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**DRILLING REPORT
ON
ELDERBERRY 1A & 2A GROUPS**

PREPARED FOR:

R.H. STANFIELD
350 - 4723 1ST STREET S.W.
CALGARY, ALBERTA
T2G 0A1

49° 20' 00
115° 09' 00

**SUB-RECORDER
RECEIVED**
OCT 20 1989
M.R. # _____ \$ _____
VANCOUVER, B.C.

BY:

ALFRED R. ALLEN, P. ENG.,
ALLEN GEOLOGICAL ENGINEERING LTD
827 WEST PENDER STREET
VANCOUVER, B.C.
V6C 3G8

DATED: OCTOBER 20, 1989

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10227

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A. **INTRODUCTION**

A drilling program was conducted on the Elderberry 1A & 2A Groups, July 4-10, 1989.

Hole D 3-1-89 is located in the central northern area of the Dogwood 3 claim, and four holes were drilled in the northeast quarter of the Elderberry 4 claim in the area of the Rimrock workings, designated as number PR1-4-89.

The purpose of the drilling was to acquire stratigraphic, structural and mineralogical data with regard to the planned investigations of the Rimrock copper, Silver, Gold showings.

Cyclone Rotary Air-Mud equipment was used.

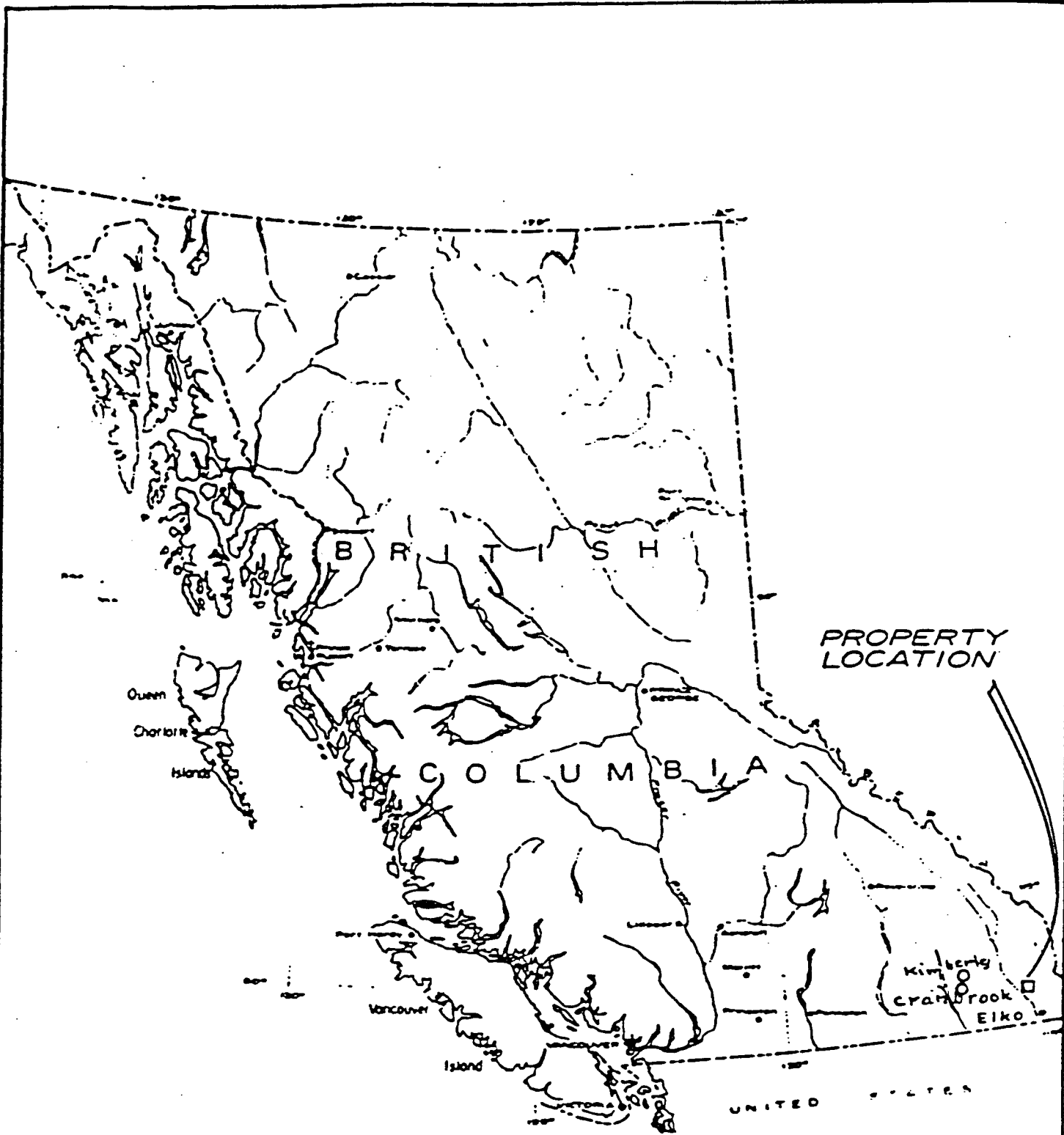
B. **LOCATION**

The Elderberry 1A & 2A claim groups are located in southeastern British Columbia, in the Fort Steele Mining Division.

The Elderberry #1 claim is at Elko, and the common corner of the Dogwood 3 and Elderberry 4 claims are 4 kilometers northwest of Elko via Highway #3. Well maintained secondary roads provide access to most of the property.

