5313

FILE # 166 LIARD
To accompany Affidavit on
Application to Record Work

EXPLORATION REPORT ON

THE ROBB LAKE PROPERTY DURING

THE 1974 FIELD SEASON

May 16 - Sept. 30 /74

94B/13E

ROBB LAKE

56° 123° S.E. NTS 94B

LIARD MINING DISTRICT

N.E. BRITISH COLUMBIA

CLAIM GROUPS - AIRSTRIP, ARROW, HALFWAY, PINE POINT, TALIS MT, TGS, DISCOVERY, TENNESSEE MT, CLEO & PEREGRINE, WEST.

CLAIMS - 458 CLAIMS - SEE CLAIM SCHEDULE

OPERATOR - ROBB LAKE JOINT VENTURE

OWNERS - ECSTALL MINING LTD. 701 - 1281 West Georgia St., Vancouver 5, B.C.
FMC # 123781 issued December 12, 1973.

- ARROW INTER-AMERICA CORP, 1114 Ave. of the Americas, New York 10036, U.S.A.
FMC # 123842, issued December 17, 1973.

- BARRIER REEF RESOURCES LTD. (NPL)
355 Burrard Street, Vancouver 1, B.C.
FMC # 123733 issued ~~December 13~~, 1973.

REPORT BY Peter Boyle, Texasgulf Inc.

December 1974

Vancouver, B.C.

CONTENTS

LIST OF ILLUSTRATIONS

By Texasgulf Inc. on behalf
of the Robb Lake Joint Venture

INTRODUCTION

The report summarizes work completed on the Robb Lake Property in northeastern British Columbia.

CLAIM STATUS

The claims included in the property are listed in the Claim Schedule. The registered owners are listed on the Title Page. The claims on which drilling was done are indicated on the Drill Hole Plan. This work was, however, credited to other claims in their respective groups. Compilation of the final report is in progress.

LOCATION ACCESS

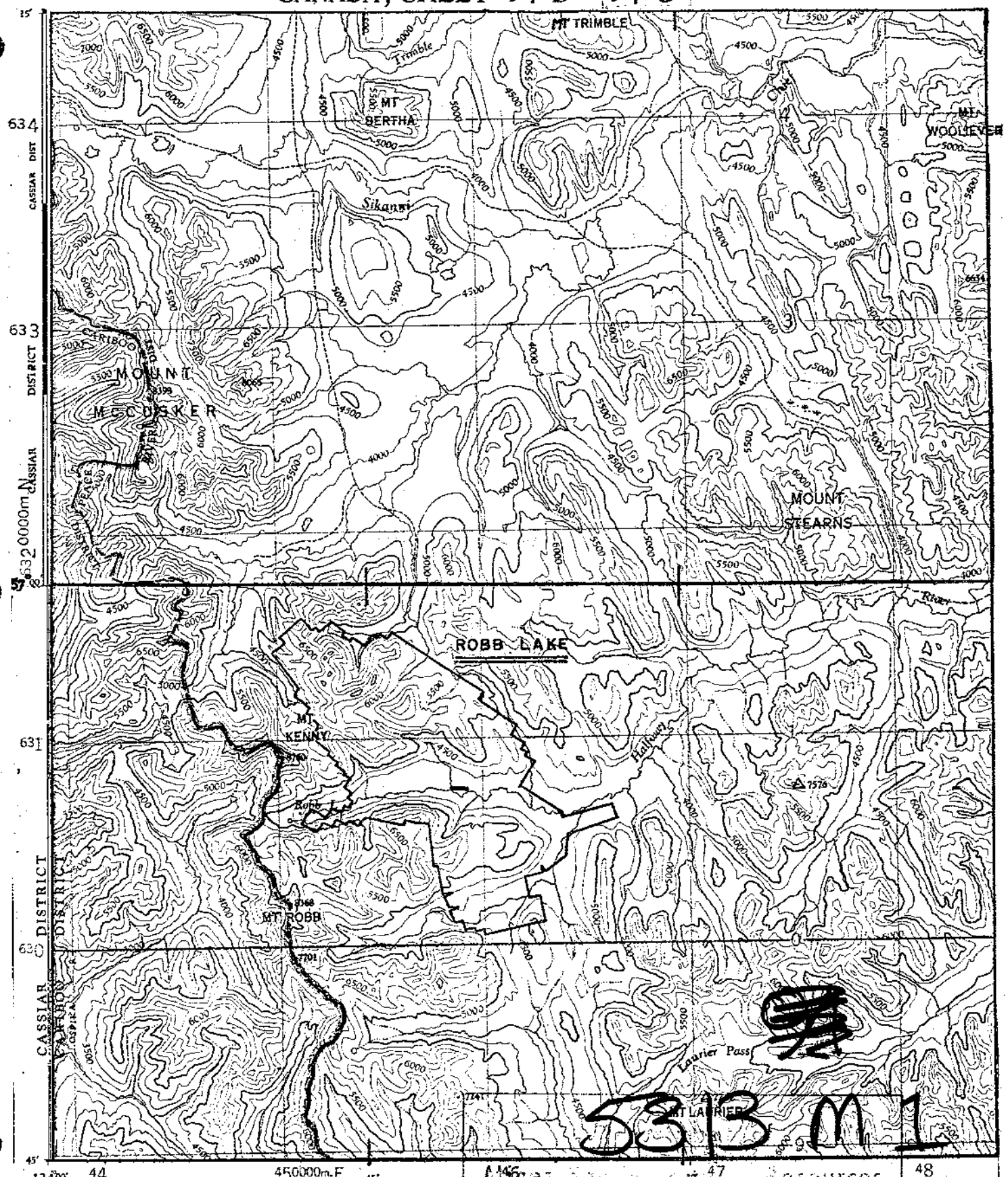
The Robb Lake Property is situated at 56° 55'N, 123° 45' W (see location map). The property is supplied by aircraft from Mackenzie 110 miles to the southwest. A 3000 foot airstrip is located on the property and float planes can land on Robb Lake. Between Pink Mountain at Mile 136 on the Alaska Highway and Robb Lake are 30 miles of gravel highway and 20 miles of seismic trail.

PHYSIOGRAPHIC FEATURES

Mountains about Robb Lake rise to over 7,500 feet, the highest of which, Mt. Kenny, reaches an elevation of 8,760 feet. The Halfway River, draining out of Robb Lake, lies near the southern edge of the property. The unit of interest underlies Jed Ridge, Ed Ridge, Texas Ridge, Tennessee Mtn. and Talis Mtn.

Long sharp ridges and high table mountains dominate the area. The bare hillsides drop steeply down to wide deeply glaciated valley floors, down which streams meander.

CANADA, SHEET 94 B | 94 G



5313 M1

ROBB LAKE JOINT VENTURE
LOCATION MAP figure NO. 5313 MAP #1
scale 1:250,000

GEOLOGY

The Area is underlain by a thick sequence of Lower and Middle Palaeozoic sedimentary rocks, the most important being the dolomite of the Devonian Stone Formation.

MINERALIZATION

Sphalerite and galena and some pyrite occur in brecciated dolomites within the Stone Formation.

OPERATIONS - 1974

Approximately 20 tons of drilling equipment and supplies were flown to the property in late March from Pink Mtn., B.C.

During April, fuel supplies sufficient to sustain operations into June were airlifted from MacKenzie, B.C.

The camp was opened on May 16th and the first drill hole was collared on June 1st. Basic crew size for the season was approximately 25 men. Camp was closed on September 21st.

Geology - Geological mapping at 1"=200' was undertaken on the Webb, Tennessee and Union areas (Vol. II). Control was established at the Union and Tennessee locations by a rectilinear grid employing 400-foot line spacing, the areas measured 1 mile sq. respectively.

Stratigraphic sections were measured and graphically logged at 1"=10' at seven localities: Ed, South Texas, North Texas, North Face, West Tennessee, Camp and Sheep Creek.

Metallurgical tests were done by Britton Research on 81 pounds of material from the Lower Showing.

Prospecting - Systematic prospecting was conducted at the Texas, Ridge, Union, Tennessee Mtn., Talis Mtn. and Jed areas.

Three sites were trenched in the Union areas to test bedrock beneath occurrences of lead-zinc debris.

A miniportable drill with effective penetration of 20 feet was employed for stratigraphic tests at the Union, Jed and Waterfall showings. Drilled footage totalled 135 feet in 9 holes.

