SOME PLATES AND OR MAPS TOO LARGE TO COPY FOR COMPLETE REPORT SEE FILE

ON MINERALS COMPANY

BOX 120, DENVER, COLORADO 80201

MEMORANDUM

December 11, 1981

U.S. Exploration

TO:

. Westra and T.D. Irwin

FROM:

E.P. Baumgartner END

SUBJECT: Proposed Gravity Survey at the Quartz Mountain, Nevada, Prospect

At the request of T.D. Irwin, a series of two-dimensional gravity models were generated using various target concepts to define the model parameters. The density values used in the modeling were supplied by T.D. Irwin and were obtained from determinations made on core from drill hole EQM-1. The modeling shows that the amplitude of the anomalies produced by topographic features on the subcrop density interface will be insufficiently large for a meaningful interpretation to be carried out. Therefore, it is recommended that the porposed gravity survey not be initiated.

The geophysical target concept at Quartz Mountain is the determination of the "pediment-like" surface that lies beneath a post-mineral tuffaceous unit. The deuteric alteration and the ubiquitous pyrite in the area preclude the use of induced polarization for the direct detection of the mineralized unit.

The following information was used in the modeling process:

- The "pediment-like" is assumed to extend outward of a relative constant depth from a central exposed hill.
- 2. The density of the overburden rhyolite constant at 2.45 g/cc.
- The "bedrock" andesite volcanics have a density of 2.62 g/cc from 400 to 1200 foot depth and 2.66 from 1200 feet to depth.
- 4. It is assumed that no gravity gradient exists across the area.

Figures 1, 2 and 3 show various models and the calculated gravational fields over the models. The divergences of the calculated data from a least squares fit of a line are all within 1 milligal and most within one-half a milligal. To be able to successfully model the observed data from the proposed survey, the data collection and reduction would have to be of sufficient quality to be accurate to one-quarter milligal. This would require a first order x, y, z survey of the station locations and terrain corrections on all locations. In addition, several lines of gravity

Quartz Mountain, Nev. Page 2

stations would have to be run across the valleys, both east-west and north-south, to determine the nature of the gravity gradient. Because of the small density contrast, the one drill hole would be insufficient to pin down the gradient.

The extreme requirements for accuracy that are required to make the proposed survey feasible must be weighed against the benefits. With this new information the estimated cost of the survey will probably exceed \$20,000.00. The cost effectiveness of this survey would have to be weighed against the benefits of other exploration techniques, such as peephole drilling. Since the accuracy of the interpretation might be insufficient to define the nature of the "pediment-like" surface it is recommended that the proposed survey not be run.

EPB: nb

Attachments

Figure 1

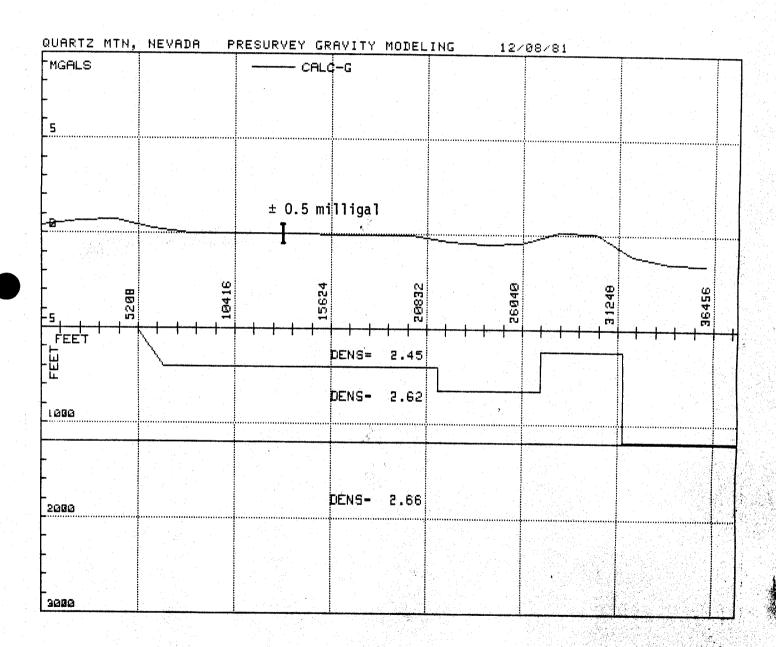


Figure 2

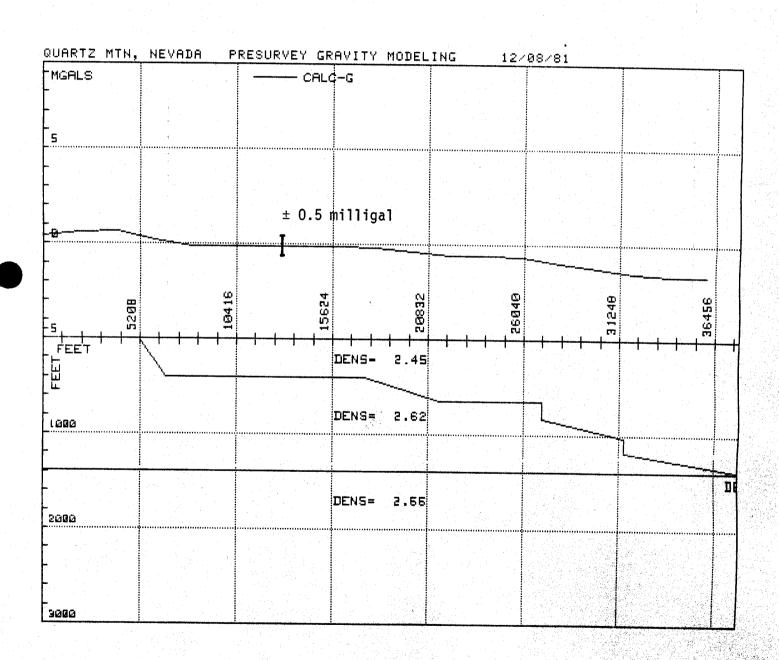
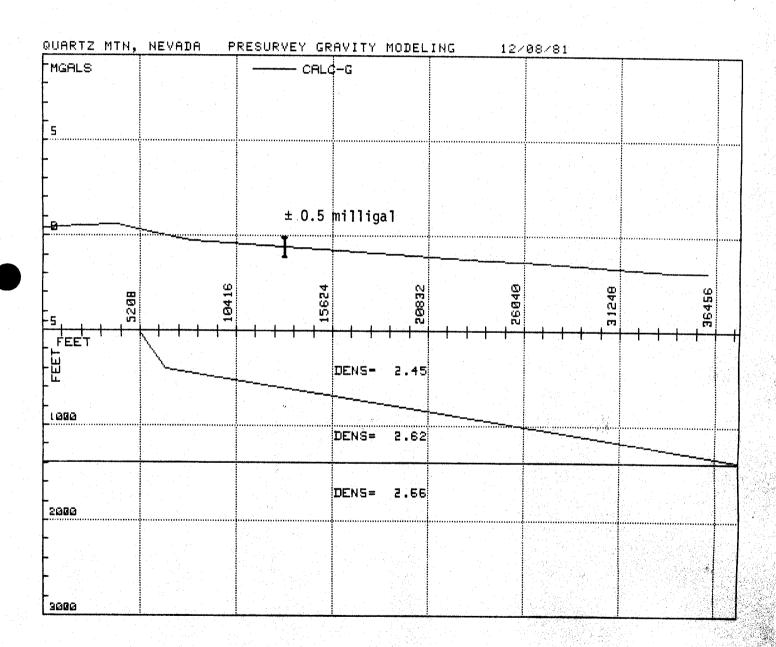


Figure 3



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EXON MINERALS COMPANY

BOX 120, DENVER, COLORADO 80201

U.S. Exploration

August 21, 1981

Longyear Company 6617 N. Peterson Road Sedalia, Co. 80135

> Re: Quartz Mountain, #6129 Nye County, Nevada

ARTHUR BLOST CO.

Orig. to file #6129 copy T. J.

Gentlemen:

Enclosed are two copies of the Drilling Contract to cover the drilling operations for the above-captioned project. If you concur with the terms of this Agreement, please sign and return both copies to us. We cannot allow you to start the project until we receive the signed copies from you. We will return an executed copy for your files.

Part A, Section I.4. provides that you will keep information and materials resulting from this project confidential. We want to be certain that this provision is strictly followed. Please so inform your supervisors and foremen and arrange to have all workers associated with the project advised that we want strict compliance.

This project will be under the direction of Tom Irwin of our Reno office, 50 Freeport, #23, Sparks, Nevada 89431; telephone (702) 358-7020. If you have any technical questions pertaining to the drilling of this project, please contact E.J. Huskinson at this office, telephone (303) 789-7635.

Please send all invoices for work performed on this project to the Reno office.

Very truly yours,

A.R. McAdams
Drilling Operations Superintendent

EJH:nb cc: G. Westra T.D. Irwin

Attachments

	Project Name Quartz Mountain
	Project Number 6129
This Drilling Contract, made this	21st day of August , 1981
	sion of Exxon Corporation, herein called
nerein called CONTRACTOR, a M	Minnesota Corporation
WITNE	SSETH that,

in consideration of the mutual agreements herein stated, it is agreed between the parties as follows:

PART A - GENERAL PROVISIONS

I. CONTRACTOR'S STATUS AND GENERAL OBLIGATIONS OF THE PARTIES

- 1. CONTRACTOR shall perform the work specified in Part B of this Contract in accordance with the particulars set forth in said Part B, diligently and in a proper, careful, safe and workmanlike manner in compliance with all laws and lawful regulations applicable and EXXON MINERALS shall pay CONTRACTOR for said performance the amounts specified in Part C of this Contract. CONTRACTOR agrees to notify EXXON MINERALS promptly upon discovery of any instance where the CONTRACTOR fails to comply with all laws and lawful regulations applicable to any activities carried out in the name of or on behalf of EXXON MINERALS under the provisions of this Contract and/or any amendments to it. This Contract is made for a term beginning on the date stated above and ending upon completion of the services herein provided for, unless sooner terminated under the express provisions of this Contract.
- 2. CONTRACTOR shall be an independent contractor with respect to performance of all work hereunder and neither CONTRACTOR nor anyone employed by CONTRACTOR shall be deemed for any purpose to be the employee, agent, servant, or representative of EXXON MINERALS in the performance of any work or service or any part thereof in any manner dealt with hereunder. The actual performance and superintendence of all work hereunder shall be by CONTRACTOR, but EXXON MINERALS or its representatives shall have unlimited access to the premises to determine whether work is being performed by CONTRACTOR in accordance with all of the provisions of this Contract and to observe the results thereof. CONTRACTOR shall not subcontract any part of the Project hereunder without the prior written consent of EXXON MINERALS. CONTRACTOR shall not assign its rights hereunder without prior written consent of EXXON MINERALS. All the terms, covenants and conditions of this Contract shall be binding upon the successors and assigns of the parties hereto.

and judicial and other orders of federal, state and local government authorities having jurisdiction over CONTRACTOR or any of the contract work, or activities carried out in the name of or on behalf of EXXON MINERALS, and shall obtain, at its own expense, all permits, licenses and equipment required of it by such authorities to enable CONTRACTOR to engage in the contract work. CONTRACTOR shall not be required to obtain permits which reasonably are required to be obtained by EXXON MINERALS in order to permit the contract work to be performed. CONTRACTOR agrees that all financial statements, billings and reports rendered to EXXON MINERALS will accurately report all activities and transactions handled for EXXON MINERALS' account and may be relied upon as being complete and accurate in further recordings and reports made by EXXON MINERALS for any purpose. CONTRACTOR agrees to notify EXXON MINERALS promptly upon discovery of any instance where CONTRACTOR has not complied with the foregoing provisions.

Without limiting the generality of the foregoing, CONTRACTOR shall not engage in any conduct or practice which violates any applicable law, order or regulation prohibiting discrimination against any person by reason of race, color, religion, national origin, sex or age.

If this is a contract subject to the rules and regulations approved by the Secretary of Labor under Executive Order 11246, as amended to date, the provisions of that Executive Order and the implementing rules and regulations of the Secretary of Labor are by reference hereby incorporated in and made a part of this Contract.

If this is a contract subject to the Affirmative Action Regulations with respect to Employment of the Handicapped, or with respect to Disabled or Vietnam Era Veterans, regulations contained in the United States Code of Federal Regulations (41 CFR 60-741) are by reference hereby incorporated in and made a part of this Contract.

CONTRACTOR recognizes and confirms that all cores, samples, data and information whatsoever obtained or developed during or in connection with the work under this Contract shall be confidential and owned by EXXON MINERALS as its own proprietary information and property. CONTRACTOR shall use its best efforts at all times to prevent information concerning the Project, including drill sites, results of drilling and exploration, and drill cores, sludge and other samples, from being disclosed to anyone excepting only EXXON MINERALS designated field representative or other party selected by EXXON MINERALS, in writing, to receive such information. CONTRACTOR shall not allow unauthorized persons to examine samples and drill cores and shall keep drill cores in closed containers at all times and in locked containers when neither CONTRACTOR'S nor EXXON MINERALS' representatives are at the place where the cores are kept. CONTRACTOR shall advise each of its employees of the confidential nature of the services being performed under this agreement. In the event CONTRACTOR or any officer, agent, or employee of CONTRACTOR, individually or with or through others, obtains a land or mineral interest and the same results from or is in any way connected with information obtained or developed during the work performed under this Contract, either during the term of this Contract or within a period of twelve (12) months after this Contract is terminated, then the same, should EXXON MINERALS so elect within a period of twenty-one (21) years after the acquisition thereof, shall be held in trust for the sole benefit of EXXON MINERALS. The foregoing provisions relative to a trust relationship is an addition to, and not a limitation of, any right or remedy otherwise available to EXXON MINERALS.

- In addition to and without limiting CONTRACTOR'S obligation to comply with applicable law and the provisions of this Contract, it is specifically agreed that CONTRACTOR shall routinely and at all times conduct its operations in a manner commensurate with good environmental conservation practices, and shall perform such incidental operations as are necessary to properly protect and maintain, within feasible limits, the original condition of the Project Area. If EXXON MINERALS advises CONTRACTOR that the terms of any prospecting permits, leases, options, mining claims, agreements or documents governing EXXON MINERALS' right to enter upon, explore, or drill lands within the Project Area contain restrictions, limitations or special obligations concerning the use of such lands, CONTRACTOR or any subcontractor will comply with them and if CONTRACTOR is requested to cease drilling operations because of noncompliance, CONTRACTOR agrees to cease such operations and further agrees that any time lost thereby will be at the sole cost and expense of the CONTRACTOR. CONTRACTOR also agrees to contain all waste oil. drilling mud, cuttings and rubbish that may accrue from its operations and prevent same from escaping. Upon completion of the Project or upon termination of this Contract for any reason, drilling mud contained in nonearthern tanks. CONTRACTOR'S equipment, materials, and rubbish shall be removed from the Project Area in compliance with good conservation practices. CONTRACTOR agrees that, to insure CONTRACTOR'S compliance with this provision, EXXON MINERALS shall have the right to retain an amount not to exceed ten percent (10%) of the charges invoiced to EXXON MINERALS under this Contract. After thirty (30) days from the time of mailing to CONTRACTOR written notice of noncompliance with this provision, these monies may be used for noncompliance of this provision such as but not limited to the removal of CONTRACTOR'S equipment, materials and rubbish and the cleanup of any spills caused by CONTRACTOR and restoration of the Project Area to the extent of CONTRACTOR'S responsibility as set forth in this paragraph. Retained monies will be released when CONTRACTOR complies with the terms of this paragraph 5.
- CONTRACTOR acknowledges and declares that it is familiar with the Project Area and the climate, terrain and working conditions therein, and that it has knowledge and expertise with respect to the work performed, equipment and materials to be used and methods of operation to be conducted hereunder. All pertinent factors have been considered prior to the agreement to the payments provided for in Part C. Any equipment or material furnished by EXXON MINERALS to CONTRACTOR is furnished "as is" with defects, if any, and the CONTRACTOR shall have the duty to inspect for defects. CONTRACTOR further recognizes and has considered the possibility of catastrophe such as blowout, cratering, fire, flood, storm, or avalanche and CONTRACTOR agrees that it will, at its own sole expense, furnish and have available all necessary, proper and legally required safety equipment and supplies for its operation and to protect its employees, such as, but not limited to fire fighting equipment, gas detection equipment, first aid equipment, and flow diverting equipment. CONTRACTOR agrees to take all precautions which are necessary, reasonable, proper, and legally required to protect its personnel and equipment and also other persons and the property of others from hazards. CONTRACTOR shall observe the following particular fire prevention rules: Vehicles with catalytic converters shall be driven only on roads and parked only in areas where ignitable materials have been removed. Welding or other activities which could ignite timber or brush shall be conducted only with special procedures established to prevent fires.

II. INDEMNITIES

1. EXXON MINERALS shall indemnify CONTRACTOR and save CONTRACTOR harmless from and against any liability or responsibility for bodily injuries, death or damage to property caused solely by the negligence of EXXON MINERALS, its officers or employees.

- 2. CONTRACTOR agrees to protect, indemnify and hold harmless, EXXON MINERALS, its agents, servants and employees from and against all claims, demands and causes of action of every kind and character arising in favor of CONTRACTOR, and causes or third parties (third parties being defined for purposes CONTRACTOR'S employees or third parties (third parties being defined for purposes of this provision as any party other than an employee of EXXON MINERALS or employee of CONTRACTOR) for:
 - (i) Labor, materials, services, equipment and supplies furnished by CONTRACTOR or EXXON MINERALS hereunder; and
 - (ii) Taxes, licenses and fees levied or assessed on CONTRACTOR in connection with or incident to the performance of this Contract, including unemployment compensation insurance, social security or other levies or taxes upon wages paid by CONTRACTOR; and
 - (iii) Bodily injuries, death or damage to property occurring in or in any way resulting from the performance of the work under this Contract except only those injuries, deaths or damages caused solely by the negligence of EXXON MINERALS, its officers or employees.
 - 3. In the event EXXON MINERALS and CONTRACTOR are unable to agree as to whether the sole cause for the occurrence is the negligence of EXXON MINERALS, its officers or employees, or should applicable law require that EXXON MINERALS and CONTRACTOR share the liability and responsibility for an accident or occurrence despite the provisions of subparagraph 2 (ii) above, then the matter may be referred by either party to the American Arbitration Association for resolution in accordance with its rules for commercial arbitration. If EXXON MINERALS should determine that prompt payment for a third party liability is desirable, it may make such payment subject to refund after arbitration.
 - 4. CONTRACTOR shall defend all suits brought upon any claim, demand or cause of action as to which its indemnity applies and shall pay all costs and expenses incidental thereto but EXXON MINERALS shall have the right at its option to participate at its own cost and expense in the defense of any such suit without relieving CONTRACTOR of any of its obligations.

III. RESPONSIBILITY FOR CONTRACTOR'S EQUIPMENT

CONTRACTOR shall assume sole responsiblity and liability at all times for any and all damage to or loss or destruction of CONTRACTOR'S surface equipment, including the platform and all drilling tools, machinery and appliances located above the surface, regardless of how such damage, destruction or loss occurs, and EXXON MINERALS shall be under no liability whatever to reimburse CONTRACTOR for such damage, destruction or loss.

IV. INSURANCE

1. CONTRACTOR now carries and shall maintain in force for the duration for this Contract the following insurances and agrees that no insurance will be cancelled or materially changed while this Contract is in effect without thirty (30) days written notice to EXXON MINERALS. Nothing contained herein shall serve in any way to limit or waive CONTRACTOR'S responsibility.

- (i) <u>Workmen's Compensation</u> CONTRACTOR, for all its employees engaged in the performance of any work or service dealt with hereunder, now carries and shall maintain Workmen's Compensation insurance in full compliance with applicable law. Should any part of the work or services hereunder be subcontracted, CONTRACTOR shall require each subcontractor to provide Workmen's Compensation insurance for the subcontractor's employees unless said employees are covered under CONTRACTOR'S insurance.
 - (ii) <u>Comprehensive General Liability</u> CONTRACTOR now carries and shall maintain Comprehensive General Liability insurance in minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence, and minimum property damage liability limit of not less than 100,000.00 U.S. Dollars per occurrence.
 - (iii) <u>Comprehensive Automobile Liability</u> CONTRACTOR now carries and shall maintain Comprehensive Automobile Liability insurance covering owned, non-owned, and hired automotive equipment and providing minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence and property damage liability limit of not less than 50,000.00 U.S. Dollars per occurrence.
 - 2. CONTRACTOR agrees to furnish EXXON MINERALS with satisfactory evidence that insurance is being properly carried, including the types, amounts of coverage in effect and the expiration date of each policy. If requested by EXXON MINERALS, CONTRACTOR shall furnish EXXON MINERALS with certified copies of all policies. If any of CONTRACTOR'S insurance policies require CONTRACTOR to list the companies to which it provides service, CONTRACTOR will furnish written notice that EXXON MINERALS is listed.
 - 3. No part of the cost of CONTRACTOR'S insurance shall ever be a reimbursable item under this Contract as those costs are reflected in the rates specified in Part C hereof.