C. **PROPERTY**

<u>GROUP 1-A</u>		<u>GROUP 2-A</u>	
Elderberry	5-1504(8)	Elderberry	1-3215(10)
"	6-1486(2)	"	2-3207(9)
"	7-1558(9)	"	3-1484(7)
"	8-1559(9)	"	4-1485(7)
Dogwood	3-2943(6)	"	1-South 3206(9)

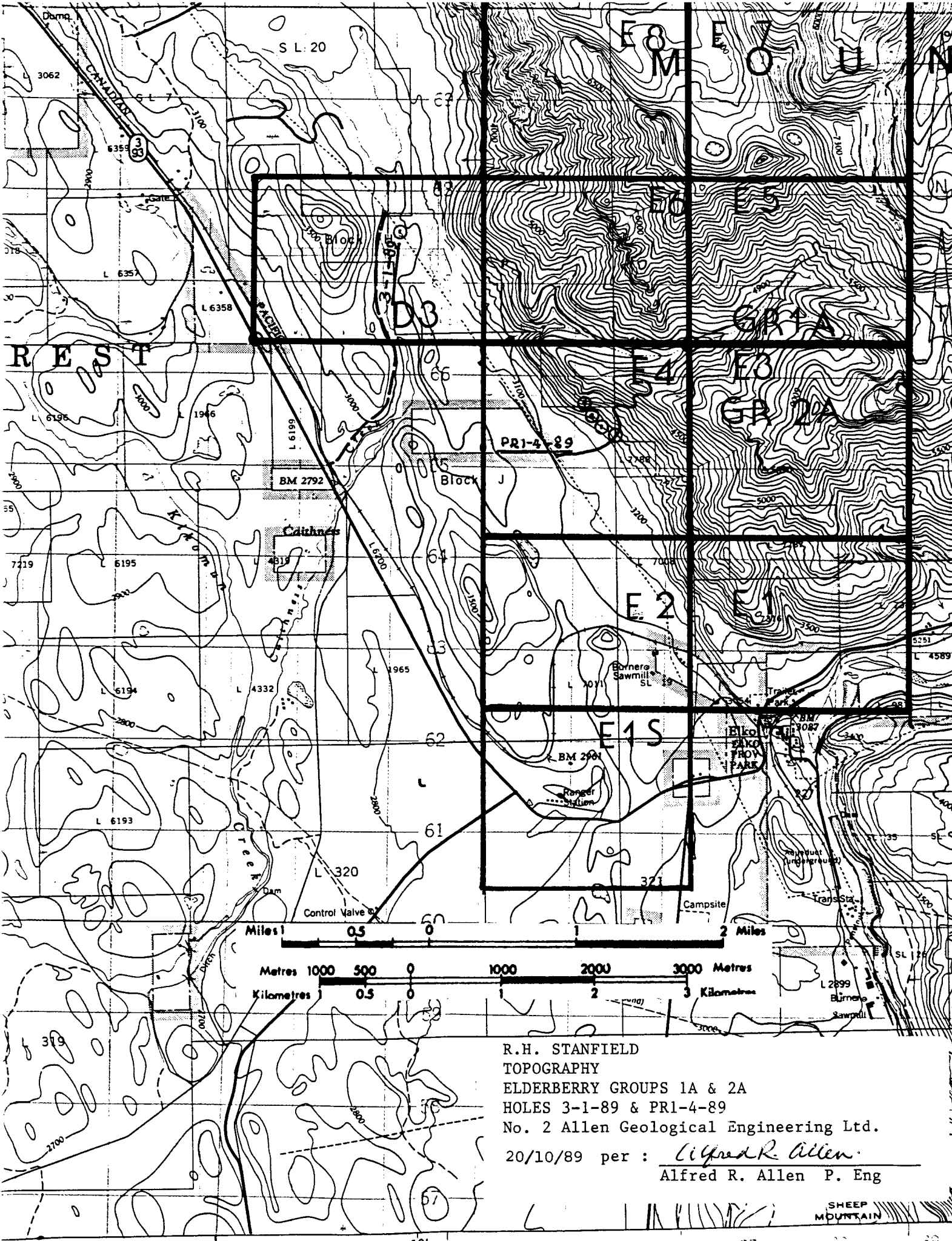


R.H. STANFIELD PROPERTY

LOCATION MAP

SCALE: 1" = 136 MILES

Drawn by	DRS	6/2/84	ALLEN GEOLOGICAL ENGINEERING LTD.
Checked by	DRS		



R.H. STANFIELD
 TOPOGRAPHY
 ELDERBERRY GROUPS 1A & 2A
 HOLES 3-1-89 & PR1-4-89
 No. 2 Allen Geological Engineering Ltd.
 20/10/89 per : *Alfred R. Allen*
 Alfred R. Allen P. Eng

SHEEP MOUNTAIN

D. **PHYSIOGRAPHY**

The Elderberry 1A & 2A Groups are located within the Rocky Mountain Trench, except for the Elderberry 1,2,3,4,5,6,7, and 8 claims, which extend from the 900 M level Trench up to the crest of the Front Range, at elevation 2,286m. above sea level on the Elderberry #1 claim.

The Elk River flows across the Elderberry #1 claim, Caithness Creek heads north of the Dogwood #3 claim and flows south in the Trench.

Numerous creeks flow westerly from the Front Range into the Rocky Mountain Trench from the northeast quarter of the property.

E. **GEOLOGY**

The Elderberry 1A & 2A Groups include the Elderberry 1-8, Dogwood 3, and Elderberry 1-South, all 20 unit claims, located in a region of irregular topography and complex geology.

The Precambrian Gateway formation outcrops are located in the northwest area of the Dogwood #3 claim, and for 3 kilometers to the north. There is also a 3.5 kilometer zone of Gateway and Phillips formation on both sides of the Elko River between the Broadwood fault and elko, east of the Elderberry #1 claim.

The Gateway strata are grey and green argillite, siltstone, commonly dolomitic, and buff weathering purple and red siltstone, orange weathering grey quartzite, argillite, saltcasts, and algaloid structure.