Surface sampling was undertaken to evaluate the TGS, North Texas and Canyon showings. A heliport was constructed at the upper level of the TGS showing to assist access to this rugged area.

Geochemistry - A soil geochemical survey was conducted over the Union grid. In total, 472 samples were submitted for lead and zinc analysis.

Surveying - Additional diamond drill hole locations, up to DDH #52, excluding #33, and geological stations for mapping control were formally surveyed. The northern property boundary adjoining Buckhorn Mines Ltd. was also established.

Diamond Drilling - A total 17,134 feet was drilled in 26 holes, encompassing Nos. 41 to 66. A summary of progress is shown in Table 1.

Table I: Diamond Drilling Progress

Drilling 1974	Webb Ridge	9 holes	6,312'
	Tennessee Mtn	8 holes	5,554'
	Lower Showing	6 holes	3,497'
	Union Showing	3 holes	1,771'
Total 1974			17,134'...26 holes

Two diesel powered drills, a Boyles 12A and Longyear 34, with AQ wireline equipment were employed. Most holes required extensive drill site preparation.

Permafrost in combination with difficult terrain seriously impeded progress on Tennessee Mtn. The permafrost extends approximately 300 feet below surface where tested, that is to elevations extending above 6,500 feet. Procedures employing salt circulation, and NQ equipment to the limit of permafrost depth proved effective.

Acid-etch dip tests were employed where conditions permitted. All drill holes were vertical and their deviations amounted to less than 3 degrees.

Construction - The cookhouse was expanded in size by 4' x 16' to accommodate the larger crew of 1974, and two additional crew tents were prepared (Fig.2).

A new core shack 14' x 32' was constructed. This was equipped with an overhand diamond saw for core sampling, 7,000 feet of inside core racks and an outside rock storage facility. Outside core racks with 40,000 feet capacity were also constructed.

All core at the Mississippi Camp, approximately 15,000 feet. was moved to the permanent camp at the airstrip. Also, all core residing in Vancouver was moved to the permanent field camp.

Logistics - Field operations were serviced weekly by either Beech 18 or Twin Otter aircraft from MacKenzie, B.C. 110 air-miles to the south.

Personnel and diamond drill moves were supported full-time by a piston B2 helicopter based at camp, and intermittently by a turbo-jet 206B helicopter from Johanson Lake, about 2 hours return ferry time.

Peter Boyle

Peter Boyle

DRILL REPORT

A - 1 STATEMENT OF EXPENDITURES

ROBB LAKE JOINT VENTURE PROJECT - 1974

Work on the Robb Lake Project during 1974 was managed on behalf of the Joint Venture (Ecstall Mining Limited, Arrow Inter-America Corporation and Barrier Reef Resources Ltd. N.P.L.) initially by Cordilleran Engineering Ltd. and later by Texasgulf Inc.

The following expenditure summary, which has been derived from figures provided by Texasgulf Inc. Accounting department, includes consulting fees charged by the Project Managers. The costs represent disbursements charged to the project during the period 1st January - 30th November, 1974.

Salaries, Fringe Benefits and Texasgulf Management Fees	$88,857.20
Camp Expense (supplies, hardward, fuel, etc.)	44,076.92
Shipping and Storage	1,915.36
Travel Expense	6,668.22
Office and Technical Supplies	7,782.86
Communications (radio rental, etc.)	2,044.32
Insurance	2,241.40
Management Fees, etc. (Cordilleran Engineering Ltd.)	9,548.88
Geophysical Costs	1,689.98
Geochemical Surveys and Analysis	2,115.36
Assaying	3,359.86
Auto Operation and Maintenance	4,059.46
Fixed Wing Charter	77,710.24

Helicopter Charter	$85,585.28
Equipment Purchase and Maintenance	8,620.18
Equipment Contracting	827.88
Surveying	2,698.28
Diamond Drilling	215,376.28
Government Fees	30,435.00
	$596,612.96

Applications for Certificates of Work have been filed, reporting expenditures for diamond drilling and related support totalling $362,150.55 i.e. 60.8% of total expenditures. Reasons for this short fall in costs reported and total costs listed above are summarized as follows: -

1. Inability to record more than ten years excess work.
2. Confining assessment work application to diamond drilling and directly related costs.
3. Non-applicability of certain costs listed above.
4. Confidentiality of assay data.

Texasgulf personnel engaged on the project to whom the above salaries, fringe benefits and fees apply are listed below: -

Name	Capacity	Dates	Daily Rate of Compensation
R.G. Gifford, P. Eng.	Project Geologist	Feb.5 - Nov. 30 147 days	Daily fee $100.00
F. T. Manns M. Sc.	Geologist	May 13 - Nov. 16 161 days	$ 40.00

Name	Capacity	Dates	Daily Rate of Compensation
P.J.S. Boyle, B. Sc.	Geologist	Apr.15 - Nov.30 192 days	$ 40.00
H.S. Mosher, B. Sc.	Geologist	May 13 - Nov.30 171 days	$ 36.00
W. T. Millward	Camp Manager	Apr.29 - Oct.11 142 days	$ 65.00
R. Oakley	Drill Site Prep.	May 14 - June 4 22 days	$ 35.00
R.R. Marvin	Drill Site Prep.	May 13 - Oct.15 151 days	$ 35.00
B.W. Jacobson	Drill Site Prep.	May 13 - Sept.4 113 days	$ 28.00
P.C. Hubachek	Field Assistant	May 14 - Oct. 14 148 days	$ 30.00
I.K. Ramush	Field Assistant	May 13 - Sept. 2 97 days	$ 25.00
D.A. Donnelly	Field Assistant	May 13 - 17 5 days	$ 25.00
M.S. Mosher	Field Assistant	June 27 - Sept.7 64 days	$ 22.00
G. P. Arnould	Field Assistant	June 24 - Sept. 4 36 days	$ 18.00
I Malcolm	Cook	May 7 - Sept. 30 139 days	$ 45.00
K. A. Hovden	Assistant Cook	May 15 - Sept.24 126 days	$ 28.00
S. Sale	First Aid Attendant	June 24 - Sept.9 66 days	$ 30.00
L. Bell	Draftsman	June 3 - Nov. 30 76 days	$ 55.00
J. M. Newell, P. Eng.	District Manager	Feb. 14 - Oct.22 24 days	daily fee $150.00

In addition to the above Texasgulf Inc. personnel, contractors were engaged on the property as follows: -

Canadian Longyear Ltd.	9 - 11 men	May 28-Sept.15/74
Northern Mountain Helicopters Ltd.	2 - 3 men	May 16-Sept.21/74
McElhanney Surveying and Engineering Ltd.	2 men	July 17-July 24/74

R.G. Gifford, P. Eng.

A - 2 DRILL CONTRACT

AGREEMENT entered into this 7th day of February, 1974

BETWEEN: TEXASGULF INC.,
701 - 1281 WEST GEORGIA ST.,
VANCOUVER 5, B.C.

the party of the first part, hereinafter referred to as the Client,

AND: CANADIAN LONGYEAR LIMITED,
721 ALDFORD AVENUE,
ANNACIS ISLAND,
NEW WESTMINSTER, B.C.
V3M 5P5

the party of the second part, hereinafter referred to as the Contractor.

WHEREAS the Client wishes to have performed certain diamond drilling on mining properties located near Robb Lake, B.C. and whereas the Contractor, in consideration of payments hereinafter contained, undertakes to do the said diamond drilling.

NOW THEREFORE IT IS WITNESSED:

Guaranteed Footages: 1. The Client guarantees a minimum of twenty-five thousand (25,000) feet of diamond drilling, in a series of holes, of a minimum depth of four hundred (400) feet and a maximum depth of two thousand (2000) feet. All measurements to be taken from top of casing.

Core Size: 2. The Contractor guarantees to sink with standpipe and/or bore by diamond drill, the specified minimum footage, recovering wireline core, approximately 1-1/16 inches in diameter and to supply forthwith two (2) drill outfits along with necessary associated equipment, industrial diamonds and labour, to commence the work within the time limits agreed upon by the Contractor and the Client, at the rates listed below under the schedule of

prices, for drilling in bedrock, for holes of a depth up to two thousand (2000) feet. If holes of a greater depth than two thousand (2000) feet are desired, such drilling shall be performed only upon such conditions and at such rates as may be agreed upon before commencement of such drilling.