V. FOREIGN STATUS DECLARATION

If CONTRACTOR is not a citizen or resident of the United States, or a corporation or partnership which was created or organized in the United States, or any state or territory of the United States, CONTRACTOR agrees to notify EXXON MINERALS of its citizenship and resident status when this Contract is executed by CONTRACTOR, or if CONTRACTOR'S resident status changes during the term of this Contract, within five (5) days after the change in resident status, CONTRACTOR will provide EXXON MINERALS with the information necessary to determine CONTRACTOR'S United States federal income tax exemption status. Based on the information provided, EXXON MINERALS will advise CONTRACTOR of its exemption status and the amount of tax, if any, that EXXON MINERALS is required to withhold from payments to CONTRACTOR per the Internal Revenue Code. If CONTRACTOR fails to notify EXXON MINERALS of its non-resident alien individual, partnership or foreign corporation status, EXXON MINERALS reserves the right to withhold all payments to the CONTRACTOR until the CONTRACTOR'S tax status is determined and appropriate withholding tax payments are made to the United States Treasury Department, and the CONTRACTOR agrees to reimburse EXXON MINERALS for any withholding tax EXXON MINERALS is obligated to pay the United States Treasury Department on behalf of the CONTRACTOR.

VI. TERMINATION

EXXON MINERALS shall have the right to terminate this Contract at any time, for any reason, by verbal or written notice given to CONTRACTOR, or to CONTRACTOR'S personnel, by EXXON MINERALS or by EXXON MINERALS' authorized personnel.

CONTRACTOR shall have the right to terminate this Contract at any time by giving EXXON MINERALS ten (10) days written or verbal notice, at its address set forth on the last page of this Contract or to EXXON MINERALS' field representative, and either completing the hole in progress or assuming the cost of such hole.

When this Contract is terminated for any reason, EXXON MINERALS shall pay CONTRACTOR as provided in this Contract only for those test holes completed to the depth and in a manner specified by EXXON MINERALS and for that part of the Project completed prior to the time of the termination.

This Contract shall remain in force until all of CONTRACTOR'S equipment, materials and rubbish is removed from the Project Area, according to the provisions herein contained.

VII. CONFLICT OF INTEREST

CONTRACTOR shall exercise reasonable care and diligence to prevent any actions or conditions which could result in a conflict with EXXON MINERALS' best interests. This obligation shall apply to the activities of the employees and agents of CONTRACTOR in their relations with EXXON MINERALS' employees and their families and with third parties arising from the performance of this Contract and accomplishing services hereunder. Both parties' efforts shall include, but not be limited to, establishing precautions to prevent its employees or agents from making, receiving, providing or offering substantial gifts, extravagant entertainment, payments, loans or other considerations for the purpose of influencing individuals to act contrary to EXXON MINERALS' best interests.

VIII. ENFORCEMENT

EXXON MINERALS and CONTRACTOR may at any time or from time to time during the term of this Contract elect not to enforce or require strict observance of the terms, conditions or provisions of this Contract; however, this shall not constitute a waiver of, nor limit or impair such terms, conditions or provisions; nor shall it affect EXXON MINERALS' or CONTRACTOR'S right to enforce such terms, conditions or provisions.

Project Number 6129
CONTRACTOR Longyear Company
PART B - PROJECT SPECIFICATIONS
TAN B TROOTER TO THE TANK THE
LOCATION DECDONCIPILITY
LOCATION RESPONSIBILITY
Preparation of access roads and drill sites by <u>EXXON MINERALS</u>
Maintenance of access roads and drill sites by <u>EXXON MINERALS</u>
Preparation of mud reserve pits byEXXON MINERALS
Preparation of mod reserve pits by
 DRILLING
a second and the second
TYYON MINERALS not to exceed 1500 feet maximum. Commencing on or
about August 24 , 1981 , in the Project Area described as:
Ouartz Mountain, about 18 miles north of Baggs, in Section 29 and 30,
Township 14 North, Range 36 East, Nye County, Nevada
Diameter of Holes, Cores and Casing through objective interval:
Depth Hole Size Core Size Csq. Size
$0 - \pm 50!$ 8-5/8" 6-5/8"
50 - ± 1500' 6"
마르크 보고 있다. 그는 사람들은 사람들은 사람들이 되었다. 그는 사람들은 사람들은 사람들이 되었다. 그런 그는 사람들은 사람들이 되었다. 그런 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들은 사람들이 되었다. 그는 사람들이 되었다. 그는 사람들이 되었다. 그는 사람들이 되었다면 보다는 것이 되었다. 그는 사람들이 되었다면 보다는 것이 되었다. 그는 사람들이 되었다면 보다는 것이 되었다면 보다는 것이 되었다. 그는 사람들이 되었다면 보다는 것이 되었다면 보다는 것이 되었다. 그는 사람들이 되었다면 보다는 것이 되었다면 보다는 되었다면 보다는 것이 되었다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보다면 보
Depths are an estimate; hole size, core size and casing size must be
adhered to unless authorized by EXXON MINERALS.
Hole angle or straight hole requirements: Consistent with good
Hole angle or straight hole requirements. Consistent with good
drilling practice.
는 마음에 가는 마음에 가장하는 것을 통해 가는 사람들이 가장 함께 생각하는 것이 되었다. 그는 사람들은 사람들이 되었다. 그는 것이 되었다.
Work Schedule:
a. Shifts per day 2 or 3
b. Work days per week 10 days on; 4 off
b. Work days per week 10 days on; 4 off c. Hours per shift 8 or 12 with a minimum 3 man crew per shift, per drill.

Project Name Quartz Mountain

Materials, equipment, and services to be provided by CONTRACTOR: All labor, equipment, tools, material, supplies, and services necessary and proper to the drilling and other contract services specified, with the following being particularly itemized:

1500 or equivalent rotary rig Water truck - 1500-gallon mini			
Ancillary support equipment			
	19		
aterials, equipment and service oxes and sample sacks and other	es to be prov r items speci	ided by EXXON MIN fied below:	ERALS: Cor

III. OPERATIONAL PROVISIONS:

- 1. EXXON MINERALS will designate and stake the location of all drill sites. CONTRACTOR shall make all necessary inspections and declares at the time it moves on the drill site that the access roads and drill site, whether staked in natural surroundings or prepared by EXXON MINERALS, are adequate and safe for its operations.
- 2. CONTRACTOR shall take drill cutting samples, sludge samples and/or core to the extent directed by EXXON MINERALS. CONTRACTOR shall make all reasonable effort to obtain maximum core recovery and samples representative of the intervals drilled. No payment will be made for lost core, unsatisfactory core recovery or unapproved core size reductions. On continuous core holes, if core should be lost in any interval that EXXON MINERALS' representative deems to be critical, CONTRACTOR agrees that it will plug back and make one additional attempt by wedging or by redrilling hole to achieve recovery of the critical core at one-half the hourly rate specified in Part C, Section I.4.a. of this Contract. CONTRACTOR shall box, accurately mark and preserve cores and samples as directed by EXXON MINERALS.
- 3. CONTRACTOR shall make every reasonable effort to maintain the specified hole and core size through the objective interval of the hole.
- 4. CONTRACTOR shall install casing and cement the same if required by hole or drilling conditions and authorized by EXXON MINERALS, and recover casing that is reasonably possible to recover. CONTRACTOR shall set plugs in drill holes upon abandonment as requested by EXXON MINERALS, and as required by drilling conditions to stabilize hole or to combat lost circulation.
- 5. If an artesian flow or other abnormal-pressured flow is encountered in any hole, CONTRACTOR will notify EXXON MINERALS, divert or control the flow to minimize damage and in the case of hydrocarbons or salt water, contain all liquids within the minimum feasible area.
- 6. CONTRACTOR will not permit livestock or wildlife to be exposed to grease or other deleterious substance.
- 7. CONTRACTOR shall keep and furnish to EXXON MINERALS such daily drilling shift records and drilling reports as EXXON MINERALS may require.
- 8. CONTRACTOR shall notify EXXON MINERALS promptly and if possible in advance of any change of personnel or change of work schedule.
- 9. CONTRACTOR will notify EXXON MINERALS promptly by phone when operations revert to time rates under the terms of this Contract and when conditions occur that could cause loss of hole, that are hazardous to personnel, CONTRACTOR'S equipment and/or the surrounding area or environment.
- 10. CONTRACTOR agrees that storage of any type of hydrocarbon will be in single, 660 U.S. gallons or less containers and that no more than 1320 U.S. gallons will be stored on the Project Area unless prior permission is obtained from EXXON MINERALS. The storage containers will be placed in an area where no part of any spill would reach the natural drainage, a stream, river, lake, reservoir, spring, pond, hole or well in the area where contamination of surface or underground water is possible.

- 11. CONTRACTOR agrees not to put any type of oil or toxic substance in the drilling mud for any reason including waste oil without prior permission from EXXON MINERALS. CONTRACTOR further agrees that if prior permission is not obtained, CONTRACTOR will remove the oil and/or toxic substance from the mud at his own expense, including hauling off and disposing of the contaminated mud and replacing with mud approved by EXXON MINERALS.
- 12. Pursuant to Part A, Section I.5 of this Contract, CONTRACTOR agrees to prevent any mud or drill cuttings to escape, leak, be dumped or discharged or any rubbish to be scattered on the Project Area at any time and to clean up any mud, drill cutting, or rubbish immediately when requested by EXXON MINERALS, at CONTRACTOR'S expense.
- 13. CONTRACTOR will abandon holes in accordance with State Regulations or as specified by EXXON MINERALS.

Project Number _	6129
CONTRACTOR Long	year Company
PART C - PAYMENT SCHEDULE	
PART C - TATTERY SOTTESSEE	
EDULE OF RATES	
Mobilization <u>\$1500.00</u>	
Mobilization includes rigging up on the first down on the last hole. Hourly rates start who (spudded) and stop when logging or coring is oplugging time requires more than one hour, who completed on the last hole drilled.	completed or, if
Demobilization \$1500.00	
Demobilization is payable only if CONTRACTOR'S mobilized by EXXON MINERALS or other operators of the Project.	S rig(s) is not s at the completion
Moving between drill sites\$100.00/hour	
The following services and materials to be furni CONTRACTOR are or are not reimbursable to the CO indicated below. Reim	NTRACTOR as
	<u>Yes</u> <u>No</u>
a. Preparation of access roads and drill sites	By EXXON MINERALS
Maintenance of access roads and drill sites authorized by EXXON MINERALS	By EXXON MINERALS
Preparation of mud reserve pits	By EXXON MINERALS
 b. Casing left in hole or recovered in poor condition less salvage value 	<u>. x</u>
c. Mud, mud additives, chemicals, lost return materials and cement, except \$ 0.00 per hole to be borne by CONTRACTOR	<u>x</u>
이 집에 하는 것이 하면 말이 되는 것이 하고 바꾸는데 그 맛없	

Project Name Quartz Mountain

2.	(cont.)		Kermburs	able .co	CONTRACTOR
				<u>Yes</u>	<u>No</u>
	d. Water			<u> </u>	gazintarriarium and matel (Allips
	e. Bits expended (less salvage Drilling or Reaming Coring	e value)			<u>X</u> _X
	f. Rental of in-hole surveyin if requested by EXXON MINE	g instruments RALS		X	-
	All other services, third par materials furnished by CONTRA above are not reimbursable un authorized by EXXON MINERALS	CTOR not mention	oned		
3.	Unit or Time Rates as Specifi	ed:			
	 a. Drilling and Sampling (Ove as applicable.) 	rburden or to	total dep	th	
	Depth Interval (feet)		Ra	te per	foot
	0 - 500'			-\$8.00	
	501 - 1000'				
1	001 - 1500'			\$12.50	
	b. Coring NOT APPLICABLE	Core Size	*		
	Depth Interval (feet)		Ra	ate per	
	CONTRACTOR should be prep	ared to take s	pot cores	at	

Core size asterisked above is the preferred size through the objective interval.

- 4. Time Rates (for services other than drilling, sampling and coring applicable only if specifically authorized by EXXON MINERALS.)
 - a. Rig Operating with crew---\$ 140.00 per hour, except _-0- hours per occurrence combating lost circulation at zero rate.
 - b. Standby with crew---\$\frac{100.00}{\text{per hole at zero rate for logging and geological consultation.}} \text{hours}
 - c. Standby without crew---\$ 75.00 per hour.
- 5. Other Rates (applicable only if specifically authorized by EXXON MINERALS):
 - a. Taking spot cores shall be charged at the rate of \$140.00 per hour, including bits.
 - b. Water truck shall be charged at \$1000.00 per month plus \$1.00 per mile.

II. PROVISIONS APPLICABLE TO ALL RATES AND PAYMENTS (Also see Part B, Section III)

- 1. EXXON MINERALS shall pay all applicable sales and use taxes which are lawfully imposed by reason of CONTRACTOR'S services hereunder. EXXON MINERALS' tax payment obligation shall not include motor fuels taxes or any tax or license fee or charge levied or assessed on CONTRACTOR or upon or measured by CONTRACTOR'S income.
- 2. There is no guarantee that this Contract will be profitable to CONTRACTOR. Additional compensation will not be paid by reason of unexpected costs or unusual occurrence or catastrophe. Payment at the rates and according to the terms and provisions in this Part C shall be full and complete payment for all services performed and all materials and equipment furnished by CONTRACTOR except only if this Contract be amended in writing.
- 3. At the end or on the first and fifteenth of each calendar month in which work is performed hereunder, CONTRACTOR shall deliver to EXXON MINERALS a statement of all CONTRACTOR'S charges including all billable drill holes completed or partially completed, all other services performed, and all reimbursable costs incurred hereunder during that calendar month. Each such statement shall show the hole number, Project location, charges and costs for each individual hole drilled, insofar as possible. CONTRACTOR agrees that all financial statements, billings and reports rendered to EXXON MINERALS will reflect properly the facts with respect to charges and costs and may be relied on as complete and accurate for recording and reporting by EXXON MINERALS. CONTRACTOR agrees to notify EXXON MINERALS promptly of any discrepancy discovered.
- 4. Reimbursable costs for third party materials and services and tangibles furnished by CONTRACTOR, if any, shall be supported by third party invoices with CONTRACTOR'S invoice which includes such costs, and EXXON MINERALS shall be credited with all cash discounts received by CONTRACTOR. Payment shall be made only for supplies and materials accounted for on daily shift reports and no transfer, warehousing or handling charges shall be applicable unless specifically stated in the Payment Schedule.
- 5. No provision of this Contract for the reimbursement or direct payment by EXXON MINERALS of the cost of materials, use of equipment, or of third party services, shall ever be deemed:
 - a. To be an agreement by EXXON MINERALS to procure such equipment, materials or services or to be responsible for the availability or suitability of the same.
 - b. To authorize CONTRACTOR to charge all or part of the cost thereof to EXXON MINERALS or to pledge EXXON MINERALS' credit for any purpose.
- 6. CONTRACTOR shall preserve and protect EXXON MINERALS' properties and property interests from all liens including liens of mechanics and materialmen for labor, services or materials furnished in the performance of this Contract. Should any such lien be filed, or threatened, EXXON MINERALS may, in addition to should any other remedy or right available to it, retain from any monies otherwise due any other remedy or right available to it, retain from any monies otherwise due CONTRACTOR, whether under this Contract or otherwise, an amount sufficient to discharge the lien and at its election, to discharge the lien by payment of said discharge the lien and at its election, to discharge the lien by payment of said the right, but not the duty, to pay for CONTRACTOR, and to charge against sums the right, but not the duty, to pay for CONTRACTOR, and to charge against sums

otherwise due CONTRACTOR, any reimbursable unpaid indebtedness incurred by CONTRACTOR in the obtaining of the materials, supplies, equipment, and third parties' services for the performance of this Contract, whether or not a lien has been or could be filed.

- 7. No footage penetrated in the hole shall be charged as both drilling and coring. The footage rate covers and includes payment for the taking of required samples.
- 8. All time rates for drilling rig services with crew are based upon use of CONTRACTOR'S full crew. If CONTRACTOR fails to furnish the minimum number of crew members specified in Part B, Section II of this Contract, CONTRACTOR agrees to notify EXXON MINERALS immediately and, if requested by EXXON MINERALS, agrees to go on zero standby rate if operating on a time rate. EXXON MINERALS shall not be required to pay for periods of standby or delay not caused or requested by EXXON MINERALS. No charge for standby or delay, or any other charges, shall be incurred, or charged to EXXON MINERALS, after EXXON MINERALS, or EXXON MINERALS' field representative, advised CONTRACTOR that the Project has been completed or that EXXON MINERALS elects to terminate this Contract. Nor shall there be any charge to EXXON MINERALS for any unit of equipment after EXXON MINERALS advises CONTRACTOR that it is released from use.
- 9. The standby rate specified shall apply only to shift time delays, including time in excess of the specified hours allotted for logging, waiting on cement to set, running inclinometer or hole deviation surveys, and for time required to allow gas pressure to subside.
- 10. The time lost caused by CONTRACTOR, including time required to reenter and condition hole after shutdown periods, mechanical failures or any condition other than is specifically mentioned in paragraph 9 immediately above, will be at the sole cost and expense of the CONTRACTOR and EXXON MINERALS will not reimburse CONTRACTOR for same.
- 11. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, then (1) time lost due to stuck pipe, "fishing operations" and the cost of services for and materials expended during "fishing operations" shall be borne by CONTRACTOR and (2) loss of, or damage to drill holes, and loss of or damage to CONTRACTOR'S tools and equipment shall be borne by CONTRACTOR.
- 12. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, payment shall be based on either (1) the total depth specified by EXXON MINERALS and determined by in-hole logging or (2) the total depth determined by drill stem measurement. No payment, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract, shall be made if the hole does not penetrate the objective depth specified by EXXON MINERALS' representative provided that it is within the maximum depth limit specified herein.
- 13. If payment is based primarily on footage drilled under unit rates in Part C, Section I. 3.a. of this Contract, CONTRACTOR guarantees the completed open hole to be and remain in a condition to allow in-hole logging to total depth for a period of two (2) hours after the hole is ready and accessible to open hole logging. If CONTRACTOR elects to move off the location prior to logging and it is

- not possible to obtain an open hole log through the objective interval, CONTRACTOR will take whatever actions are necessary to allow open hole logging through the objective interval at its own expense or, in the case of non-core holes and at CONTRACTOR'S election, abandon the hole without any compensation for drilling the hole, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract.
- 14. If payment is based primarily on footage under unit rates specified in Part C, Section I, 3.a. of this Contract, CONTRACTOR agrees to make one attempt to fill the hole to 100 feet above the objective interval with a liquid specified by EXXON MINERALS prior to logging at CONTRACTOR'S expense.
- 15. If payment is based primarily on a time rate under unit rates specified in Part C, Section I, 3.a of this Contract, EXXON MINERALS shall assume the loss of drill pipe, drill tools and lost hole and EXXON MINERALS will reimburse CONTRACTOR for "fishing operations" authorized by EXXON MINERALS provided that CONTRACTOR can establish that CONTRACTOR has not negligently contributed to such loss and loss was not due to failure of any of CONTRACTOR'S drilling equipment, including but not limited to drill pipe, hoisting equipment, pumps and engines. Payment for lost drill pipe and drill tools will be based on actual cost less two (2) percent of actual cost per month for each from the date of acquisition less any insurance collected by CONTRACTOR on such equipment or will be based on the value of the equipment as listed in Part C, Section I, 5 of this Contract. Payment for lost drill pipe, drill tools and lost hole addressed in this paragraph is not applicable if payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract even if CONTRACTOR is being paid under Section I, 4., Time Rates, at time of drill pipe, drill tool or hole loss.
- drilling on the first hole or when EXXON MINERALS authorizes movement for drilling equipment to the drill area. If this Contract is terminated according to the provisions in Part A, Section VI of this Contract prior to EXXON MINERALS authorizing movement of drilling equipment, the mobilization fee is not payable. The demobilization fee will be payable if equipment has been mobilized to the Project Area as authorized by EXXON MINERALS and when this Contract is terminated by EXXON MINERALS or by CONTRACTOR according to the provisions in Part A, Section VI of this Contract provided CONTRACTOR is not mobilized by EXXON MINERALS or by another operator.
- 17. EXXON MINERALS' duly authorized representatives shall have access, at all reasonable times, to all CONTRACTOR'S and subcontractor's personnel, job descriptions, employment and qualification records, books, records, correspondence, instructions, plans, drawings, receipts, vouchers, data stored in computers and memoranda of every description pertaining to work under this Contract for the purpose of auditing and verifying costs of work or for any other reasonable purpose. EXXON MINERALS' representatives shall have the right to reproduce any of the aforesaid documents. CONTRACTOR shall preserve, and shall cause its subcontractors to preserve, all the aforesaid documents for a period of two years after completion and acceptance or termination of this Contract work.