The Phillips formation includes purple quartzite, argillite, and siltstone.

The Roosville formation is composed of grey and green argillite and siltstone, dolomitic buff weathering grey quartzite, and orange dolomite, and limestone with algaloid structures.

These Precambrian formations are overlain by lower and middle Cambrian Cranbrook and Eager formations of grit, conglomerate, sandstone, quartzite, limestone and siltstone.

The middle Cambrian Burton formation is composed of limestone, shale, sandstones; and conglomerate at the base. The middle and or upper Cambrian Jubilee and Elko formation are composed of dolomite.

E. GEOLOGY (Cont'd)

The following formations overly the Cambrian sequence.

The basal Upper Devonian includes buff and orange weathering dolomite, sandy dolomite and sandstone.

The overlying Fairholme Group is composed of fine-grained black and grey limestone, stromatolitic and coralline limestone and dolomite. The upper part is shale and limestone.

The Alexo formation contains sandstone, sandy limestone, and argillaceous limestone.

The Upper Devonian Palliser formation is composed of massive mottled and modular limestone, overlain by thin-bedded nodular shaley limestone.

The overlying Mississippian formations include undifferentiated Exshaw and Banff black shale and limestone, dark clerty and laminated limestone, grey limestone, limy siltstone partly fetid.

The Pennsylvanian and (?) Permian strata include dolomite, limy sandstone, quartzite, sandy dolomite, limestone, siltstone and chert.

Triassic strata of the Spray River formation top the local sequence, and include dark siltstone and silty shale.

The most southerly exposure of a major fault, on the east boundary of the Rocky Mountain Trench, near Gallaway, intersects the Sand Creek fault 800 meters west of the northwest corner of the Dogwood 3 claim. The Aldridge formation is exposed between the two faults, and the Gateway formation outcrops on the east side of the Sand Creek fault.

The Rimrock showings are located 3.2 km northwest of Elko, 244 to 305 meters above the Rocky Mountain Trench.

The workings include the upper adit which was driven 91 meters on a quartz, siderite, calcite vein which contains copper, silver, gold values. The vein has been exposed by trenches and open pit. It strikes north 55° east and is vertical. The wall rock is light grey Gateway silicified argillite. From the tunnel a 10.7 meter stope was mined from the back up 9 meters, and a winze sunk 12.2 meters. The mineralized vein is evident both at the bottom of the winze and the top of the slope over a width of 1.22 meters.

E. **GEOLOGY** (Cont'd)

Shipments containing copper, silver, gold were made from these workings.

The lower adit, 64 meters below the upper tunnel, is directed north 30 degrees east, but the vein is not evident.

Samples from the vein in the upper tunnel, by the writer, assayed as follows:

<u>Sample</u>	<u>Length</u>	<u>Copper%</u>	<u>Silver oz/ton</u>	<u>Gold oz/ton</u>
1S	4.5	0.84	0.29	0.007
2S	6.0	3.40	0.12	0.005
3S	7.5	0.93	0.09	0.005
4S	2.5	2.02	0.21	0.007

The samples were from walls and back, from the portal to the caved section a distance of 61.0 meters.

F. **THEORY**

The Gateway formation is composed of grey, green, purple and red siltstone, argillite, quartzite and dolomite.

The Rimrock quartz-siderite vein within this formation contains copper, silver and gold values.

The underlying Phillips formation is also composed of purple quartzite, argillite and siltstone.

The Kitchener and Creston formations are not present, but the Aldridge rusty-weathering, dark laminated argillite, and grey rusty-weathering argillaceous quartzite are faulted against the Gateway, and theoretically underly it.

One or more deep drill holes may be included on the proposed exploration program of the area to evaluate the potential of the Rimrock vein system below the present workings.

G. **OBJECT OF THE DRILLING**

Rotary holes 3-1-89; P.R. 1-89, P.R. 2-89, P.R. 3-89, and P.R. 4-89 were drilled to acquire overburden and bedrock information necessary for completion of plans for an exploration program over the Rimrock showings.

H. PREVIOUS WORK

Leech G.B.	G.S.C. Fernie Map Area Geology Paper 58-10
Allen A.R.	Holdings of R.H. Stanfield, November 1973, PP 11-12
Allen A.R.	Drilling Report 1987, Hole P-1-87, Elderberry #14 claim
Allen A.R.	Drilling Report 1988, Hole E6-E2-88, Elderberry #6 claim
Allen A.R.	Drilling Report 1987, Holes PE-1-87 & PE-2-87,
de Souza P.	ACSM, Big Bear Metal Mining Corp., Rimrock pp 30-31, Sept, 1988

I. CYCLONE ROTARY AIR-MUD DRILLING

Five holes were drilled on the 1A and 2A Elderberry Groups, four on the Elderberry #4 claim and one on the Dogwood #3 claim.

The drilling was contracted with the following equipment and crew from Strathmore, Alberta:

EQUIPMENT

1	Ingersol Rand TH-60 rotary percussion rig, compressor and accessories
1	Drillstem trailer
1	Five ton water truck, Kenworth
1	Thirty foot rod trailer and rods
1	Pick-up 4 W.D. truck
1	3/4 ton Dodge 4x4 truck

CREW

Mr. Don Murray, Driller
 Mr. Dean Cockx, Driller
 Mr. Jason Raber, Helper
 Mr. R.H. Stanfield, Foreman; Calgary, Alberta
 Mr. Ross Stanfield Jr.; Box 24, Galloway, B.C.

J. **DRILLING RESULTS**

Cyclone Rotary Air-mud Drilling. Hole 3-1-89, Group E-1-A, Dogwood 3 Claim. Vertical to 121.9 meters, July 4-6, 1989.