Price:

Schedule of Rates for Diamond Drilling Depth of Hole Range	Size of Core AQ Wireline
0 - 500 feet	$6.80 per ft.
500 - 1000 feet	$7.30 per ft.
1000 - 1500 feet	$7.90 per ft.
1500 - 2000 feet	$8.90 per ft.

In the event diamond drilling is performed past one thousand (1000) feet in depth with the BBS-12 drill, footage prices indicated above will be increased by seventy cents ($.70) per foot for all drilling in the 1000 - 1500 foot range.

3. The Contractor agrees that all its labour, diamond wear and loss, and all other operating expenses, except as hereinafter provided, shall be at its own cost and expense and for its own account.

Penetration of Overburden:

4. Wherever overburden is encountered on a setup, it is agreed that the Contractor's charge for penetrating such overburden shall be six dollars and eighty cents ($6.80) per foot, for the first fifty (50) feet.

If the cost of penetrating the additional overburden is greater than six dollars and eighty cents ($6.80) per foot, the Client agrees to pay the Contractor Field Cost of penetration of such additional overburden, plus twelve percent (12%).

Field Cost:

5. It is agreed that Field Cost shall be interpreted here and hereinafter to mean all direct labour, including supervision at the rate of nine dollars and sixty cents ($9.60) per man hour; pipe and casing lost or left in holes; diamond loss; materials and supplies consumed in the work; machine and equipment rental seven dollars ($7.00) per hour per machine.

Caves:

6. In the event that cavities or loose and caving materials are encountered of a nature as to prevent the successful completion of any hole, the Contractor does not, under such conditions guarantee to drill to a predetermined depth, and in the event that it becomes necessary to abandon the hole, the Client agrees to pay for such uncompleted holes at the rates herein specified for all footage completed.

In the event it becomes necessary to resort to cementing, reaming casing, mud or calcium circulation in overburden or bedrock, the Client agrees to reimburse the Contractor to the extent of Field Cost, plus twelve percent (12%), for the cementing, reaming casing, mud or calcium circulation operations.

7. Wherever pipe or casing is lost or is left in a hole on the instructions of the Client's Engineer, the Client agrees to pay the Contractor for such pipe or casing at prevailing market prices, F.O.B. drill site on replacement tubing. The Client agrees to pay the Contractor the cost of the diamond set casing shoe bits, in addition to the cost of any casing left in the hole.

In the event pipe or casing is lost in a hole due to negligence on the part of the Contractor or its employees, the Contractor agrees that charges for lost articles in these drill holes will be for the Contractor's account.

Tests: 8. The Contractor, when instructed so to do, shall take any clinometer dip tests desired by the Client. The Contractor's charge for such tests shall be at the rate of three (3) feet of drilling at the depth where tested.

Wedging: 9. If, at any time, the Client desires to have the course of a hole deflected by wedging, it is agreed such operation shall be carried out at Field Cost, plus twelve percent (12%).

Water: 10. The Contractor agrees to provide equipment capable of pumping water up to a maximum distance of five thousand (5000) feet and through a vertical lift of two thousand (2000) feet at no cost to the Client. The installation, maintenance and removal of waterlines shall be for the Client's account, and considered part of the moving operation.

Transportation and Moves: 11.(a) It is agreed that the moving of drill equipment, supplies and personnel to McKenzie, B.C. and return from McKenzie, B.C. shall be for the Client's account at a lump sum of twenty-seven hundred and seventy-five dollars ($2,775.00) with 75%' payable upon completion of the move in and the remaining 25% payable upon completion of the minimum footage.

(b) It is agreed that the moving of drill equipment, supplies and personnel, from McKenzie, B.C. to the initial drill site, and return from the final drill site to McKenzie, B.C. shall be charged to the Client at Field Cost, plus twelve percent (12%).

Such costs shall include transportation, moving, securing timber, site preparation, tearing down, setting up and installation and removal of waterlines.

In the event of standby in McKenzie occasioned by lack of transportation or weather, standby charges shall be for the Client's account at Field Cost.

(c) It is agreed that when moves between drill sites cost in excess of forty (40) man hours of labour, the Client will pay the Contractor at Field Cost, plus twelve percent (12%), for such moves, after the cost of the first forty (40) man hours.

(d) Moving shall be interpreted to include tearing down, dismantling machinery, moving, securing timber, transportation, site preparation, laying and removing waterlines and setting up.

(e) Interim service trips in connection with the maintenance of the drilling operation from McKenzie to site shall be for the Client's account.

(f) It is understood and agreed that if the hole drilled immediately prior to any move does not reach a depth of four hundred (400) feet, the cost of moving to the next hole shall be paid by the Client at Field Cost, plus twelve percent (12%).

Waiting Time for Orders:

12. It is understood and agreed that time lost waiting for orders from the Client's Resident Engineer, waiting for transportation or weather, shall be charged to the Client at Field Cost, plus twelve percent (12%).

Travel Time:

13. In the event travel time from the camp to the drill and return exceeds one half (½) hour per man per day, the Client agrees to reimburse the Contractor for all travel time in excess of one half (½) hour per man per day at the rate of eight dollars and twenty-five cents ($8.25) per man per hour.

Core:

14. The drilling shall be conducted so as to produce maximum core recovery with every reasonable precaution taken to prevent crushing, wearing or grinding of core. All cores recovered by the Contractor shall be delivered to the Client at the drill site and carefully marked and placed in receptacles to be furnished by the Client.

Security:

15. The Contractor will not give out any information regarding drill results or permit access to any drill core, to any person other than the Client's accredited representatives, except upon specific permission of responsible officials of the Client.

It is agreed that the contents of this agreement shall remain confidential between the Management of the Client and the Contractor.

Camps:

16. The Client agrees to provide board and lodging for the Contractor's personnel at no expense to the Contractor.

Fuel: 17. The Client agrees to provide all fuels and lubricants for drilling operation and camp at no cost to the Contractor.

Light Plant: 18. The Contractor agrees to supply a 10KW light plant for the Client's account, at a rental rate of three hundred and twenty-five dollars ($325.00) per month commencing date shipped from Vancouver, B.C. and ending date unit returned to Vancouver, B.C.

Equipment Storage: 19. It is understood that the Client may wish to store the drilling equipment at the completion of the 1974 drilling season. The Contractor agrees to leave the drilling equipment, (less spare parts that would deteriorate (?) over the winter months on site) on the following conditions:

i) All equipment be stored at the air strip on completion of the 1974 drilling program.

ii) A contract is signed prior to March 1st, 1975 for any drilling requirements on the property in 1975. In the event no drilling is required in 1975, the Client agrees to demobilize all equipment to McKenzie, B.C. at its own cost prior to March 31, 1975.

Force Majeure: 20. Neither party to the agreement shall be liable for any loss or damage caused by reason of strikes, acts of God, action of the elements, shortages of vital consumables or any other causes beyond its control.

Discipline:

21. The Contractor, shall at all times, enforce strict discipline and maintain good order among its employees, and shall not retain on the work any unfit person or anyone not skilled in the work assigned to him.

Any employees of the Contractor, who are objectionable or unsatisfactory to the Client, shall be removed from the work and replaced by an employee satisfactory to the Client.

Insurance:

22. The Contractor shall maintain such insurance as will protect it from all claims and damage for personal injury, including death resulting therefrom, and from claims for property damage arising from the operations under this contract, in an amount not to exceed $1,000,000.00 inclusive for all liabilities for any one accident or occurrence.

The Contractor agrees to self-insure its equipment that may be damaged during helicopter operations, provided the Client provides a suitable helicopter capable of lifting the required components.

23. The Contractor shall be responsible for and will pay promptly all dues and assessments payable under any Workmen's Compensation Act, or other similar Act, whether Provincial or Dominion, in respect of its employees.

Sanitation & Environment:

24. During the course of the work, the Contractor shall at all times keep the Client's premises free from accumulation of waste material or rubbish and upon completion of the work, shall remove all tools, scaffoldings, surplus materials and rubbish,

and leave the premises in a clean condition. The Contractor shall observe and comply with all applicable Federal and Provincial laws, regulations and orders relating to prevention of forest fires and sanitation in the bush.

Rights of Way; 25. The Client shall provide, at no cost to the Contractor, all rights of way of ingress and egress to all lands that may be required to enable the Contractor to carry out the work as specified. The Contractor shall be permitted to cut and fall any timber on the Client's property as may be required in the course of the work hereunder, and the Client shall indemnify and save harmless the Contractor from any assessment for stumpage or other charges of every kind and nature.