EXXON MINERALS' representatives shall also have sufficient audit access to CONTRACTOR'S costs in the fixed rate areas to satisfy themselves that all services that are supposed to be included in CONTRACTOR'S fixed rates pursuant to this Contract are so included.

IN WITNESS WHEREOF, this Contract is executed as of the day and year stated on page 1 hereof.

EXXON MINERALS: EXXON MINERALS COMPANY,

a Division of Exxon Corporation

Address: PO Box 120

Denver, Colorado 80201 Attn: Drilling

	an man
Ву	A.K. WWW

CONTRACTOR: Longyear Company

6617 N. Peterson Road

Sedalia, Colo. 80135

EXON MINERALS COMPANY

Oris to File COPY to TOF

BOX 120, DENVER, COLORADO 80201

U.S. Exploration

July 28, 1981

Re:

Notice of Intent

Quartz Mountain Project Nye County, Nevada

Project No. M-6129

Mr. Tom Owen, District Manager Bureau of Land Management Carson City District 1050 East Williams Suite 335

89701

Dear Mr. Owen:

Carson City, Nevada

Please accept this letter as Exxon Minerals Company's notice of intent to conduct minerals exploration activities on unpatented mining plaims in your area of responsibility. The claims are owned by Mr. Peter H. Hahn, et al. 3706 4th Street, Sparks, Nevada 89431. They are leased by the Exxon Comporation. The Exxon Minerals Company, P.O. Box 120, Denver, Colorado 80201 is the operator which will be conducting exploration activities. The "MAC" claims were located in February of 1972. The "ROB" claims were located in November of 1974 and March and May of 1976.

There will be less than five acres of surface disturbance associated with this year's activities. The claims in which work will be done are described as follows:

Cla	im Name	and Number		A. W	BLM	Serial	Number
	#1-5			37	NMC	99081-	99085
MAC	#6-9				NMC	99086-	29089
MAC	#10-11	New Section 1			NMC	99090-	99097
MAC	#14-30	7				99092-	
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The above listed claims are located in Sections 29, 30 and 31, T14N, T16E, MDM. The actual work will be done in the NE/4 of Section 30, T14N, PAGE, MDM.

Page 2 Mr. Tom Owen July 28, 1981

Exxon's plan for this year is to drill one exploration hole in the NE/4 of Section 30. Site preparation includes leveling a 1/10th of one acre pad, excavating two mud pits and drilling one exploration hole using a truck mounted portable rig.

Access to the drill site is provided for by public roads, trails over public lands and less than one half mile of new road to be constructed. In building the temporary drill road Exxon will do only the earthwork necessary to provide for the safe passage of men and equipment.

Operations will begin about mid August, 1981. Upon completion of use of disturbed areas, reclamation work will be done in accordance with Section 3809.1-3(d) of the Rules and Regulations published on November 26, 1980. Exxon will avoid undue and unnecessary degradation in doing its work.

My office number is (303)789-7603. If you have any questions for me, please call. It is respectfully requested that the information contained herein be kept confidential.

Sincerely,

Mahlon F. Serrou Mahlon L. Gerrow

cc: G. Westra

Contracting Division

General Office

"DAILY DRILL REPORT"

TRUCK NO.

Contract: GABBS - R	Minneapolis, Minnesota 55414 Date: 9-95-1981 Drill TWT # /	"DAII
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Contracting Division General Office

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Minneapolis, Minnesota 55414 ONTH DAY DRILL NO. Foreman's Signature: **Footage Summary** Feet Total Casing Bit Size Shift Drilling Hole No. Material Drilled Reaming in Hole Drilled or Core Re-& Type From From To To covered Reamed Size Footage Day A Aft В Nite C Hourly Distribution Day Aft. Nite Supplies Consumed Core Drilling Product Day Aft. Nite Handling Rod (change bit) Description Size Name Number of Units Overburden - rock bit Portland Collaring Hole - Dia. bit Lumnite Rotary Drilling Calseal Mud 50# Handling Rod (bit) Mud 100# Rock Bit - Overburden Other (Describe) Reaming (to Casing - Placing - Pulling ys - Client Acct. Cementing - Handling Rods - Prep Hole & Grout Water hauling___ miles loads - Setting Core boxes: size/ no. - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description __ Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Depth: ____ ft. Hole # ____ Surveying, Inclination Test Mobilization/Demobilization Casing lost or left in hole: Size _____ ft. _ Other (Explain) for Client Hole # Hole # Size Serial # Bit changes: Depth (Include first bit Total Hours in hole) Driller's Initials Shift **HELPERS** TRUCK DRIVERS A В C Remarks: 5

Contracting Division

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Contracting Division General Office

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Contracting Division General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

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Contracting Division
General Office

General Office Minneapolis, Minnesota 55414

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	ation/Demob	ilizat	ion	remain their	digun	S DI	O PERM	Casing lost				ft.	291	
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Contracting Division

General Office Minneapolis, Minnesota 55414

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eaming		-)		-		-	-			-		118	
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Contracting Division General Office Minneapolis, Minnesota 55414



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tract: GARAS	R	Date: 8	31	19 24 Drill_	TKT 1	1.	/ TRUCK
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		o)			Die Oi	SAITE FAIL	Footage :				et		al Casing
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	ion Hole, Los						Lost bits:	Size	Ser	rial no			
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	ation/Demol	oilizat	tion				Casing los	t or left in	hole: Size		ft	Night .	
Other (Explain)	4 47	at Contract	and the same of th	Lincoln Inter	the sales and the			Hole i		-71	27	
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			7000	VOC Spreet TO	DESTRUCTION OF THE	the rotal Pa	first bit		SPRSALED.	vittion on	or teach or		
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Contracting Division
General Office



"DAILY DRILL REPORT"

Minneapolis, Minnesota 55414 Contract: GABGS R Date: 9 1 1981 Drill TKT 1 1 Location: NEVADA _____Foreman's Signature: ___ Footage Summary Feet Total Casing Bit Size Drilling Reaming in Hole Shift Hole No. Material Drilled Drilled or Core Re-& Type То From To From Reamed covered Footage L'a HAME 425 425 Qm1 Day A Aft B Nite C Day Hourly Distribution Aft. Nite Supplies Consumed Core Drilling Product Day Aft. Nite Handling Rod (change bit) Description Size Name Number of Units Portland Overburden - rock bit Lumnite Collaring Hole - Dia, bit Calseal Rotary Drilling 50# Mud Handling Rod (bit) 100# Mud Other (Describe) Rock Bit - Overburden Reaming (425to 430) Nova Fram Casing - Placing - Pulling Delays - Client Acct. Cementing - Handling Rods Water hauling _____ miles _____ loads - Prep Hole & Grout Core boxes: size/______no. - Setting - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. _____ Depth: _____ ft. Hole # _____ Surveying, Inclination Test Mobilization/Demobilization Casing lost or left in hole: Size ______ft. Other (Explain) for Client Hole # Longco Hole #

Bit changes: Size Serial # Depth
(Include 824 53'
first bit 64 043498 0N AT 53' Total Hours ON AT 425 OFF AT 429 Driller's Initials K.V Shift DRILLERS Hrs. HELPERS Hrs. TRUCK DRIVERS B FORD PICKUP

Contracting Division General Office

"DAILY DRILL REPORT" Minneapolis, Minnesota 55414 DAY 19 82 Drill TKT # / Contract: GABBS Secation: NE VADA ____ Foreman's Signature: Footage Summary Feet Total Casing Bit Size Drilling Shift Hole No. Material Drilled Reaming Drilled or Core Rein Hole & Type From To From To Reamed covered Footage EQM 1 64 Hamm 53 Day A EQ MI Aft B Nite C Hourly Distribution Day Aft. Nite Supplies Consumed Core Drilling Product Day Aft. Nite Handling Rod (change bit) Description Size Name Number of Units Overburden - rock bit Portland Collaring Hole - Dia, bit Lumnite Rotary Drilling Calseal Mud Handling Rod (bit) 50# Mud 100# Rock Bit - Overburden Other (Describe) Reaming (to Casing — Placing — Pulling Delays - Client Acct. Cementing - Handling Rods OTHER Water hauling 82 miles 2 - Prep Hole & Grout loads - Setting Core boxes: size/ no. - Drilling Length of waterline: _ Moving - Hole to Hole Lost tools: Description ___ Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Surveying, Inclination Test Depth: _____ ft. Hole # _____ Mobilization/Demobilization Casing lost or left in hole: Size _____ ft. __ Other (Explain) for Client _____ Hole #_____ Longco ____ Hole #_____ Size Serial # Depth Bit changes: (Include

SW Driller's Initials Shift DRILLERS HELPERS Hrs. TRUCK DRIVERS Hrs. VAN AUSDAL VAN AUSOAL В WILSON M C

first bit

in hole)

marks: ATTERNOON

Total Hours

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

Contracting Division General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

R Date: 9 3 1981 Drill TKT 1 / Contract: GABBS ation: NEVADA _ Foreman's Signature: **Footage Summary** Feet **Total Casing** Bit Size Shift Hole No. Material Drilled Drilling Reaming in Hole Drilled or Core Re-& Type From From To To Reamed covered Size Footage EQM 1 705 Day A Aft R Nite C Hourly Distribution Day Aft. Nite Supplies Consumed Core Drilling Product Aft. Day Handling Rod (change bit) Description Size Name Number of Units Overburden - rock bit Portland Collaring Hole - Dia, bit Lumnite Rotary Drilling Calseal Mud 50# Handling Rod (bit) Mud 100# Rock Bit - Overburden Other (Describe) Reaming (760to 785) NOVA Fram 15 GAL Casing - Placing 5 SAL ZINK LUBERCANT - Pulling lays - Client Acct. henting - Handling Rods OTHER Water hauling 82 miles 2 loads - Prep Hole & Grout - Setting Core boxes: size/ no. - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description ___ Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Surveying, Inclination Test Depth: _____ ft. Hole # ____ Mobilization/Demobilization Casing lost or left in hole: Size _____ ft. ___ Other (Explain) WENT TO for Client Hole #_____Hole #___ Bit changes: Depth (Include first bit Total Hours in hole) Driller's Initials Shift DRILLERS **HELPERS** TRUCK DRIVERS VAN AUSDAL A B C

Contracting Division General Office

General Office "DAILY DRILL REPORT" Minneapolis, Minnesota 55414 Contract: GABBS ation: NEVADA Foreman's Signature: _ **Footage Summary** Feet Angle **Total Casing Bit Size** Shift Hole No. Drilling Material Drilled Reaming in Hole Drilled or Core Re-& Type From To From To Reamed | covered Size Footage EQM 1 795 930 9 HAmmel 135 Day A Aft В Nite Hourly Distribution Day Aft. Nite Supplies Consumed Core Drilling Product Aft. Nite Handling Rod (change bit) Description Number of Units Size Name Overburden - rock bit Portland Collaring Hole - Dia. bit Lumnite Rotary Drilling Calseal Handling Rod (bit) Mud 50# Mud 100# Rock Bit - Overburden Other (Describe) Reaming (FOAM Casing - Placing - Pulling iys - Client Acct. henting - Handling Rods Water hauling 123 miles 5 - Prep Hole & Grout - Setting size/_____no. Core boxes: - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description _ Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Surveying, Inclination Test Depth: _____ft. Hole # _____ Mobilization/Demobilization Casing lost or left in hole: Size _____ ft. __ Other (Explain) Mech for Client _____ Hole #__ Longco ____ Hole #__ CHANGE PUMP & CHARG Bit changes: (Include first bit Total Hours in hole) Driller's Initials DRILLERS Shift HELPERS TRUCK DRIVERS A В C Remarks: K DRUNE

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

Contracting Division General Office



Minneapolis, Minnesota 55414

-	ract: GABBS	R	Date: 9	5	1981 Drill TK	T+1	-/*	1 TRUCK
			MONTH	DAY	1	TYPE	DRILL NO.	TRUCK NO.
	CON: NEVADA		Foreman's Sign	nature:		form	add to	

		0	1		Die Cie	DOLLA LOS	Footage S				et		al Casing
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Core Dr			***	Name of Street or other Designation		-	Destati				Day		
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	g Hole - Dia.	bit		-			Lumnite	-	3	31000			
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	ing, Inclination			anti-	CID DIVID		Lost bits:	Size	Ser	ial no	- CONTRACTOR	100	
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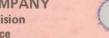
Contracting Division

General Office Minneapolis Minnesota 55414

	0	Minitedp		minesota 5541	# 1	,	, WATER
tract: GABAS	KI	Date: 9	6	1981 Drill	TKT "	/ *	/ TRUCK
audi.		MONTH	DAY	A J	TYPE	DRILL NO.	TRUCK NO.
Location: NEVAGA	F	oreman's Signat	ure: (1/160	er for	mich	

		0			Die Ci-	PHOTIST	1 oo tage t				et		al Casing
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Nite					alle desire	and the late	THE REAL PROPERTY.	CHRISTIAN IN	21-20g - WID	Towns or the last	- C	-11	
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	1 1 5: 4:			I Day I	A 64	Blide	1		Commit	Commun	o al		
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	lling Rod (ch	_	DIT)				Portland	S	ize	Name	NI	amper c	of Units
	rden - rock b		-	-		the sales	Lumnite	gridle - H	the state of	- Committee	- 1 - 1 - 1 - 1	-	
	ng Hole - Dia.	DIT		0			Calseal	11					
	Drilling	.1	-	7		-	Mud	50#	#	The state of the s	-	1	
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Pool	Bit - Overbu	ırdan					Other (De			10000		- 39	
Reamin		ilucii	1		-	-			30	CHI	-	1	
	- Placing	Union	1000	TENESURE I	N 10 1971	TO THURS					O BUILD	100	
	- Pulling				The state of the s	11.0				Com	i water	-	
Name and Address of the Owner, where	- Client Acct.	100	MY 300	DISCOUNTS OF THE	THE THE RE		-617	GAL	OF TO SEE	WHITE THE PERSON	OVER GOOD		
Delays	- CHETT ACCE	779	. The last to	TO SHE WAY	and resident	Name and Address of	S 1 1 1 1 1	-	or or wine	OF THE OWNER.	The Party lies		
Cemen	ting - Handlir	n Ro	de			-				OTHER			
Comon	- Prep Ho			BUCKER STOR	No Iller Once -		Water hau	lina 4	1 mil	OTHER	load	de	
	- Setting				-	and the same	Core boxe	es:	size	e/	no		
St. Stewart	- Drilling		100			- 97							
Movino	- Hole to Ho		M. Carlon		and the same of	A STATE OF THE PARTY OF THE PAR	Lost tools	Descripti	on	Holes Time	land of the land	The real	
	Up - Rigging		/n		author of	dishmb.	and many land	ne escale a	tradel a no da	and High act	The state of the s		
Mix Mi	ud		San Salli	La Carallera	AL ALVEY SO		Calmeria .	Service States	and the same	T . Tr. II	The same	1000	
Condit	ion Hole, Los	st Circ	culation			7 50	Lost bits:	Size	Ser	rial no			
-	ing, Inclination			Eura III	S STATE OF STATE	NAME OF THE W				le #			
	zation/Demol					7 7						II PALL	ALC: N
Other	(Explain) 📈	1EC	hama	3	Arraham .	I S B IST	for C	lient	Hole 7	#	below the same	962	
								ngco	Hole 7				
					1 1 1		Bit change	The state of the s		-	Depth	The state	-
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	-	Tota	l Hours	12	P. Trans	-	in hole)	-	Burney F	ALL PROPERTY			
	Dri	iller's	Initials	KV	200		Par .	30	BUSE	o sperie	HIS OFFI		
Shift		DRI	LLERS		Irs.	Y THEL	PERS	STARUT.	Hrs.	TRU	CK DRIVE	RS	Hrs.
А			AUS D.		2 M.	VAN	AUSDA	4	17 1		07		12
В						1 42	4						
C										THE PARTY			
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		W.	-		Remove			AKC C	CONTRU	1000	movel		AT
6	T.0 5	200		Dailer &			AFTER	53 (GAL	DRUM			AUL
EU	07 15	Co			Chois		Quim	RESE		,			

Contracting Division General Office



		Minneapolis, Minnesota 554		"DAILY	, WATER
tract: GARBS	R	Date: 9 7 1981 Dri	TKT #1	1.	/ TRUCK
		MONTH DAY	TYPE	DRILL NO.	TRUCK NO
Location: NEVADA		Foreman's Signature:	at the	a Calif	

4		9	100		Bit Size	CONTRACTOR		Summary	1 10 10		et		al Casing
Shift	Hole No.	Angle	Mater	ial Drilled	& Type	Di	illing	Rea		The second second second	Core Re-	20	Hole
	ciude ime	II Call	HOW BUTT	nts mon etq.	AL PERSONAL	From	То	From	То		covered	Size	Footag
Day	EQMI	V			1." HAM	ma 1150	1175		-nonexa	25	ON TO THE	7	531
	THE PERSON	100	and dept from	Michael III vonepa	-	and the state of the state of		and groups			the manual services	HM	
A											- In the last	1110	
200000	e oncore	and the	(B 710 200	A REAL PROPERTY.	TO I HAD	The Paris	1	Red min	THE ANSON		The state of	-35	
Aft													
В	granula.	770, 20	OT BOILDIN	at an had bridge	DHONG VI	IVI DB QUINI	THE RESERVE	LEUTER BU	17 14-170	1991 14-11	U THEFT	D. TIU	
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C						-			-	-	-	-	
	Lavorba Disaul	la continue		Dov. I	Aft.	Nite	1	سياني لينظ	Cumpl	ies Consum	od		
	Hourly Distri	DUTIO	1	Day	AIL	Mile			- Control of the Cont			A.64	. Nit
	rilling		10	Green last a	of the last	1	5	P. OLS		Product	Day		
	dling Rod (ch	_	oit)		-	-		on S	ize	Name	N	umber	of Units
	rden - rock b		-		-		Portland	palling a		-	-	124	
	ng Hole - Dia.	bit			N. T.		Lumnite			200	and the same	Sim Co	
Rotary	Drilling		1	4	D. C. C.		Calseal	Tues a lu		per college	-	400	
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		20	1.14	Part of the last			Mud	1007	#		0 0		
Rock	Bit - Overbu	ırden	Control of the Local Division in which the Local Division in the L		N. Line		Other (De	escribe)	a service of	State or			
Reamir	Married Street, Square	-)				NOVA	FOAM	100	FAL			
	- Placing	Les Die	PULL TO 1	THE REAL PROPERTY.	100.00	10 CO DE	5	CAL	FIFE	FOR	1 1000	THE R	
	- Pulling	-	10,00	5,00	ereni is	1000000	EVTI	00 0	000	100		-	
	- Client Acct	7 100	The Report	12 SHID HILL	a d Trem	COLUMN TO THE REAL PROPERTY.	CAIL	CP7	UMP.	DESTRUCTION OF THE PARTY OF			
Jelays	- CHEIT ACCL		District Control	FO THE PER	Till Unite		11111111111111	The state of the s	THE PERSON	-	The same		
	Tu	-	-	-			-	-	-	OTHER		4	
Cemen	ting Handlin	-		-	of the letter	THE REAL PROPERTY.	mail Std 3	200	a of the	OTHER les	am dull one	AND A	
	- Prep Ho		Grout		-	-	Water had	iling 4	Z mi	les	loa		
	- Setting				market o	A CONTRACTOR				e/			
	- Drilling					100	Length of	f waterline	:		170	5965	
	- Hole to Ho	_			rit mater	-	Lost tools	: Descripti	on	and Total	males Wille	100	
	g Up - Rigging	Dow	/n		military or	o Salamin I	mi sterio i	le ut softu	matte 16 s	lor fibb or	The latest	ile:	
The state of the s	ud		1		at the same	and the second second	The state of	Inches Lower	MANUTERING .	T makes the			
	ion Hole, Lo			6		1	Lost bits:	Size	Se	rial no	The same of the sa	200	
Survey	ing, Inclination	on Te	st	A CONTRACTOR OF THE PARTY OF TH		Territory and				ole #		4	
Mobili	zation/Demo	bilizat	ion							9		Nine.	
Other	(Explain)	AFEL		1	all the last			lient					
	VICING	TRU	ks &				Lo		Hole		-	The last of	
-	MIRC TO						Bit chang				Donath	m= m	
		150	AMT.					05.	1	erial # 14382	Depth	TO T	185
IK	nck		200	William Street, San Street, Sa	Large Large	1 to 100 miles	(Include	0	+7	TOR	UN A	1	00
		Tari	Harry	10		The same of the	first bit	-	- The same of the	A CAMPINE UNIT	Service 1 St		
	ONE 14	Total	Hours	12	-	deniash	in hole)	BUTTA OF	WHO IS	STATE VOLUME	MARK WITH		
	Dr		Initials	K.V	- 11			60	SUPE	IO MOTETIV			
Shift			LLERS		Hrs.	HEL	PERS	BERRIE	Hrs.	IRU	CK DRIVE	RS	Hrs
A	K. VA	VI	PUSDA	1 1	ZM	VAN I	90501	96	12 1). ROO		120	125
В													
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ma	rks: Hale	V	VAS C	asua	14 0	TT	30'	Task	7 07	(SIC D)	7 11	6	
R	Thomas	20	Helo				No.	-	ZAGI		LLINE		
19	100		111	the	, , ,	1	112	10000	20120	O.C.	act De)	

Contracting Division

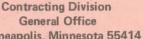
General Office

"DAILY DRILL REPORT

Minneapolis, Minnesota 55414

Date: 8 8 19 81 Drill TKT W1 Contract: GABBS Lucation: NEVADA _Foreman's Signature: __ **Footage Summary** Feet Total Casing Bit Size Drilling in Hole Reaming Drilled or Core Re-Shift Hole No. Material Drilled & Type From To Footage To Reamed covered Size Eam 1 Day A Aft B Nite C Aft. Nite Supplies Consumed Hourly Distribution Day Core Drilling Product Day Aft. Nite Number of Units Handling Rod (change bit) Description Size Name Portland Overburden - rock bit Collaring Hole - Dia. bit Lumnite Calseal Rotary Drilling 50# Mud Handling Rod (bit) Mud 100# Other (Describe) Rock Bit - Overburden Reaming (to NOVA FOAM 15 GAL 110 GAL FUEL FOR Casing - Placing - Pulling EXTRA COMP. Delays - Client Acct. OTHER Cementing - Handling Rods Water hauling miles loads
Core boxes: size/ no. - Prep Hole & Grout - Setting - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Surveying, Inclination Test Depth: _____ ft. Hole # _____ Mobilization/Demobilization Casing lost or left in hole: Size ______ft. Other (Explain) for Client Hole #____ Longco Hole # Bit changes: Size Serial #. Depth (Include 144382 OFF AT 1175 first bit 6" DIAMONO ShuE ON AT 1175 Total Hours in hole) DIAMOND ShoE OFF AT 1179 Driller's Initials Shift HELPERS TRUCK DRIVERS B

Contracting Division



Contract: CABBS	0 0	1981 Drill	-KT #1	1.	/ WATER
	Date: MONTH DAY	19 Drill	TYPE	DRILL NO.	TRUCK NO.
Lation: NEVADA	Foreman's Signature:	Juran	Murdil	e .	