LOG-M

0 - 12.19	Gravels, detritals, veg. matter
12.19 - 39.62	Overburden, black argillite, quartz float
39.62 - 51.81	+/-568 water lpm at 39.62m. black argillites
51.81 - 60.96	Banded argillites and quartzite, quartz veinlets
60.96 - 73.15	Banded argillite quartz and content increasing
73.15 - 85.34	Black banded argillite and quartzite, vein quartz iron staining quartz veins, no sulfides, fault (?) water flow at 946 lpm - total 1514 lpm, no sulfides
85.34 - 97.54	Quartzite/siltite, quartz veinlets - siderite - assaying inappropriate
97.54 - 109.7	Light grey siltite, at 103.6 quartz stringers - darker quartzites
109.7 - 121.9	Interbanded quartzites, argillites and siltites, minor quartz stringers.

RECOMMENDATIONS

The degree of quartz veining and stringers, the limonite staining evident for in excess of 12.2 meters on either side of water course at 79.2 meters, and the force of the water flow which precludes any possibility of accurate sampling, determines that a short diamond drill hole for complete core recovery be considered at the earliest possible opportunity.

CYCLONE ROTARY AIR-MUD DRILLING

Group Claim Holes Depth	Date July 7-8, 1989	
2A Elderberry 4	PR-1-89	42.67m. Vertical
	PR-2-89	18.29m. Vertical
	PR-3-89	6.10m. Vertical
	PR-4-89	30.48m. vertical

J. DRILLING RESULTS (Cont'd)LOGS FOR RIMROCK PERCUSSION/ROTARY DRILLING

PR 1.89 Total Depth (140 ft.) 42.67m

0 - 2.7m	Recent Scree
2.7 - 5.2m	Consolidated Scree & Mud
5.2 - 9.45m	Weathered Argillites
9.45 - 25.9m	Clean unweathered Argillites - slight silicification
25.9 - 27.4m	Zone of Quartz / Siderite stringers
27.4 - 42.67m	Moderately Silicified Argillite - apparently Aldridge

NOTE: Depths in field measured in feet - converted to meters for submission.

PR 2.89 Total Depth (60 ft.) 18.29m

0 - 3.35m	Recent Scree
3.35 - 6.1m	Consolidated Scree/Mud - weathered surficially
6.1 - 7.3m	Mudfilled fissures in weathered Argillites
7.3 - 5.5m	Weathered Argillites
15.5 - 16.15m	"Complete Air Loss" - No returning Air - No chippings
16.15 - 8.29m	Through open "Fissure". Occasional chip return. Jamming Drill Pipe indicative of caving ground. Hole abandoned.

PR 3.89 Total Depth (20 ft) 6.1m

0 - 61m	Recent Scree. Collar Caving. Rig Unstable. Hole Abandoned. (Drill Hole Collared 1.2m (4ft) from outcropping argillite to side of "platform". Old mountain slope obviously near vertical at this point).
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J. **DRILLING RESULTS** (Cont'd)

PR 4.89 Total Depth (100 ft) 30.48m

0 - 1.83m	Consolidated Scree showing surface weathering and vegetative matter
1.83 - 6.1m	Weathered Argillites
6.1 - 18.3m	clean unweathered argillites - slight silicification
18.3 - 30.48m	Silicified (Banded) Argillites showing minor quartz/siderite stringers and veinlets

K. **DISCUSSION**

This is difficult because of water inflow and faulted ground. Favorable indication from Hole 3-1-89 such as 60.96 to 73.15 meters zone of black argillite with quartz veinlets and increasing with some siderite and limonite and 85.34 to 97.54 metres-quartzite, siltite veined with quartz-siderite.

Regardless of lack of sulphides, this is indicative of wall rock on boundaries of some well mineralized quartz-siderite-sulphide zones of the area. Angular core drilling is warranted.

PR-1-89: 25.9 to 27.4 meters, with quartz-siderite stingers are encouraging and warranting angle core drilling.

L. **ROADS, EROSION CONTROL, AND SITE PREPARATION**

On the Elderberry 1A Group a road was constructed from Highway #3 to the drill site, a distance of 3.5 kilometres. Culverts and water bars were provided where required.

On the Elderberry 2A Group a road was completed from the Hydro line 2 kilometres to the drill site, and 1.5 kilometres northeast to elevation 1,400 meters above sea level. Where required culverts and water bars were provided.

Erosion control was provided and drill sites prepared at each location.

M. SUMMARY

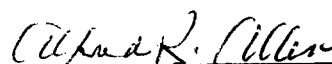
The degree of quartz veining and stringers, the limonite staining evident for in excess of 12 metres on either side of the water flow suggested that additional information is required and short core holes will be required for additional information before planning further exploratory work.

October 20, 1989

RESPECTFULLY SUBMITTED,

ALLEN GEOLOGICAL ENGINEERING LTD.

Per:



Alfred R. Allen, P. Eng.

REFERENCES

Leech G.B. G.S.C. Paper 58-10, Map #20, 1958

International Geological Congress
24th Session Canada 1972, Field Excursions

Allen A.R. Altamont Exploration Co. Report, 1967

Allen A.R. Stanfield Holdings Report, 1973

Allen A.R. Geology, Ore Potential, Stanfield Holdings, 1976

Chiang G.B. Placid Oil Company Reports, 1973-1976

Allen A.R. Assessment Reports, R.H. Stanfield, 1967-1989

COST STATEMENT #1**CYCLONE ROTARY AIR-MUD DRILLING**

R.H.Stanfield	Start July 4, 1989	
By Contract	Finish July 6, 1989	
Hole D3-89		
Location:	Dogwood 3 claim, Elderberry Group 1-A	
Direction:	Vertical	
Length:	121.9m	
Costs:	121.9 x 147\$/m	\$17,919.30
Supply Costs:	Casing 26.5m @ 26.29/m	696.68
Mob. and Demob.:		1,000.00
Site prep. and clean-up:		155.00
Truck:	3/4 ton 4x4 3 days @\$50/day	150.00
Foreman:	27 hours @ \$15/hour	405.00
Coordinator:	28 hours @ \$15/hour	420.00
Accommodation & meals:	4 men,3 days @\$65/day	780.00
A.R.Allen:	Consulting & Report Preparation	<u>805.00</u>
Total Costs:		<u>\$22,330.98</u>

