLICATION FOR PAYMENT

INSTRUCTIONS:

- Please type or print
- Please submit completed forms, with two copies of the final technical report, to:
Mailing address: Manager, FAME, Mineral Resources Division.
 Ministry of Energy, Mines and Petroleum Resources, Parliament Buildings, Victoria, B.C. V8V 1X4
Office location: Manager, FAME, Mineral Resources Division, 300, 756 Fort Street, Victoria, B.C.

Date of this Application

Applicant: ARK ENERGY LTD.
 Address: #810 - 675 West Hastings Street, r Telephone: 687-3388
 City: Vancouver, Province: B.C. Postal Code: V6B 1N2

Mailing Address (if different from above)

Name: Same as above
 Address: _____
 City: _____ Province: _____ Postal Code: _____

British Columbia Free Miner Certificate No. 297823

I/We, Ark Energy Ltd., hereby apply for payment of a grant under the FAME (Financial Assistance for Mineral Exploration) Program and declare the information given above to be true and accurate.



 Signature of Applicant or Signing Officer

Harry Williams

 Name (please print)

President

 Title/Occupation (please print)

McKinney Gold Mine

 Project Name (please print)

Ark Energy Ltd.

 Company (please print)

January 5, 1987

 Date

(t) Goods and Services

Description	Expenditure	
	B.C.	Outside
Meals, Groceries, etc.	\$	\$
Camping Supplies, Equipment, etc.		
) Camp installation	33,500	
) and		
) costs		
Transportations — Scheduled Air	N/A	N/A
— Air Charter	N/A	N/A
— Vehicle Rentals	4,250	
— Vehicle O and M Costs	1,400	
— Other (specify)		
Equipment Rentals — and purchases power plants, pumps, ventilation	21,200	
Equipment Rentals — Trenching, etc.		
— Geophysical, etc.	N/A	N/A
— Other (specify) power line and site clearing	3,900	
Contract Drilling	N/A	N/A
Consultant Services	4,500	
Assays and Analyses	500	
Communications Part VCR Part Mine	2,300	
Other (specify) fuel, materials, pipe, cable, tools	30,850	
TOTALS:	\$102,400	\$

IMPACT OF FAME GRANT**(a) Please indicate what level of expansion of your project was attributable to receiving a FAME grant.**

\$ 30,000

200 person/days employment.

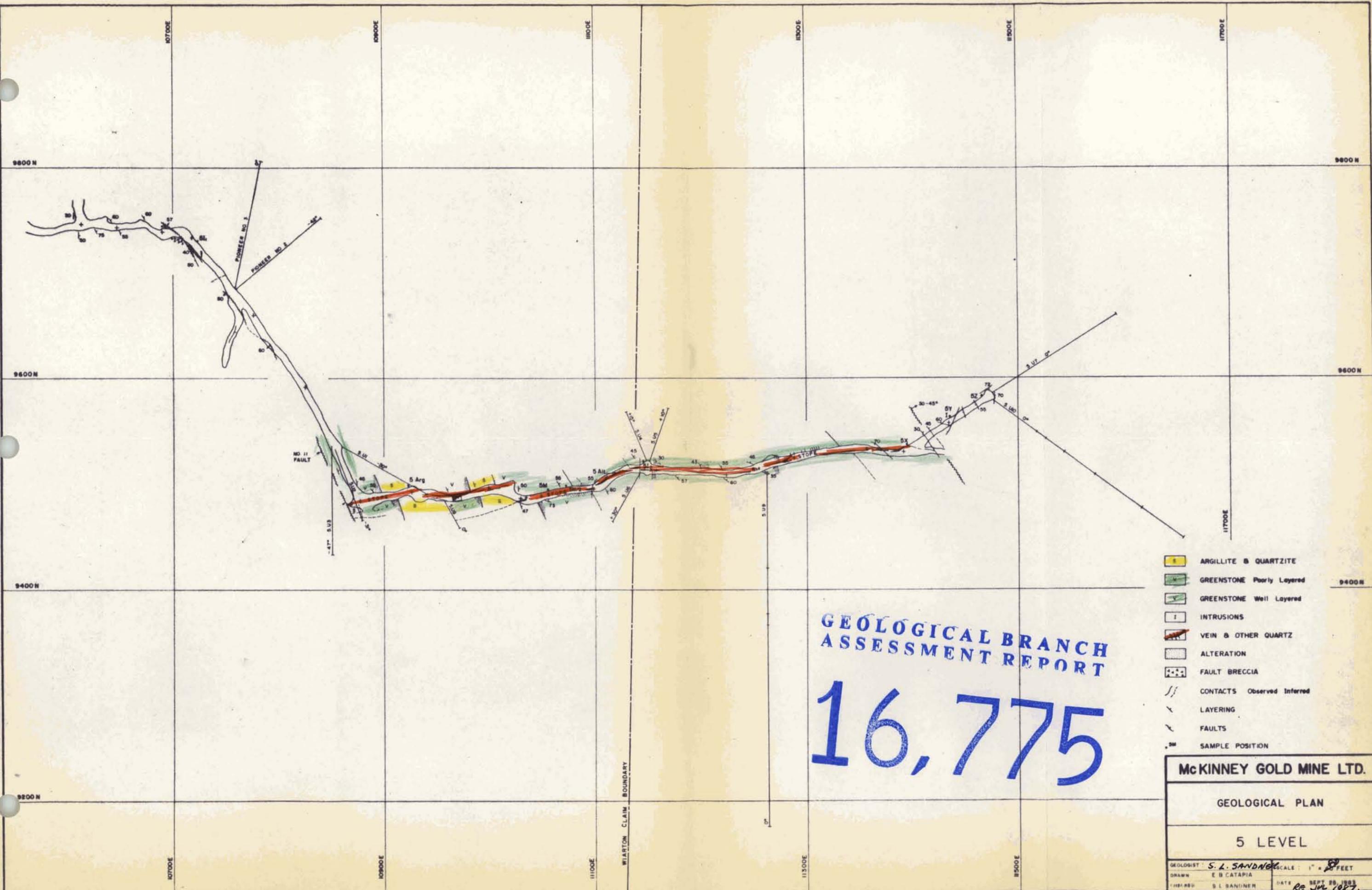
(b) Please indicate what you feel to be the main achievement of this FAME funded program.