		0			Die Circ	contra 1 or	Footage S		Part I had	-	et		al Casing
Shift	Hole No.	Angl	Mater	ial Drilled	Bit Size & Type		lling	Rea	The state of the s	Drilled or	Core Re-	ir	Hole
	ded shelp	A	Him sidt	am oden sh	a Type	From	То	From	То	Reamed	covered	Size	Footage
Day	EQM 1	V							. northing	DS REGILES	05 10 100	7	53'
A	The later of	102 12	ar arth gint	breat in 1910s	BESH ON A	Charle Call	SWG STRIT	no bulling	TO REZERO	aum Arba	e calegories	4	1179
-										1	THE PERSON NAMED AND ADDRESS OF THE PERSON NAMED AND ADDRESS O	THE .	
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Aft B													
	Buthala	1000	to a full pure	A STATE OF THE	A THEORY AND	Age Limited	THE STORY	AND THE REAL PROPERTY.	AL AND MARKE	100000000000000000000000000000000000000			
Nite													
C	Spirit South		Total Union	arer sairer									
								Marie Street				-	
	lourly Distril	butio	n	Day	Aft.	Nite				es Consum		OF STREET	
Core Dr			6		about the Park	nd model				roduct	Day	Aft	
Hand	ling Rod (ch	ange l	bit)					on S	ize	Name	Nt	umber o	of Units
	rden - rock b		-			-	Portland	inclina-		nego walk	-	d b	
Collarin	ng Hole - Dia.	bit					Lumnite	-		15075	in this to	1	
	Drilling				-		Calseal	I real land		of the last		-	
Hand	lling Rod (bit)		2	STATE OF THE PARTY OF	bonto!	Mud	50/		of being	- Interior	100	
30.00							Mud	100#	the about b	entsleve In	IN THE PARTY NAMED IN		
	Bit - Overbu	rden		Annual Park	Harry S.		Other (De	escribe)	n Inigan	Taylette	A bolton	0.1	
	ig (to)				NOVA	FOAM	2	GAL			
	- Placing	in many	mulique	10		E ISSUE	The second second		-	-		-	
	- Pulling				Action 18 and			100					
Delays .	Client Acct.	THE PARTY	may bre	are in the same	te in Albana	West State of	-			A THE PARTY	-	-	
	and the same		HILL-	-	-		-	-					-
Cement	ting - Handlir									OTHER	nes audit		
	- Prep Ho	ole &	Grout	-		-	Water hau	iling	mi	les	load	ds	
	- Setting	-	August Har	Market and the	ALCOHOLD DE	Distant la	Core box	es:	siz	e/	no.		
	- Drilling									19		Day!	
	- Hole to Ho		Name of Street	and and			Lost tools	: Descripti	on	Controller	phinol Dr	100	
Mix Mu	Up - Rigging	Dow	/n		Author o	established by	ol etenimi	Mari Hou	WEIP 10 3	od I ab ot	pri illider		
Maria Colonia	ion Hole, Los	+ Cir	ulation	7		to Marie	- Indiana	-	and the	T Kndrah	Di proprie	-	-
	ing, Inclination	_		2	ND -010 03 1	rendinger;	Lost bits:	Size	Sei	rial no	THE REAL PROPERTY.	-	-
	ation/Demol			-	No.	C. openie				le #			
	Explain)	JIIIZai	LIUII								ft	7	
Other (LXPIaIII/	h ni	and the same	MARKET HARRIST	Besid when	Lat Resil	for C	4	Hole :	_	Infrasti ta	80 m	
							The second second	ngco	Hole		No. of Street		
	1						Bit chang	es: S	ize S	erial #	Depth		
		-	1000	API 000000	Date Dance	Chrone with a	(Include	The state of the s	discussion of the	Laboration of the			
		Tata	Lilarina	11	DATE: 1700	P. RESIDENCE WHAT IS	first bit	Charles and	CARLOW PROPERTY.	Assessed Line	CI KRIE I NI		
	Strain and	Tota	Hours	14	10 200		in hole)	ASSOLA COL	OMETER !	OV SHIP	HEN WEST		
	Dri	ller's	Initials	K.V	100				SHAPE	O MOITS	dia dagen		
Shift			LLERS	512 510 10	Hre	VIV DEL	DEDC V	Date sould	Usa I	TOU	OK DOWE	DO	1
A			AUSD	AL	Hrs. 14 M		AUSD	AI	Hrs. 14) P	CK DRIVE	HS	Hrs
В	11. 1	114	11020	1.10	-1 /-1	471/7	11000	110	-1 :) - N	001		1
C													
mar	ke TRI	bet	111	TO HO	IE TO	GleA) E	OR (CASINO	-	DIPL'D	20.1	7
		500		RSEN	Hole	HAC	-	BIOL	N 51	Sme	1100	UU	The state of
10													

Contracting Division
General Office

General Office Minneapolis, Minnesota 55414

"DAI	LY	DRIL	LRE	PO	RT'
	Dec 2				

Date: MONTH DAY 19 8 Drill Foreman's Signature: ___ **Footage Summary** Angle Feet Total Casing Bit Size Shift Hole No. Material Drilled Reaming Drilled or Core Rein Hole & Type From To From To Reamed covered Size Footage Day A Aft B Nite C Hourly Distribution Day Aft. Nite **Supplies Consumed** Core Drilling Product Day Aft. Nite Handling Rod (change bit) Description Size Name Number of Units Overburden - rock bit Portland Collaring Hole - Dia. bit Lumnite Rotary Drilling Calseal Handling Rod (bit) Mud 50# Mud 100# Rock Bit - Overburden Other (Describe) Reaming (to Casing - Placing - Pulling ys - Client Acct. Cementing - Handling Rods OTHER Water hauling miles____ - Prep Hole & Grout - Setting Core boxes: __ size/___ - Drilling Length of waterline: Moving - Hole to Hole Lost tools: Description Rigging Up - Rigging Down Mix Mud Condition Hole, Lost Circulation Lost bits: Size _____ Serial no. ____ Surveying, Inclination Test Depth: _____ ft. Hole # _____ Mobilization/Demobilization Casing lost or left in hole: Size ______ft. ___ Other (Explain) for Client _____ Hole # ____ Longco ____ Hole # ____ Size Serial # Depth Bit changes: (Include first bit Total Hours in hole) Driller's Initials Shift DRILLERS **HELPERS** Hrs. TRUCK DRIVERS A В C Remarks:

Contracting Division General Office

Minneapolis, Minnesota 55414

Contract: Date: Date: Month Day 19 Drill TKT TYPE DBILL NO TRUCK NO														
MONTH DAY TYPE DRILL NO. TRUCK NO. Foreman's Signature:														
	The same	-		or Division of the last	THE PARTY NAMED IN	In a Sec	The state of	Footage S	Summary	u seni	- Transition - City	eet	Total	I Caria
Shift	Hole No.	Angle	Mater	rial Drilled		t Size Type	Dr From	illing		ming	Drilled o	Core Re-	in	Hole
Day	EQM IA	V		dback e.	61	HAMMO	. 0	100	From		O Reamed	covered	Size	Footage
Day	- polypti			-	6	COBE	100	104	man ami	no de	4	4	No	NE
Aft B	Sulphare		0			A 101	- Se Buille		dinina	HI BE	0.0413	no var	on .	
Nite C		N. F.	M All Br	Tion at an										
	lourly Distrik	oution	n	Day	Aft	.	Nite		014	Su	pplies Consum	ed		
Core Drilling Product Day Aft.					. Nite									
	Handling Rod (change bit) Description Size Name Number of Uni					f Units								
	g Hole - Dia.							Portland Lumnite						
Rotary		mile.	of the last	12	la Deco	(60 y 1 y	TOU TO THU	Calseal						
Hand	ling Rod (bit)	Policial ST	of State Can	BHYS: T		and being	Mud 50#						
Dools	Dia Ossalas	u al a u						Mud 100# Other (Describe)						
Reamin	Bit - Overbu	raen)	TO THE REAL PROPERTY.		Nova Foam 5 Gas								
Casing — Placing				1	NOVA FORM 5 GAL I CASE 30 W OIL									
	- Pulling													
ys - Client Acct.														
Companies Harding Rada														
Cementing - Handling Rods - Prep Hole & Grout				Water barr	4	1	OTHER miles /	De la						
- Prep Hole & Grout - Setting				Core boxe	s.	9110	miles /	load	is					
- Setting Core boxes: size/ no Drilling Length of waterline:														
Contract of the Contract of th	- Hole to Hol							Lost tools:						
Rigging Mix Mu	Up - Rigging	Dow	n	K		1000			7	-		Mindian	mici i	
The second second second	on Hole, Lost	t Circ	ulation	The state of the s	100			I and below	C:		0			
	ng, Inclinatio			real tripling	unu no	Toronto In	COMMON.				Serial no		1.00 V	
	ation/Demob	ilizat	ion	Agents (Visit		r link o	G. green	Casing lost	or left in	hole:	Size	ft		
Other (Explain)				1000			for Cl	ient	H	ole#			
	- SV UK		diam'r.	THE PARTY	OFFICE A	1111	Cim brist				ole#		407	7
								Bit change (Include	s: Si	ze /	Serial #	Depth O	OF	F 100
								first bit	711	Die	mono Sho		1900	,
		Total	Hours	10	111111		and so	in hole)	1	UI	TIVE SAL	OF	109	1
	Dril	ler's l	Initials	KU	11513	NOT Y	онорал	PARIELY	1561-0	GIF-3		12-11-113	Ser.	
Shift	VIN	DRII	LERS	A 1	Hrs.	r.	HELF		,	Hrs.		CK DRIVE	RS	Hrs.
B	J Ou	1111	1100	ALI	20	2 [1]	OUN	AUSDA	6	20	D 1500	1		10
C														
	(s: R19	Da	000	WODED	BH	CAD	10	RIGUT	5. DK	3/1/6	0 100'	TRIP	ED (700
	130 to 3-1	07	CORE	BUBB	11 -	LBIE	-	D 'CO'	BED	A	FT	14,600		TU
L/VIC	13.0 2	101	919. 3	DEC 0/4	00,	MAZ	1 40	ic but	PILIS	ZAT	1019			
NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side														

BASE METALS WEEKLY DRILLING REPORT

WEEK ENDING September 4, 1981

MINERAL	PROJECT & NO.	COUNTY & STATE	HOLE NO.	ANGLE	PROPOSED DEPTH	DEPTH	PROG FROM	PROGRESS NM FOOTAGE	NO. DRILL
2	Mt. Hope #2608	Eureka, NV	EM-14	Vert.	2000	1420'	1285'	135'	. =
	1285 - 1360 1360 - 1420	1360 Previously drilled; not covered in this report. 1420 Quartz porphyry.	not covered in th	nis report.		÷			
	Abundan 0.7 – 1	Abundant secondary K-feldspar, minor sericite. 0.7 - 1.5 wt % pyrite.		trongly sheared	Strongly sheared with late clay.	15 vol % quartz veins.	rtz veins.		
	Compon	Common quartz-molybdenite veinlets:	**	visual estimate:	Mate: 0.06 - 0.14% Mo	.14% Mo			
g	Mt. Hope #2608	Eureka, NV	EMH-18	Vert.	2500'	1970'	1800	170,	
	. Quartz 10 - 15	Quartz porphyry throughout. Common secondary K-feldspar; sericite patches and selvages. 10 - 15 vol % quartz veinlets. 0.5 - 1.25 wt % pyrite, minor chalcopyrite.	on secondary K-fe 5 - 1.25 wt % py	<pre>K-feldspar; sericite patches % pyrite, minor chalcopyrite.</pre>	e patches and se. lcopyrite.		Common fluorite.		
	Common	Common quartz-molybdenite veinlets:	••	visual estimate:	0.03	- 0.07% Mo			
£.	Mt. Hope #2608	Eureka, NV	EPH-21	Vert.	1500'	2061	206	-0-	H
	No progress.	î.							
2 2 2	Quartz (Rn. #612)	Nye, M	EQM-1 (Rotary)	Vert.	1500'	780	4	780	–
	S = 0 C = 0S	50 Overburden 390 Post-ore crystal-lithic tuff	tuff						,
	1 1	520 Dark quartz-feldspar porphyry 600 Siliceous hornfels	rphyry						*
	1	780 Intrusive rhyolite, grading into quartz porphyry	ding into quartz	porphyry	•				
	•	Combon pyrite below 390'. Pyrite content		increases below 600'.					



COMPANY EXXON MINERALS CO. ADDRESS 50 FREEPORT BLVD. #23 DATE. SPARKS ,NV. 89431 PHONE 358-70ZO REPORT AND INVOICE WILL BE SENT TO THE ABOVE ADDRESS UNLESS OTHERWISE NOTED UNDER SPECIAL INSTRUCTIONS. G. WESTRA, EXXON MINERALS Co. 2425 N. HUACHUCA DR. MAIL COPY TUKSON AZ 85705. OF REPORT TO: OR SPECIAL INSTRUCTIONS Cu, Mo, Pb, Zn, Au, pulps PULP & REJECT DISPOSITION MULPS CRUBERTS WILL AND SCARDED UNLESS OTHERWISE NOTED. FOR ASSAY OF (CIRCLE ONE) NO. OF PULPS WILL BE STORED TO DAYS AND ACTION WILL BE TAKEN AS CHECKED COARSE REJECTS SAMPLES DÎSC**AR**D DATE STORE AT \$1:00 PER 100 LBS. PER MONTH SHIPPED STORE AT \$1.00 PER JOO LESS, PER MONTH RETURN COLLECT TO: SHIPPED DUMINIES ARDUE SAMOKS CHARGE P.O. OR CODE NO SHIPPED TO ROCKY MOUNTAIN GEOGHEMICAL GORP SAN FRANCISCO CAUFORNIA AKE CITY, UTAH MOLO 13TH WEST LITERATION OF AN OTAH HONE: 801-255-3568

YELLOW COPY: KEEP FOR YOU

SEND TO RMGC

TELD WORK ORDER EXON COMPANY, U.S.A. A DIVISION	OF EXXON CORPORATION				
SWANSON'S TRICKING Service	OATE 6/21/87				
P.O. Box 172 Mina Ny, 894 Lender invoice in quadruplicate for each order, itemizing materials pu	2 Z ,				
EXXON COMPANY, U.S.A. SPARKS	· NV.				
Deliver Material to or perform work at: QUARTZ MTN. PROJECT, NV. #612	9 (STATE)				
QUANTITY DESCRIPT	ION	AMOUNT			
3 Mud PITS FOR DRILL SITE	=5 @ \$50.00/hr. begining				
from the departure point	t and return to				
departure point. After drilling completed					
Reclaiming dill sites					
This order is subject to the conditions on the back hereof which have been read, and accepted, and contractor agrees to be	CHARGE TO	Y			
CONTRACTOR MR. Meele Swanson					
CONTRACTOR MR. Meele Swanson	INITIAL INSTALLATION TREPAIRS OR I	REPLACEMENT.			
	EX	NON'S REPRESENTATIVE			
318-0038F					

EXON MINERALS COMPANY

BOX 120, DENVER, COLORADO 80201

U.S. Exploration

Oris. to Qtz Mtn. Orilling (1982) File, # 6129. Copy to

August 19, 1982

Terradrill, Inc. 2367 Krameria St. Denver, Co. 80207 Attn: John Thurston

Re: Quartz Mountain, #6129

Nye County, Nevada

Gentlemen:

Enclosed are two copies of the Drilling Contract to cover the drilling operations for the above-captioned project. If you concur with the terms of this Agreement, please sign and return both copies to us. We cannot allow you to start the project until we receive the signed copies from you. We will return an executed copy for your files.

Part A, Section I.4. provides that you will keep information and materials resulting from this project confidential. We want to be certain that this provision is strictly followed. Please so inform your supervisors and foremen and arrange to have all workers associated with the project advised that we want strict compliance.

This project will be under the direction of Tom Irwin of our Reno office, 50 Freeport, #23, Sparks, Nevada 89431; telephone (702) 358-7020. If you have any technical questions pertaining to the drilling of this project, please contact E.J. Huskinson at this office, telephone (303) 789-7635.

Please send all invoices for work performed on this project to the Reno address. Also, please ask your insurance agent to send us a copy of your current certificate of insurance.

Sincerely,

G.E. Lehtinen

Senior Drilling Coordinator

EJH:nb (2 19) cc: G. Westra T.D. Irwin

Attachments

	Project Name Quartz Mountain
	Project Number 6129
This Drilling Contract,	made this 19th day of August , 19 82
between Exxon Minerals Compar	ny, a division of Exxon Corporation, herein called
EXXON MINERALS, and	
herein called CONTRACTOR,	a Wyoming Corporation
La companya da la companya da la companya da la companya da la companya da la companya da la companya da la co	ITNFCCFTU +b-+

WITNESSETH that,

in consideration of the mutual agreements herein stated, it is agreed between the parties as follows:

PART A - GENERAL PROVISIONS

I. CONTRACTOR'S STATUS AND GENERAL OBLIGATIONS OF THE PARTIES

- 1. CONTRACTOR shall perform the work specified in Part B of this Contract in accordance with the particulars set forth in said Part B, diligently and in a proper, careful, safe and workmanlike manner in compliance with all laws and lawful regulations applicable and EXXON MINERALS shall pay CONTRACTOR for said performance the amounts specified in Part C of this Contract. CONTRACTOR agrees to notify EXXON MINERALS promptly upon discovery of any instance where the CONTRACTOR fails to comply with all laws and lawful regulations applicable to any activities carried out in the name of or on behalf of EXXON MINERALS under the provisions of this Contract and/or any amendments to it. This Contract is made for a term beginning on the date stated above and ending upon completion of the services herein provided for, unless sooner terminated under the express provisions of this Contract.
- 2. CONTRACTOR shall be an independent contractor with respect to performance of all work hereunder and neither CONTRACTOR nor anyone employed by CONTRACTOR shall be deemed for any purpose to be the employee, agent, servant, or representative of EXXON MINERALS in the performance of any work or service or any part thereof in any manner dealt with hereunder. The actual performance and superintendence of all work hereunder shall be by CONTRACTOR, but EXXON MINERALS or its representatives shall have unlimited access to the premises to determine whether work is being performed by CONTRACTOR in accordance with all of the provisions of this Contract and to observe the results thereof. CONTRACTOR shall not subcontract any part of the Project hereunder without the prior written consent of EXXON MINERALS. CONTRACTOR shall not assign its rights hereunder without prior written consent of EXXON MINERALS. All the terms, covenants and conditions of this Contract shall be binding upon the successors and assigns of the parties hereto.

