DMEA-1409
Idm-E24
Sulphur
Region VI
(Cancelled)

NATIONAL LEAD COMPANY, NEW YORK, NEW YORK. Long Point Dome, Fort Bend County, Texas.

Letter to the Operator with reference to its letter to the Administrator of October 3, 1952, and a letter from the Field to the Operator dated November 29, 1951. The Operator was advised that the contract is revoked and rescinded as of June 27, 1951.

5-22-53
No. 219

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

~~Terminated~~ (or cancelled) without certification. DMEA No. 1409

This is the official contract file containing all official records of the project. Duplicate material has been removed. The records contained in the files are checked and are arranged in this manner:

Left Side	Right Side
✓ Certificate of Audit ~~(Final)~~ Voided	✓ Project summary. of a sort
Interim Audit(s).	Work completed analysis.
Report of Review.	All other material is filed in chronological order with correspondence including the following reports as checked:
Termination Notice or Agreement.	Final Field Team Report. (Tab)
Recision Notice.	Operator's Final Report.
Assignment of Contract.	Interim Reports.
Contract Amendments (latest on top).	On-site Exam Report(s). (Tab)
✓ Contract with all exhibits and annexes.	Settlement Sheets.
Owner's Consent to Lien.	
Subordination Agreement.	
Leases and assignments of leases.	
Application and attachments.	
Schedule of Collections.	
✓ Operator's monthly reports and all attachments (latest on top).	

If additional folders are required because of volume of records, show folder numbers and contents below:

Maps in folder number _____

Operator's Monthly Reports in folder number _____

WNC
Reviewer's Initials

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

AUDIT CERTIFICATE

I have examined the records and transactions of:

National Lead Company

111 Broadway

New York 6, New York

pertaining to Exploration Project Contract No. DMI-E-24 for the period of June 27, 1951 to November 29, 1951.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit disclosed the following facts in regard to amount to be paid the contractor:

Total Cost as Billed by Contractor		$36,753.29
Exceptions Taken by the Government:		
Travel	$296.54	
Schedule of Consulting and Surveying Fees (Prior to Date of Contract)	869.63	1,166.17
Total Accepted Cost		$35,587.12

The contract calls for a 50 percent participation of exploration expenses by the United States Government. Therefore, the amount of reimbursement to be paid the contractor by the Government is: Seventeen Thousand Seven Hundred and Ninety-Three Dollars and 56/100.

— $17,793.56 —

This certificate is issued on the provision that the Executive Officer, the Administrator, or other competent official accepts the project as having otherwise met the terms of the contract.

Auditor

Date: Feb. 15, 1952

Cancelled by Contractor Notified by Adm. Letter May 23, 1952 No distributions ever made

Contract was effected and terminated by Operator 5/27/53

AUDIT REPORT

I Introduction

On February 12, 1952 the undersigned spot checked the existing records concerning Contract No. IIM-R-24 with the National Lead Company, 111 Broadway, New York 6, New York.

The records were brought to Defense Minerals Exploration Administration's office in Washington by Mr. Heffman of the Titanium Division, National Lead Company, New York and Mr. Bonner, Washington representative of the National Lead Company.

II Extent and Scope of Audit

A comparison of the claims presented on Forms MF-104 was made with the provisions of the contract as outlined in the engineer's statement of estimates as shown in Exhibit "A", and with supporting documents of purchase orders, receipts, etc., presented by the contractor as proof of the project cost.

III Findings

A. Transportation

It was ascertained that one of the items of transportation covered a period prior to the date of the contract. Another item was the expense for one day of an employee that the representatives of the National Lead Company stated was too insignificant to support.

Exceptions were taken to these two items and it was so agreed by the National Lead representatives. Investigation of travel involving a series of locations disclosed that this involved the travel of the Company's geologist from their mine in the Adirondacks to the project site. The series of locations were merely the overnight stops on this trip, which was by personal automobile at 7 cents per mile with reasonable charges for lodgings and subsistence.

B. Schedule of Consulting and Surveying Fees

There was evidence that much of this work, most probably all of the disallowed items totaling $869.63, was performed prior to the date of the contract.

IV Recommendations

It is recommended that an amount of $296.54 for travel, and an amount of $869.63 for consulting and surveying fees be disallowed from the total of the vouchers, MF-104.

E N Talbert

Contract Administration and Audit Division

MF-200
(April 1951)

Indexed	
No. Card	
Card	
Reviewed	

Docket No. DMA 1409X
Commodity Sulfur

I-DMA-E24

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

JUL 13 1951
RECEIVED 17
CONTRACT SERV. DIV.
G. A. O.

It is agreed this 27th day of June, 1951, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2]

National Lead Company
111 Broadway
New York 6, N. Y.

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Texas, County of Fort Bend described as follows: [3]

Three Hundred Eighteen and Eight-tenths (318.8) acres of land, being all of Fractional Survey No. 67, H. & T. C. Railroad Company Survey, Certificate No. 274, lying on Long Point Dome at Long Point in Fort Bend County, Texas, and being the same land deeded to G. W. Trone by F. P. Olcott by deed recorded in Vol. 43, Page 85, Deed Records of Fort Bend County, Texas.

See attachment marked Exhibit "F" regarding subordination agreement.

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within 10 days from the date of this contract shall commence work on a project of exploration for [5] Sulfur; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 2 months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ---50--- percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $---48,839.50---, which is ---50--- percent of the agreed estimated total cost of this project, $---97,679---.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in [redacted] the day and year first above written.

[redacted]

[redacted]

(Operator)

By Jos Reid [redacted]

THE UNITED STATES OF AMERICA

By [illegible]

[illegible]

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

C
O
P
Y

ANNEX 1

WHEREAS, the subordination agreement of the lessor, required by paragraph numbered 2(b) of the annexed contract, has not been obtained; and

WHEREAS, the United States of America has agreed to waive requirement of the lessor's subordination agreement.

NOW THEREFORE, in consideration of said exploration project contract and of the foregoing, the Operator hereby undertakes and agrees to pay all sums that may fall due and owing to the United States of America under the terms of said contract in the same manner and to the same extent as if the subordination agreement of the lessor had been given. If for any reason the net returns from operations that would be subject under said contract to such payments to the Government are not available as a means of measuring the amount of such payments, then the Operator agrees and undertakes to make such payments according to the best estimates of the amounts that can reasonably be made, and in the event of dispute as to such estimates, the Operator agrees that the determination thereof be either the Administrator of Defense Minerals Administration or by the Director of the United States Bureau of Mines shall be final and binding upon the Operator.

Docket No. DMA-1409X
Commodity - Sulfur

EXPLORATION PROJECT CONTRACT
EXHIBIT "A"

Propose to drill six (6) holes to an average depth of approximately 900 feet each (total depth of some 5400 feet), to reach a limestone caprock. Next phase of work will be to continue the drilling by deepening each hole an average distance of some 200 feet which work should reach the sulphur bearing formation. The third step will be to install casing averaging 1100 feet to the hole. This work should require approximately 2 months. If sulphur is encountered in commercial quantities, facilities costing about $750,000 will be installed preparatory to the extraction of the sulphur. This area has produced considerable sulphur and the particular subject lease known as the Trone Estate (see map attached) has had enough holes drilled so as to indicate the possibility of a commercial deposit.

Following is the estimated cost of this exploratory project:

Contract Drilling of six test holes as follows:	
a - 900 ft. to caprock @ $4.85/ft.	$26,190
b - Coring through 200 ft. of caprock estimated at 240 hrs. @ $18.75/hr.	27,000
c - Casing 1,100 ft. @ $2.85/ft.	18,810
1 - Core barrel	1,500
12- Cutter Heads	1,800
Core Catchers	500
Pickup truck or jeep	1,800
Consulting geologist fee	2,000
Misc. field labor	1,056
Supervision (2 men N.L. Co.)	2,400
Living expenses for above	1,500
Chemical analysis of cores	500
Contingency fund (15%)	12,623
Total	$97,679

EXHIBIT "B"

Fixtures and Improvements

Not applicable

EXHIBIT "C"

Operating Equipment

Equipment to be purchased:

Core barrel	$ 1,500
Cutter heads	1,800
Core catchers	500
Pickup truck	1,800
Total	$ 5,600

No rental equipment except contract drilling

EXHIBIT "D"

Labor and Supervision

Consulting geologist fee	$ 2,000
Supervision - 2 men	2,400
Labor - 3 men @ $200/mo.	1,056
Total	$ 5,456

EXHIBIT "E"

Rehabilitation and Repairs

Not applicable

EXHIBIT "F"

Since the formal lease on this property has not been completed and a subordination agreement cannot be obtained without undue delay, National Lead Company requests the government to waive the requirement for a lease subordination.

National Lead Company will agree to be responsible for all payments due the government under Paragraph 14 of this contract.

J. H. Reid

THE STATE OF TEXAS }
}
COUNTY OF HARRIS }

This agreement and contract made by and between PLD WELL SERVICE COMPANY, a resident of Harris County, Texas, hereinafter called "Contractor", and NATIONAL LEAD COMPANY, a resident of New York City, New York, hereinafter called "Owner".

W I T N E S S E T H

That said Owner and Contractor each in consideration of the covenants, agreements, and obligations herein contained, do hereby covenant and agree:

That said Contractor has agreed and does hereby agree with the Owner, to drill the Trone #1 Well, Long Point Dome, Fort Bend County, Texas, under the following terms and conditions:

-1-

For such drilling operations, Contractor is to furnish a complete drilling rig, drill pipe and subs from kelly to drill pipe, drill collars, air compressor, supplies for rig maintenance, and shall furnish and pay for all labor necessary to the operation of the rig, and shall pay all Federal and State taxes in connection with such labor. It is understood that Owner is responsible for damage to or loss of any drill pipe in use while on this location.