Payment for Work: 26. The Client agrees to pay the Contractor, in Canadian funds, the above prices. Payment to be made within thirty (30) days of the date of the account rendered. Invoices shall be submitted twice monthly. Interest at the rate of one (1) per cent per month shall be charged on overdue accounts.

27. This agreement may be altered only by written consent of both parties hereto.

28. Time is of the essence in this Agreement.

CANADIAN LONGYEAR LIMITED

Witness

Contractor

TEXASGULF INC.

Witness

Client

c.c sent-to Dr. Harvard Bob Telford

Longyear

CANADIAN LONGYEAR LIMITED
721 ALDFORD, ANNACIS ISLAND, NEW WESTMINSTER, B.C. V3M 5P5
TELEPHONE (604) 524-8511 TELEX 04-351280

July 26, 1974

Texasgulf Inc.
Ste. #701 - 1281 West Georgia Street
Vancouver 5, B.C.

Attention: Mr. J. Newell

Dear Sir,

Please consider this letter as addendum #1 to our contract dated February 7th, 1974 regarding a diamond drill program at Robb Lake, B.C.

Site conditions have necessitated the shipment of NQ tools and equipment to the site in an effort to solve problems drilling permafrost on Tennessee Mountain. Our rates, as agreed, are as follows:

Mobilization of additional eqt. to McKenzie, B.C.		$1220.00
Rate per foot - NQ Core -	0 - 500 feet in depth	$10.60 per ft.
	500 -1000 feet in depth	$11.25 per ft.
	1000 -1500 feet in depth	$12.40 per ft.

All drill mud, calcium and lost circulation materials shipped will be for your account at cost, plus 12%. Time spent mixing soloutions and/or recovering lost circulation will be for your account at Field Cost, plus 12%.

We have shipped 250 NQ Core Boxes and 50 Core Box Lids which will be for your account at the rate of $3.85 per box and .80¢ per lid.

All other terms and conditions of the contract will remain the same.

Our suggested method of solving our problem is to run a calcium base mud with lost circulation material to recover circulation in drill holes.

It is understood that if our recommendation solves the problem and is economically feasible that you may wish to drill 5,000 feet of NQ in this area.

I trust the above is in keeping with our conversation on the matter.

Would you please sign one copy of the attached and return to this office for our records.

Yours very truly,

CANADIAN LONGYEAR LIMITED

R.E. Swayne
Branch Manager - Western Region

c.c. - W.I. Mundle
W.P. Walsh
R. Schultz

TEXASGULF INC.

29 August 1974
DATE

A-3 DRILL LOGS

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 1, 1974
HOLE FINISH: June 16, 1974
DEPTH: 1116'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 41

ELEVATION: 5955
LATITUDE: 74,536
DEPARTURE: 56,735
LOGGED BY: EJM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	6.6'	OVERBURDEN; Casing to 6.6'		
6.6'	710'	DOLOSTONE Sandy Grainstone/Silty Mudstone/Pellet Mudstone Cycles. 6.6' - 394.0' Sandy grainstones predominent at base of cycles. 270.0' - 660.0' Stratiform mosaic breccias and amphipora gravels mark top of cycles. 95' - 707' Trace to weak Zn, Pb mineralization predominantly within small stratiform mosaic breccias and crackle veins of sparry dolomite.		
710'	718'	FAULT BRECCIA Heavily pyritized		
718'	1080'	DOLOSTONE BRECCIA Breccia has open rubble framework in matrix of white sparry dolomite. Fragments of all lithologies from above cycles are noted. Fair Zn, Pb mineralization within breccia body. 978' B/C contact noted as breccia.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 41 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
1080'	1116' E.O.H.	DOLOSTONE Silty mudstone/pellet mudstone/amphipora gravel cycles with trace mineralization in some stratiform breccias. 1076' - 1092' Numerous gastropod fragments preserved.		

R.V. Gifford

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 17, 1974
HOLE FINISH: June 22, 1974
DEPTH: 800'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 42

ELEVATION: 6548
LATITUDE: 79,968
DEPARTURE: 54,900
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	18'	OVERBURDEN		
18'	72'	DOLOSTONE Silty mudstone/pellet mudstone/amphipora gravel cycles. 41.8' B/C contact.		
72'	145'	DOLOSTONE BRECCIA Open rubble breccia in matrix of white sparry dolomite fragments of all above lithologies noted - Breccia has been crackled. - No noteworthy mineralization.		
145'	300'	DOLOSTONE Silty mudstone/pellet mudstone/amphipora gravel cycles. Some stratiform mosaic breccias and zebra texture noted at the top of the cycles.		
300'	320'	FAULT BRECCIA		

R. Clifford

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 42 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
320'	800' E.O.H.	DOLOSTONE Mudstone/pellet mudstone cycles. 428.5' Angular sand marker. 386' - 404' Fair Zn, Pb mineralization.		

1866 ftd

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 17, 1974
HOLE FINISH: June 23, 1974
DEPTH: 801'
SIZE: A.Q.

PROPERTY: Robb Lake
HOLE NO.: 74 RJV 43

SHEET № 1 of 1
ELEVATION: 5905
LATITUDE: 74,309
DEPARTURE: 57,045
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	6.0'	OVERBURDEN & CASING		
6.0'	801' E.O.H.	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone/amphipora gravel cycles. Some stratiform mosaic breccias also noted in cycles. (Large stratiform mosaic breccia at 235 - 263') 6.6' - 420' sandy grainstone/sandy mudstone predominant at the base of cycles. 665' - 784' Dark silty mudstone; some floating ½ mm sand. B/C contact 784' - 801' E.O.H. Dark silty mudstone with numerous amphipora fragments. 235' - 263' Heavy Zn, Pb mineralization in open mosaic breccia. 293' - 308' Fair mineralization in open pseudo breccia with sparry dolomite matrix.		

RR Hole

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 24,1974
HOLE FINISH: June 29,1974
DEPTH: 612'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 44

ELEVATION: 5591
LATITUDE: 73,745
DEPARTURE: 57,084
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	12'	OVERBURDEN; CASING		
12'	216'	SHALE Fissile, pyritic, with occasional healed brecciation. Some calcite veining noted.		
216'	360'	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone cycles. Stratiform open mosaic and rubble breccias noted in almost all cycles. Trace Zn, Pb mineralization within breccias.		
360'	444'	DOLOSTONE BRECCIA Open and supported rubble breccia within white sparry dolomite matrix. All lithologies noted. Trace Zn, Pb mineralization.		
444'	612' E.O.H.	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone cycles. Amphipora gravels and stratiform rubble breccias are noted within cycles. 580' - 598' Trace Zn, Pb mineralization.		

R.G. Hood

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 26,1974
HOLE FINISH: July 5,1974
DEPTH: 598'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 45

ELEVATION: 6721
LATITUDE: 78,974
DEPARTURE: 55,935
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	15'	OVERBURDEN; CASING		
15'	175'	DOLOSTONE Sandy grainstone/mudstone cycles. Scattered amphipora fragments within the mudstone. 37' - 70' Weak Zn, Pb mineralization.		
175'	193'	FAULT BRECCIA		
193'	598'	DOLOSTONE 193' - 296' Silty mudstone/mudstone cycles. 296' - 320' Mudstone/pellet mudstone cycles. 320' - 598' E.O.H. Silty mudstone/mudstone/pellet mudstone cycles Some amphipora gravels at base of hole. 290' - 320' Trace Zn, Pb mineralization. 555' - 598' E.O.H. Weak Zn, Pb mineralization. N.B. Hole abandoned at 598' due to permafrost conditions.		