COST STATEMENT #2**CYCLONE ROTARY AIR-MUD DRILLING**

R.H. Stanfield	Start July 7, 1989	
By Contract	Finish July 10, 1989	
Holes, PR 1-89, PR 2-89, PR 3-89, PR 4-89		
Location:	Elderberry 4 claim, Elderberry Group 2A	
Direction:	Vertical	
Lengths:	PR-1 42.6m cost 42.6 x 147	\$6,262.20
	PR-2 18.2m cost 18.2 x 147	2,675.40
	PR-3 6.1m cost 6.1 x 147	896.70
	PR-4 31.0m cost 31 x 147	4,557.00
Mob. and Demob.:		1,000.00
Site prep. and clean-up:	155.00	
Trucks:	2, 3/4 ton, 4x4, 4 days @ \$50/day	400.00
Foreman:	30 hours @ \$15/hour	450.00
Coordinator:	32 hours @ \$15/hour	480.00
Accommodation and meals:	4 men, 4 days @\$65/day	1,040.00
A.R. Allen Consulting and Reporting:		<u>870.00</u>
Total costs		<u>\$18,876.30</u>

COST STATEMENT #3

ROAD WORK AND EROSION CONTROL

R.H. Stanfield	Start July 7, 1989 Finish July 10, 1989	
Location:	Elderberry 4, Group 2A Dogwood 3, Group 1A	
Length:	5km	
Crew:	Board and Meals 3 men, 3 days @ \$65/day	\$585.00
Bulldozer:	Allis Chalmers H.D. 16 @ \$70/hour x 44 hours	3,080.00
Foreman:	28 hours @ \$15/hour	420.00
Truck:	3/4 ton, 4x4, 3 days @ \$50/day	150.00
Power Saw:	3 days @ \$18/day	<u>54.00</u>
Total		<u>\$4,289.00</u>

COSTS STATEMENT #4
CYCLONE ROTARY AIR-MUD DRILLING

<i>MOB DEMOB</i>	<i>GROUP</i>	<i>BOARD</i>	<i>FOREMAN COORDINATOR</i>	<i>TRUCK SITE PREP. & CLEAN-UP</i>	<i>CONSULTING</i>	<i>DRILLING & CASING</i>	<i>TOTAL COSTS</i>
\$1000.00	1A	780.00	555.00 420.00	155.00	805.00	17,919.30 696.68	\$22,330.98
\$1000.00	2A	1040.00	1330.00	155.00	870.00	14,391.30	\$18,786.30

ROAD WORK & EROSION CONTROL

\$4,289.00

Total Costs

\$45,406.28

PLUS P.A.C. withdrawals

Group 2-A

\$4,924.70

Group 1-A

\$5,669.02

Assessment Total Credit

\$56,000.00

2-730 West 7th Avenue
Vancouver, B.C.
V5Z 1B8

October 20, 1989

CERTIFICATE

I Alfred R. Allen certify that:

I am a graduate of the University of British Columbia and hold the following degrees therefore:

B A Sc Geological Engineering 1939
M A Sc Geological Engineering 1941

I am a Life Member of the Association of Professional Engineers of the Province of British Columbia.

I have practised my profession for the past 45 years.

I hold no interest in the properties or securities of R.H. Stanfield, or affiliates thereof, nor do I expect to receive any directly or indirectly.

The report on the Elderberry 1A and 2A Groups is based upon consulting services by the writer for Allen Geological Engineering Ltd., July 4-11 1989, and report preparation August 24- October 20, 1989. Mr. Phil D. de Souza ACSM, Mining Engineer, resident on the Stanfield project, representing John P. Morton & Partners Ltd., Mining Consultants whose drill logs are included.



Alfred R. Allen, P. Eng.

CERTIFICATE

October 20, 1989

I, Phil D. de Souza, certify that:

I am a graduate of the Camborne School of Mines, Cornwall, England and that I hold the degree of ACSM First Class in Mining Engineering therefrom.

I am a member of the Canadian Institute of Mining and Metallurgy and a member of the American Institute of Mining, Metallurgical and Processing Engineers.

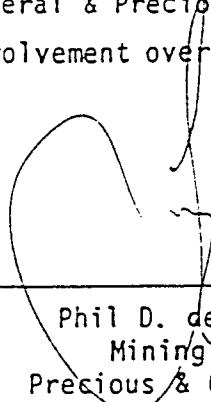
I have practiced my profession for the past twenty-five years.

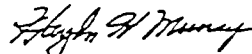
This Report on the Gallowai Interests, Fort Steele Mining Division, British Columbia, is based on site inspections, all pertinent information from Company officers with whom I have had direct access, and from General & Precious Metals, Morton & Partners Limited direct project involvement over the past year.