-2-

Said Contractor shall carry and pay for necessary workmen's compensation, public liability, and property damage insurance until said work is completed.

-3-

Owner shall furnish at his own expense the necessary casing, tubing, cement and cementing charges, perforations, all electrical surveys, drilling mud and chemicals, fuel and water, fuel and water lines and the laying of same, pits, bits, all coring equipment, testing tools, swabbing equipment and line, and shall pay for any additional well equipment and services necessary for completion of well, and shall pay for hauling of said drilling rig and drill pipe to and from the location and all trucking in connection with rigging up and rigging down said rig, and caterpillar charge, if used.

-4-

Said drilling operations are to be commenced by Contractor on or before July 15, 1951, and continued by Contractor until notified by Owner to abandon said drilling operations.

-5-

For such drilling operations, Owner agrees to pay Contractor the sum of Five Hundred Twenty Five ($525) Dollars per 24-hour day as rig rental while such drilling operations are being carried on by Contractor, including shutdown time chargeable to owner, for example: waiting on orders, cementing, perforating and testing tool companies, Owner's equipment and ordinary maintenance and repairs not to exceed four (4) hours duration. Contractor shall not receive any pay for shutdown time caused by his shortage of labor or major repairs to his equipment over four (4) hours duration. The time covering the said Five Hundred Twenty Five ($525) Dollars per 24-hour day shall commence with the start of the rigging up of said drilling rig on the job and shall continue until said drilling rig has been dismantled after the request of Owner.

It is further agreed that Contractor's daily field reports are to be signed by Owner's and Contractor's duly authorized representative in charge, and such signed reports shall constitute acceptance of the work and time contained in such reports.

-7-

The sume becoming due under this contract to the Contractor, shall be paid by the Owner to the Contractor at Houston, Texas, immediately upon rendition of invoice after the completion of the well and/or abandonment of the well.

-8-

It is agreed that the Owner will have a representative present during said drilling operations who will instruct Contractor as to what work he wants done. In the absence of such representative, Contractor shall proceed in a workmanlike manner with the drilling operations and such work shall be accepted and paid for notwithstanding the absence or partial absence of such representative.

-9-

Contractor further agrees in carrying on said drilling operations, that he will comply with all Federal and State Laws, rules and regulations pertaining thereto.

-10-

If any part of said work provided for by this contract was commenced by Contractor under oral agreement prior to the execution of this contract, this written contract shall apply thereto in the same manner as if made before said work was commenced.

Executed in triplicate originals this 17th day of July, 1951.

PLD WELL SERVICE COMPANY

By Howard Parker
Contractor

NATIONAL LEAD COMPANY

By Joe Reid
Owner

Witnesses:

Chas. S. Davis Jr

Frank P. Wall Jr

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERI
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. dma 1409X

Date received 5-31-51

Participation

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

Name and address of applicant

Date May 30, 1951

FILL IN THIS BLOCK

Date of application May 30, 1951

Estimated cost $97,679.

Mineral or metal Sulphur

Percentage of Government participation 50% R.W.

Location of mine Long Point Dome

Fort Bend County, Texas

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT (See Attached Sheet)

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

National Lead Co.
(Name of company)

By J. R. Reid
(Signature of authorized official)

May 30, 1957
(Date)

Vice President
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

1. Corporation (New Jersey)

2. Not applicable.

3. See attached copy of 1950 Annual Report.

4. See attached copy of 1950 Annual Report.

5. Lessee.

6. Not applicable.

7. Lease being negotiated.

8. See attached copy of 1950 Annual Report.

9. Exploration cost - $97,679. Capital equipment and other costs before start of mining estimated at an additional $750,000.

10. Property in (a) and (b) the same, as follows:

    Three Hundred Eighteen and Eight-tenths (318.8) acres of land, being all of Fractional Survey No. 67, H. & T. C. Railroad Company Survey, Certificate No. 274, lying on Long Point Dome at Long Point in Fort Bend County, Texas, and being the same land deeded to G. W. Trone by F. P. Olcott by deed recorded in Vol. 43, Page 85, Deed Records of Fort Bend County, Texas, to which deed and the record thereof reference is here made for a more particular description of the lands covered hereby.

11. Known for many years as the "Trone Tract".

12. On two railroads, with good access roads. Located approximately 35 miles southwest of Houston, Texas.

13. Adequate.

14. None needed.

15. No milling needed, direct rail shipment from mine site.

16. (a) Property has been partly explored during past year; present exploration works intended to confirm quantity of recoverable sulphur sufficient to warrant capital investment.

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

16. (b) Same formation underlying adjoining properties now being commercially worked by Jefferson Lake Sulphur Company.
    (c) Geologist's report to be appended.

17. Not in production.

18. Not operating.

19. --

20. Exploration to determine amount of sulphur recoverable by Frasch process mining in salt dome type deposit underlying described property.

21. Propose to drill six additional test holes, average depth of 1000 ft. through cap rock, removing and evaluating cores from sulfur-bearing formations. Scheduled start of drilling about June 15, 1951, with estimated completion in 6 to 8 weeks.

22. Geologist's report to be appended.

23. Details not yet available, because propose to let contracts for drilling.

24. (a) Expect to complete exploration work in 2 months. ($97,679.)
    (b) Expect to complete mining installation in 9 to 12 months. ($750,000.)

NATIONAL LEAD COMPANY
MINING DEPARTMENT
111 BROADWAY
NEW YORK 6, N.Y.

ALLAN R. REISER
ASSISTANT MANAGER

November 20, 1951

DMA Field Team, Region VI
United States Department of the Interior
Joplin, Missouri

Attention: Dr. David Gallagher, Chairman
Re: Docket No. DMA-1409X
FINAL REPORT

Gentlemen:

Introduction

When the G. W. Trone Tract was first brought to our attention as a prospective sulfur operation in April, 1951, it was represented that the Long Point Sulfur Company held an option on the mineral rights granted by the owners, Messrs. Cockburn and Howe. We were shown a copy of this option, originally made out to Ralph Ballard and subsequently assigned to Long Point Sulfur Company, which was dated May 8, 1950 and amended on several later dates. It was understood that there were others associated with Mr. Ballard in the Long Point Sulfur Company but that the option and lease represented a direct arrangement with the owners of the land.

Before agreeing to purchase the option and lease from Long Point Sulfur, National Lead Company decided that further exploration was necessary. A verbal agreement was reached to proceed with this work, after which a decision would be made with regard to purchase from Long Point Sulfur. In the meantime drafts were prepared of possible final agreements for exploitation of the property and National Lead Company's attorneys were instructed to examine the title of the property.

At about the same time that our attorneys discovered the existence of additional agreements between Cockburn and Howe, W. L. Petrie and Ralph Ballard, in which it was disclosed that Petrie had been authorized to, and did, act as agent in the original lease agreement to Ballard, Mr. Petrie filed suit against Ballard, Long Point Sulfur Company and National Lead Company. Petrie alleged that Ballard and Long Point Sulfur Company had failed to compensate him in an agreed upon manner

for his services in arranging the lease. National Lead Company was included in this suit because of Petrie's apparent belief that a final agreement had been reached between Long Point Sulfur and National Lead Company. This, however, was not the case, so it was possible to demonstrate readily that there was no cause for action against National Lead Company. However, the findings from the two test holes which were drilled and which did not add to the known sulfur reserves of the property, caused us to terminate the project.

Conclusion

Enclosed herewith are (1) Progress Report on Long Point Sulfur Company's sulfur property, Long Point Dome, Fort Bend County, Texas, by our consulting geologist, John C. Myers, dated March 29, 1951 and (2) Supplemental Report on G. W. Trone Properties, Long Point Dome, Fort Bend County, Texas, by John C. Myers, dated October 4, 1951.

Report No. 1 contains complete geological and engineering data, including an estimate of ore reserves of sulfur present on the Trone Tract prior to the time of our joint exploration project on this property. It will be noted that a total of 117,500 long tons of sulfur were estimated by Mr. Meyers to be available for mining. It will also be noted that additional drilling was recommended at certain critical locations as a possible means of increasing this 117,500 estimated long tons of sulfur.

Report No. 2 contains an analysis of the results obtained from the drilling of two sulfur wells completed under this DMA project. The Jefferson Lake Sulfur Company furnished estimates of its Wells Nos. 1 and 2, G. W. Trone, to the National Lead Company. The results of these Jefferson Lake Sulfur Company holes had not been previously available to others.

A study of these four wells, in conjunction with the results previously known, brought about a downward revision of the previous estimate of 117,500 long tons of sulfur to 100,324 long tons of sulfur estimated to be available for mining on the Trone tract. It is our opinion that the G. W. Trone lease has been adequately tested by the total of 11 holes, two of which were drilled under this DMA project. The addition of 4 test wells to the area covered originally by 7 altered the ore reserve estimate downward by 15%.

As a result of the above, approximately 80% of the prospective sulfur bearing area on the G. W. Trone Tract has been adequately tested. Additional wells in the remaining 20% of the prospective area may or may not increase the 100,324 long tons of sulfur estimated as available for mining. However, should the remaining 20% of the prospecting area be found to be similarly mineralized to the 80% that has been thoroughly tested, the total ore reserves would not be increased by more than 20,000 long tons of sulfur. A deposit of such limited tonnage could not be economically mined at the present time. Consequently, it was considered that our joint interests were best served by abandonment of this project.