RCHuffard

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: June 30, 1974
HOLE FINISH: July 6, 1974
DEPTH: 787
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 46

ELEVATION: 5733
LATITUDE: 73,950
DEPARTURE: 57,106
LOGGED BY: FM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	8'	OVERBURDEN		
8'	404'	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone cycles. Cycles are relatively free of amphipora gravels and stratiform breccias. 169.0' - 192' Fair Zn, Pb mineralization 206.4' - Pale sand marker 192' - 380' Trace Zn, Pb mineralization		
404'	645'	DOLOSTONE BRECCIA Breccia fragments primarily of silty mudstone forming an open framework within a matrix of white sparry dolomite breccia is pyritized with trace Zn, Pb mineralization.		
645'	787' E.O.H.	DOLOSTONE 645' - 720' Crackled silty mudstones 720.0' - B/C contact. 720.0' - 752' Crackled silty mudstones with amphipora fragments. 752' - 787' Amphipora gravel/pellet mudstones E.O.H. 755' - 760' Trace Zn, Pb mineralization		

R.V. Hafford

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 7, 1974
HOLE FINISH: July 10, 1974
DEPTH: 698'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 47

ELEVATION: 5856
LATITUDE: 74,155
DEPARTURE: 56,687
LOGGED BY: FM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	4'	OVERBURDEN; CASING		
4'	436'	DOLOSTONE 4' - 145' Sandy grainstone/pellet mudstone cycles. 145' - 245' Silty mudstone with scattered amphipora. 245' - 436' Sandy grainstone/pellet mudstone/amphipora cycles. 210' - 220' Trace Zn, Pb mineralization. 298' - 337' Trace Zn, Pb mineralization.		
436'	540'	SHALE Abrupt contact due to thrust faulting. Shale is fissile, pyritic and exhibits good tight isoclinal folds.		
540'	698'	DOLOSTONE BRECCIA Open rubble breccia with fragments of sandy mudstone/silty mudstone within a white sparry dolomite matrix. 666' - 671' Weak Zn, Pb mineralization.		

R Clifford

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 7,1974
HOLE FINISH: July 10,1974
DEPTH: 362'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 48

ELEVATION: 7133
LATITUDE: 80,650
DEPARTURE: 53,967
LOGGED BY: HBM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	10'	OVERBURDEN; CASING to 20'		
10'	135'	DOLOSTONE Silty mudstone/pellet mudstone cycles.with stratiform mosaic and rubble breccias throughout. 135.0' B/C contact.		
135'	362' E.O.H	DOLOSTONE BRECCIA Amphipora gravels, rubble and pseudo breccias noted. All have open framework and a matrix of white sparry dolomite. Crude silty mudstone/pellet mudstone cycles may be determined. 240' - 362'E.O.H.Weak Zn, Pb mineralization. NB. Hole abandoned at 362' due to permafrost conditions.		

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 11, 1974
HOLE FINISH: July 14, 1974
DEPTH: 438'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 49

ELEVATION: 7307
LATITUDE: 80,508
DEPARTURE: 54,429
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	11.5'	OVERBURDEN; CASING.		
11.5'	438' E.O.H.	DOLOSTONE 11.5' - 229.0' Sandy mudstone/silty mudstone/mudstone cycles. 229.0' B/C Contact. 229' - 438 E.O.H. "Bioherm" with mudstone lenses. Very coarse crystalline with an open framework. Drill hole is devoid of Zn, Pb mineralization. NB Hole was abandoned at 438' due to permafrost conditions.		

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 12, 1974
HOLE FINISH: July 15, 1974
DEPTH: 707'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 50

ELEVATION: 5875
LATITUDE: 74,497
DEPARTURE: 57,490
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	10'	OVERBURDEN; CASING		
10'	120'	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone cycles. Occasional stratiform mosaic breccias.		
120'	200'	DOLOSTONE BRECCIA Open rubble breccia with fragments of silty mudstone, pellet mudstone in a matrix of white sparry dolomite. 182' - 192' Fair Zn, Pb mineralization.		
200'	707' E.O.H.	DOLOSTONE Silty mudstone/pellet mudstone cycles with some amphipora gravels and pseudo breccias. 575' - 685' Bioturbated, laminated silty mudstones with some floating ½ mm sand. 685' B/C contact. 685' - 707' E.O.H. Laminated silty mudstones with numerous amphipora.		

RL Gifford

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 16, 1974
HOLE FINISH: July 21, 1974
DEPTH: 566
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 51

ELEVATION: 5431
LATITUDE: 73,546
DEPARTURE: 58,077
LOGGED BY: EDM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	20'	OVERBURDEN; CASING		
20'	439'	DOLOSTONE Sandy grainstone/silty mudstone/pellet mudstone cycles. Numerous amphipora gravels also noted in cycles.		
439'	455'	DOLOSTONE BRECCIA Supported rubble fragments of silty mudstone within a matrix of sparry dolomite.		
455'	566' E.O.H.	DOLOSTONE Bioturbated, laminated silty mudstones. Some floating ½ mm sand grains in beaded lenses. The occasional stratiform open mosaic breccia is also seen. 20' - 566' E.O.H. Trace Zn, Pb mineralization throughout the hole.		

Robb Lk

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 16, 1974
HOLE FINISH: July 25, 1974
DEPTH: 500'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 52

ELEVATION: 5919
LATITUDE: 80,130
DEPARTURE: 50,260
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY
0'	42'	OVERBURDEN; CASING.
42'	305'	DOLOSTONE Mostly mudstone with some minor amphipora. Micrite filled burrows are also seen.
305'	327'	DOLOSTONE BRECCIA Possibly bioclastic debris with open framework.
327'	343'	DOLOSTONE Sandy mudstone with 20% of 1 mm sand. This is the angular sand marker 343.0'.
343'	380'	DOLOSTONE BRECCIA Open rubble breccia fragments of micrite filled burrows and mudstone in a dolomite matrix.
380'	500'	DOLOSTONE Mudstone with some amphipora gravels. 42' - 500' Trace mineralization E.O.H.

ASSAYS FROM	ASSAYS TO

Robb Lake

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 22, 1974
HOLE FINISH: July 25, 1974
DEPTH: 475'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 53

ELEVATION: 5182 P
LATITUDE: 73,160 P
DEPARTURE: 58,080 P
LOGGED BY: FM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	20'	OVERBURDEN; CASING to 30'.		
20'	268'	DOLOSTONE 20' - 310' Silty mudstone/pellet mudstone/amphipora gravel cycles. 205' - 224' Amphipora gravel, mosaic breccia zone. 235' - 247' Zone of stratiform mosaic breccia silty mudstone fragments.		
268'	272'	FAULT BRECCIA		
272'	449'	DOLOSTONE 272' - 292' Silty mudstone/pellet mudstone cycles. 292' - 449' Crackled, bioturbated silty mudstone, usually with beaded lenses of ½ mm sand. Pyritic in some places.		
449'	466'	DOLOSTONE BRECCIA Supported rubble breccia of silty mudstone in a dolomite matrix. 460.0' B/C contact.		
466'	475' E.O.H.	DOLOSTONE Silty mudstone with beaded ½ mm sand lenses.		

Robb Lake

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 26, 1974
HOLE FINISH: July 29, 1974
DEPTH: 550'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 54

ELEVATION: 5220 P
LATITUDE: 73,147 P
DEPARTURE: 57,658 P
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY
0'	19'	OVERBURDEN
19'	550' E.O.H.	DOLOSTONE
		19' - 320' Sandy grainstone/silty mudstone/pellet mudstone cycles. Amphipora gravels present but not abundant.
		320' - 468' Silty mudstone crackled, with occasional amphipora and beaded sand lenses.
		468.0' B/C contact
		468' - 516' Silty mudstone with numerous amphipora. Some ½ mm sand also in evidence.
		516' - 550' E.O.H. Silty mudstone/pellet mudstone/amphipora gravels.
		This hole is virtually devoid of Zn, Pb mineralization.

ASSAYS FROM	ASSAYS TO

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 27,1974
HOLE FINISH: Aug.15,1974
DEPTH: 1248'
SIZE: N.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 55

ELEVATION: 6810 P
LATITUDE: 78,895 P
DEPARTURE: 56,900 P
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	9'	OVERBURDEN; CASING to 10'		
10'	583'	DOLOSTONE 10' -300' Sandy grainstone/mudstone cycles. Some minor stratiform mosaic breccias. High quantity of sand is the most noteable item. 300' - 583' Silty mudstone with sand lenses and scattered amphipora. 582.5' B/C contact.		
583'	672'	DOLOSTONE BRECCIA Tight rubble breccia of pellet mudstone, and mudstone fragments possibly biohermal in nature.		
672'	800'	DOLOSTONE Mudstone/amphipora gravel cycles.		
800'	930'	DOLOSTONE BRECCIA Open rubble breccia of mudstone fragments in a dolomite matrix. In this zone fair to good Zn, Pb mineralization.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 55 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
930'	1046'	DOLOSTONE Primarily pellet mudstone. 979' Angular sand marker with burrows and mudcracks immediately below.		
1046'	1108'	DOLOSTONE BRECCIA Supported rubble breccia with mudstone fragments in a matrix of white sparry dolomite. Sparse Zn, Pb mineralization.		
1108'	1248'	DOLOSTONE Primarily mudstone with some amphipora gravels. 1102' - 1150' Fair Zn, Pb mineralization.		