The main achievement of this FAME funded program provided work for the local people and greatly assisted the burden of exploring the potential reopening of a local (B.C.) gold mine. The current high price of gold makes it possible to reconsider reserves that were previously uneconomic. We feel this McKinney gold mine is worthy of reopening. It will provide employment for some 10 - 15 full time workers, plus the indirect benefits of another payroll for this southern interior area.

SUPPLEMENTARY INFORMATION: The following information is required in order to help us determine the contribution which mineral exploration activity makes to the economy, and relates to the utilization of B.C. vs. outside labour and services. Only figures directly attributable to the funded program should be included (approximate figures acceptable, but please be as accurate as possible).

(a) Employment, wages and salaries

Type	No. Employed		No. Person-days		Salaries/Wages Paid	
	B.C.	Outside	B.C.	Outside	B.C.	Outside
Prospectors					\$ N/A	\$ N/A
Linecutters					N/A	N/A
Technicians					N/A	N/A
General Labourers	3 - 6		400		35,500	N/A
Drillers/Helpers					N/A	N/A
Equipment Operators					N/A	N/A
Geologists Mine Manager	1		43		8,500	None
Geophysicists					N/A	N/A
Geochemists					N/A	N/A
Engineers	1		10		3,000	None
Supervisory	1		88		17,500	None
Consulting	1 - 3		9		2,500	None
Secretarial					1,000	None
Managerial	1		50		9,000	None
Legal	1				1,600	None
Accounting	1				2,000	None
Others (specify) Assay	1				500	None
Others (specify) Drafting	1		8 - 10		900	None
TOTALS:					\$ 81,000	\$ 0