3. CONTRACTOR shall comply with all laws, regulations, codes, ordinances and judicial and other orders of federal, state and local government authorities having jurisdiction over CONTRACTOR or any of the contract work, or activities carried out in the name of or on behalf of EXXON MINERALS, and shall obtain, at its own expense, all permits, licenses and equipment required of it by such authorities to enable CONTRACTOR to engage in the contract work. CONTRACTOR shall not be required to obtain permits which reasonably are required to be obtained by EXXON MINERALS in order to permit the contract work to be performed. CONTRACTOR agrees that all financial statements, billings and reports rendered to EXXON MINERALS will accurately report all activities and transactions handled for EXXON MINERALS' account and may be relied upon as being complete and accurate in further recordings and reports made by EXXON MINERALS for any purpose. CONTRACTOR agrees to notify EXXON MINERALS promptly upon discovery of any instance where CONTRACTOR has not complied with the foregoing provisions.

Without limiting the generality of the foregoing, CONTRACTOR shall not engage in any conduct or practice which violates any applicable law, order or regulation prohibiting discrimination against any person by reason of race, color, religion, national origin, sex or age.

If this is a contract subject to the rules and regulations approved by the Secretary of Labor under Executive Order 11246, as amended to date, the provisions of that Executive Order and the implementing rules and regulations of the Secretary of Labor are by reference hereby incorporated in and made a part of this Contract.

- If this is a contract subject to the Affirmative Action Regulations with respect to Employment of the Handicapped, or with respect to Disabled or Vietnam Era Veterans, regulations contained in the United States Code of Federal Regulations (41 CFR 60-741) are by reference hereby incorporated in and made a part of this Contract.
 - CONTRACTOR recognizes and confirms that all cores, samples, data and information whatsoever obtained or developed during or in connection with the work under this Contract shall be confidential and owned by EXXON MINERALS as its own proprietary information and property. CONTRACTOR shall use its best efforts at all times to prevent information concerning the Project, including drill sites, results of drilling and exploration, and drill cores, sludge and other samples, from being disclosed to anyone excepting only EXXON MINERALS' designated field representative or other party selected by EXXON MINERALS, in writing, to receive such information. CONTRACTOR shall not allow unauthorized persons to examine samples and drill cores and shall keep drill cores in closed containers at all times and in locked containers when neither CONTRACTOR'S nor EXXON MINERALS' representatives are at the place where the cores are kept. CONTRACTOR shall advise each of its employees of the confidential nature of the services being performed under this agreement. In the event CONTRACTOR or any officer, agent, or employee of CONTRACTOR, individually or with or through others, obtains a land or mineral interest and the same results from or is in any way connected with information obtained or developed during the work performed under this Contract, either during the term of this Contract or within a period of twelve (12) months after this Contract is terminated, then the same, should EXXON MINERALS so elect within a period of twenty-one (21) years after the acquisition thereof, shall be held in trust for the sole benefit of EXXON MINERALS. The foregoing provisions relative to a trust relationship is an addition to, and not a limitation of, any right or remedy otherwise available to EXXON MINERALS.

- In addition to and without limiting CONTRACTOR'S obligation to comply with applicable law and the provisions of this Contract, it is specifically agreed that CONTRACTOR shall routinely and at all times conduct its operations in a manner commensurate with good environmental conservation practices, and shall perform such incidental operations as are necessary to properly protect and maintain, within feasible limits, the original condition of the Project Area. If EXXON MINERALS advises CONTRACTOR that the terms of any prospecting permits, leases, options, mining claims, agreements or documents governing EXXON MINERALS' right to enter upon, explore, or drill lands within the Project Area contain restrictions, limitations or special obligations concerning the use of such lands, CONTRACTOR or any subcontractor will comply with them and if CONTRACTOR is requested to cease drilling operations because of noncompliance, CONTRACTOR agrees to cease such operations and further agrees that any time lost thereby will be at the sole cost and expense of the CONTRACTOR. CONTRACTOR also agrees to contain all waste oil, drilling mud, cuttings and rubbish that may accrue from its operations and prevent same from escaping. Upon completion of the Project or upon termination of this Contract for any reason, drilling mud contained in nonearthern tanks, CONTRACTOR'S equipment, materials, and rubbish shall be removed from the Project Area in compliance with good conservation practices. CONTRACTOR agrees that, to insure CONTRACTOR'S compliance with this provision, EXXON MINERALS shall have the right to retain an amount not to exceed ten percent (10%) of the charges invoiced to EXXON MINERALS under this Contract. After thirty (30) days from the time of mailing to CONTRACTOR written notice of noncompliance with this provision, these monies may be used for noncompliance of this provision such as but not limited to the removal of CONTRACTOR'S equipment, materials and rubbish and the cleanup of any spills caused by CONTRACTOR and restoration of the Project Area to the extent of CONTRACTOR'S responsibility as set forth in this paragraph. Retained monies will be released when CONTRACTOR complies with the terms of this paragraph 5.
- CONTRACTOR acknowledges and declares that it is familiar with the Project Area and the climate, terrain and working conditions therein, and that it has knowledge and expertise with respect to the work performed, equipment and materials to be used and methods of operation to be conducted hereunder. All pertinent factors have been considered prior to the agreement to the payments provided for in Part C. Any equipment or material furnished by EXXON MINERALS to CONTRACTOR is furnished "as is" with defects, if any, and the CONTRACTOR shall have the duty to inspect for defects. CONTRACTOR further recognizes and has considered the possibility of catastrophe such as blowout, cratering, fire, flood, storm, or avalanche and CONTRACTOR agrees that it will, at its own sole expense, furnish and have available all necessary, proper and legally required safety equipment and supplies for its operation and to protect its employees, such as, but not limited to fire fighting equipment, gas detection equipment, first aid equipment, and flow diverting equipment. CONTRACTOR agrees to take all precautions which are necessary, reasonable, proper, and legally required to protect its personnel and equipment and also other persons and the property of others from hazards. CONTRACTOR shall observe the following particular fire prevention rules: Vehicles with catalytic converters shall be driven only on roads and parked only in areas where ignitable materials have been removed. Welding or other activities which could ignite timber or brush shall be conducted only with special procedures established to prevent fires.

II. INDEMNITIES

1. EXXON MINERALS shall indemnify CONTRACTOR and save CONTRACTOR harmless from and against any liability or responsibility for bodily injuries, death or damage to property caused solely by the negligence of EXXON MINERALS, its officers or employees.

- 2. CONTRACTOR agrees to protect, indemnify and hold harmless, EXXON MINERALS, its agents, servants and employees from and against all claims, demands and causes of action of every kind and character arising in favor of CONTRACTOR, CONTRACTOR'S employees or third parties (third parties being defined for purposes of this provision as any party other than an employee of EXXON MINERALS or employee of CONTRACTOR) for:
 - (i) Labor, materials, services, equipment and supplies furnished by CONTRACTOR or EXXON MINERALS hereunder; and
 - (ii) Taxes, licenses and fees levied or assessed on CONTRACTOR in connection with or incident to the performance of this Contract, including unemployment compensation insurance, social security or other levies or taxes upon wages paid by CONTRACTOR; and
 - (iii) Bodily injuries, death or damage to property occurring in or in any way resulting from the performance of the work under this Contract except only those injuries, deaths or damages caused solely by the negligence of EXXON MINERALS, its officers or employees.
 - 3. In the event EXXON MINERALS and CONTRACTOR are unable to agree as to whether the sole cause for the occurrence is the negligence of EXXON MINERALS, its officers or employees, or should applicable law require that EXXON MINERALS and CONTRACTOR share the liability and responsibility for an accident or occurrence despite the provisions of subparagraph 2 (ii) above, then the matter may be referred by either party to the American Arbitration Association for resolution in accordance with its rules for commercial arbitration. If EXXON MINERALS should determine that prompt payment for a third party liability is desirable, it may make such payment subject to refund after arbitration.
 - 4. CONTRACTOR shall defend all suits brought upon any claim, demand or cause of action as to which its indemnity applies and shall pay all costs and expenses incidental thereto but EXXON MINERALS shall have the right at its option to participate at its own cost and expense in the defense of any such suit without relieving CONTRACTOR of any of its obligations.

III. RESPONSIBILITY FOR CONTRACTOR'S EQUIPMENT

CONTRACTOR shall assume sole responsiblity and liability at all times for any and all damage to or loss or destruction of CONTRACTOR'S surface equipment, including the platform and all drilling tools, machinery and appliances located above the surface, regardless of how such damage, destruction or loss occurs, and EXXON MINERALS shall be under no liability whatever to reimburse CONTRACTOR for such damage, destruction or loss.

IV. INSURANCE

1. CONTRACTOR now carries and shall maintain in force for the duration for this Contract the following insurances and agrees that no insurance will be cancelled or materially changed while this Contract is in effect without thirty (30) days written notice to EXXON MINERALS. Nothing contained herein shall serve in any way to limit or waive CONTRACTOR'S responsibility.

- (i) <u>Workmen's Compensation</u> CONTRACTOR, for all its employees engaged in the performance of any work or service dealt with hereunder, now carries and shall maintain Workmen's Compensation insurance in full compliance with applicable law. Should any part of the work or services hereunder be subcontracted, CONTRACTOR shall require each subcontractor to provide Workmen's Compensation insurance for the subcontractor's employees unless said employees are covered under CONTRACTOR'S insurance.
- (ii) <u>Comprehensive General Liability</u> CONTRACTOR now carries and shall maintain Comprehensive General Liability insurance in minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence, and minimum property damage liability limit of not less than 100,000.00 U.S. Dollars per occurrence.
- (iii) <u>Comprehensive Automobile Liability</u> CONTRACTOR now carries and shall maintain Comprehensive Automobile Liability insurance covering owned, non-owned, and hired automotive equipment and providing minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence and property damage liability limit of not less than 50,000.00 U.S. Dollars per occurrence.
- 2. CONTRACTOR agrees to furnish EXXON MINERALS with satisfactory evidence that insurance is being properly carried, including the types, amounts of coverage in effect and the expiration date of each policy. If requested by EXXON MINERALS, CONTRACTOR shall furnish EXXON MINERALS with certified copies of all policies. If any of CONTRACTOR'S insurance policies require CONTRACTOR to list the companies to which it provides service, CONTRACTOR will furnish written notice that EXXON MINERALS is listed.
- 3. No part of the cost of CONTRACTOR'S insurance shall ever be a reimbursable item under this Contract as those costs are reflected in the rates specified in Part C hereof.

V. FOREIGN STATUS DECLARATION

If CONTRACTOR is not a citizen or resident of the United States, or a corporation or partnership which was created or organized in the United States, or any state or territory of the United States, CONTRACTOR agrees to notify EXXON MINERALS of its citizenship and resident status when this Contract is executed by CONTRACTOR, or if CONTRACTOR'S resident status changes during the term of this Contract, within five (5) days after the change in resident status, CONTRACTOR will provide EXXON MINERALS with the information necessary to determine CONTRACTOR'S United States federal income tax exemption status. Based on the information provided, EXXON MINERALS will advise CONTRACTOR of its exemption status and the amount of tax, if any, that EXXON MINERALS is required to withhold from payments to CONTRACTOR per the Internal Revenue Code. If CONTRACTOR fails to notify EXXON MINERALS of its non-resident alien individual, partnership or foreign corporation status, EXXON MINERALS reserves the right to withhold all payments to the CONTRACTOR until the CONTRACTOR'S tax status is determined and appropriate withholding tax payments are made to the United States Treasury Department, and the CONTRACTOR agrees to reimburse EXXON MINERALS for any withholding tax EXXON MINERALS is obligated to pay the United States Treasury Department on behalf of the CONTRACTOR.

VI. TERMINATION

EXXON MINERALS shall have the right to terminate this Contract at any time, for any reason, by verbal or written notice given to CONTRACTOR, or to CONTRACTOR'S personnel, by EXXON MINERALS or by EXXON MINERALS' authorized personnel.

CONTRACTOR shall have the right to terminate this Contract at any time by giving EXXON MINERALS ten (10) days written or verbal notice, at its address set forth on the last page of this Contract or to EXXON MINERALS' field representative, and either completing the hole in progress or assuming the cost of such hole.

When this Contract is terminated for any reason, EXXON MINERALS shall pay CONTRACTOR as provided in this Contract only for those test holes completed to the depth and in a manner specified by EXXON MINERALS and for that part of the Project completed prior to the time of the termination.

This Contract shall remain in force until all of CONTRACTOR'S equipment, materials and rubbish is removed from the Project Area, according to the provisions herein contained.

VII. CONFLICT OF INTEREST

CONTRACTOR shall exercise reasonable care and diligence to prevent any actions or conditions which could result in a conflict with EXXON MINERALS' best interests. This obligation shall apply to the activities of the employees and agents of CONTRACTOR in their relations with EXXON MINERALS' employees and their families and with third parties arising from the performance of this Contract and accomplishing services hereunder. Both parties' efforts shall include, but not be limited to, establishing precautions to prevent its employees or agents from making, receiving, providing or offering substantial gifts, extravagant entertainment, payments, loans or other considerations for the purpose of influencing individuals to act contrary to EXXON MINERALS' best interests.

VIII. ENFORCEMENT

EXXON MINERALS and CONTRACTOR may at any time or from time to time during the term of this Contract elect not to enforce or require strict observance of the terms, conditions or provisions of this Contract; however, this shall not constitute a waiver of, nor limit or impair such terms, conditions or provisions; nor shall it affect EXXON MINERALS' or CONTRACTOR'S right to enforce such terms, conditions or provisions.

	Project Number 6129
	CONTRACTOR Terradrill, Inc.
	PART B - PROJECT SPECIFICATIONS
I.	LOCATION RESPONSIBILITY
	Preparation of access roads and drill sites by <u>EXXON MINERALS</u>
	Maintenance of access roads and drill sites by <u>EXXON MINERALS</u>
	Preparation of mud reserve pits byEXXON MINERALS
I.	DRILLING
	Drill 3 holes of varying depths, as directed by EXXON MINERALS, not to exceed 1500 feet maximum, commencing on or about September 7, 1982, in the Project Area described as:
	Quartz Mountain, approximately 20 miles north of Gabbs, in Sections
	29 and 30, T14N, R36E, Nye County, Nevada
	Diameter of Holes, Cores and Casing through objective interval:
	Depth Hole Size Core Size Csq. Size
	0 - ±100' 8-3/4" 6" FJ*
±1	100 - T.D. 5-1/4 - 5-1/8"
	*to be provided by CONTRACTOR
	Depths are an estimate; hole size, core size and casing size must be adhered to unless authorized by EXXON MINERALS.
	Hole angle or straight hole requirements: Consistent with good drilling
	practice.
	Work Schedule:
	 a. Shifts per day - 1 or 2 b. Work days per week - 10 on, 4 off; can be altered by mutual agreeme c. Hours per shift - 10 or 12
	with a minimum 2 man crew per shift, per drill.

Project Name Quartz Mountain

Materials, equipment, and services to be provided by CONTRACTOR: All labor, equipment, tools, material, supplies, and services necessary and proper to the drilling and other contract services specified, with the following being particularly itemized:

Portadrill TLT			
1500' to 2000' of 4-1/2" CSR dri	ll pipe		
LeRoi 256-S2 compressor			
Auxiliary booster compressor (if	needed)		
Mud and injection pumps			
40' pipe trailer to facilitate t	tripping in and	out	
3000-gallon water truck		·	
Ancillary support equipment			
Materials, equipment and services boxes and sample sacks and other			LS: Core

III. OPERATIONAL PROVISIONS:

- 1. EXXON MINERALS will designate and stake the location of all drill sites. CONTRACTOR shall make all necessary inspections and declares at the time it moves on the drill site that the access roads and drill site, whether staked in natural surroundings or prepared by EXXON MINERALS, are adequate and safe for its operations.
- 2. CONTRACTOR shall take drill cutting samples, sludge samples and/or core to the extent directed by EXXON MINERALS. CONTRACTOR shall make all reasonable effort to obtain maximum core recovery and samples representative of the intervals drilled. No payment will be made for lost core, unsatisfactory core recovery or unapproved core size reductions. On continuous core holes, if core should be lost in any interval that EXXON MINERALS' representative deems to be critical, CONTRACTOR agrees that it will plug back and make one additional attempt by wedging or by redrilling hole to achieve recovery of the critical core at one-half the hourly rate specified in Part C, Section I.4.a. of this Contract. CONTRACTOR shall box, accurately mark and preserve cores and samples as directed by EXXON MINERALS.
- 3. CONTRACTOR shall make every reasonable effort to maintain the specified hole and core size through the objective interval of the hole.
- 4. CONTRACTOR shall install casing and cement the same if required by hole or drilling conditions and authorized by EXXON MINERALS, and recover casing that is reasonably possible to recover. CONTRACTOR shall set plugs in drill holes upon abandonment as requested by EXXON MINERALS, and as required by drilling conditions to stabilize hole or to combat lost circulation.
- 5. If an artesian flow or other abnormal-pressured flow is encountered in any hole, CONTRACTOR will notify EXXON MINERALS, divert or control the flow to minimize damage and in the case of hydrocarbons or salt water, contain all liquids within the minimum feasible area.
- 6. CONTRACTOR will not permit livestock or wildlife to be exposed to grease or other deleterious substance.
- 7. CONTRACTOR shall keep and furnish to EXXON MINERALS such daily drilling shift records and drilling reports as EXXON MINERALS may require.
- 8. CONTRACTOR shall notify EXXON MINERALS promptly and if possible in advance of any change of personnel or change of work schedule.
- 9. CONTRACTOR will notify EXXON MINERALS promptly by phone when operations revert to time rates under the terms of this Contract and when conditions occur that could cause loss of hole, that are hazardous to personnel. CONTRACTOR'S equipment and/or the surrounding area or environment.
- 10. CONTRACTOR agrees that storage of any type of hydrocarbon will be in single, 660 U.S. gallons or less containers and that no more than 1320 U.S. gallons will be stored on the Project Area unless prior permission is obtained from EXXON MINERALS. The storage containers will be placed in an area where no part of any spill would reach the natural drainage, a stream, river, lake, reservoir, spring, pond, hole or well in the area where contamination of surface or underground water is possible.

- 11. CONTRACTOR agrees not to put any type of oil or toxic substance in the drilling mud for any reason including waste oil without prior permission from EXXON MINERALS. CONTRACTOR further agrees that if prior permission is not obtained, CONTRACTOR will remove the oil and/or toxic substance from the mud at his own expense, including hauling off and disposing of the contaminated mud and replacing with mud approved by EXXON MINERALS.
- 12. Pursuant to Part A, Section I.5 of this Contract, CONTRACTOR agrees to prevent any mud or drill cuttings to escape, leak, be dumped or discharged or any rubbish to be scattered on the Project Area at any time and to clean up any mud, drill cutting, or rubbish immediately when requested by EXXON MINERALS, at CONTRACTOR'S expense.
- 13. CONTRACTOR will abandon holes in accordance with State Regulations or as specified by EXXON MINERALS.

	Project Number	6129
	CONTRACTOR Te	erradrill, Inc.
<u>SCH</u>	PART C - PAYMENT SCHEDULE EDULE OF RATES	
1.	Mobilization One lump sum of \$1,500.00	
	Mobilization includes rigging up on the firs down on the last hole. Hourly rates start w (spudded) and stop when logging or coring is plugging time requires more than one hour, w completed on the last hole drilled.	then hole is collared completed or, if
	Demobilization One lump sum of \$1,500.00	
	Demobilization is payable only if CONTRACTOR mobilized by EXXON MINERALS or other operato of the Project.	'S rig(s) is not ers at the completion
	Moving between drill sites Hourly: \$200.00 pe	r hour
2.	The following services and materials to be furn CONTRACTOR are or are not reimbursable to the C indicated below.	ONTRACTOR as
	en en la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la co	mbursable to Contracto
		<u>Yes</u> <u>No</u>
	a. Preparation of access roads and drill sites	By EXXON MINERALS
	Maintenance of access roads and drill sites authorized by EXXON MINERALS	B <u>w exxo</u> n m <u>inera</u> ls
	Preparation of mud reserve pits	By EXXON MINERALS
	 Casing left in hole or recovered in poor condition less salvage value 	By EXXON MINERALS
	c. Mud, mud additives, chemicals, lost return materials and cement, except $\$$ O per hole to be borne by CONTRACTOR at cost plus 10%	X -

ī.