R Gbrford

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: July 30, 1974
HOLE FINISH: August 3, 1974
DEPTH: 698'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 56

SHEET № 1 of 1
ELEVATION: 5895 P
LATITUDE: 79,637 P
DEPARTURE: 50,622 P
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	52'	OVERBURDEN		
52'	320'	DOLOSTONE Primarily pellet mudstone with micrite filled surface burrows. The occasional silty mudstone bed is also noted. Mineralization is only in trace amounts.		
320'	345'	DOLOSTONE BRECCIA Supported rubble breccia of mudstone fragments in sparry dolomite matrix. Fair Zn, Pb mineralization is seen.		
345'	360'	DOLOSTONE		
360'	435'	DOLOSTONE BRECCIA Tight rubble breccia composed of mudstone fragments within a fine rock matrix. This zone has good Zn, Pb mineralization. 417.0' Angular sand marker.		
435'	698' E.O.H.	DOLOSTONE 435' - 515' Pellet mudstones with stratiform pseudo breccias. Also fair-good mineralization. 515' - 600' Pellet mudstone 600' - 698' Mudstone E.O.H.		

RCBafford

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 4, 1974
HOLE FINISH: August 11, 1974
DEPTH: 708'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 57

ELEVATION: 5870 P
LATITUDE: 79,300 P
DEPARTURE: 50,847 P
LOGGED BY: ETM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	70'	OVERBURDEN		
70'	128'	DOLOSTONE Pellet mudstone with branching stromotoporoids. This zone also pyritized.		
128'	160'	DOLOSTONE BRECCIA Open rubble breccia composed of mudstone fragments in white sparry dolomite. This zone is also pyritized.		
160'	192'	DOLOSTONE Silty mudstone/pellet mudstone cycles.		
192'	484'	DOLOSTONE BRECCIA Open rubble breccia with fragments of silty mudstone, mudstone and pellet mudstone in a matrix of white sparry dolomite or pyrobitumen. Fair to good Zn, Pb mineralization noted in this zone. 484.4' Angular sand marker.		
484'	532'	DOLOSTONE Mudstone with micrite filled subsurface burrows and mudcracks.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 57 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
532'	584'	DOLOSTONE BRECCIA Tight rubble breccia within a matrix of fine rock and pyrobitument. Fragment lithologies include silty mudstone, mudstone, and pellet mudstone. Good Zn, Pb mineralization is noted, also, in this zone.		
584'	708' E.O.H.	DOLOSTONE Primarily silty mudstone with the occasional amphipora and amphipora gravel.		

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 12,1974
HOLE FINISH: August 15,1974
DEPTH: 478'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 58

ELEVATION: 5814 P
LATITUDE: 79942 P
DEPARTURE: 50958 P
LOGGED BY: FM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	46'	OVERBURDEN		
46'	96'	DOLOSTONE BRECCIA Open rubble breccia within matrix of white sparry dolomite. Also tight rubble breccia with fragments in a matrix of fine rock and pyrobitumen. Zn, Pb mineralization is fair to good in this zone.		
96'	110'	DOLOSTONE Sandy grainstone and mudcracks. 105.5' Angular sand marker.		
110'	120'	DOLOSTONE BRECCIA Tight rubble breccia within fine rock matrix. No Zn, Pb mineralization.		
120'	187'	DOLOSTONE Silty mudstone/pellet mudstone cycles. Silty mudstone exhibits excellent micrite filled subsurface burrows. Zone is heavily crackled with fair Zn, Pb mineralization in the dolomite filled crackle veins.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 58 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
187'	240'	DOLOSTONE BRECCIA (CRACKLED) 187' - 200' Tight rubble breccia with a fine rock matrix. 200' - 206' Supported rubble breccia with matrix of sparry dolomite. 206' - 240' Tight rubble breccia with a matrix of fine rock and pyrobitumen. 193' - 213' Fair to good Zn, Pb mineralization		
240'	255'	DOLOSTONE Primarily crackled pellet mudstone.		
255'	265'	DOLOSTONE BRECCIA Open rubble breccia with pellet mudstone fragments in a matrix of white sparry dolomite.		
265'	478' E.O.H	DOLOSTONE 265' - 278' Pellet mudstone with tight crackling. 278' - 478' Silty mudstone with the occasional amphipora gravel and stratiform rubble breccia. Amphipora fragments scattered throughout as are some well developed subsurface burrows. E.O.H.		

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 16, 1974
HOLE FINISH: August 22, 1974
DEPTH: 1244'
SIZE: N.Q.

PROPERTY: Robb Lake
HOLE NO.: 74 RJV 59

ELEVATION: 7118 P
LATITUDE: 79,815 P
DEPARTURE: 56,880 P
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	17'	OVERBURDEN; CASING To 24'		
17'	745.5'	DOLOSTONE 17' - 340' Sandy grainstone/silty mudstone cycles with the occasional amphipora gravel and bioherm(?). 340' - 596' Silty mudstone only with surface burrows. 596' - 745.5' Silty mudstone with lenses of ½ mm sand. Zone is crackled. 130' - 150' Weak Zn, Pb mineralization. 745.5' B/C contact		
745.5'	953'	DOLOSTONE BRECCIA Supported rubble breccia with fragments of silty mudstone and mudstone in a matrix of white sparry dolomite. 870' - 953' Fair Zn, Pb mineralization.		
953'	996'	DOLOSTONE Crackled homogeneous mudstone with scattered amphipora fragments. Fair Zn, Pb mineralization.		
996'	1090'	DOLOSTONE BRECCIA Supported rubble breccia with mudstone fragments in a sparry dolomite matrix. Weak Zn, Pb mineralization.		

RB Griffith

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 59 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
1090'	1120'	DOLOSTONE Primarily pellet mudstone with subsurface burrows. 1105' - Angular sand marker		
1120'	1156'	DOLOSTONE BRECCIA Tight rubble breccia with mudstone fragments in a matrix of pyrobitumen and fine rock.		
1156'	1244'	DOLOSTONE Mudstone with the occasional amphipora gravel.		

RA Crafford

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 17,1974
HOLE FINISH: August 23,1974
DEPTH: 943'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 60

ELEVATION: 5787 P
LATITUDE: 86,596 P
DEPARTURE: 57,334 P
LOGGED BY: HSM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY
0'	18'	OVERBURDEN
18'	85'	DOLOSTONE BRECCIA Open rubble breccia with silty mudstone fragments in a matrix of white sparry dolomite.
85'	144'	DOLOSTONE Silty mudstone with scattered amphipora to 132'. Pellet mudstone to 144'. All of this zone is crackled. 88.0' - B/C contact.
144'	155'	FAULT BRECCIA
155'	203'	DOLOSTONE BRECCIA Open rubble breccia of mudstone fragments within a white sparry dolomite matrix.
203'	683'	DOLOSTONE 203' - 240' Silty mudstone. 240' - 683' Coarse crystalline pellet mudstone with few amphipora gravels. 453.5' Angular sand marker.

ASSAYS FROM	ASSAYS TO

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 60 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
683'	688'	FAULT GOUGE (SAND)		
188'	943' E.O.H.	DOLOSTONE		
		683' - 902' Coarse crystalling pellet mudstone and mudstone.		
		902' - 910' Mudstone/grainstone cycles.		
		910' - 943' E.O.H. Grainstone with some soft sediment deformation.		

RBB/AMO

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 24,1974
HOLE FINISH: August 27,1974
DEPTH: 502'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 61

ELEVATION: 5810 P
LATITUDE: 87,396 P
DEPARTURE: 57,130 P
LOGGED BY: HSM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	40'	OVERBURDEN		
40'	132'	DOLOSTONE BRECCIA Primarily amphipora gravels and open pseudo breccia. 123' - 127' Good Zn, Pb mineralization.		
132'	162'	DOLOSTONE Coarse grained pellet mudstone.		
162'	244'	DOLOSTONE BRECCIA Amphipora gravels and open pseudo breccia. Fair Zn, Pb mineralization 177' - 185'.		
244'	320'	DOLOSTONE Coarse grained pellet mudstone to 280'. 280' - 310' Mudstone with micrite filled subsurface burrows. 310' - 320' pellet mudstone.		
320'	344'	DOLOSTONE BRECCIA Amphipora gravels and open pseudo breccia.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 61 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
344'	502' E.O.H	DOLOSTONE Coarse grained pellet mudstone with amphipora gravels. 387.0' - Angular sand marker. 380' - 407' Fair Zn, Pb mineralization.		