Respectfully submitted,

A. R. Reiser

ARR:MM

August 2, 1951

National Lead Company
Mining Department
111 Broadway
New York 6, New York

Attention: Dr. A. R. Reiser

Gentlemen:

Reference is made to our contract dated July 17, 1951 relative to the drilling of the Trone #1 Well, Long Point Dome, Fort Bend County, Texas.

This letter will evidence our agreement that said contract of July 17, 1951 and all its terms and provisions shall also apply to the Trone #2 Well drilled by us for you at said Long Point Dome in Fort Bend County, Texas, except the drilling commencement date mentioned in paragraph 4 thereof shall be deleted.

If this represents your agreement will you please accept same in the space provided below on duplicate originals enclosed, returning one copy for our files.

Yours very truly,

PLD WELL SERVICE COMPANY

Howard Parker

Howard Parker

HP/le

ACCEPTED:

NATIONAL LEAD COMPANY

By A. R. Reiser

MF-104
(August 1951)

Budget Bureau No. 42-R1036.2.
Approval Expires 6-30-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E _____

Name of Operator National Lead Company - Titanium Division
Docket No. DMA 1409 X
Total Contract Amount $ 97,679.00
Government Participation: 50 % Amount, $ 48,839.50
Distribution of Expenditures for Month of Final Report

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts may be made from time to time.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Nat'l. Lead Co., Titanium Div.
(Name of Company)

By Earl R. Mullin
(Signature of Authorized Official)

12/14/51
(Date)

Asst. Mgr.
(Title)

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Fixtures						
2. Operating Equipment:						
(*a*) Purchased[1]						
(*b*) Rented[2]						
(*c*) Furnished by operator						
3. Rehabilitation and Repairs:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Installations						

P L D WELL SERVICE COMPANY
Houston, Texas

DATE OF WORK: July 17 to August 1, 1951
PLACE: Long Point Dome Ft.Bend Co., Texas
LEASE: TRONE
WELL NO: 2

INVOICE: No. 61
INVOICE DATE: Aug. 8, 1951
YOUR ORDER NO: Contract dated July 17, 1951 & letter dated August 2, 1951.

NATIONAL LEAD COMPANY
111 BROADWAY
NEW YORK, N.Y.

WE DEBIT YOUR ACCOUNT WITH THE FOLLOWING:

Use of our complete rig and men to drill your Trone Lease, Well No.2 Long Point Dome, Fort Bend County, Texas, as per contract dated July 17, 1951 and letter August 2, 1951:

RIG TIME: (Schedule attached)		
16 Days @ $525.00 per 24-Hr. day	$ 8,400.00	
FUEL: (Purchased from Goldrus Drilling Co)		
14 Days @ $ 20.00 per day	280.00	$ 8,680.00
EXTRA LABOR: (Schedule attached)		
Extra Men to test pipe		214.16
TOOL RENTAL: (Schedule attached)		1,917.67
MUD & CEMENT: (Schedule attached)		567.82
HAULING CHARGE: (Schedule attached(.		1,712.62
CORE EQUIPMENT:		
Reed Roller Bit Co invoice #R 55717	$ 111.10	
Less Discount	2.22	108.88
SCHEDULE OF OTHER CHARGES:		255.35
TOTAL		$13,456.50

SCHEDULE OF RIG TIME & FUEL CHARGE
NATIONAL LEAD COMPANY
TRONE # 2 - LONG POINT DOME

DATE	RIG TIME RATE $525 Per Day	DAILY FUEL RATE $20 Per Day	TOTAL
7-17-51	$ 525.00	$ -0-	$ 525.00
7-18-51	525.00	20.00	545.00
7-19-51	525/00	20.00	545.00
7-20-51	525.00	20.00	545.00
7-21-51	525.00	20.00	545.00
7-22-51	525.00	20.00	545.00
7-23-51	525.00	20.00	545.00
7-24-51	525.00	20.00	545.00
7-25-51	525.00	20.00	545.00
7-26-51	525.00	20.00	545.00
7-27-51	525.00	20.00	545.00
7-28-51	525.00	20.00	545.00
7-29-51	525.00	20.00	545.00
7-30-51-	525.00	20.00	545.00
7-31-51	525.00	20.00	545.00
8- 1-51	525.00	-0-	525.00
	$8,400.00	$ 280.00	$ 8,680.00

SCHEDULE OF EXTRA LABOR
NATIONAL LEAD COMPANY
TRONE # 2

EXTRA MEN USED BY MR. CHAPMAN TO TEST PIPE:

July 18, 1951

6 Men - 8 ½ Hours each	- 51 hours	@ 1.45	per Hr.	$ 73.95
1 Man - 7 Hours	7 "	@ 1.50	" "	10.50
1 Man - 7 "	7 "	@ 1.45	" "	10.15

July 19, 1951

7 Men - 8 Hours each	--56 hours	@ 1.45	" "	81.20
1 Mah - 8 "	8 "	@ 1.50	" "	12.00
				$ 187.80

Add: Taxes & Insurance

Social Security @ 1½%	$ 2.82	
Texas Unemployment & Federal Excise Tax @ 3%	5.63	
Workmen's Compensation Insurance @ $9.536 Per $100	17.91	26.36
TOTAL		$ 214.16

SCHEDULE OF TOOL RENTAL
NATIONAL LEAD COMPANY
TRONE # 2

Tools For Running 8 5/8" Casing:

Acord Tool & Supply, Inc.		
Ticket No. 339	$ 75.00	
Less: Prorata charged Trone #1	45.00	$ 30.00

Subs Rented For Core Barrel Connection:

Houston Oil Field Material Co.	
Job No. 69852 - Invoice #8876	6.40
Job No. 398 - 7/27 thru 7/31	10.80
Job No. 69960 - Invoice #8877	6.60
Job No. 70444 -	6.60

Fishing Job:

Houston Oil Field Material Co	
Invoice No. 8871 - Job 69866	1,726.47
Invoice No. 8894 - Job 69814	130.80
TOTAL	$ 1,917.67

SCHEDULE OF MUD & CEMENT
NATIONAL LEAD COMPANY
TRONE # 2

MUD CHARGES	ALLOWABLE DISCOUNT	AMOUNT OF INVOICE	
Rosenberg Lumber Co			
Invoice No. 53632	$ 2.96	$ 157.16	
Invoice No. 53670	3.95	209.55	
Invoice No. 53668	.74	37.09	
	7.65	403.80	
Deduct:			
Mud & Tarp Returned			
Invoice No. 53744	1.33	61.86	
Invoice No. 53763	-0-	27.50	
		89.36	$ 314.44
Less: Discount			6.32
			$ 308.12

CEMENT & CEMENT CHARGES		
Halliburton Oil Well Cementing Co		
Invoice No. 73638-60 Sks Common Cement @ $1.50	$ 89.43	
Invoice No. 11262 C - To cement surface @ 3.51	175.28	
	264.71	
Less: Discount	5.01	259.70
TOTAL		$ 567.82

SCHEDULE OF HAULING
NATIONAL LEAD COMPANY
TRONE #2

G. M. DEMENT

Invoice #1085	Move and rigging up	$ 525.00	
Invoice #1087	Gin poling casing	33.00	
Invoice #1479	Rigging down	193.50	
Invoice #1483	Hauling rig & derrick to Houston Texas	746.40	$ 1,497.90

PLD TRUCKS

Truck #33 - 7/27/51 Return casing tools & subs	12.40	
Truck #20 - 8/4/51 Gin pole work	52.50	
Truck #22 - 8/4/51 Haul 3½" drill pipe	100.22	
Truck #33 - Haul 2" line pipe	49.60	214.72
TOTAL		$ 1,712.62

COPY

REED ROLLER BIT CO.

HOUSTON, TEXAS

INVOICE NO R 55717

DATE	HB DIST. NO.	S.O. NO.	YOUR ORDER	CASH DISC. WITHIN DISC. PERIOD
7-31-51	73	DR-64232	8685	2.22

SOLD TO

P.L.D. WELL SERVICE
810 STERLING BLDG.
HOUSTON, TEXAS

SHIPPED TO

NATIONAL LEAD CO.
LONG POINT, TEXAS

VIA
OUR DELIVERY

F.O.B.
LONG POINT, TEXAS

SULPHUR MATERIAL -

TO RENTAL ON					
6	7-7/8	H.F. CORE CATCHERS	17.35	104.10	
2		CHECK VALVE BALLS DROP BALL TYPE	.15	.30	
2	8-19	HI-CAR BEARINGS	2.75	4.50	
4	8-24	UPPER SUPPORT SPACERS	.30	1.20	111.10

SCHEDULE OF OTHER CHARGES
NATIONAL LEAD COMPANY
TRone # 2

WELDING CHARGES

Damon Welding Shop		
July 17, 1951 - Cutting out 8" Collar . . .	$ 3.00	
July 25, 1951 - Welding casing	40.50	$ 43.50

GASOLINE & PIPE DOPE

The Texas Company		
Invoice #129137 - 110 Gallons Gasoline . . .	$21.45	
" " - Graphite Axel Grease . . .	7.00	
" #129407 - Graphite Axel Grease . . .	7.00	35.45