Project Name Quartz Mountain

2.	(cont.)	Rei	mbursable	to Contractor
			<u>Yes</u>	No
	d. Water		<u> </u>	- -
	e. Bits expended (less salvage Drilling or Reaming of Coring Hammer bits - See belder for Rental of in-hole surveying if requested by EXXON MINE 10% handling. All other services, third parmaterials furnished by CONTRA above are not reimbursable unauthorized by EXXON MINERALS	at cost plus 10% ow * ig instruments RALS at cost plus ty services and CTOR not mentioned	X X	
3.	Unit or Time Rates as Specifica. Drilling and Sampling (Over as applicable.)		1 depth	
	Depth Interval (feet)		Rate per	· Hour/foot
	Overburden (drilling and setti	ing casing)	\$200.0	0 per hour
1	0 - 500' 501 - 1000'		\$ 9.00 \$10.50 \$12.00	per foot per foot per foot
	b. Coring			
		Core Size	Mark Mark	
	Depth Interval (feet)		Rate per	
	Spot cores (if requested)	· *** *** *** *** *** *** *** *** *** *	\$200.00	per hour.

Core size asterisked above is the preferred size through the objective interval.

*EXXON MINERALS will reimburse CONTRACTOR 50% of cost for hammer bits used on the project.

- 4. Time Rates (for services other than drilling, sampling and coring applicable only if specifically authorized by EXXON MINERALS.)
 - a. Rig Operating with crew---\$ 200.00 per hour, except _-0-hours per occurrence combating lost circulation at zero rate.
 - b. Standby with crew---\$\frac{150.00}{\text{per hour, except}} \text{per hour, except} \frac{-0-}{\text{hours}} \text{hours}
 - c. Standby without crew---\$ 100.00 per hour
- 5. Other Rates (applicable only if specifically authorized by EXXON MINERALS):
 - a. Booster compressor, if needed, will be charged at the following rate:
 - 1. CONTRACTOR'S cost FOB jobsite from Milford, Utah and back.
 - 2. \$40.00 per hour or \$240.00 per day plus \$10.00 per hour, whichever is lower.
 - 3. Additional compressor, \$30.00 per hour or \$120.00 per day plus \$10.00 per hour, whichever is lower.
 - b. Spot cores, if requested, will be taken at the hourly rate of \$200.00 per hour, plus diamond bits at cost plus 10%.
 - c. Other equipment requested by EXXON MINERALS such as survey tools, extraordinary sampling equipment, etc., shall be billed at cost FOB jobsite.
 - d. Handling charges All items for which EXXON MINERALS reimburses CONTRACTOR will be billed at cost FOB Jobsite plus 10%.

- II. PROVISIONS APPLICABLE TO ALL RATES AND PAYMENTS (Also see Part B, Section III)
- 1. EXXON MINERALS shall pay all applicable sales and use taxes which are lawfully imposed by reason of CONTRACTOR'S services hereunder. EXXON MINERALS' tax payment obligation shall not include motor fuels taxes or any tax or license fee or charge levied or assessed on CONTRACTOR or upon or measured by CONTRACTOR'S income.
- 2. There is no guarantee that this Contract will be profitable to CONTRACTOR. Additional compensation will not be paid by reason of unexpected costs or unusual occurrence or catastrophe. Payment at the rates and according to the terms and provisions in this Part C shall be full and complete payment for all services performed and all materials and equipment furnished by CONTRACTOR except only if this Contract be amended in writing.
- 3. At the end or on the first and fifteenth of each calendar month in which work is performed hereunder, CONTRACTOR shall deliver to EXXON MINERALS a statement of all CONTRACTOR'S charges including all billable drill holes completed or partially completed, all other services performed, and all reimbursable costs incurred hereunder during that calendar month. Each such statement shall show the hole number, Project location, charges and costs for each individual hole drilled, insofar as possible. CONTRACTOR agrees that all financial statements, billings and reports rendered to EXXON MINERALS will reflect properly the facts with respect to charges and costs and may be relied on as complete and accurate for recording and reporting by EXXON MINERALS. CONTRACTOR agrees to notify EXXON MINERALS promptly of any discrepancy discovered.
- 4. Reimbursable costs for third party materials and services and tangibles furnished by CONTRACTOR, if any, shall be supported by third party invoices with CONTRACTOR'S invoice which includes such costs, and EXXON MINERALS shall be credited with all cash discounts received by CONTRACTOR. Payment shall be made only for supplies and materials accounted for on daily shift reports and no transfer, warehousing or handling charges shall be applicable unless specifically stated in the Payment Schedule.
- 5. No provision of this Contract for the reimbursement or direct payment by EXXON MINERALS of the cost of materials, use of equipment, or of third party services, shall ever be deemed:
 - a. To be an agreement by EXXON MINERALS to procure such equipment, materials or services or to be responsible for the availability or suitability of the same.
 - b. To authorize CONTRACTOR to charge all or part of the cost thereof to EXXON MINERALS or to pledge EXXON MINERALS' credit for any purpose.
- 6. CONTRACTOR shall preserve and protect EXXON MINERALS' properties and property interests from all liens including liens of mechanics and materialmen for labor, services or materials furnished in the performance of this Contract. Should any such lien be filed, or threatened, EXXON MINERALS may, in addition to any other remedy or right available to it, retain from any monies otherwise due CONTRACTOR, whether under this Contract or otherwise, an amount sufficient to discharge the lien and at its election, to discharge the lien by payment of said retained sum if it considers the lien to be valid. EXXON MINERALS shall also have the right, but not the duty, to pay for CONTRACTOR, and to charge against sums

- otherwise due CONTRACTOR, any reimbursable unpaid indebtedness incurred by CONTRACTOR in the obtaining of the materials, supplies, equipment, and third parties' services for the performance of this Contract, whether or not a lien has been or could be filed.
- 7. No footage penetrated in the hole shall be charged as both drilling and coring. The footage rate covers and includes payment for the taking of required samples.
- 8. All time rates for drilling rig services with crew are based upon use of CONTRACTOR'S full crew. If CONTRACTOR fails to furnish the minimum number of crew members specified in Part B, Section II of this Contract, CONTRACTOR agrees to notify EXXON MINERALS immediately and, if requested by EXXON MINERALS, agrees to go on zero standby rate if operating on a time rate. EXXON MINERALS shall not be required to pay for periods of standby or delay not caused or requested by EXXON MINERALS. No charge for standby or delay, or any other charges, shall be incurred, or charged to EXXON MINERALS, after EXXON MINERALS, or EXXON MINERALS' field representative, advised CONTRACTOR that the Project has been completed or that EXXON MINERALS elects to terminate this Contract. Nor shall there be any charge to EXXON MINERALS for any unit of equipment after EXXON MINERALS advises CONTRACTOR that it is released from use.
- 9. The standby rate specified shall apply only to shift time delays, including time in excess of the specified hours allotted for logging, waiting on cement to set, running inclinometer or hole deviation surveys, and for time required to allow gas pressure to subside.
- 10. The time lost caused by CONTRACTOR, including time required to reenter and condition hole after shutdown periods, mechanical failures or any condition other than is specifically mentioned in paragraph 9 immediately above, will be at the sole cost and expense of the CONTRACTOR and EXXON MINERALS will not reimburse CONTRACTOR for same.
- 11. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, them (1) time lost due to stuck pipe, "fishing operations" and the cost of services for and materials expended during "fishing operations" shall be borne by CONTRACTOR and (2) loss of, or damage to drill holes, and loss of or damage to CONTRACTOR'S tools and equipment shall be borne by CONTRACTOR.
- 12. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, payment shall be based on either (1) the total depth specified by EXXON MINERALS and determined by in-hole logging or (2) the total depth determined by drill stem measurement. No payment, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract, shall be made if the hole does not penetrate the objective depth specified by EXXON MINERALS' representative provided that it is within the maximum depth limit specified herein.
- 13. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, CONTRACTOR guarantees the completed open hole to be and remain in a condition to allow in-hole logging to total depth for a period of two (2) hours after the hole is ready and accessible to open hole logging. If CONTRACTOR elects to move off the location prior to logging and it is

- not possible to obtain an open hole log through the objective interval, CONTRACTOR will take whatever actions are necessary to allow open hole logging through the objective interval at its own expense or, in the case of non-core holes and at CONTRACTOR'S election, abandon the hole without any compensation for drilling the hole, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract.
- 14. If payment is based primarily on footage under unit rates specified in Part C, Section I, 3.a. of this Contract, CONTRACTOR agrees to make one attempt to fill the hole to 100 feet above the objective interval with a liquid specified by EXXON MINERALS prior to logging at CONTRACTOR'S expense.
- 15. If payment is based primarily on a time rate under unit rates specified in Part C, Section I, 3.a of this Contract, EXXON MINERALS shall assume the loss of drill pipe, drill tools and lost hole and EXXON MINERALS will reimburse CONTRACTOR for "fishing operations" authorized by EXXON MINERALS provided that CONTRACTOR can establish that CONTRACTOR has not negligently contributed to such loss and loss was not due to failure of any of CONTRACTOR'S drilling equipment, including but not limited to drill pipe, hoisting equipment, pumps and engines. Payment for lost drill pipe and drill tools will be based on actual cost less two (2) percent of actual cost per month for each from the date of acquisition less any insurance collected by CONTRACTOR on such equipment or will be based on the value of the equipment as listed in Part C, Section I, 5 of this Contract. Payment for lost drill pipe, drill tools and lost hole addressed in this paragraph is not applicable if payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract even if CONTRACTOR, their paid under Section I, 4.. Time Rates, at time of drill pipe, drill tool or is the section I, 4..
- drilling on the first hole or when EXXON MINERALS authorizes movement for drilling equipment to the drill area. If this Contract is terminated according to the provisions in Part A, Section VI of this Contract prior to EXXON MINERALS authorizing movement of drilling equipment, the mobilization fee is not payable. The demobilization fee will be payable if equipment has been mobilized to the Project Area as authorized by EXXON MINERALS and when this Contract is terminated by EXXON MINERALS or by CONTRACTOR according to the provisions in Part A, Section VI of this Contract provided CONTRACTOR is not mobilized by EXXON MINERALS or by another operator.
- 17. EXXON MINERALS duly authorized representatives shall have access, at all reasonable times, to all CONTRACTOR'S and subcontractor's personnel, job descriptions, employment and qualification records, books, records, correspondence, instructions, plans, drawings, receipts, vouchers, data stored in computers and memoranda of every description pertaining to work under this Contract for the purpose of auditing and verifying costs of work or for any other reasonable purpose. EXXON MINERALS' representatives shall have the right to reproduce any of the aforesaid documents. CONTRACTOR shall preserve, and shall cause its subcontractors to preserve, all the aforesaid documents for a period of two years after completion and acceptance or termination of this Contract work.
- EXXON MINERALS' representatives shall also have sufficient audit access to CONTRACTOR'S costs in the fixed rate areas to satisfy themselves that all services that are supposed to be included in CONTRACTOR'S fixed rates pursuant to this Contract are so included.

IN WITNESS WHEREOF, this Contract is executed as of the day and year stated on page 1 hereof.

CONTRACTOR:

EXXON MINERALS: EXXON MINERALS COMPANY, a Division of Exxon Corporation

Address: PO Box 120

Denver, Colorado 80201 Attn: Drilling

Ву	1
Terradrill, Inc.	
2367 Krameria St.	
Denver. Co. 80207	

EXON MINERALS COMPANY.

BOX 120, DENVER, COLORADO 80201

Orig. to Qtz Mtn. Orilling (1982) File #6129. Copy to

U.S. Exploration

August 19, 1982

Terradrill, Inc. 2367 Krameria St. Denver, Co. 80207 Attn: John Thurston

Re: Quartz Mountain, #6129

Nye County, Nevada

Gentlemen:

Enclosed are two copies of the Drilling Contract to cover the drilling operations for the above-captioned project. If you concur with the terms of this Agreement, please sign and return both copies to us. We cannot allow you to start the project until we receive the signed copies from you. We will return an executed copy for your files.

Part A, Section 1.4. provides that you will keep information and materials resulting from this project confidential. We want to be certain that this provision is strictly followed. Please so inform your supervisors and foremen and arrange to have all workers associated with the project advised that we want strict compliance.

This project will be under the direction of Tom Irwin of our Reno office, 50 Freeport, #23. Sparks, Nevada #3431; telephone (702) 358-7020. If you have any technical quantions pertaining to the drilling of this project, please contact E.J., Huskinson at this office, telephone (303) 789-7635.

Please send all invoices for work performed on this project to the Reno address. Also, please ask your insurance agent to send us a copy of your current certificate of insurance.

Sincerely,

G.E. Lehtinen

Senior Drilling Coordinator

EJH:nb (2.59) cc: G. Westra T.D. Irwin

Attachments

	Project Name Quartz Mour	itain
	Project Number 6129	
This Drilling Contract, m	ade this <u>19th</u> day of August	, 19 ⁸² ,
	, a division of Exxon Corporation, her	ein called
EXXON MINERALS, and	Terradrill, Inc.	- Carred
nerein called CONTRACTOR,	a Wyoming Corporation	
W I	ITNESSETH that,	
n consideration of the mutual	agreements herein stated, it is agreed	d between the

PART A - GENERAL PROVISIONS

I. CONTRACTOR'S STATUS AND GENERAL OBLIGATIONS OF THE PARTIES

parties as follows:

- 1. CONTRACTOR shall perform the work specified in Part B of this Contract in accordance with the particulars set forth in said Fert B, diligently and in a proper, careful, safe and workmanlike manner in compliance with all laws and lawful regulations applicable and EXXON MINERALS shall pay CONTRACTOR for said performance the amounts specified in Part C of this Contract. CONTRACTOR agrees to notify EXXON MINERALS promptly upon discovery of the instance where the CONTRACTOR fails to comply with all laws and lawful regulations applicable to any attivities carried out in the name of or on behalf of EXXON MINERALS under the provisions of this Contract and/or any and ending upon completion of the services herein provisions on the date stated above inated under the express provisions of this Contract.
- 2. CONTRACTOR shall be an independent contractor with respect to performance of all work hereunder and neither CONTRACTOR nor anyone employed by CONTRACTOR shall EXXON MINERALS in the performance of any work or service or any part thereof in any manner dealt with hereunder. The actual performance and superintendence of all work unlimited access to the premises to determine whether work is being performed by CONTRACTOR in accordance with all of the provisions of this Contract and to observe under without the prior written consent of EXXON MINERALS. CONTRACTOR shall not assign to rights hereunder without prior written consent of EXXON MINERALS. All the terms, covenants and conditions of this Contract shall be binding upon the successors and assigns of the parties hereto.

3. CONTRACTOR shall comply with all laws, regulations, codes, ordinances and judicial and other orders of federal, state and local government authorities having jurisdiction over CONTRACTOR or any of the contract work, or activities carried out in the name of or on behalf of EXXON MINERALS, and shall obtain, at its own expense, all permits, licenses and equipment required of it by such authorities to enable CONTRACTOR to engage in the contract work. CONTRACTOR shall not be required to obtain permits which reasonably are required to be obtained by EXXON MINERALS financial statements, billings and reports rendered. CONTRACTOR agrees that all report all activities and transactions handled for EXXON MINERALS will accurately be relied upon as being complete and accurate in further recordings and reports made promptly upon discovery of any instance where CONTRACTOR has not complied with the foregoing provisions.

Without limiting the generality of the foregoing, CONTRACTOR shall not engage in any conduct or practice which violates any applicable law, order or regulation prohibiting discrimination against any person by reason of race, color, religion, national origin, sex or age.

If this is a contract subject to the rules and regulations approved by the Secretary of Labor under Executive Order 11246, as amended to date, the provisions of that Executive Order and the implementing rules and regulations of the Secretary of Labor are by reference hereby incorporated in and made a part of this Contract.

If this is a contract subject to the Affirmative Action Regulations with respect to Employment of the Mandicapped, or with Respect to Disabled or Vietnam Era Veterans, regulations contained in the United States Code of Federal Regulations (41 CFR 60-741) are by reference hereby incorporated in and made a part of this Contract.

CONTRACTOR recognizes and confirms that all cores, samples, data and information whatsoever obtained or developed during or in donnection with the work under this Contract shall be confidential and owned by EXXON MINERALS as its own proprietary information and property. CONTRACTOR shall use its best efforts at all times to prevent information concerning the Project, including drill sites, results of drilling and exploration, and drill cares, single and other samples, from being disclosed to anyone excepting only EXXON MINERALS' designated field representative or other party selected by EXXON MINERALS, in writing, to receive such information. CONTRACTOR shall not allow unauthorized persons to examine samples and drill cores and shall keep drill cores in closed containers at all times and in locked containers when neither CONTRACTOR'S nor EXXON MINERALS' representatives are at the place where the cores are kept. CONTRACTOR shall advise each of its employees of the confidential mature of the services being performed under this agreement. In the event CONTRACTOR or any officer, agent, or employee of CONTRACTOR, individually or with or through others, obtains a land or mineral interest and the same results from or is in any way connected with information obtained or developed during the work performed under this Contract, either during the term of this Contract or within a period of twelve (12) months after this Contract is terminated, then the same, should EXXON MINERALS so elect within a period of twenty-one (21) years after the acquisition thereof, shall be held in trust for the sole benefit of EXXON MINERALS. The foregoing provisions relative to a trust relationship is n addition to, and not a limitation of, any right or remedy otherwise available to EXXON MINERALS.

- In addition to and without limiting CONTRACTOR'S obligation to comply with applicable law and the provisions of this Contract, it is specifically agreed that CONTRACTOR shall routinely and at all times conduct its operations in a manner commensurate with good environmental conservation practices, and shall perform such incidental operations as are necessary to properly protect and maintain, within feasible limits, the original condition of the Project Area. If EXXON MINERALS advises CONTRACTOR that the terms of any prospecting permits, leases, options, mining claims, agreements or documents governing EXXON MINERALS' right to enter upon, explore, or drill lands within the Project Area contain restrictions, limitations or special obligations concerning the use of such lands, CONTRACTOR or any subcontractor will comply with them and if CONTRACTOR is requested to cease drilling operations because of noncompliance, CONTRACTOR agrees to cease such operations and further agrees that any time lost thereby will be at the sole cost and expense of the CONTRACTOR. CONTRACTOR also agrees to contain all waste oil, drilling mud, cuttings and rubbish that may accrue from its operations and prevent same from escaping. Upon completion of the Project or upon termination of this Contract for any reason, drilling mud contained in nonearthern tanks, CONTRACTOR'S equipment, materials, and rubbish shall be removed from the Project Area in compliance with good conservation practices. CONTRACTOR agrees that, to insure CONTRACTOR'S compliance with this provision, EXXON MINERALS shall have the right to retain an amount not to exceed ten percent (10%) of the charges invoiced to EXXON MINERALS under this Contract. After thirty (30) days from the time of mailing to CONTRACTOR written notice of noncompliance with this provision, these monies may be used for noncompliance of this provision such as but not limited to the removal of CONTRACTOR'S equipment, materials and rubbish and the cleanup of any spills caused by CONTRACTOR and restoration of the Project Area to the extent of CONTRACTOR'S responsibility as set forth in this paragraph. Retained monies will be released when CONTRACTOR complies with the terms of this paragraph 5.
- 6. CONTRACTOR acknowledges and declares that it is familiar with the Project Area and the climate, terrain and working conditions therein, and that it has knowledge and expertise with respect, to the work performed, equipment and materials to be used and methods of operation to be conducted hereunder. All pertinent factors have been considered prior to the agreement to the payments provided for in Part C. Any equipment or material furnished by EXXON MINERALS to CONTRACTOR is furnished "as is" with defects, if any, and the CONTRACTOR shall have the duty to inspect for defects. CONTRACTOR further recognizes and has considered the possibility of catastrophe such as blowout cratering, fire, flood, storm, or avalanche and CONTRACTOR agrees that it will, at its own sole expense, furnish and have available all necessary, proper and legally required safety equipment and supplies for its operation and to protect its employees; such as, but not limited to fire fighting equipment, gas detection equipment, first aid equipment, and flow diverting equipment. CONTRACTOR agrees to take all precautions which are necessary, reasonable, proper, and legally required to protect its personnel and equipment and also other persons and the property of others from hazards. CONTRACTOR shall observe the following particular fire prevention rules: Vehicles with catalytic converters shall be driven only on roads and parked only in areas where ignitable materials have been removed. Welding or other activities which could ignite timber or brush shall be conducted only with special procedures established to prevent fires.

II. <u>INDEMNITIES</u>

1. EXXON MINERALS shall indemnify CONTRACTOR and save CONTRACTOR harmless from and against any liability or responsibility for bodily injuries, death or damage to property caused solely by the negligence of EXXON MINERALS, its officers or employees.