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

SHEET NO 1 of 2

HOLE START: August 26,1974
HOLE FINISH: August 29,1974
DEPTH: 579'
SIZE: N.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 62

ELEVATION: 7133 P
LATITUDE: 80,651 P
DEPARTURE: 53,955 P
LOGGED BY: HM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	20'	OVERBURDEN		
20'	50'	DOLOSTONE Crackled silty mudstone with fair Zn, Pb mineralization.		
50'	85'	DOLOSTONE BRECCIA Tight rubble breccia with silty mudstone fragments. Breccia also crackled. Weak Zn, Pb mineralization also noted. 78.0' - B/C contact.		
85'	115'	DOLOSTONE Silty mudstone heavily crackled.		
115'	170'	DOLOSTONE BRECCIA Amphipora gravels and tight rubble breccias with fine rock matrix. Weak Zn, Pb mineralization.		
170'	173'	FAULT BRECCIA		
173'	217'	DOLOSTONE Silty mudstone/mudstone/pellet mudstone cycles with amphipora gravels. Trace Zn, Pb mineralization.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 62 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
217'	288'	DOLOSTONE BRECCIA 217' - 257' Open rubble breccia with mudstone and silty mudstone fragments in a sparry dolomite matrix. Fair Zn, Pb mineralization. 257' - 267' Tight rubble breccia with silty mudstone fragments in a fine rock matrix. 267' - 288' Supported rubble breccia with sparry dolomite matrix.		
288'	360'	DOLOSTONE Silty mudstone/mudstone/Pellet mudstone cycles. Occasional amphipora gravels also noted within cycles. Weak Zn, Pb mineralization also seen.		
360'	422'	DOLOSTONE BRECCIA Primarily amphipora gravels and open pseudo breccias. Open rubble breccias also noted occasionally. Zn, Pb mineralization is weak to fair.		
422'	496'	DOLOSTONE Pellet mudstone with subsurface burrows and mudcracks with trace Zn, Pb mineralization. 427.0' - Angular sand marker.		
496'	520'	DOLOSTONE BRECCIA Open pseudo breccia with white sparry dolomite matrix.		
520'	579' E.O.H.	DOLOSTONE Pellet mudstone.		

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

SHEET № 1 of 1

HOLE START: August 28,1974
HOLE FINISH: August 30,1974
DEPTH: 326'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 63

ELEVATION: 6039 P
LATITUDE: 84,996 P
DEPARTURE: 56,704 P
LOGGED BY: HSM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	10'	OVERBURDEN		
10'	176'	DOLOSTONE Pellet mudstone with stratiform amphipora gravels, pseudo breccias and rubble breccias. 31' - 64' Good Zn, Pb mineralization.		
176'	225'	DOLOSTONE BRECCIA 176' - 204' Tight rubble breccia with fine rock matrix. 204' - 225' Pseudo breccia and amphipora gravels.		
225'	326' E.O.H.	DOLOSTONE 225' - 253.0' Pellet mudstone and sandy mudstone. 253.4 - Angular sand marker. 253.4- 326' E.O.H. Pellet mudstone with subsurface burrows (micrite filled) and mudcrack/salt cast units.		

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 31,1974
HOLE FINISH: September 10,1974
DEPTH: 296'
SIZE: N.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 64

ELEVATION: 7474 P
LATITUDE: 80,495 P
DEPARTURE: 55,398 P
LOGGED BY: PB

FOOTAGE FROM	FOOTAGE TO	GEOLOGY
0'	15'	OVERBURDEN; CASING TO 17'
15'	296' E.O.H	DOLOSTONE Sandy grainstone/sandy mudstone/ silty mudstone/mudstone cycles. 100' - 110' Possible bioherm 276' - 280' Amphipora gravel Hole virtually devoid of Zn, Pb mineralization. NB Hole abandoned at 296' due to permafrost conditions.

ASSAYS FROM	ASSAYS TO

LB

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

HOLE START: August 31, 1974
HOLE FINISH: September 7, 1974
DEPTH: 829'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 65

ELEVATION: 6063 P
LATITUDE: 79,637 P
DEPARTURE: 50,279 P
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
0'	28'	OVERBURDEN		
28'	508'	DOLOSTONE		
		28' - 81.0' Silty mudstone 81.0 - B/C contact 81.0 - 132' Silty mudstone with numerous amphipora fragments 132' - 224' Silty mudstone/pellet mudstone cycles 224' - 268' Pellet mudstone. 268' - 340' Silty mudstone and silty pellet mudstone. 340' - 380' Pellet mudstone. 380' - 508' Silty mudstone/pellet mudstone cycles. Tight crackling from 268' - 508'.		
508'	612'	DOLOSTONE BRECCIA		
		508' - 598' Open rubble breccia with pellet mudstone fragments in white sparry dolomite matrix. Good Zn, Pb mineralization. 598' - 612' Tight rubble breccia with fine rock matrix. Fair Zn, Pb mineralization.		

LB

DIAMOND DRILL HOLE LOG

HOLE No. 74 RJV 65 SHEET No. 2 of 2

FOOTAGE FROM	FOOTAGE TO	GEOLOGY	ASSAYS FROM	ASSAYS TO
612'	631'	DOLOSTONE Crackled silty mudstone with trace Zn, Pb mineralization. 631.0 - Angular sand marker.		
631'	650'	DOLOSTONE BRECCIA Tight rubble breccia with fine rock matrix. Breccia fragments include salt casts and subsurface burrows. Zn, Pb mineralization fair to good.		
650'	665'	DOLOSTONE Crackled pellet mudstone		
665'	680'	DOLOSTONE BRECCIA Open rubble breccia with fragments in a sparry dolomite matrix. Zn, Pb mineralization - weak.		
680'	708'	DOLOSTONE Crackled pellet and silty mudstone.		
708'	732'	DOLOSTONE BRECCIA Bioclastic debris.		
732'	829' E.O.H.	DOLOSTONE Silty mudstone/pellet mudstone cycles. This entire zone has been crackled.		

TEXASGULF INC.

DIAMOND DRILL HOLE LOG

SHEET Nº 1 of 1

HOLE START: September 10,1974
HOLE FINISH: September 11,1974
DEPTH: 284'
SIZE: A.Q.

PROPERTY: ROBB LAKE
HOLE NO.: 74 RJV 66

ELEVATION: 6012 P
LATITUDE: 79,300 P
DEPARTURE: 50,467 P
LOGGED BY: FTM

FOOTAGE FROM	FOOTAGE TO	GEOLOGY
0'	16'	OVERBURDEN
16'	284' E.O.H	DOLOSTONE 16' - 200' Silty mudstone/pellet mudstone cycles. Silty mudstone has beaded lenses of ½ mm sand above B/C contact only. 107.5 B/C contact. 200' - 284' Pellet mudstone E.O.H. This hole is devoid of mineralization. NB Hole abandoned at depth 284' due to loss of drill site by landsliding.