MATERIAL DESTROYED WHILE RECOVERING STUCK DRILL PIPE

2 Joints - 3½" Drill pipe with Modified Tool Joints, Grade D, 13.30# price per Houston Oil Field Material Co: 60' @ 2.94 per foot	176.40
TOTAL	$ 255.35

SCHEDULE OF CONSULTING & SURVEYING FEES
FINAL REPORT

REFERENCE	DESCRIPTION	AMOUNT
John C. Meyers	Long Point Dome Examination of Cores #3 Trone Well Cove Area-Chambers County Field Trip to Cove Area " " " San Marcos Printing & Map work	$ 418.77
John C. Meyers	Long Point Dome, Ft. Bend County Final Report & Long Point Printing & Drafting	389.42
		$ 808.19

SCHEDULE OF SUBSISTANCE & MISC. EXPENSE
FINAL REPORT

REFERENCE	DESCRIPTION	AMOUNT
W. M. Chapman	Traveling Expense August 1 - 9 Rosenberg, Houston & Ret. to N.Y.	$ 288.17
H. A. Neustadter	July Exp. Cancelled	228.52
H. A. Neustadter	Add'l. Travel Expense August 1 - 9 Rosenberg, Texas	84.90
H. A. Neustadter	Traveling Expense Aug.1 - 9 Rosenberg, Texas Including Air Travel	348.16
		$ 497.71

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]						
5. Supervision	180.55	1047.21	1227.76			
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other Casing,etd.	2230.55	9858.35	7607.80			
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation	2.65	12.66	15.31			
F.O.A.B.	--	7.96	7.96			
10. Contract Work *	13456.50	10672.21	24128.71			
11. Other (specify)						
Subsistance & Misc	497.71	1589.84	2087.55			
Cons.& Surv. *	808.19	869.63	1677.82			
Bank Serv. Charge	.38		.38			
Total	12695.43	24057.86	36753.29			
Deletions	-0-		-0-			
Adjusted totals	12695.43	24057.86	36753.29			
Totals previously reported	-0-		--0-			
Totals to date	12695.43	24057.86	36753.29			

[1] Enter amount paid during month toward total purchase price.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.
[3] Submit copy of the Social Security form filed under the Old Age Insurance system showing complete wage and salary data or furnish copy of payroll sheet giving same data.

NOTE.—Indicate that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by
Amount approved for payment
Remarks

16—64068-3

NOTE:

Supervision: chargeable to Proj.

1 - 8/1/51-8/10/51 @ 541.61 per month. 180.55

* See attached supporting schedules

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF FINAL REPORT

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes	180.55	-0-	2250.55	13957.24	11887.24	Feet	-	2041	2041	App. 5400 ft.
Overburden										
Rehabilitation and preparation										
Geology and geophysics				808.19	808.19					
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)										
Totals	180.55		2250.55	14765.43	12695.43					

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.
[4] Specify whether feet, cubic feet, acres, miles, etc.

16—64068-3 U. S. GOVERNMENT PRINTING OFFICE

Schedule of other

1.	PLD Well (attached)	13,456.50
2.	Welfare applicable to Sal.	2.65
3.	Subsistance & Misc. (attached)	497.71
4.	Consulting Fees (attached)	808.19
5.	Bank Service charge	.38
		14,765.43

MF-104
(August 1951)

Budget Bureau No. 42-R1036.2.
Approval Expires 6-30-52.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E _____

Name of Operator National Lead Co., Titanium Division
Docket No. DMA 1409 X
Total Contract Amount $ 97,679.00
Government Participation: 50 % Amount, $ 48,839.50
Distribution of Expenditures for Month of July 1951

STRATEGIC AND CRITICAL MINERAL EXPLORATION PROGRAM
OPERATOR'S MONTHLY PROGRESS REPORT

Operators are to submit monthly reports to the designated field representative of the Defense Minerals Administration. Reports are to be submitted in quadruplicate prior to the 15th day of the month following the reporting period.

Narrative.—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered is to be furnished.

Maps.—Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

Cost Accounts.—All applicable parts of this form are to be filled in. This report will form the basis for payments of the Government's participating share of expenses. Audits of accounts may be made from time to time.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Nat'l. Lead Co., Titanium Divn.
(Name of Company)

By Frank R. Mulcahy
(Signature of Authorized Official)

12/11/51
(Date)

Asst. Mgr.
(Title)

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only		
				Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
1. Fixtures and Improvements:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Fixtures						
2. Operating Equipment:						
(*a*) Purchased[1]						
(*b*) Rented[2]						
(*c*) Furnished by operator						
3. Rehabilitation and Repairs:						
(*a*) Facilities						
(*b*) Buildings						
(*c*) Installations						

INVOICE

TELEPHONE PR-4365

P L D WELL SERVICE COMPANY

STERLING BUILDING
HOUSTON 2, TEXAS

DATE OF WORK 7-4-51 to 7-16-51 Inclusve

PLACE Long Point Dome, Fort Bend County, Texas

LEASE

WELL NO. TRONE #1

NATIONAL LEAD COMPANY
111 Broadway
New York, New York

INVOICE No. 56

INVOICE DATE July 24, 1951

YOUR ORDER NO. Contract dated July 17, 1951

WE DEBIT YOUR ACCOUNT WITH THE FOLLOWING:

Use of our complete rig and men to drill your Trone Lease, Well No. 1, Long Point Dome, Fort Bend County, Texas, as per contract dated July 17, 1951:

RIG TIME - Schedule attached:		
13 days @ $525 per day		$ 6,825.00
FUEL:		
Purchased from W. J. Goldston Oil Company		
10½ days @ $20.00 per day		210.00
INSURANCE:		
John S. Dunn & Company		
Initial Premium - Minimum	$23.93	
Contract Cost - $6,825.00 @ .061 ¢ $4.16		
(no charge until minimum charge exceeded)	-0-	
		23.93
HAULING:		
Schedule and invoices attached		1,543.07
PITS:		
G. M. Dement		
Invoice No. 1465		279.50
MUD & CHEMICALS:		
Schedule and invoices attached		433.51
CEMENT AND CEMENTING CHARGES:		
Schedule and invoices attached		548.38
BITS AND MISCELLANEOUS EQUIPMENT:		
Schedule and invoices attached		715.12
TOOL RENTAL AND WELDING:		
Schedule and invoices attached		93.70
		$10,672.21

VOUCHERED
AUG 3 1951
National Lead Co.

Approved 8/6/61
MRR

VOUCHERED

SCHEDULE OF RIG TIME AND FUEL CHARGE

National Lead Company
Trone #1 - Long Point Dome

DATE	RIG TIME RATE $525 Per Day	DAILY FUEL RATE $20 PER Day	TOTAL
1951			
7-4	$ 525.00	-0-	525.00
7-5	525.00	-0-	525.00
7-6 - Fuel turned on 11:00 AM 12 hours use	525.00	10.00	535.00
7-7	525.00	20.00	545.00
7-8	525.00	20.00	545.00
7-9	525.00	20.00	545.00
7-10	525.00	20.00	545.00
7-11	525.00	20.00	545.00
7-12	525.00	20.00	545.00
7-13	525.00	20.00	545.00
7-14	525.00	20.00	545.00
7-15	525.00	20.00	545.00
7-16	525.00	20.00	545.00
	$6,825.00	$210.00	$7,035.00

SCHEDULE TRUCKING CHARGES

National Lead Company
Trong #1 - Long Point Dome

VOUCHERED
AUG 1 1956
National Lead Co.

HAULING RIG TO LOCATION:

Union City Transfer Invoice No. 89012	$1,202.94	

SETTING RIG UP ON LOCATION:

Union City Transfer Invoice No. 89013	172.25	
		$1,375.19

MISCELLANEOUS HAULING:

Strange Truck Line Invoice No. 455	$ 26.68	
PLD Well Service Company Truck		
Ticket No. 34	93.50	
Ticket No. 35	12.40	
Ticket No. 36	10.50	
Ticket No. 37	12.40	
Ticket No. 38	12.40	
		167.88
		$1,543.07

Statement

G. M. DEMENT CONTRACTOR
Box 112
Damon, Texas

NO. 1465

NAME: P. L. D. Well Service
810 Sterling Bldg.
Houston, Texas

DESCRIPTION	HRS.	AMOUNT
Work Sheet #1609 July 3, 1951		
HD10 Cat. $12.50 @ Hr.	10	$ 125.00
Work Sheet #1610 July 2		
1 Helper $1.50 @ hr.	3	4.50
HD10 Cat. $12.50 @ hr.	3	37.50
Work Sheet #1611 July 4		
HD10 Cat. $12.50 @ hr.	9	112.50
Total		$ 279.50

SCHEDULE OF MUD PURCHASES

National Lead Company
Trone #1 - Long Point Dome

VOUCHERED
AUG
RECORDED

ROSENBERG LUMBER COMPANY

Invoice No. 53479.....	$239.89	
Invoice No. 53554	201.41	
	$441.30	
Less: 2% Cash Discount on $389.26	7.79	
		$433.51

RECEIVED
National Lead Co
TITANIUM DIV.

SCHEDULE OF CEMENT & CEMENTING CHARGES

National Lead Company
Trone #1 - Long Point Dome

HALLIBURTON OIL WELL CEMENTING COMPANY:

Cement -		
Ticket No. 41565 CT	$148.38	
Ticket No. 41561 CT	97.32	
	$245.70	
Less: Discount allowed	4.00	
		$241.70
Cementing Charges -		
Ticket No. 72166 R	$176.49	
Ticket No. 72167 R	136.45	
	$312.94	
Less: 2% Discount	6.26	
		306.68
		$548.38

SCHEDULE OF BITS & MISCELLANEOUS EQUIPMENT

National Lead Company
Trone #1 - Long Point Dome

WITHERED
Lead Co.