- 2. CONTRACTOR agrees to protect, indemnify and hold harmless, EXXON MINERALS, its agents, servants and employees from and against all claims, demands and causes of action of every kind and character arising in favor of CONTRACTOR, CONTRACTOR'S employees or third parties (third parties being defined for purposes of this provision as any party other than an employee of EXXON MINERALS or employee of CONTRACTOR) for:
 - (i) Labor, materials, services, equipment and supplies furnished by CONTRACTOR or EXXON MINERALS hereunder; and
 - (ii) Taxes, licenses and fees levied or assessed on CONTRACTOR in connection with or incident to the performance of this Contract, including unemployment compensation insurance, social security or other levies or taxes upon wages paid by CONTRACTOR; and
 - (iii) Bodily injuries, death or damage to property occurring in or in any way resulting from the performance of the work under this Contract except only those injuries, deaths or damages caused solely by the negligence of EXXON MINERALS, its officers or employees.
 - 3. In the event EXXON MINERALS and CONTRACTOR are unable to agree as to whether the sole cause for the occurrence is the negligence of EXXON MINERALS, its officers or employees, or should applicable law require that EXXON MINERALS and CONTRACTOR share the liability and responsibility for an accident or occurrence despite the provisions of subparagraph 2 (ii) above, then the matter may be referred by either party to the American Arbitration Association for resolution in accordance with its rules for commercial arbitration. If EXXON MINERALS should determine that prompt payment for a third party liability is desirable, it may make such payment subject to refund after arbitration.
 - 4. CONTRACTOR shall defend all suits brought upon any claim, demand or cause of action as to which its indemnity applies and shall pay all costs and expenses incidental thereto but EXXON MINERALS shall have the right at its option to participate at its own cost and expense in the defense of any such suit without relieving CONTRACTOR of any of its obligations.

III. RESPONSIBILITY FOR CONTRACTOR'S EQUIPMENT

CONTRACTOR shall assume sole responsiblity and Itability at all times for any and all damage to or loss or destruction of CONTRACTOR'S surface equipment, including the platform and all drilling tools, machinery and appliances located above the surface, regardless of how such damage, destruction or loss occurs, and EXXON MINERALS shall be under no liability whatever to reimburse CONTRACTOR for such damage, destruction or loss.

IV. INSURANCE

1. CONTRACTOR now carries and shall maintain in force for the duration for this Contract the following insurances and agrees that no insurance will be cancelled or materially changed while this Contract is in effect without thirty (30) days written notice to EXXON MINERALS. Nothing contained herein shall serve in any way to limit or waive CONTRACTOR'S responsibility.

- (i) <u>Workmen's Compensation</u> CONTRACTOR, for all its employees engaged in the performance of any work or service dealt with hereunder, now carries and shall maintain Workmen's Compensation insurance in full compliance with applicable law. Should any part of the work or services hereunder be subcontracted, CONTRACTOR shall require each subcontractor to provide Workmen's Compensation insurance for the subcontractor's employees unless said employees are covered under CONTRACTOR'S insurance.
 - (ii) <u>Comprehensive General Liability</u> CONTRACTOR now carries and shall maintain Comprehensive General Liability insurance in minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence, and minimum property damage liability limit of not less than 100,000.00 U.S. Dollars per occurrence.
 - (iii) <u>Comprehensive Automobile Liability</u> CONTRACTOR now carries and shall maintain Comprehensive Automobile Liability insurance covering owned, non-owned, and hired automotive equipment and providing minimum limits for bodily injury liability of not less than 100,000.00 U.S. Dollars per person and 300,000.00 U.S. Dollars per occurrence and property damage liability limit of not less than 50,000.00 U.S. Dollars per occurrence.
 - 2. CONTRACTOR agrees to furnish EXXON MINERALS with satisfactory evidence that insurance is being properly carried, including the types, amounts of coverage in effect and the expiration date of each policy. If requested by EXXON MINERALS, CONTRACTOR shall furnish EXXON MINERALS with certified copies of all policies. If any of CONTRACTOR'S insurance policies require CONTRACTOR to list the companies to which it provides service, CONTRACTOR will furnish written notice that EXXON MINERALS is listed.
 - 3. No part of the cost of CONTRACTOR'S insurance shall ever be a reimbursable item under this Contract as those costs are reflected in the rates specified in Part C hereof.

V. FOREIGN STATUS DECLARATION

If CONTRACTOR is not a citizen or resident of the United States, or a corporation or partnership which was created or organized in the United States, or any state or territory of the United States, CONTRACTOR agrees to notify EXXON MINERALS of its citizenship and resident status when this Contract is executed by CONTRACTOR, or if CONTRACTOR'S resident status changes during the term of this Contract, within five (5) days after the change in resident status, CONTRACTOR will provide EXXON MINERALS with the information necessary to determine CONTRACTOR'S United States federal income tax exemption status. Based on the information provided, EXXON MINERALS will advise CONTRACTOR of its exemption status and the amount of tax, if any, that EXXON MINERALS is required to withhold from payments to CONTRACTOR per the Internal Revenue Code. If CONTRACTOR fails to notify EXXON MINERALS of its non-resident alien individual, partnership or foreign corporation status, EXXON MINERALS reserves the right to withhold all payments to the CONTRACTOR until the CONTRACTOR'S tax status is determined and appropriate withholding tax payments are made to the United States Treasury Department, and the CONTRACTOR agrees to reimburse EXXON MINERALS for any withholding tax EXXON MINERALS is obligated to pay the United States Treasury Department on behalf of the CONTRACTOR.

VI. TERMINATION

EXXON MINERALS shall have the right to terminate this Contract at any time, for any reason, by verbal or written notice given to CONTRACTOR, or to CONTRACTOR'S personnel, by EXXON MINERALS or by EXXON MINERALS' authorized personnel.

CONTRACTOR shall have the right to terminate this Contract at any time by giving EXXON MINERALS ten (10) days written or verbal notice, at its address set forth on the last page of this Contract or to EXXON MINERALS' field representative, and either completing the hole in progress or assuming the cost of such hole.

When this Contract is terminated for any reason, EXXON MINERALS shall pay CONTRACTOR as provided in this Contract only for those test holes completed to the depth and in a manner specified by EXXON MINERALS and for that part of the Project completed prior to the time of the termination.

This Contract shall remain in force until all of CONTRACTOR'S equipment, materials and rubbish is removed from the Project Area, according to the provisions herein contained.

VII. CONFLICT OF INTEREST

CONTRACTOR shall exercise reasonable care and diligence to prevent any actions or conditions which could result in a conflict with EXXON MINERALS' best interests. This obligation shall apply to the activities of the employees and agents of CONTRACTOR in their relations with EXXON MINERALS' employees and their families and with third parties arising from the performance of this Contract and accomplishing services hereunder. Both parties' efforts shall include, but not be limited to, establishing precautions to prevent its employees or agents from making, receiving, providing or offering substantial gifts, extravagant entertainment, payments, loans or other considerations for the purpose of influencing individuals to act contrary to EXXON MINERALS' best interests.

VIII. ENFORCEMENT

EXXON MINERALS and CONTRACTOR may at any time or from time to time during the term of this Contract elect not to enforce or require strict observance of the terms, conditions or provisions of this Contract; however, this shall not constitute a waiver of, nor limit or impair such terms, conditions or provisions; nor shall it affect EXXON MINERALS or CONTRACTOR'S right to enforce such terms, conditions or provisions.

	Project	t Name <u>Quartz M</u> o	ountain
	Project	Number 6129	
	CONTRAC	TOR Terradrill.	Inc.
PART B - PROJEC	T SPECIFICATI	ONS	
LOCATION RESPONSIBILITY			
Preparation of access roads and dr	ill sites by	EXXON MINERALS	<u>;</u>
Maintenance of access roads and dr	ill sites by	EXXON MINERALS	
Preparation of mud reserve pits by		EXXON MINERALS	
DRILLING			
Drill 3 holes EXXON MINERALS, not to exceed 1500 about September 7 , 19 82	feet may	depths, as directing imum, commencing ject Area descri	
Quartz Mountain, approximately 20	miles north o	of Gabbs, in Sec	tions
29 and 30, T14N, R36E, Nye County,	Nevada		See July 1
Diameter of Holes, Cores and Casing	through obje	ective interval:	
<u>Depth</u> <u>Hole Size</u>	Core Size	Csq. S	<u>ize</u>
0 - ±100' 8-3/4"	//	∜ 6" F	J*
00 - T.D. 5-1/4 - 5-1/8"		<u></u>	•
*to be provided by CONTRACTOR			76 76
Depths are an estimate; hole size, adhered to unless authorized by EXX	core size and ON MINERALS.	casing size mu	st be
Hole angle or straight hole require	ments: <u>Consi</u>	stent with good	<u>drilling</u>
practice.			
Work Schedule:			
a. Shifts per day - 1 or 2b. Work days per week - 10 on,c. Hours per shift - 10 or 12	4 off; can be	altered by mutu	ual agreement
with a minimum 2 m	an crew per s	hift, per drill.	

I.

II.

±100 - T.D.

Materials, equipment, and services to be provided by CONTRACTOR: All labor, equipment, tools, material, supplies, and services necessary and proper to the drilling and other contract services specified, with the following being particularly itemized:

Portadrill TLT				
1500' to 2000'	of 4-1/2" CSR drill	pipe	٠.	
LeRoi 256-S2 cor	npressor			
Auxiliary boost	er compressor (if n	eeded)	· .	
Mud and injecti	on pumps			
40' pipe traile	r to facilitate tri	pping in and o	ut	
3000-gallon wat	er truck			
Ancillary suppo	rt equipment			
Materials, equip boxes and sample	ment and services t sacks and other it	to be provided tems specified	by EXXON MIN below:	ERALS: Core

III. OPERATIONAL PROVISIONS:

- 1. EXXON MINERALS will designate and stake the location of all drill sites. CONTRACTOR shall make all necessary inspections and declares at the time it moves on the drill site that the access roads and drill site, whether staked in natural surroundings or prepared by EXXON MINERALS, are adequate and safe for its operations.
- 2. CONTRACTOR shall take drill cutting samples, sludge samples and/or core to the extent directed by EXXON MINERALS. CONTRACTOR shall make all reasonable effort to obtain maximum core recovery and samples representative of the intervals drilled. No payment will be made for lost core, unsatisfactory core recovery or unapproved core size reductions. On continuous core holes, if core should be lost in any interval that EXXON MINERALS' representative deems to be critical, CONTRACTOR agrees that it will plug back and make one additional attempt by wedging or by redrilling hole to achieve recovery of the critical core at one-half the hourly rate specified in Part C, Section I.4.a. of this Contract. CONTRACTOR shall box, accurately mark and preserve cores and samples as directed by EXXON MINERALS.
- 3. CONTRACTOR shall make every reasonable effort to maintain the specified hole and core size through the objective interval of the hole.
- 4. CONTRACTOR shall install casing and cement the same if required by hole or drilling conditions and authorized by EXXON MINERALS, and recover casing that is reasonably possible to recover. CONTRACTOR shall set plugs in drill holes upon abandonment as requested by EXXON MINERALS, and as required by drilling conditions to stabilize hole or to combat lost circulation.
- 5. If an artesian flow or other abnormal-pressured flow is encountered in any hole, CONTRACTOR will notify EXXON MINERALS, divert or control the flow to minimize damage and in the case of hydrocarbons or salt water, contain all liquids within the minimum feasible area.
- 6. CONTRACTOR will not permit livestock or wildlife to be exposed to grease or other deleterious substance.
- 7. CONTRACTOR shall keep and furnish to EXXON MINERALS such daily drilling shift records and drilling reports as EXXON MINERALS may require.
- 8. CONTRACTOR shall notify EXXON MINERALS promptly and if possible in advance of any change of personnel or change of work schedule.
- 9. CONTRACTOR will notify EXXON MINERALS promptly by phone when operations revert to time rates under the terms of this Contract and when conditions occur that could cause loss of hole, that are hazardous to personnel, CONTRACTOR'S equipment and/or the surrounding area or environment.
- 10. CONTRACTOR agrees that storage of any type of hydrocarbon will be in single, 660 U.S. gallons or less containers and that no more than 1320 U.S. gallons will be stored on the Project Area unless prior permission is obtained from EXXON MINERALS. The storage containers will be placed in an area where no part of any spill would reach the natural drainage, a stream, river, lake, reservoir, spring, pond, hole or well in the area where contamination of surface or underground water is possible.

- 11. CONTRACTOR agrees not to put any type of oil or toxic substance in the drilling mud for any reason including waste oil without prior permission from EXXON MINERALS. CONTRACTOR further agrees that if prior permission is not obtained, CONTRACTOR will remove the oil and/or toxic substance from the mud at his own expense, including hauling off and disposing of the contaminated mud and replacing with mud approved by EXXON MINERALS.
- 12. Pursuant to Part A, Section I.5 of this Contract, CONTRACTOR agrees to prevent any mud or drill cuttings to escape, leak, be dumped or discharged or any rubbish to be scattered on the Project Area at any time and to clean up any mud, drill cutting, or rubbish immediately when requested by EXXON MINERALS, at CONTRACTOR'S expense.
- 13. CONTRACTOR will abandon holes in accordance with State Regulations or as specified by EXXON MINERALS.

	Project Number	r 6129
	CONTRACTOR Te	erradrill, Inc.
SCH	PART C - PAYMENT SCHEDULE IEDULE OF RATES	
1.	Mobilization One lump sum of \$1,500.00	
	Mobilization includes rigging up on the first down on the last hole. Hourly rates start we (spudded) and stop when logging or coring is plugging time requires more than one hour, we completed on the last hole drilled.	when hole is collared s completed or if
	Demobilization One lump sum of \$1,500.00	
	Demobilization is payable only if CONTRACTOR mobilized by EXXON MINERALS or other operator of the Project. Moving between drill sites _Hourly: \$200.00 pe	ors at the completion
2.	The following services and materials to be furn CONTRACTOR are or are not reimbursable to the Cindicated below.	ished by the ONTRACTOR as
	Ref	mbursable to Contractor <u>Yes No</u>
	a. Preparation of access roads and drill sites	By <u>EXXO</u> N M <u>INERA</u> LS
	Maintenance of access roads and drill sites authorized by EXXON MINERALS	By <u>EXXO</u> N M <u>INERA</u> LS
	Preparation of mud reserve pits	By EXXON MINERALS
	b. Casing left in hole or recovered in poor condition less salvage value	By EXXON MINERALS
	c. Mud, mud additives, chemicals, lost return materials and cement, except \$o_ per hole to be borne by CONTRACTOR at cost plus 10%	<u> </u>

I.

Project Name Quartz Mountain

۷.	(cont.)	Reimbursable to	Contractor
		Yes	<u>No</u>
	d. Water	<u> x</u>	
	e. Bits expended (less salvage value) Drilling or Reaming at cost plus 109 Coring	% <u>X</u>	
	Hammer bits - See below * f. Rental of in-hole surveying instruments if requested by EXXON MINERALS at cost pl 10% handling.	lus X	
	All other services, third party services and materials furnished by CONTRACTOR not mentio above are not reimbursable unless specifical	ned	#
	authorized by EXXON MINERALS		
3.	Unit or Time Rates as Specified:		
	a. Drilling and Sampling (Overburden or to t as applicable.)	otal depth	
	Depth Interval (feet)	Rate per	Hour/foot
	Overburden (drilling and setting casing)	\$200.00	per hour
· ·	0 - 500' 501 - 1000'	9.00 p	er foot er foot er foot
	b. Coring Core Size		
	Depth Interval (feet)	Rate per_	
	Spot cores (if requested)	 \$200,00	per hour.

Core size asterisked above is the preferred size through the objective interval.

^{*}EXXON MINERALS will reimburse CONTRACTOR 50% of cost for hammer bits used on the project.

- 4. Time Rates (for services other than drilling, sampling and coring applicable only if specifically authorized by EXXON MINERALS.)
 - a. Rig Operating with crew---\$ 200.00 per hour, except _-0-hours per occurrence combating lost circulation at zero rate.
 - b. Standby with crew---\$\frac{150.00}{150.00} per hour, except \frac{-0-}{150.00} per hole at zero rate for logging and geological consultation.
 - c. Standby without crew---\$ 100.00 per hour.
- 5. Other Rates (applicable only if specifically authorized by EXXON MINERALS):
 - a. Booster compressor, if needed, will be charged at the following rate:
 - 1. CONTRACTOR'S cost FOB jobsite from Milford, Utah and back.
 - 2. \$40.00 per hour or \$240.00 per day plus \$10.00 per hour, whichever is lower.
 - 3. Additional compressor, \$30.00 per hour or \$120.00 per day plus \$10.00 per hour, whichever is lower.
 - b. Spot cores, if requested, will be taken at the hourly rate of \$200.00 per hour, plus diamond bits at cost plus 10%.
 - c. Other equipment requested by EXXON MINERALS such as survey tools, extraordinary sampling equipment, etc., shall be billed at cost FOB jobsite.
 - d. Handling charges All items for which EXXON MINERALS reimburses CONTRACTOR will be billed at cost FOB jobsite plus 10%.

- II. PROVISIONS APPLICABLE TO ALL RATES AND PAYMENTS (Also see Part B, Section III)
- 1. EXXON MINERALS shall pay all applicable sales and use taxes which are lawfully imposed by reason of CONTRACTOR'S services hereunder. EXXON MINERALS' tax payment obligation shall not include motor fuels taxes or any tax or license fee or charge levied or assessed on CONTRACTOR or upon or measured by CONTRACTOR'S income.
- 2. There is no guarantee that this Contract will be profitable to CONTRACTOR. Additional compensation will not be paid by reason of unexpected costs or unusual occurrence or catastrophe. Payment at the rates and according to the terms and provisions in this Part C shall be full and complete payment for all services performed and all materials and equipment furnished by CONTRACTOR except only if this Contract be amended in writing.
- 3. At the end or on the first and fifteenth of each calendar month in which work is performed hereunder, CONTRACTOR shall deliver to EXXON MINERALS a statement of all CONTRACTOR'S charges including all billable drill holes completed or partially completed, all other services performed, and all reimbursable costs incurred hereunder during that calendar month. Each such statement shall show the hole number, Project location, charges and costs for each individual hole drilled, insofar as possible. CONTRACTOR agrees that all financial statements, billings and reports rendered to EXXON MINERALS will reflect properly the facts with respect to charges and costs and may be relied on as complete and accurate for recording and reporting by EXXON MINERALS. CONTRACTOR agrees to notify EXXON MINERALS promptly of any discrepancy discovered.
- 4. Reimbursable costs for third party materials and services and tangibles furnished by CONTRACTOR, if any, shall be supported by third party invoices with CONTRACTOR'S invoice which includes such costs, and EXXON MINERALS shall be credited with all cash discounts received by CONTRACTOR. Payment shall be made only for supplies and materials accounted for on daily shift reports and no transfer, warehousing or handling charges shall be applicable unless specifically stated in the Payment Schedule.
- 5. No provision of this Contract for the reimbursement or direct payment by EXXON MINERALS of the cost of materials, use of equipment, or of third party services, shall ever be deemed:
 - a. To be an agreement by EXXON MINERALS to procure such equipment, materials or services or to be responsible for the availability or suitability of the same.
 - b. To authorize CONTRACTOR to charge all or part of the cost thereof to EXXON MINERALS or to pledge EXXON MINERALS' credit for any purpose.
- 6. CONTRACTOR shall preserve and protect EXXON MINERALS' properties and property interests from all liens including liens of mechanics and materialmen for labor, services or materials furnished in the performance of this Contract. Should any such lien be filed, or threatened, EXXON MINERALS may, in addition to any other remedy or right available to it, retain from any monies otherwise due CONTRACTOR, whether under this Contract or otherwise, an amount sufficient to discharge the lien and at its election, to discharge the lien by payment of said retained sum if it considers the lien to be valid. EXXON MINERALS shall also have the right, but not the duty, to pay for CONTRACTOR, and to charge against sums

- otherwise due CONTRACTOR, any reimbursable unpaid indebtedness incurred by CONTRACTOR in the obtaining of the materials, supplies, equipment, and third parties' services for the performance of this Contract, whether or not a lien has been or could be filed.
- 7. No footage penetrated in the hole shall be charged as both drilling and coring. The footage rate covers and includes payment for the taking of required samples.
- 8. All time rates for drilling rig services with crew are based upon use of CONTRACTOR'S full crew. If CONTRACTOR fails to furnish the minimum number of crew members specified in Part B, Section II of this Contract, CONTRACTOR agrees to notify EXXON MINERALS immediately and, if requested by EXXON MINERALS, agrees to go on zero standby rate if operating on a time rate. EXXON MINERALS shall not be required to pay for periods of standby or delay not caused or requested by EXXON MINERALS. No charge for standby or delay, or any other charges, shall be incurred, or charged to EXXON MINERALS, after EXXON MINERALS, or EXXON MINERALS' field representative, advised CONTRACTOR that the Project has been completed or that EXXON MINERALS elects to terminate this Contract. Nor shall there be any charge to EXXON MINERALS for any unit of equipment after EXXON MINERALS advises CONTRACTOR that it is released from use.
- 9. The standby rate specified shall apply only to shift time delays, including time in excess of the specified hours allotted for logging, waiting on cement to set, running inclinometer or hole deviation surveys, and for time required to allow gas pressure to subside.
- 10. The time lost caused by CONTRACTOR, including time required to reenter and condition hole after shutdown periods, mechanical failures or any condition other than is specifically mentioned in paragraph 9 immediately above, will be at the sole cost and expense of the CONTRACTOR and EXXON MINERALS will not reimburse CONTRACTOR for same.
- ll. If payment is based primarily on footage drimed under unit rates in Part C, Section I, 3.a. of this Contract, then (1) time lost due to stuck pipe, "fishing operations" and the cost of services for and materials expended during "fishing operations" shall be borne by CONTRACTOR and (2) loss of, or damage to drill holes, and loss of or damage to CONTRACTOR'S tools and equipment shall be borne by CONTRACTOR.
- 12. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, payment shall be based on either (1) the total depth specified by EXXON MINERALS and determined by in hole logging or (2) the total depth determined by drill stem measurement. No payment, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract, shall be made if the hole does not penetrate the objective depth specified by EXXON MINERALS' representative provided that it is within the maximum depth limit specified herein.
- 13. If payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract, CONTRACTOR guarantees the completed open hole to be and remain in a condition to allow in-hole logging to total depth for a period of two (2) hours after the hole is ready and accessible to open hole logging. If CONTRACTOR elects to move off the location prior to logging and it is