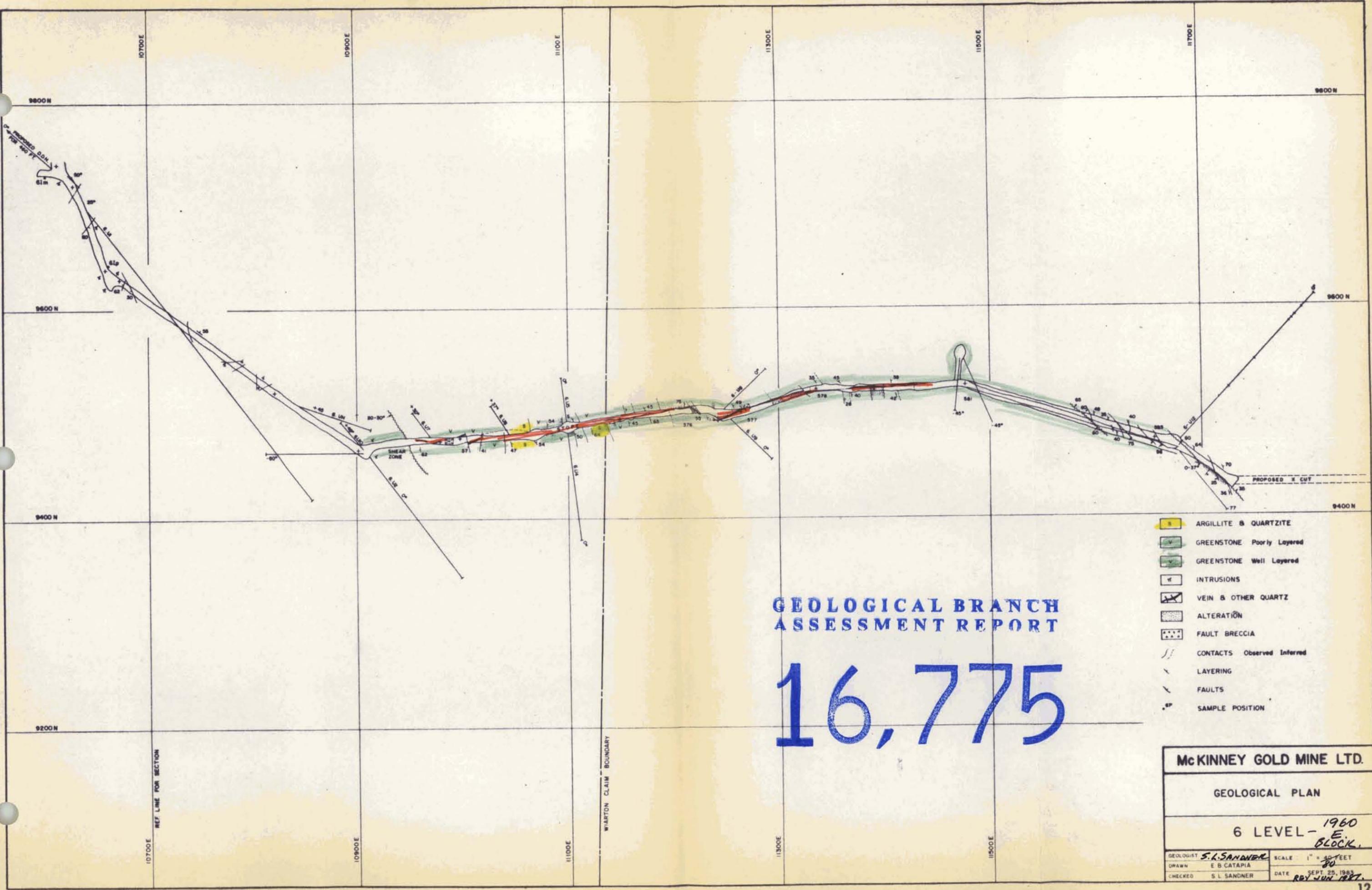


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16,775

- ARGILLITE & QUARTZITE
- GREENSTONE Poorly Layered
- GREENSTONE Well Layered
- INTRUSIONS
- VEIN & OTHER QUARTZ
- ALTERATION
- FAULT BRECCIA
- CONTACTS Observed Inferred
- LAYERING
- FAULTS
- SAMPLE POSITION

McKINNEY GOLD MINE LTD.	
GEOLOGICAL PLAN	
5 LEVEL	
GEOLOGIST: S. L. SANDNER	SCALE: 1" = 8 FEET
DRAWN: E. B. CATAPIA	DATE: SEPT 20, 1983
CHECKED: S. L. SANDNER	DATE: 20 JUL 1987