WILSON SUPPLY COMPANY

Invoice No. 45176	$309.61	
Invoice No. 45183	136.10	
Invoice No. 45182	11.92	
		$457.63

HOUSTON OIL FIELD MATERIAL COMPANY

Invoice No. 3528	$256.60	
Invoice No. 2938	15.48	
		272.08
		$729.71
Less: 2% Cash Discount		14.59
		$715.12

SCHEDULE OF TOOL RENTAL & WELDING CHARGE

National Lead Company
Trone #1 - Long Point Dome

VOUCHERED
AUG 1 1951
National Lead Co.
Houston, Tex.

TOOLS FOR RUNNING 8-5/8" CASING:

Acord Tool & Supply Company		
Ticket No. 339		$45.00

SUBS RENTED FOR CORE BARREL CONNECTION:

Houston Oil Field Material Company		
Job No. 69852	$12.90	
Job No. 398	8.80	
		21.70

WELDING ON 8-5/8" CASING:

L. A. Eversol		
Ticket No. 05366		27.00
		$93.70

SCHEDULE OF SUBSISTANCE & MISC. EXPENSE
JULY 1951

REFERENCE	DESCRIPTION	AMOUNT
W. M. Chapman	Traveling Expense July 1 - 15 Madison, N.J., Indianapolis, Bonne Terre, Hot Springs Ark. Houston, Texas, Rosenberg Tex.	$ 266.23
W. M. Chapman	Traveling Expense July 15 - 31 Rosenberg Tex., Austin, Texas Rosenberg, Tex.	156.38
H. A. Neustadter	Traveling Expenses July Rosenberg, Texas	223.52
W. M. Chapman	Add'l. July Travel Expense Auto-Truck Rental Gas, Grease, Oil, Misc.	256.94
C. H. Neustadter	Traveling Expense June 21 - 30 Houston & Rosenberg, Tex.	225.11
H. A. Neustadter	Traveling Expense July Rosenberg, Texas	461.16
		$1,589.84

SCHEDULE OF CONSULTING & SURVEYING FEES

JULY 1951

REFERENCE	DESCRIPTION	AMOUNT
H. J. Johnson	Surveying & Preparing Plat of Wells on Trone Lease Ft. Bend County - June 7, 8, 1951	$ 145.00
H. J. Johnson	Staking Well locations 1 & 2 G. W. Trone Estate	75.00
John C. Meyers	Consultation with A. R. Reisser MP Tipton, and make well locations & letters memoranda on procedure of prospecting at Long Point Dome, Ft. Bend County, drafting of work maps & printing costs.	284.63
John C. Meyers	Consultation & Field work, Long Point Dome, Ft. Bend County, Texas, G. W. Trone Lease.	365.00
		$ 869.63

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]						
5. Supervision	1047.21	--	1407.21			
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other Casing etc.	9858.35	--	9858.35			
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation	12.66	--	12.66			
F.O.A.B.	7.96	--	7.96			
10. Contract Work *	10672.21		10672.21	✓		
11. Other (specify)						
Subs. & Misc. *	1589.84		1589.84	✓		
Cons. & Surv. *	869.63		869.63	✓		
Total	24057.86	--	24057.86			
Deletions						
Adjusted totals						
Totals previously reported						
Totals to date	24057.86	--	24057.86			

[1] Enter amount paid during month toward total purchase price.
[2] Payments for rental of equipment or prorated depreciation on equipment owned by contractor.
[3] Submit copy of the Social Security form filed under the Old Age Insurance system showing complete wage and salary data or furnish copy of payroll sheet giving same data.

Note.—Indicate that portion of supervisory, office, and engineering salaries that is chargeable to this project.

FOR GOVERNMENT USE ONLY

Checked by
Entered by
Approved by
Amount approved for payment
Remarks

16—64068-3

NOTE:
Supervision chargeable to this Project:

1 - 6/21/51-7/31/51 @ 541.66
722.21
1 - Month of July @ 325.00
1047.21

* See attached supporting schedules.

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF July 1951

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes	1047.21	-0-	9858.35	12282.67	23188.23		2041	-	2041	App.5400 ft.
Overburden										
Rehabilitation and preparation										
Geology and geophysics				869.63	869.63					
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)										
Totals	1047.21		9858.35	13152.30	24057.86					

[1] Prorate supervisory, engineering, and office salaries in proportion to man-shifts of direct labor.
[2] Prorate charges for equipment that is not exclusively for one type of job (such as compressors) against authorized units of work in each category.
[3] Where entries in the "Other" column (above) are more than 25 percent of the total expenditures, a breakdown of this item should be made.
[4] Specify whether feet, cubic feet, acres, miles, etc.

16—64068-3 U. S. GOVERNMENT PRINTING OFFICE

SCHEDULE OF OTHER:

1. BLD Well attached	10,672.21
2. Welfare applicable to Sal.	20.62
3. Subsistance & Misc.	1,589.84
4. Consulting Fees	869.63
	13,152.30

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Progress Rep

January 23, 1952

Memorandum

TO: Mr. C. O. Mittendorf
Acting Administrator

FROM: Frank E. Johnson
Acting Deputy Administrator

SUBJECT: DMA No. 1409 (Sulphur)
National Lead Company
111 Broadway, New York 6, N. Y.
(Long Point Dome, Fort Bend County, Texas)
Exploration Project Contract - Idm-E 24

RECEIVED
JAN 29 1952
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

Under date of May 30, 1951, National Lead Company applied for an Exploration Project in the amount of $97,679.00 for the purpose of Exploring the "Trone Tract" of 318.8 acres located in Fort Bend County, Texas.

The property, held under lease by National Lead Company, had previously been partially explored and it was prepared to do additional exploring by drilling 6 test holes to an average depth of 1,000 feet each. The work was to be completed within two months.

It was considered that sufficient information was available so that a field examination was not deemed necessary. A contract was prepared and executed under date of June 27, 1951. In lieu of a subordination agreement, operator's guarantee of repayment of all sums that may fall due to the Government under the terms of the contract, was accepted by the Government and made a part of the contract as Annex 1. The project as set forth in the contract is as follows:

Exploration Project

Drill 6 holes, averaging 900 feet in depth, (total 5,400 feet) to reach limestone caprock.

If sulphur formation is reached, the holes to be deepened an average of 200 feet each.

Install casing averaging 1,100 feet in each hole.

Government participation 50% ($48,839.50). Time - 2 months.

The Operator proposed to expend $750,000.00 for facilities, if sulphur in commercial quantities is encountered.

Estimated Cost

Contract drilling of 6 test holes as follows:

a -	900 ft. to caprock @ $4.85 per ft.	$26,190.00
b -	Coring through 200 ft. of caprock estimated at 240 hrs. @ $18.75 per hour	27,000.00
c -	Casing 1,100 ft. @ $2.85 per foot	18,810.00
1 -	Core barrel	1,500.00
12 -	Cutter Heads	1,800.00
	Core cutters	500.00
	Pickup truck or jeep	1,800.00
	Consulting geologist's fee	2,000.00
	Misc. field labor	1,056.00
	Supervision (2 men, Nat'l Lead Co.)	2,400.00
	Living expenses for above	1,500.00
	Chemical analysis of cores	500.00
	Contingency fund (15%)	12,623.00
		$97,679.00

On June 27, 1951, copy of the executed contract was forwarded to applicant with the request to furnish Mr. David Gallagher, Executive Officer, DMEA Field Team, Region VI, with a copy of the proposed drilling contract for his approval before commencing drilling operations. Copy of this letter was sent to Mr. Gallagher.

On July 16, 1951, Mr. Gallagher wrote the National Lead Company advising that he had not heard from them with respect to the drilling contract or that work had started within 10 days from date of contract as specified in the contract.

Operator has furnished us with a photostat of a letter dated July 17, 1951 from A. R. Reiser of National Lead to Mr. Gallagher stating that P L D Well Service Company drilling contract was enclosed and promising to furnish regular monthly reports.

Under date of July 25, 1951, in reply to letter dated July 20, 1951 to Mr. J. L. Hofflund, General Counsel, DMEA, wrote to Mr. Gallagher regarding approval of the drilling contract. Mr. Hofflund advised Mr. Gallagher that "Whether or not you make payments for work done under the drilling contract will depend solely on whether or not you approve that contract, not on whether the work was done, so long as it was done within

when

the terms of the exploration contract". (A copy of the drilling contract was not available to Mr. Hofflund).

National Lead Company has supplied us with original letter dated August 8, 1951, addressed to Mr. Gallagher, reporting on results of drilling holes Nos. 1 and 2 (Delivered to Washington by Mr. Bonner).

Under date of August 28, 1951, Mr. Clinton C. Knox, Mining Engineer, U. S. Bureau of Mines, acting for Mr. Gallagher, wrote to National Lead Company, returning the July 1951 Monthly Progress Report for clarification.

On September 20, 1951, National Lead Company advised Mr. Knox that hole No. 2 was completed but there would be some delay in making their August report.

Two original letters dated November 20, 1951, from National Lead Company to Mr. Gallagher, and Final Report (Delivered to Washington by Mr. Bonner).