- not possible to obtain an open hole log through the objective interval, CONTRACTOR will take whatever actions are necessary to allow open hole logging through the objective interval at its own expense or, in the case of non-core holes and at CONTRACTOR'S election, abandon the hole without any compensation for drilling the hole, except for third party services and materials that EXXON MINERALS has agreed to pay for in Part C, Section I, 2 of this Contract.
- 14. If payment is based primarily on footage under unit rates specified in Part C, Section I, 3.a. of this Contract, CONTRACTOR agrees to make one attempt to fill the hole to 100 feet above the objective interval with a liquid specified by EXXON MINERALS prior to logging at CONTRACTOR'S expense.
- 15. If payment is based primarily on a time rate under unit rates specified in Part C, Section I, 3.a of this Contract, EXXON MINERALS shall assume the loss of drill pipe, drill tools and lost hole and EXXON MINERALS will reimburse CONTRACTOR for "fishing operations" authorized by EXXON MINERALS provided that CONTRACTOR can establish that CONTRACTOR has not negligently contributed to such loss and loss was not due to failure of any of CONTRACTOR'S drilling equipment, including but not limited to drill pipe, hoisting equipment, pumps and engines. Payment for lost drill pipe and drill tools will be based on actual cost less two (2) percent of actual cost per month for each from the date of acquisition less any insurance collected by CONTRACTOR on such equipment or will be based on the value of the equipment as listed in Part C, Section I, 5 of this Contract. Payment for lost drill pipe, drill tools and lost hole addressed in this paragraph is not applicable if payment is based primarily on footage drilled under unit rates in Part C, Section I, 3.a. of this Contract even if CONTRACTOR is being paid under Section I, 4., Time Rates, at time of drill pipe, drill tool or hole loss.
- drilling on the first hole or when EXXON MINERALS authorizes movement for drilling equipment to the drill area. If this Contract is terminated according to the provisions in Part A, Section VI of this Contract prior EXXON MINERALS authorizing movement of drilling equipment, the mobilization fee is not payable. The demobilization fee will be payable if equipment has been mobilized to the Project Area as authorized by EXXON MINERALS and when this Contract is terminated by EXXON MINERALS or by CONTRACTOR according to the provisions in Part A, Section VI of this Contract provided CONTRACTOR is not mobilized by EXXON MINERALS or by another operator.
- 17. EXXON MINERALS' duly authorized representatives shall have access, at all reasonable times, to all CONTRACTOR'S and subcontractor's personnel, job descriptions, employment and qualification records, books, records, correspondence, instructions, plans, drawings, receipts, vouchers, data stored in computers and memoranda of every description pertaining to work under this Contract for the purpose of auditing and verifying costs of work or for any other reasonable purpose. EXXON MINERALS' representatives shall have the right to reproduce any of the aforesaid documents. CONTRACTOR shall preserve, and shall cause its subcontractors to preserve, all the aforesaid documents for a period of two years after completion and acceptance or termination of this Contract work.

EXXON MINERALS' representatives shall also have sufficient audit access to CONTRACTOR'S costs in the fixed rate areas to satisfy themselves that all services that are supposed to be included in CONTRACTOR'S fixed rates pursuant to this Contract are so included.

IN WITNESS WHEREOF, this Contract is executed as of the day $^{\circ}$ and year stated on page 1 hereof.

CONTRACTOR:

EXXON MINERALS: EXXON MINERALS COMPANY, a Division of Exxon Corporation

Address: PO Box 120

Denver, Colorado 80201 Attn: Drilling

Denver.

Ву Terradrill, Inc. 2367 Krameria St

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5	See See See See See See See See See See	QUARTZ MOUNTAIN #6129 EQM-1 drilled 1981 Scale 1" = 2000'
		Access road to be
	Som which	(1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1

EXON MINERALS COMPANY, U.S.A.

MEMORANDUM

May 27, 1982

TO: File

FROM: T. D. Irwin TDV

SUBJ: Quartz Mountain Geology #6129

 $\overline{\text{TARGET}}$ - The target at Quartz Mountain is a porphyry molybdenum deposit of +300 million tons of +.1 Mo.

<u>LAND POSITION</u> - Our land position consists of one hundred ninety eight (198) claims acquired by staking and 51 claims acquired by lease option from Pete Hahn, et al.

GEOLOGY - The Quartz Mountain prospect lies on a recently recognized potential lineament which includes the Nevada Moly (Hall) deposit of Anaconda, the Paradise Peak moly discovery of U. V. Industries (Sharon Steel) and the Quartz Mountain District. This lineament coincides with the eastern boundary of the Walker Lane.

Quartz Mountain is a low hill of Mesozoic rocks which is completely surrounded by a relatively thin layer of Tertiary volcanic tuffs. The rocks exposed on Quartz Mountain consist of Triassic to Jurassic quartzite, shale, limestone and andesitic volcanic rocks. These units have been metamorphosed and intruded by a Cretaceous alaskite stock. The surrounding Tertiary volcanics consist of a 400 to 800 foot layer of pyritic crystal lithic tuff.

A quartz porphyry intrusive (45 m.y.) found only in the subsurface has been intersected in several drill holes.

MINERALIZATION - Lead, zinc, silver, gold and copper have been produced from mines in and adjacent to Quartz Mountain. Total production amounts to a few million dollars.

Previous drilling by Cyprus Mines intersected significant amounts of pyrite and molybdenum. Some of the best intercepts include:

QM-1 10' of .090% Mo

QM-3 42' of .098% Mo, bottom 10' = .08 Mo

QM-5 20' of .110% Mo

QM-8 bottomed in 15% pyrite

QM-7 bottomed in strong pyrite

Note: QM-2 and QM-4 did not drill below the post mineral tuff.

AUTHORITY NUMBER	
PPOTECT NUMBER	#M-6129

EXPLORATION DRILLING AUTHORITY

Minerals Department

		<u>.</u>			, "	
BLOCK_	Quartz Mountain	_PRINCIPAL	MINERAL	Мо	TYPE TARGET_	Porphyry
STATE	Nevada	_COUNTY	Nye-Mineral		TOTAL AUTHORITY_	54000.00
APPROXII	MATE NO. HOLES	3			EET3300	
HOLE LO	CATION(S) AS PER	ATTACHED P	LAT:			
	EQM-2 - NE1, SW	, Sec. 29	T14N - R36E			
	EQM-3 - NW ¹ , NW	, Sec. 29	T14N - R36E			
	EQM-4 - NE ¹ , SW	h, Sec. 30	T14N - R36E			
		4.				
DEACON	FOR RECOMMENDATION	in •				
KEASUN .		4	o discover a	norphyry mol	ybdenum-copper ore	hody honosth
	post ore volcan	ic tuffs an	d volcanocla	stic sediment	s.	body beneath
<u></u>	Hole <u>EQM-2</u> is lo Quartz Mountain molybdenum syst	. This qua	cent to stro rtz veining	ng quartz vei is interprete	ning on the southe d to be the edge o	ast side of f a stockwork
1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Hole EQM-3 is local contained in excapple a porphyry molyl	cess of 10%	pyrite. The	e high pyrite	drilled Cyprus ho	les which halo of
	Hole <u>EQM-4</u> is we indicate an inc	est of the reasing mol	mineralization y gradient to	on hit by Cyp oward this ar	rus holes which ap ea.	pear to
						e Santa S
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			And Andrews Andrews Andrews Andrews			
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	ol is granted for cotal money limit.		on drilling a	and related d	rill hole costs wi	ithin the
				*		
RECOMME	ended by: Thom	ene O. V	hwin		DATE: 5/27	182
ENDORSE		D. Irwin			DATE:	
ENDORSE	ED BY:				DATE:	
				AUTHORIZED	BY:	
	7	•				

DATE:

Page 2. Quartz Mountain Geology #6129 5-27-82

Our 1981 rotary drill hole EQM-1 encountered severe caving problems in the 400' thick tuff layer which strongly diluted the cuttings from deeper in the hole. The hole encountered crystal lithic tuff from 0 to 390' and quartz porphyry from 390 to 1179', the bottom of the hole.

Some of the best 50' composite assays from EQM-1 include:

1000'	to	1050'	27	ppm	Мо
750'	to	1 008	105	ppm	Cu
1050'	to	1100'	476	ppm	Zn
650 <u>'</u>	to	700'	.047	% W	

<u>PLANS</u> - Our 1982 program is designed to discover the porphyry moly system that is indicated by the past drilling of Cyprus Mines and Exxon Minerals Company. Hole EQM-2 is located adjacent to strong quartz veining on the southeast side of Quartz Mountain. This quartz veining is interpreted as the edge of a stockwork molybdenum system.

Hole EQM-3 is located north of EQM-1 and previously drilled Cyprus holes which contained in excess of 10% pyrite. The high pyrite may be the edge of a pyrite halo of a porphyry molybdenum shell in this area.

Hole EQM-4 is west of the mineralization hit by Cyprus holes which appear to indicate an increasing moly gradient in this direction.

<u>DRILLING TECHNIQUE</u> - We plan to use reverse circulation rotary-hammer drilling methods for two reasons: (1) It is considerably cheaper ($<\frac{1}{2}$) the cost of core drilling and (2) it should overcome the caving and sample dilution problem we encountered with conventional circulation rotary-hammer last year.

It is possible that excessive amounts of water may preclude the completion of one or more of these holes by this drilling method, but the same water problem would exist for conventional Rotary-Hammer drilling methods.

Minerals Department - Drill Request and Project Specifications Date: 5-11-82
PROJECT NAME, NO. AND GEOLOGIST: Quartz Mountain #6129; T. D. Irwin
20 Miles North (direction) From Gabbs* (town)
County Nye State Nevada Sec., T & R(s) Secs. 29, 30
Starting Date 6-14-82 Approx. Completion Date 6-30-82
Possibility oil/gas sands (flow) penetrated? Nil Artesian flow? Low
Type of Drill Reverse Circulation Rotary No. of Drills 1
Shifts/Day 1 or 2 No. of Holes 3 Est. Total Footage 3600'
Max. Hole Depth 1500' Sample Requirements 10' cuttings - split 1/4 to 1/8
Vert. and/or Angle Vert. Min. Degrees from Hor
Core Size (Bedrock) N Hole Size (T. D.) N casing **
Overburden Lithology Gravel Est. Thickness 0-50'
Bedrock Lithology and Depths 0' to 200' + Volcanic Tuff moderately consolidated.
200 to 1200 competent rhyolite intrusives.
Drill Site(s) Accessibility Improvedgravel road of ± 5 miles from paved highway.
Will any drill sites be located where a drill fluid or cuttings spill/discharge
could get into stream, river, lake, marsh, etc. YesNoX
Water source Gabbs, Nevada - approximately 20 miles.
Water available within 20 (XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Max. elev. diff. between water source and drill sites N/A
Est. drilling contractor money that must be spent: \$ N/A By
Project on Indian lands or on U. S. Gov't land that is not claims. Yes No X
Do permits (USFS, etc.) issued to Exxon involve contractor compliance?Yes No X
Contractor Preference Associated Drilling
Special Problems - Note on back of this page
NOTE: Access roads, drill sites, pits, core boxes and sample sacks to be furnished by Exxon unless otherwise noted.

^{**} May decide to case one or more of the holes.

EXON MINERALS COMPANY

July 1, 1982



Re: Drilling Clearance

Quartz Mountain Project

Project No. M-6129

Mineral and Nye Counties,

Nevada

Mr. A.R. Dahl Building

The areas shaded in yellow are cleared for exploratory drilling by the Land Section. The areas shaded in green represent Exxonstaked claims and claims under lease to Exxon which are not cleared at this time. The areas shaded in red represent claims and lands neither staked by, nor leased to, Exxon and which are

The surface owner and the BLM have been notified that Exxon intends to conduct exploratory drilling in the area.

Access is provided by public roads and trails through the area, and by access roads to be constructed by Exxon in the drilling

Please refer to the Revised State Handbook concerning drilling and plugging obligations in the State of Nevada. Also please note the procedures for reporting an oil or hazardous substance spill.

Gregory Urgular Gregory grauhart

GU/alw

c: R.E. Rohn

O.R. Humble

L.J. Burkett

G. Westra

T.D. Irwin

A.R. McAdams

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BASE METALS WEEK DRILLING REPORT

WEEK ENDING September 10, 1982

INERAL	PROJECT & NO.	COUNTY & STATE	HOLE NO.	ANGLE	PROPOSED DEPTH	DEPTH	PROG FROM	PROGRESS NM FOOTAGE	NO. DRILL	
, n	Franklin Lake #6355 Elko, NV	Elko, NV	EFL-1	°06	2000	.0	-0	, 0	·	

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Quartz Mountain #6129 Nye, NV	Nye, NV	EQM-2	Vert.	1200'	580 '	.0	580	
	0-10' 10-500' 500-580'	Overburden (gravel). Crystal lithic tuff (post-ore). Quartz latite porphyry.	(post-ore). ry.					
	2-3% quart 540-580'.	2-3% quartz veins below 540'. 540-580'.	Goethite aft	ow 540'. Goethite after pyrite from 10-540'. 2-5% pyrite	10-540'.	2-5% pyr	i te	

Rigging up.

£

BASE METALS WEEKING REPORT

WEEK ENDING September 17, 1982

	PROJECT & NO. CO	COUNTY & STATE	HOLE	NO.	ANGLE	PROPOSED DEPTH	DEPTH	PRO FROM	PROGRESS M FOOTAGE	NO. DRILL	
7 7	Franklin Lake #6355	Elko, NV	EFL-1		.06	2000	159'	-0	159'	1	
		Rotary dr hornfels	illed to 159'and garnet-sp	. 0-140' ecular he	'; Quaterr ematite sk	Rotary drilled to 159'. O-140'; Quaternary alluvium. hornfels and garnet-specular hematite skarn.	140-159'; bedrock(?)	bedroc	:k(?)		
ě		Nye, NV	EQM-2	 	 Vert.	1200'	840 T.D.	580	260'	1	
		580-600' 600-840'	Quartz latite porphyry. Marble with dikes of quartz porphyry.	e porphyn dikes of	ry. quartz po	ırphyry.					
			2-5% pyrite from 580 to 700' 1-2% pyrite below 700'.	from 580 below 700	to 700'. D'.	;					
. 5	Quartz Mountain #6129	Nye, NV	EQM-4		Vert.	1220'	500'	,0	200,	1	
	•	0-10' 10-100' 100-500'	(Gravel overl Conglomerate Interbedded (Trace pyrite	burden). and inte crystal l from 285	erbedded t lithic tuf 5 to 480'.	(Gravel overburden). Conglomerate and interbedded tuff and lake beds(?)(Post Ore). Interbedded crystal lithic tuff and andesite volcanics (Post Ore). Trace pyrite from 285 to 480'.	beds(?)(Pos e volcanics	st Ore). s (Post	0re).		

WEEKLY DRILLING REPORT

\$ }\

SOUTHERN DIVISION

Week Ending September 24, 1982

DRILLS	,					, '' ('	
PROGRESS OM FOOTAGE	186'		720'			640'	*
PROG FROM	159	-^-	. 0 .			. 500	· · · · · · · · · · · · · · · · · · ·
DEPTH	345 '	nfels to 190 190' - 261' te-silica ble grading nd specular	720' T.D.			1140' T.D. 500'	
PROPOSED DEPTH	2000	orite-talc hornfels to 1901 pyroxene from 1901 - 261 rpentine-epidote-silica de altered marble grading Trace pyrite and specular	1200'	•		1200'	
ANGLE	°06	clay-chlor cite, and p garnet-serp et-diopside	Vert.			Vert.	•
HOLE NO.	EFL-1	cite veined quartz, cal arble with ', and garne e tactite to	EQM-3	f (Post Ore) hyry.		EQM-4	f (Post Ore) ohyry.
COUNTY & STATE		Began coring at 161'. Calcite veined clay-chlorite-talc hornfels to 190' garnet tactite with minor quartz, calcite, and pyroxene from 190' - 261', interbedded hornfels and marble with garnet-serpentine-epidote-silica alteration from 261' - 324', and garnet-diopside altered marble grading into massive garnet-calcite tactite to 345'. Trace pyrite and specular hematite throughout.	129 Nye, NV	0-290 Crystal lithic tuff (Post Ore). 290-460 Quartz latite porphyry. 460-720 Biotite hornfels.	290-720' 1-4% pyrite. Trace Mo 290-720.	129 Nye, NV	500-810 Crystal lithic tuff (Post Ore). 810-1070 Quartz latite porphyry. 1070-1140 Biotite hornfels.
PROJECT & NO.	Franklin Lake #6355		Quartz Mountain #6129			Quartz Mountain #6129	10
MINERAL	no		W		 	Mo	

Trace to 1.5% pyrite from 500 to 810'. 2 to 4% pyrite 810 to 1140'. Trace Mo 810-1140'. Trace chalcopyrite 1070-1140.

AUTHORIT	Y NUMBE	R	
DDO THOW I	muen m	M_6120	

EXPLORATION DRILLING AUTHORITY

Minerals Department

BLOCK Quartz Mountain	PRINCIPAL MINERAL	Cu-Mo TYPE TAR	RGET porphyry
STATE Nevada	COUNTY Nye-Mineral	TOTAL AUTHOR	RITY_33
APPROXIMATE NO. HOLES_	One (1)	FEET 1,000	
HOLE LOCATION(S) AS PE	R ATTACHED PLAT:		
Hole EQM-4, SE1 of NW1	Section 30, T14N, R36E.		
			•
REASON FOR RECOMMENDAT	TON•		
	1981 and 1982 discovered a		
zone and bottomed in a 3 to 5 volume percent so The proposed 1983 drill	to a depth of 1140' passed zone of increasing moly an sulfides. ling will consist of deeper n attempt to discover a maj	nd copper values. This h	ole averaged to approx-
· · · · ·			
Approval is granted for above total money limit	er exploration drilling and	l related drill hole cost	ts within the
RECOMMENDED BY:	tomas O. Vorwin	DATE: _3/	30/83
ENDORSED BY:	VIII V V • • • • • • • • • • • • • • • •	DATE:	
ENDORSED BY:		DATE:	
		AUTHORIZED BY:	
		DATE:	and the second s

Minerals Depar	rtment - Drill Re	quest and Proj	ect Specif	ications Date: 3-6	29-83
PROJECT NAME,	NO. AND GEOLOGIS	T: Quartz Mou	ntain #612	9, T. D. Irwin	
20	Milesnorth	(direction	on) From	Gabbs	(town)
	State				
		w			100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No
Starting Date	May 1, 1983 A	pprox. Complet	ion Date	June 1, 1983	
Possibility o	il/gas sands (flo	w) penetrated?	Nil	Artesian f	Low? Low
Type of Drill	diamond-core		·	No. of Dri	lls <u> </u>
Shifts/Day	2				
+	oth 2500				
	Angle Vert.				
Core Size (Be	edrock) *NC	Hole Size (T.	D.) NX		
	thology N/A				
	ology and Depths_	· ·		,	
Drill Site(s)	Accessibility E	xcellent gravel	road to w	ithin 2000' of	hole. 2000'
	ll sites be locate				
could get int	to stream, river,	lake, marsh, e	tc. Yes	No	X
Water source	Gabbs, Nevada	- C-E Basic Inc	dustries Mi	11	
Water availab	ble within 20 mi	les (feet)(miles) fro	m drill area	
Max. elev. di	iff. between water	r source and dr	ill sites_	N/A	
Est. drilling	g contractor mone	y that must be	spent:\$	I/A By	
	ndian lands or on				No X
Do permits (USFS, etc.) issue	d to Exxon invo	olve contra	ctor compliance	?YesNo_X
Contractor P	reference Lor	ngyear or Boyle	s Brothers		
Special Prob	lems - Note on ba	ck of this page	9		
NOTE: Acces	s roads, drill si xon unless otherw	tes, pits, core		l sample sacks t	o be furnishe

Will re-enter 5-1/8" reverse-circulation hammer drill hole whose current depth is 1140'. The hole is uncased below surface casing.