ASSAYS FROM	ASSAYS TO

LB

A - 4

SUMMARY OF CLAIMS ON WHICH DRILLING WAS DONE DURING THE

1974 FIELD SEASON

LOCATION ROBB LAKE
56° 123° S.E. NTS 94B
Liard Mining District

DRILL HOLE	CLAIM	DRILL HOLE	CLAIM
41	ROB 14	61	CLEO 129
42	ROB 18	62	ROB 32
43	ROB 16	63	MV 55
44	ROB 41	64	ROB 20
45	ROB 18	65	ROB 4
46	ROB 41	66	ROB 4
47	ROB 41		
48	ROB 32		
49	ROB 32		
50	ROB 16		
51	ROB 17		
52	ROB 4		
53	ROB 43		
54	ROB 43		
55	ROB 19		
56	ROB 4		
57	ROB 4		
58	ROB 3		
59	MV 60		
60	CLEO 130		

A - 5

ROBB LAKE JOINT VENTURE

DIAMOND DRILL HOLE CO-ORDINATES

Hole #	Co-ordinates North	East	Elev.	Dip/Az.	Total Depth	Core Size
			SURVEYED			
74-41	74,536	56,735	5,955.4'	-90°	1,116'	AQ
42	78,968	54,900	6,548.2'	"	800'	AQ
43	74,309	57,045	5,905.0'	"	801'	AQ
44	73,745	57,084	5,590.9'	"	612'	AQ
45	78,974	55,935	6,720.9'	"	598'	AQ
46	73,950	57,106	5,733.3'	"	787'	AQ
47	74,155	56,687	5,856.1'	"	698'	AQ
48	80,650	53,967	7,133.0'	"	362'	AQ
49	80,508	54,429	7,307.0'	"	438'	AQ
50	74,497	57,490	5,874.6'	"	707'	AQ
51	73,546	58,077	5,430.5'	"	566'	AQ
52	80,130	50,262	5,921.3'	"	500'	AQ
53	73,160(P)	58,080(P)	5,182(P)	"	475'	AQ
54	73,147(P)	57,658(P)	5,220(P)	"	550'	AQ
55	78,895(P)	56,900(P)	6,810(P)	"	1,248'	NQ
56	79,637(P)	50,622(P)	5,895(P)	"	698'	AQ
57	79,300(P)	50,847(P)	5,870(P)	"	708'	AQ
58	79,942(P)	50,958(P)	5,814(P)	"	478'	AQ

Hole #	Co-ordinates North	East	Elev.	Dip/Az.	Total Depth	Core Size
74-59	79,815(P)	56,880(P)	7,118(P)		1,244'	NQ 0'-354', AQ 354' - 1,244'
60	86,596(P)	57,334(P)	5,787(P)		943'	AQ
61	87,396(P)	57,130(P)	5,810(P)		502'	AQ
62	80,651(P)	53,955(P)	7,133(P)		579'	NQ
63	84,996(P)	56,704(P)	6,039(P)		326'	AQ
64	80,495(P)	55,398(P)	7,474(P)		296'	NQ
65	79,637(P)	50,279(P)	6,063(P)		829'	AQ
66	79,300(P)	50,467(P)	6,012(P)		284'	AQ

(P) - Preliminary Survey

A - 6

CORE STORAGE

All core, totalling 17,134 feet in 26 holes is stored in outdoor racks at the main camp along the upper reaches of the Halfway River.

Appendix 1

CLAIM SCHEDULE - 458 CLAIMS NOVEMBER 1974

LOCATION: ROBB LAKE
56° 123° S.E. NTS 94B
LIARD MINING DISTRICT

CLAIM NAME & NO.

Bell	7-16 incl.
BM	1-6 incl., 8.
CLEO	1-28 incl., 31-33 incl., 41-43 incl. 69-72 incl., 79, 81, 83, 85, 87 89-96 incl., 98, 100, 105-108 incl. 110, 112-117 incl., 119-148 incl., 151-176 incl., 187-194 incl., 197-200 incl., 207-211 incl., 221-236 incl.
CLEO FR.	2, 8-11 incl., 16, 17.
FBW	6,9-28 incl., 39-46 incl.
FG	1-4 incl., 25-34 incl.
FG	Fr. 1
JOSH	8, 10, 12
KIM	9-12 incl.
KIM FR.	5, 51, 52
MART	75, 77, 79, 81, 83, 85, 87
MV	3-6 incl., 23, 25-36 incl., 49-56 incl., 60, 73-114 incl., 116-142 incl.
NMW	1-6 incl., 77-80 incl.
NORM	5-12 incl.
REX FR.	1-7 incl., 12-17 incl., 20-22 incl., 29, 30
ROB	1-48 incl., 50-52 incl., 63-67 incl., 69-72 incl., 75-78 incl., 80-87 incl.
ROB FR.	53-58 incl., 88-94 incl., 96, 99-101 incl.

APPENDIX - 2

STATEMENT OF QUALIFICATIONS

P.J.S. Boyle — Obtained his BSc degree in Geology from the University of Saskatchewan (Saskatoon) in 1972. Since that time he has been employed as a geologist by W. Meyer & Associates and Canadian Superior Exploration for six and eight months respectively. He joined the staff of Texasgulf in April, 1974.

H. S. Mosher — Obtained his BSc degree in Geology from the University of Calgary in 1974. Since that time he has been employed as a geologist by Texasgulf, Inc.

F. Manns — Obtained his B.A. in geology in 1970 and M.A. in geology in 1972 from Temple University, Philadelphia, PA. He has been employed by Mobil Oil, Canadian Superior and Texasgulf as a geologist during the summer season. At present he is working towards his PhD at the University of Toronto.

The above geologists are well qualified and experienced in the work assigned to them on this project which was undertaken under my general supervision.

R Gifford

R.G. Gifford, P.Eng.

30,000 E
40,000 E
50,000 E
60,000 E
70,000 E
80,000 E
90,000 N
80,000 N
70,000 N
60,000 N
50,000 N

NOTES

① THIS PLAN WAS PRODUCED BY PHOTO-REDUCING THE 1"= 500' MINERAL CLAIM SURVEY PLANS (DWG'S C1 – C6 INCL. BY McASSOC. DATED NOV. 1972.) TO 1"= 2000'. UNSURVEYED CLAIMS WERE PLOTTED FROM LOCATOR'S SKETCHES.

② THIS PLAN SHOWS ONLY THE 679 MINERAL CLAIMS WHICH THE JOINT VENTURE INTENDS TO HOLD.

③ CO-ORDINATE GRID IS THE SAME AS THE 1"= 500' MINERAL CLAIM PLANS AND THE 1"= 500', 1"= 1000' AND 1"= 2000' TOPOGRAPHIC MAPPING BY M.S.E.L.

④ BEARINGS ARE ASTRONOMIC AND WERE DERIVED BY SOLAR OBSERVATION REFERRED TO THE MERIDIAN THROUGH STA. 8101 (76,275 N ; 56,436 E).

LEGEND

SURVEYED CLAIM

MV N2 88 — CLAIM NAME
Loc. Sept 14, 1972 — LOCATION DATE
Rec. N° 36482 — RECORD NUMBER
27-9-72 — RECORDING DATE : DAY — MONTH — YEAR

UNSURVEYED CLAIM

MV 90 — CLAIM NAME
27-9-71 — RECORDING DATE : DAY — MONTH — YEAR

DDH N° 25 DIAMOND DRILL HOLE LOCATION (1972)

5313 MAP 2

~~PROPERTY BOUNDARY (1974)~~

REV N°	DATE	REVISION	DR.	CH.	APP.
1	NOV.24.72	FINAL DRAFTING COMPLETED	K.M.S.	J.S.	D.S.M.

CORDILLERAN ENGINEERING LIMITED
ROBB LAKE JOINT VENTURE

COMPOSITE PLAN OF MINERAL CLAIMS

McELHANNEY ASSOCIATES
PROFESSIONAL LAND SURVEYORS
VANCOUVER, B.C.

DESIGNED	J.W.K.S.	SCALE :	1 INCH = 2000 FEET
DRAWN	K.M.S.		
CHECKED	J.W.K.S.	DATE :	NOV. 1972
APPROVED	D.S.M.	JOB N° :	03649-0
CLIENT DWG. N°		McASSOC. DWG. N°	3649-C
		REV.	1

100,000 N

40,000 E

45,000 E

50,000 E

55,000 E

60,000 E

65,000 E

70,000 E

75,000 E

95,000 N

90,000 N

85,000 N

80,000 N

75,000 N

70,000 N

65,000 N

JED RIDGE

ED RIDGE

TEXAS RIDGE

UNION CREEK

CLE0 129

CLE0130

MV 55

ROB 3

ROB 4

TEN NESSEE MTN.

ROB 20

MV 60

ROB 32

ROB 18

ROB 19

MT. HALYSITES

MISSISSIPPI CREEK

ROB 14

ROB 16

ROB 41

ROB 17

ROB 43

HALFWAY RIVER

AIRSTRIP

CAMP

LEGEND

UNSURVEYED CLAIM LINE

SURVEYED CLAIM LINE

CLAIM POST

DRILL HOLE

CONTOUR INTERVAL 500

1,000' 0' 1,000' 2,000' 3,000'

ROBB LAKE JOINT VENTURE

DRILL HOLE LOCATION PLAN

WORK BY	CHART BY	DATE	DRAWING No.
		December 14/84	Figure 2