On November 29, 1951, Mr. Gallagher wrote Mr. Allan R. Reiser, Assistant Manager, National Lead Company, that on September 20, 1951, Mr. Reiser had indicated that monthly Progress Reports and other information would be furnished within two weeks but that he had not complied with requirements as follows:

> The drilling was to be done according to the terms of the contract;
>
> The subcontract was to have been approved by the Government in writing <u>in advance</u> of start of drilling.
>
> Monthly reports were to have been submitted to the Government.

Mr. Gallagher further advised operator that the Field Team considers the contract terminated and void, and recommended that any further business be taken up with the Washington Office.

Under date of December 11, 1951, Mr. J. P. Bonner, National Lead Company, Washington representative (telephone - Kellogg 7-0148) delivered data and monthly Progress Reports for the operation in compliance with Mr. Gallagher's advice to take the matter up with the Washington Office. Mr. Bonner requested us to review the data and pay what we thought was the Government's proper share of the cost under the contract.

The data submitted indicated 3 bids for contract drilling were received as follows:

6/19/51 - P L D Well Service, Houston, Texas.
Rate - $525.00 per day (24 hrs.), including rig and accessories, maintenance, supplies and labor, taxes and insurance.

6/6/51 - Oil Production Maintenance, Inc., Houston Texas.
Rate - $4.75 per ft. If six wells can be drilled with one rig - $4.50 per ft. Day rate - $465.00 per day.
Drill hole and set approximately 150 ft. of 12# pipe.
Drill hole and set approximately 1,000 ft. 8 and 5/8" casing and cement casing.
Take core on operation - construction (done on day rate). Operator to furnish drill, mud and chemicals. 6/12/51 - driller advised that rig not available but probably will be in 20 to 25 days.

6/18/51 - Production Service Company, Houston, Texas.
Rate - $550.00 per 24 hour day with drill pipe and $525.00 per day without pipe.
Furnish rig, water and gas lines and standard equipment.
Mud, chemicals, cementing, etc., to be furnished by operator.
Transportation charge of $1,400.00, plus cost of moving cost to next location, or back to yard.

<u>July Progress Report</u>

			Progress
	(Rig	$ 6,825.00	2,041 ft.
	(Fuel	210.00	
P L D	(Insurance	(none)	
	(Hauling	1,543.07	
Well	(Pits	279.50	
	(Mud and chemicals	433.51	
Service	(Cement & cementing charges	548.38	
	(Bits and misc. equipment	715.12	
Company	(Tool rental and welding	93.70	
		$10,672.21	
	Travel expenses	1,589.84	
	Consulting, surveying and field work	869.63	
	Labor (supervision)	1,407.21	(delete supervision
	Casing, etc.	9,858.35	prior to 6/27/51)
	Compensation and OAB Ins.	20.62	
		$24,057.86	

Final Report

Examination of cores, printing and map work		$ 808.19
Travel		497.71
PLD Well Service Company		13,456.50
Supervision		180.55
Casing (red)		(2,250.55)
Compensation, Insurance & OAB		2.65
Bank services charge		.38
		$12,695.43
	July	24,057.86
Grand Total		$36,753.29

8/8/51 - Letter to Gallagher from National Lead Company.
2 holes drilled:
No. 1 - Started July 6, 1951, completed 7/16/51.
No cores through overburden.
Caprock encountered at 856 ft. - caprock cored to 1056 ft. - solid sulphur 0.95 ft.
No. 2 - Drilling - 7/18/51 to 7/31/51.
Caprock reached at 846 ft. Cored from 849 ft. to 985 ft. - solid sulphur 1.54 ft.
Difficulties encountered:
No. 1 - Holes reamed. Leaks water from nearby mine.
No. 2 - Loss of return - sealing mud, vuggy rock.

SUMMARY

The proposed project comprised drilling of 6 holes to further test a typical salt dome for sulphur deposits. The productive areas are in the alteration zone where gypsum has been altered to limestone and anhydrite. The dome has been productive from areas on the north and south flanks. Drilling had indicated an estimated 117,500 long tons of sulphur on the Trone Tract on the west flank of the dome.

Production was between the 600 and 900 contours of the caprock of the dome with the area between the 800 and 900 contour being the most productive. The proposed drilling was to test this same area on the Trone Tract with the expectation of increasing the reserve tonnage.

Two holes were put down in what were considered very favorable locations. The results estimated from cores indicated 0.20 and 1.54 equivalent feet of solid sulphur for these holes. The results of two holes previously drilled by another operator were made available. A study of these four holes reduced the previous estimate of 117,500 long tons of sulphur to 100,134 long tons of sulphur available on the Trone Tract.

The operator and its consulting Geologist believe this tract has been adequately tested. They estimate that a deposit of at least 150,000 tons of sulphur is required to be economically mined under present conditions and feel because of the unfavorable results of the work performed on the project that this objective could not be reached, hense have abandoned the project.

Based upon the data supplied by the Operator, which is believed reliable, it appears that a discovery or development of sulphur has not been made as defined under MO-5. Consequently, no certification can be made in this case.

Although the Operator was negligent in not having its drilling contract approved in advance by the Government, and also in not properly replying to the Executive Officer's letters or forwarding the required information, I believe we should pay the Government's share of costs that are proper charges against the project.

Since the expenditures are listed under a different breakdown than shown on Exhibit "A", it cannot be determined from the data supplied which are allowable costs under the contract.

This contract called for 5,400 feet of drilling at a total cost of $97,679.00, or $18.09 per foot. The data submitted by Operator indicates that a total of 2,041 feet of holes were drilled at a total cost of $36,753.29, or $18.07 per foot. However, there are probably some costs included which we would not allow.

There is no point in referring this matter to the Field Team. The Field Engineer could only verify the locations of the two holes drilled; but not the amount of drilling performed or the results. I believe that we can accept in all propriety, the evidence submitted by Operator that the work was actually performed as well as the results of the work. However, I believe we should have an audit made of the books and records of the Operator, to determine just what items and amounts can be allowed under the contract. Mr. Bonner, National Lead representative, has indicated their willingness to permit an audit and stated that he can have the books and records sent to Washington from New York.

I, therefore, recommend that our Contract Administration and Audit Division arrange for such an audit and that payment of the Government's share of the cost of the project under the contract be made, based on such audit.

Frank E. Johnson

Frank E. Johnson

FILE COPY
SURNAME:

140

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

BL

MAY 25 1953

Hoffman
Smith
Johnson
Chamberlin
Martin
Fischel
Hedges

Subject: Docket No. DMA-1409
(Sulphur)
Contract I-DMA-E24

National Lead Company
Mining Department
111 Broadway
New York 6, New York

Gentlemen:

Reference is made to a letter dated November 29, 1951, from the DMEA Field Team, Region VI, to you, the last paragraph of which reads:

> "This is to advise you that this Field Team, Region VI, now considers Contract I-DMA-E24 terminated and void. We recommend that you conduct any further business connected herewith with our Washington office."

Reference is also made to a letter from me to you dated October 3, 1952, in which it is suggested that it would enable this office to give further consideration to your claim for reimbursement under the subject contract if you would furnish us with suitable evidence both of the performance of the work and of your legal right, title or interest in the subject property. After you received this letter, Mr. J. P. Bonner, your representative here, advised Mr. Frank Johnson, Deputy Administrator of DMEA, in personal conversations, that you would, within a reasonable time, advise this office of the facts regarding your rights in the property. Some seven months have now elapsed and we have heard nothing further from you.

You are now advised that the action of the Field Team indicated in its letter of November 29, 1951, is approved and confirmed for the reason stated in that letter. You are further notified that the subject contract is hereby revoked and rescinded as of June 27, 1951, the date thereof, free of all obligations of any kind on the part of the Government.

The reasons for this action by the Government, including those stated in the Field Team's letter, are the following:

1. The work was done under a subcontract or subcontracts which were not submitted to the Government for approval nor approved by the Government as required by the provisions of Article 4 of the contract form; and which would not have been approved by the Government if they had been submitted.

2. No satisfactory evidence has been provided that the work contemplated by the contract or any part of it has been performed.

3. The Government is informed that National Lead Company was not at any time "in possession and entitled to possession" of the property described in the contract, as represented in Article 2 of the contract form, so as to enable it to carry out the described work.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

J.H.
5-25-53

JLHofflund:ep 5-20-53

Copy to: Mails & Files
Admr. R. Copy
Docket File
Op. Comm.
Field Team, Region VI (2)
Mr. Mittendorf
Mr. Houk
Mr. Hofflund
Chron.
Pending

FILE COPY
SURNAME:

Hearne
Hank

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

October 27, 1952

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Chronology - Docket No. DMEA-1409 - Sulphur
National Lead Company
Long Point Dome
Fort Bend County, Texas
$97,679 - $48,839.50

6/4/51 Received application dated 5/30/51
6/8/51 Copy to Norton, U.S.G.S.
7/1/51 Approved in PED by Mr. Galliher
6/27/51 Letter to applicant forwarding contract and Progress Report for completion.
7/6/51 Letter from applicant acknowledging receipt of contract and Progress Report.
11/29/51 Copy of letter to applicant from Region IV advising him that he should contact Washington office for further business regarding application.
1/16/52 Docket to Reports and Records - terminated 11/29/51
1/23/52 Memo from F. E. Johnson to C. O. Mittendorf, recommendations on property; that Contract Administration and Audit Division arrange for an audit and that payment of the Government's share of the cost of the project be made, based on such an audit.
3/25/52 Note: 1/21/52 "This contract has been cancelled per Statistics and Records Division."
3/25/52 Received Final Report and July, 1951, Monthly Progress Report with supporting schedules, copies of correspondence, reports, maps, and brochure stating "Concluding unsuccessful efforts to develop an economic sulphur property within the boundaries of the G. W. Trone Property, Long Point Dome, Fort Bend County, Texas."
4/1/52 Letter to Region VI re: Final Report and payment of vouchers - approving payment unless evidence exists at field office, which has not yet been reported to Washington, which would materially change the situation.
4/21/52 Letter from Region VI "We can not approve the documents relating to the project and it is our recommendation that you not approve them either."