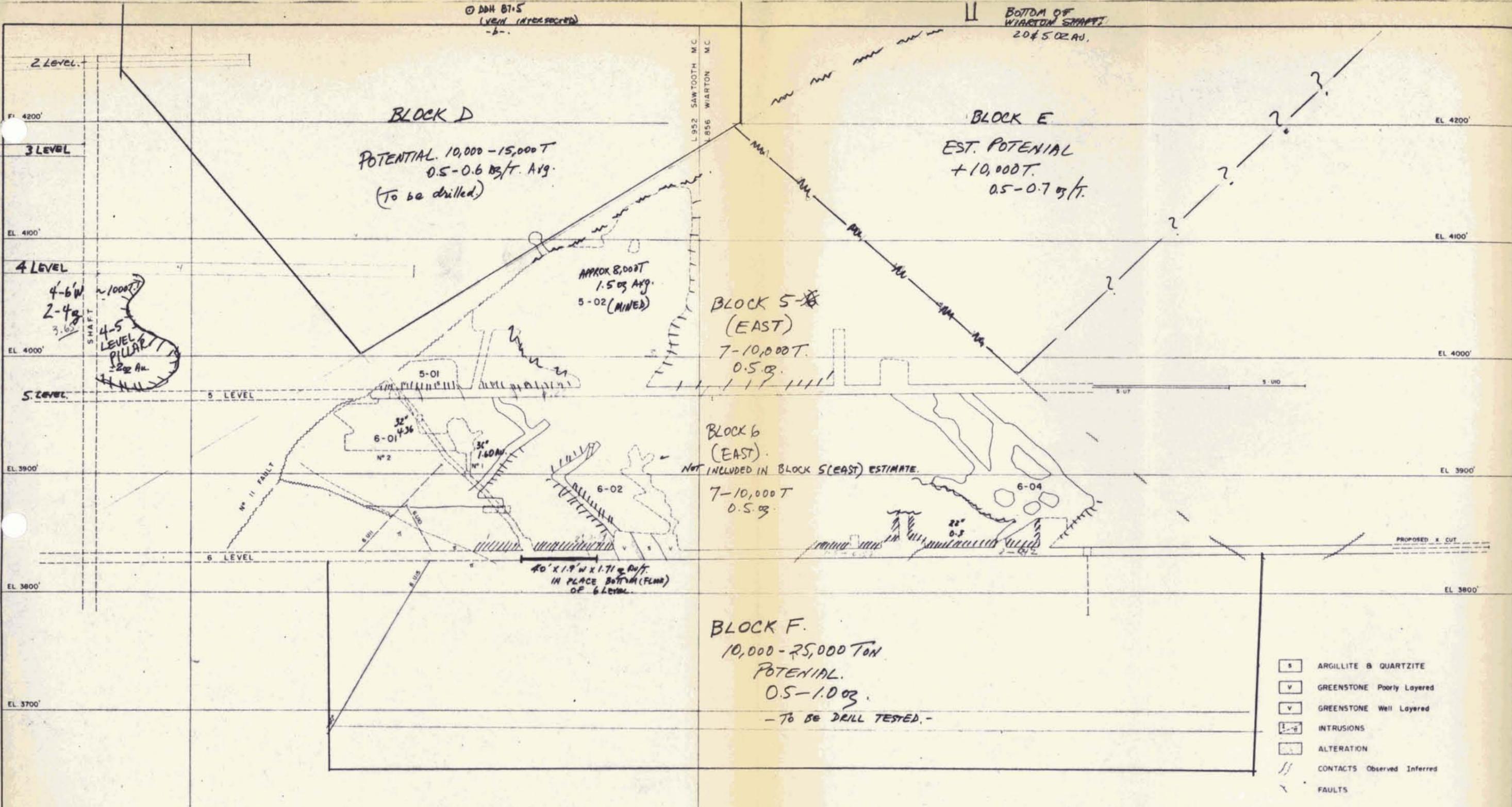


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- ARGILLITE & QUARTZITE
- GREENSTONE Poorly Layered
- GREENSTONE Well Layered
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- ALTERATION
- FAULT BRECCIA
- CONTACTS Observed Inferred
- LAYERING
- FAULTS
- SAMPLE POSITION

McKINNEY GOLD MINE LTD.	
GEOLOGICAL PLAN	
6 LEVEL - 1960 E. BLOCK.	
GEOLOGIST S.L. SANDNER	SCALE: 1" = 50 FEET
DRAWN E.B. CATAPIA	DATE SEPT. 25, 1983
CHECKED S.L. SANDNER	DATE REV. JUN. 1987



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,775

- S ARGILLITE & QUARTZITE
- V GREENSTONE Poorly Layered
- V GREENSTONE Well Layered
- I INTRUSIONS
- A ALTERATION
- / / CONTACTS Observed Inferred
- \ FAULTS

McKINNEY GOLD MINE LTD.	
E W LONGITUDINAL GEOLOGICAL SECTION - FOOTWALL GEOLOGY	
<i>BULK ASSAYS.</i>	
<i>5 & 6 LEVELS</i>	
<i>POTENTIAL RESERVE CALC.</i>	
GEOLOGIST S. L. SANDNER	SCALE 1" = 20 FEET
DRAWN E. B. CATAPIA	DATE SEPT 25, 1983
CHECKED S. L. SANDNER	REV. 1 24-NOV-1983