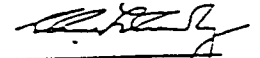
SOCIETY OF MINING ENGINEERS
PHILIP D DE-SOUZA 0792600
MEMBER MEMBER NO
IS A MEMBER FOR 1988




A MEMBER SOCIETY OF
AMERICAN INSTITUTE OF MINING,
METALLURGICAL AND PETROLEUM ENGINEERS

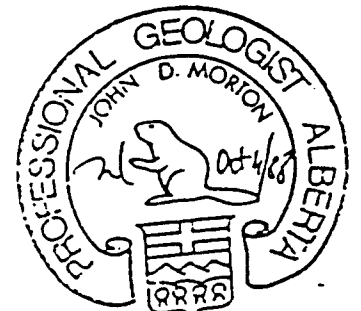

Phil D. de Souza, ACSM
Mining Engineer
Precious & General Metals

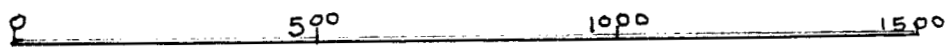
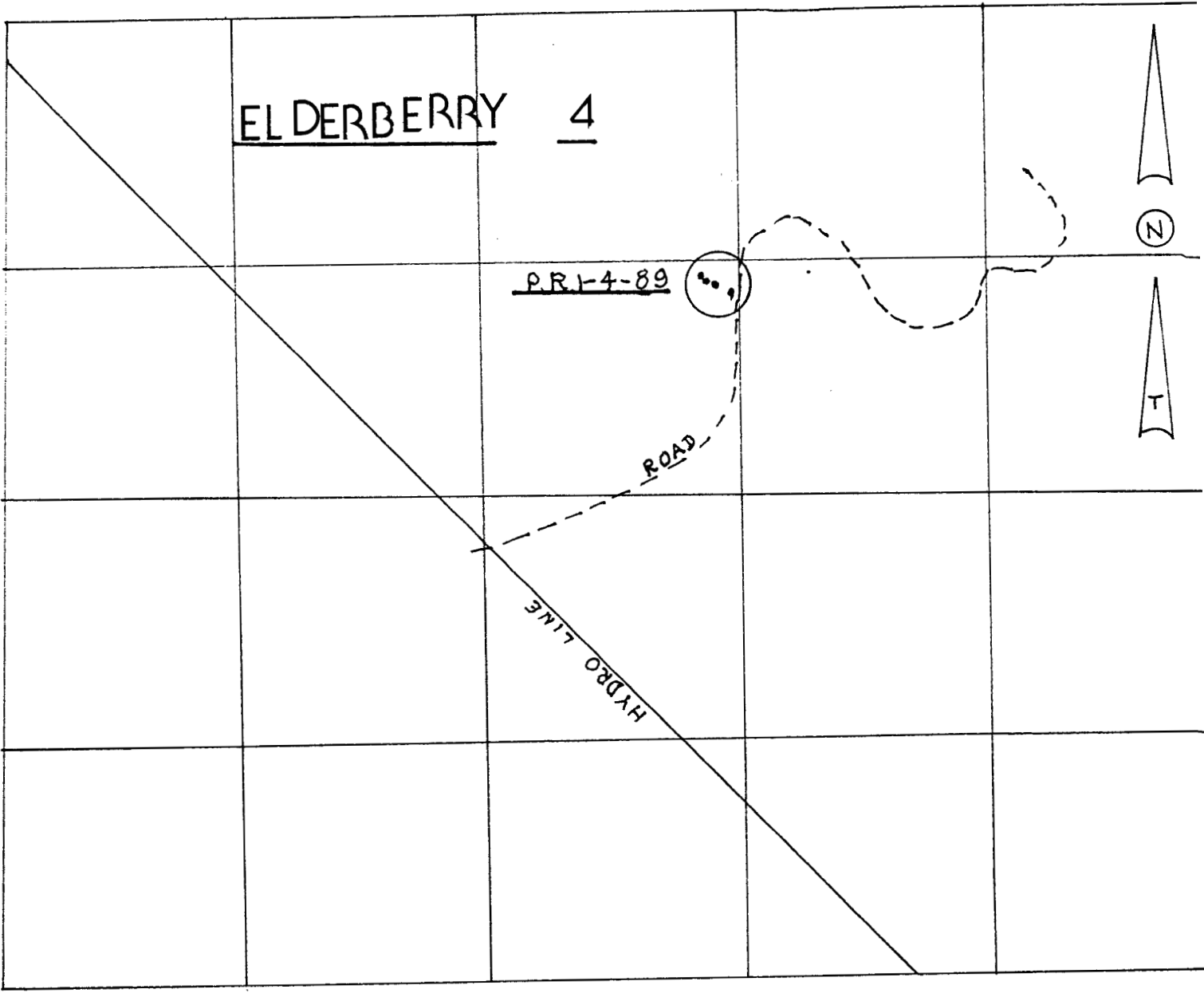

SME PRESIDENT


SME EXEC. DIRECTOR

This Report has been produced under the auspices of Morton & Partners Limited, and I certify that neither I nor my Associates or Partners hold any interest or securities in any of the four corporations owning an interest in the properties, nor do I, or we, expect to receive any, directly or indirectly.