9/30/52 Letter to National Lead Co., J. H. Reid, Vice President, requesting affidavit from sub-contractor that the drilling was done and that log furnished in report to Government is correct. Also Government must have documentary evidence that National Lead had a right to enter upon property and do exploration work.

Laurance F. Hearne
Nonmetallic Minerals Division

LFHearne:gad

Copy to: Adm. R. File
Docket File
Mr. Houk

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

National Lead Company
Mining Department
111 Broadway
New York 6, New York

OCT 3 1952

Attention: Mr. J. H. Reid, Vice President

Re: Docket No. DMA-1409
Contract I-DMA-E24

Gentlemen:

Reference is made to the above cited contract, dated June 27, 1951 and to your claim for reimbursement thereunder for 50 percent of the total amount of $36,753.29 submitted on form MF-104 under date of December 11, 1951.

As you are aware, questionable compliance with certain provisions of the exploration contract by you has precluded our recognition of any obligation by the Government under the contract. Before making a final determination, however, we wish to give you the opportunity of submitting satisfactory evidence that you have complied with the terms of the contract.

In this connection, please refer to paragraph 2 (Operator's property rights) of the contract (form MF-200). This paragraph provides that the contractor is either the owner or "...a lessee, in possession and entitled to possession ...," of the property on which exploration work under the Government contract for assistance is to be performed. This section also provides for a subordination agreement of the lessor.

The Government has expressed a willingness to waive the subordination agreement for a guarantee of the Government's interest set forth in paragraph 14 of the contract; but it cannot waive a lease or documentary evidence of some kind to the effect that the National Lead Company had a right to enter upon the premises described in the contract and to perform the exploration work outlined therein.

The Government also requires further evidence that the exploration work done under the terms of the contract was actually accomplished. This evidence might take the form of an affidavit made by the subcontractor that the drilling was done and that the log of the drilling set forth in your report to the Government is correct.

Upon receipt of the information stipulated in the two immediately preceding paragraphs, this Administration will give further consideration to making a settlement with your company.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

F.W. 10-3-52

FEJohnson/fw/pa 9/29/52

cc:Admr. Reading File
Mails & Files
Mr. Hofflund
Mr. Chambers
Mr. Houk
Mr. F. E. Johnson
Field Team, Reg. VI (2)

FILE COPY
SURNAME:

800

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

September 24, 1952

Memorandum

To: Mr. Frank E. Johnson
Acting Administrator

n. s. in R. & R.

From: Jay L. Chambers, Chief (Signed) J. L. Chambers
Contract Administration and Audit Division

Subject: Docket No. DMA-1409, Contract I-DMA-E24
National Lead Company

I am returning a proposed letter prepared by the General Counsel to be sent to the National Lead Company in regard to settlement of the above-mentioned project. I can not surname this letter for the following reasons:

(1) I do not think we should base the letter entirely upon Mr. Gallagher's attitude.

(2) Mr. Gallagher's office did receive a report from the Company and returned it for changes and corrections; therefore, the statement in the proposed letter that no report was received from the Company is not accurate.

(3) The letter appears to me to be unduly harsh.

I am sending you in rough draft form a proposed replacement of this letter.

Attachment

JLChambers/wb
September 23, 1952

Copy to: Mails & Files
Admr. Reading File
Mr. Chambers

ROUGH DRAFT
9-23-52

National Lead Company
Mining Department
111 Broadway
New York 6, New York

Attention: Mr. J. H. Reid, Vice President

Subject: Docket No. DMA-1409
Contract I-DMA-E24

Gentlemen:

Reference is made to the above cited contract dated June 27, 1951 and to your claims for reimbursement thereunder in the total amount of $36,753.29 submitted on our Form MF-104 under date of December, 11, 1951.

Paragraph 2 of the Contract provides that the Contractor is either the owner or "...a lessee, in possession and entitled to possession..." of the property on which exploration work under a Government contract. This section also provides for a subordination agreement of the lessor.

The Government has expressed a willingness to waive the subordination agreement for a guarantee of the Government's interest set forth in paragraph 14 of the Contract; but it cannot waive a lease or documentary evidence of some kind to the effect that The National Lead Company had a right to enter upon the premises described in the contract and to perform the exploration work outlined therein.

The Government also requires further evidence that the exploration work done under the terms of the contract was actually accomplished. This evidence might take the form of an affidavit made by the subcontractor that the drilling was done and that the log of the drilling set forth in your report to the Government is correct.

Upon receipt of the information stipulated in the two paragraphs immediately above, this Administration will give further consideration to making a settlement with your Company.

If assistance is to be done

FILE COPY
SURNAME:

Hoffland
Allgaier
Hook

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

National Lead Company
Mining Department
111 Broadway
New York 6, New York

Subject: Docket No. DMA-1409
Contract I-DMA-E24

Gentlemen:

Reference is made to a letter dated November 29, 1951, concerning the subject contract, from Mr. David Gallagher, Chairman, Field Team, Region VI, to Mr. Allan R. Reiser, Asst Mgr., National Lead Company, the last paragraph of which reads:

> "This is to advise you that this Field Team, Region VI, now considers Contract I-DMA-E24 terminated and void. We recommend that you conduct any further business connected herewith with our Washington office."

The action taken by Mr. Gallagher is approved and confirmed for the reasons stated in his letter. You are further notified that the subject contract is hereby revoked and rescinded as of June 27, 1951, the date thereof; and that the Government repudiates and denies any obligations arising out of that contract.

The reasons for this action by the Government, including those stated by Mr. Gallagher in his letter, are the following:

1. The work was done under a subcontract or subcontracts which were not submitted to the Government for approval nor approved by the Government as required by the provisions of Article 4 of the contract form, and which would not have been approved by the Government if they had been submitted.

2. Neither progress reports nor a final report were furnished to the Government as

required by Article 13 of the contract form; nor was the Government informed of the commencement of the work, nor afforded any reasonable opportunity to enter and observe and inspect the work as required by Article 4 of the contract form.

3. No satisfactory evidence has been afforded the Government that the work contemplated by the contract or any part of it has been performed.

4. The Government has been informed that National Lead Company was not at any time "the sole owner, in possession and entitled to possession" of the property described in the contract as represented in Article 2 of the contract form and that National Lead Company had no lease on the property nor right to the possession thereof at the time the contract was entered into.

Sincerely yours,

Administrator

JLHofflund/em
9 ~~10~~/16/52
Copy to: D. Gallagher, Reg. VI
Mails and Files
C. O. Mittendorf
Adm. Reading File
L. Houk
J. L. Chambers
J. L. Hofflund
chron.
pending

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FILE COPY
SURNAME:

Hofflund
Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. David Gallagher
Executive Officer
DMEA Field Team, Region VI
221 West 3rd Street
Joplin, Missouri

Subject: Docket No. DMA-1409
Contract I-DMA-E24

Dear Mr. Gallagher:

Attached is a draft of a letter which I propose to send to National Lead Company, revoking the contract and denying any obligation of the Government thereunder.

Please advise me by return mail if you approve of this letter, and if not, I would appreciate having your further suggestions.

Sincerely yours,

Administrator

Attachment

JLHofflund/em
~~10~~ 9/10/52
Copy to: Mails and Files
C. O. Mittendorf
Administrator's Reading File
L. Houk
J. L. Chambers
J. L. Hofflund
chron.
pending

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

May 8, 1952

Memorandum

To: C. O. Mittendorf
Acting Administrator

From: Chief Counsel

Subject: National Lead Co.-DMA-1409 - Payment of Voucher

On Monday, May 5, I had a conference with Mr. Gallagher concerning this contract. The essence of Mr. Gallagher's objections to the contract, as I understand it, are twofold: (1) He would not have entered into the contract if he had had anything to do with it; and (2) the contractor so failed to conform with the administrative and procedural requirements of the contract as to forfeit all rights under it, and the contract should be terminated.

As I understand it, Mr. Gallagher thinks that if he had had anything to do with it he would not have entered into the contract in the first place, because he feels that the application and probably the record indicate that there is very little chance that further drilling would result in any beneficial discovery or development. I pointed out to him that assuming this to be true, he has no responsibility in that matter because he did not approve the contract before it was entered into, and that perhaps if the contractor was willing to put up one-half of the cost of further drilling the Government may not have gone too far afield in participating in that cost with the contractor.

As for the administrative and procedural defaults of the contractor, I pointed out to Mr. Gallagher that if the contractor had done everything that he was supposed to do under the contract, the position of the Government would have been just the same, to wit: An expenditure of money for exploration work which has produced no beneficial results either to the Government or to the operator.

Mr. Gallagher does not question but what the work for which the operator claims costs was performed,

and that the costs as indicated were actually spent by the operator. It is true that the per foot costs of drilling ran very much higher than the estimate, but, as I understand it, Mr. Gallagher does not question the necessity for paying that much for the drilling if it was to be accomplished.