John D. Morton, M.Eng., P.Eng.
Principal
Morton & Partners Limited

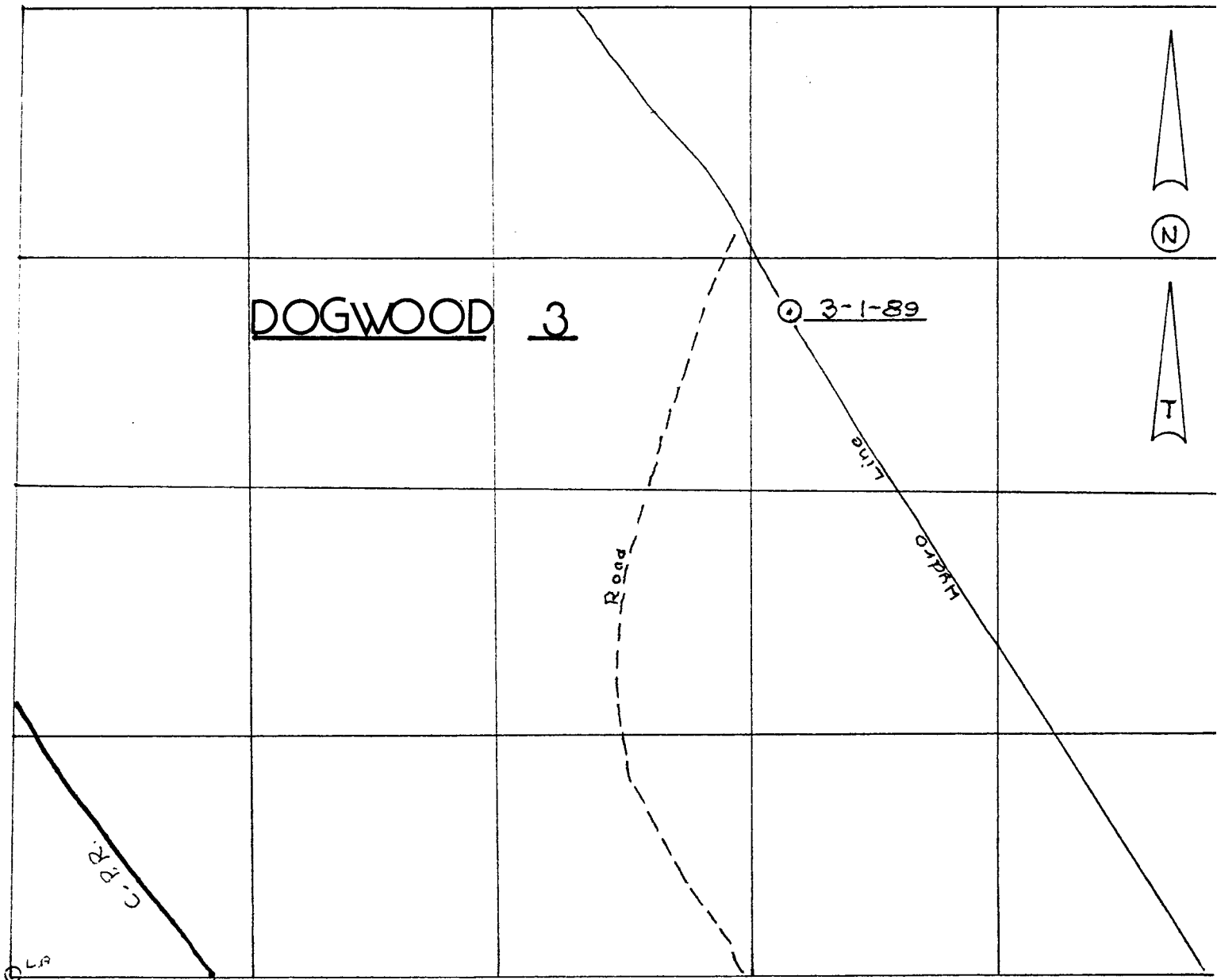




Scale m.

R.H. STANFIELD
 ELDERBERRY 4 CLAIM
 ROTARY HOLES PR 1-4-89
 No. 4 Allen Geological Engineering Ltd.

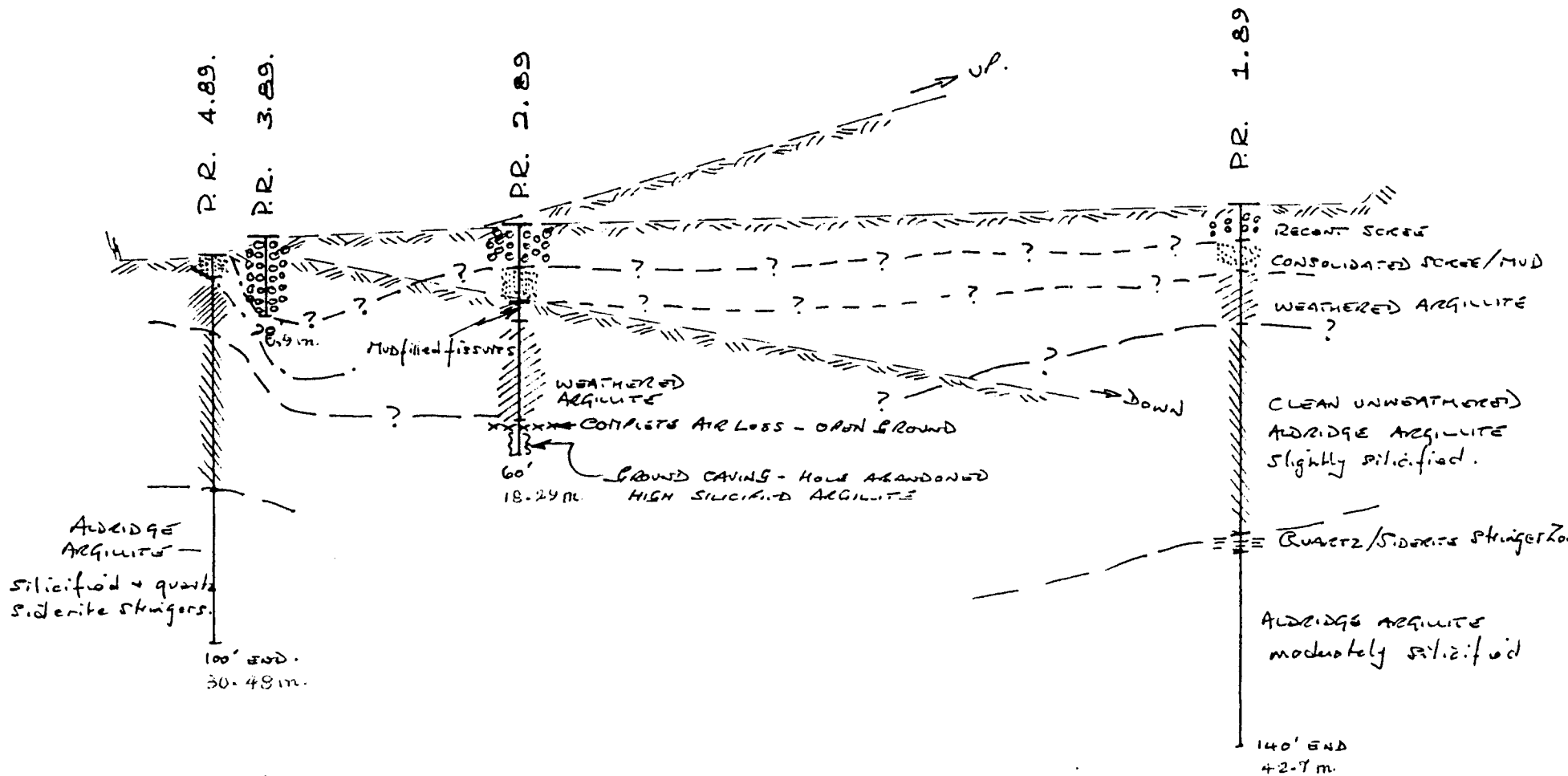
Per : Alfred R. Allen
 20/10/89 Alfred R. Allen P. Eng



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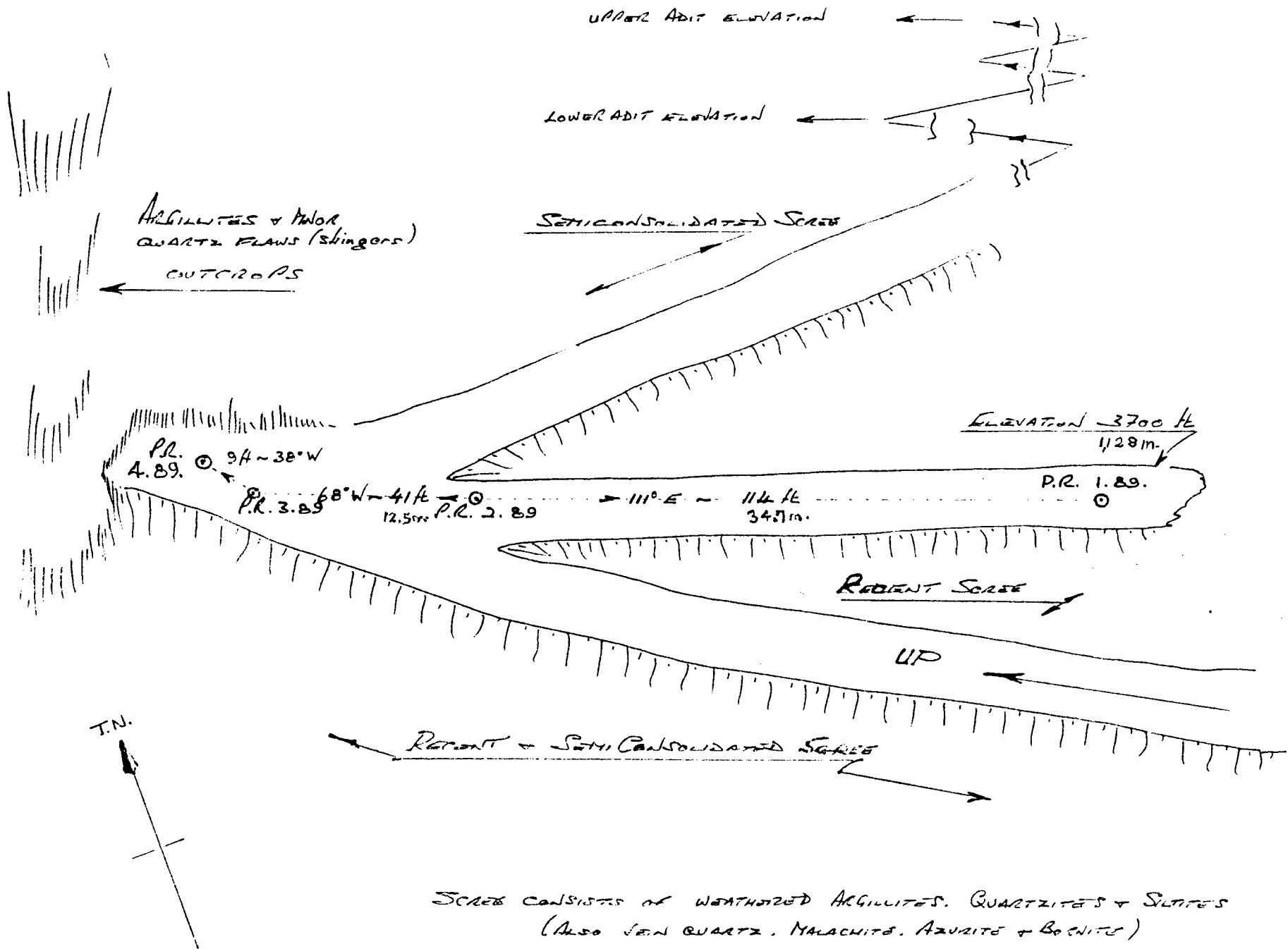
R.H. STANFIELD
 DOGWOOD 3 CLAIM
 ROTARY HOLE 3-1-89
 No. 3 Allen Geological Engineering Ltd.

Per: Alfred R. Allen
 20/10/89 Alfred R. Allen P. Eng



Logged by:- Penn D. de Souza A.C.S.M.
MINING ENGINEER.

NO 6 DATED:- JULY 7. 8, 1984



No 5
 Hole Pattern LAY OUT BY: PHILIP DE SOUZA A.C.S.M. Mining Engineer
 (STAKE DATA ASCERTAINED): BED ROCK ASCERTAINED:
 (POSSIBLE OPEN FISSURE - P.R. 2.89)