As I understand Mr. Gallagher, his position is that inasmuch as he had nothing to do either with entering into the contract, or with administering it after it was entered into (the latter being due to the defaults of the contractor in procuring his approval of subcontracts, and in notifying him of the performance of work), that therefore he should not certify the contractor's voucher for payment. I told Mr. Gallagher that his position seemed reasonable enough in this respect, and that as far as I knew you could certify the vouchers yourself, as Administrator of DMEA.

I have since found that apparently you are not qualified to certify vouchers for payment, inasmuch as you have not been bonded as a certifying officer. Unless there is some other officer in the department who could and would certify the voucher for payment, I can see no alternative but to ask Mr. Gallagher to certify it.

I do think that Mr. Gallagher's point of view with respect to certifying, has changed somewhat since his conversation with me. Refusal of certification can only be justified on the grounds that the contractor either did not perform the work as specified, or did not expend the costs which he claimed. Nobody, including Mr. Gallagher, contends that this is the case. Possibly if you would send to Mr. Gallagher a copy of this memorandum, and a renewal of your request to him that the voucher as now audited be certified for payment, he would feel that he could proceed with the matter and clear up this contract.

J. L. Hofflund
Chief Counsel

JLHofflund/ema
cc: Mails & Files
J. L. Hofflund
Chron.

[Copy [illegible] (not endorsed) [illegible]]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Joplin, Missouri

April 21, 1952

Re: Contract No. I-DMA-E24
Docket No. DMA 1409X

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Washington 25, D. C.

APR 24 1952

Dear Mr. Mittendorf:

Your letter of April 1, 1952, asking us to sign, and pass for payment, the documents connected with the subject contract, adequately covers us, but it does not protect you. I believe you should reconsider the case after studying the following review of the facts.

We have never yet seen the application. The first we knew of it was on June 29, 1951 when we received our copy of the contract dated June 27, and already signed by both the Operator and Jim Boyd. With it was a carbon copy of a letter dated July 27 from you (copy A attached) instructing the operator to submit the drilling contract to me for approval before starting to drill.

On July 16 I wrote the operator substantially "I haven't yet heard from you" (copy B attached).

By letter (copy C attached) dated July 17, the operator transmitted to me a copy of the drilling subcontract and advised me that drilling had commenced on July 6. This I construed as a clear violation of Article 4 of the contract and of your instructions.

Exhibit A of contract I-DMA-E24 specifies 6 holes @ $4.85/ft. The drilling subcontract was for only one hole and specified merely $525 per day for having the drill rig on the property and made no mention of price per foot or feet per day. Because of the wide difference between $4.85 per foot for drilling, and mere tenancy at $525 per day with no guarantee that I could find of any drilling activity whatever, I did not feel that the subcontract conformed to the agreed terms of the Exploration Contract.

On July 20, 1951 I wrote to J. L. Hofflund, (copy D attached) asking if there was a breach of contract by (1) non-compliance with Article 4 and/or (2) the $525 per day vs. $4.85 per foot ~~(copy attached)~~. I sent a copy to the operator with a covering letter (copy E attached).

On July 28 I received a reply dated July 25 (copy F attached) from Mr. Hofflund containing the statement, "It is immaterial that work was begun under the drilling contract prior to the securing by the Company of approval of that contract by the Government. Whether or not you make payments for work done under the drilling contract will depend solely on whether or not you approve that contract ...."

I did not approve the drilling contract, nor have I yet approved it.

The operator now claims that two holes were drilled. No contract for a second hole was ever presented to us by the operator, although we received on April 3, 1952 from your office a photostat of a letter of agreement between the operator and the driller for the second hole.

On August 27, during my absence, Clinton C. Knox received the first monthly progress report on MF-104 from the operator, that should have been submitted by August 15. Noting that the drilling contract for the first hole had not been approved, and that no drilling contract had yet been presented for the second hole, and that the MF-104 was not satisfactorily filled out, Mr. Knox returned the report to the operator on August 28 (letter G attached) for revision.

By letter (copy H attached) dated September 20 the operator notified us that (1) the work was concluded with the drilling of the second hole and (2) the final report would be sent to us within two weeks. As the second hole was included in the MF-104 for July, presumably it was finished in July and we therefore infer that the exploration was concluded in July, yet we were not notified of this by the operator until September 20, at least 50 days after the work had stopped.

We never heard another word from the operator. After 10 weeks, which was 8 weeks after the promised date of the final report, I wrote the operator on November 29, 1951 (copy I attached) that I considered the contract terminated and void and that any further business connected with it should be taken up with our Washington office. ~~(copy attached)~~

In his letter dated November 20, 1951 to me, Mr. Reiser offers some explanations and admits that the first drilling contract has never been approved by me. You told me on the phone a few days ago that certain letters from the operator to me had not reached me, and the implication seemed to be that Reiser had given you the impression that these letters must have been lost in the mails. It is remarkable that Reiser's November 20 letter to me, mentioned above, appears to be the original and that it first reached me on April 3, 1952 from your office.

The so-called final report signed by Reiser is likewise dated November 20, 1951, is an original copy, and was first received by me on April 3, 1952 with the documents sent from your office. In it he indicates that 11 holes, including the 2 DMA holes, adequately demonstrate that 80%

of the land involved does not contain economically mineable quantities of sulfur. The 9 holes must, in my opinion, have already shown that a large part of the 80% was no good before the 2 DMA holes were drilled. This casts some doubt upon the sincerity of the exploration aspects of the application in the first place, and on Washington's approval of a contract in the second place.

Exhibit A calls for installing 1,100 feet of casing in each of 6 holes after the holes are drilled. Manifestly this is not to facilitate the drilling but is to prepare the holes for the extraction of sulfur. It is therefore "preparation for mining" in violation of both the letter and the intent of Sec. 7 (a) of MO-5.

Exhibit A calls, firstly, for drilling 6 holes each to a depth of about 900 feet to reach a limestone caprock. Then, secondly, deepening each hole about 200 feet to reach the sulfur. The obvious time for a field inspection by us would be after the first drilling. Yet we were not notified until July 17 that drilling had begun on July 6, and we were not notified until September 20 that drilling ended with the second hole in July. Obviously, if we visit it now the site of the project, the best we could do would be to find someone who could take us to the site, point out the collar of each of the two holes, and assure us verbally, or retroactively in writing, that these are the holes. That would prove nothing. We believe that it would be folly at this late date to search for the 2 holes that were allegedly drilled among the other 9 in that Fort Bend County, Texas sulfur field in a feeble effort to satisfy ourselves that the work had actually been performed. Now all we have as proof that the drilling was done, is an unsigned carbon copy of the driller's invoice to the operator, and the assurance of a man who, so far as I know, has never been closer to the project than twice as far away as we are, namely, in New York.

In the application (presumably, -- I have never seen it), and in the contract, the operator represents that he has adequate Title to enter upon the land and perform the exploration, yet apparently a court case ensued that suggests some doubt about it. Yet the application form MF-103 makes reference to Title 18, U. S. Code (Crimes), section 1001, which makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction. Of course, the word "willful" is the joker here.

In the enclosures with your April 1, letter of transmittal, we note that Frank R. Milliken, Assistant Manager for the operator, signed the revised July, 1951 Monthly and Final Progress Reports in a New York office on December 11, 1951. He thereby certified under oath (Title 18, U. S. Criminal Code, Sec. 1001) that a total of $36,753.59 had been spent by the Operator in the alleged drilling of the 2 sulfur exploration holes, and that the supporting information contained in the reports and attached cost vouchers was "correct and complete to the best of their knowledge and

belief". None of the attached subvouchers, etc., that we have seen, supporting that certified total reported cost of the subject project, carried the signatures of any field man or the alleged receivers of the Operator's disbursements, nor were the specific dates given concerning when those debts were supposed to have been incurred.

In the "Audit Certificate" issued by E. D. Talbert for the Government Contract Administration and Audit Division, on February 15, 1952, the total cost of the project was cut to $35,587.12 in which the Government is to participate, providing that "the Executive Officer, the Administrator, or other competent official accepts the project as having otherwise met the terms of the contract".

In summary then:

1. The application was made without adequate Title to the land.
2. Previous drilling had already shown the project no good.
3. The Contract allows casing in preparation for mining.
4. The drilling contract bears no resemblance to the terms of Exhibit A.
   a) It is for one hole instead of six.
   b) It is for $525 per day instead of $4.85 per foot.
5. The drilling contract has not been approved because:
   a) It was submitted late, after drilling commenced, in violation of your letter of July 27 and the possible intent of Article 4.
   b) It bore no resemblance to Exhibit A.
   c) It was deemed by me not to be a contract in the sense of a bilateral and mutually advantageous agreement, but a unilateral agreement by which the operator (and hence the Government) agreed to pay but the driller did not agree to drill.
6. No contract has even been submitted, let alone approved, for the second hole.
7. The work was abandoned the end of July but
   a) This fact was not revealed in the MF-104 submitted August 27.
   b) It was not revealed until September 20, at least 50 days later.
8. No proof has been made available that any work was done.
   a) The Field Team could not make a worthwhile field check.
   b) Only unsigned and unadequately dated documents from men actually on the job have been made available to us.

Finally:

We didn't approve the application.
We didn't approve the Exploration Contract.
We didn't approve the drilling contract.
We didn't approve the drilling agreement for the second hole.

We didn't see the project.
We didn't receive adequate or timely replies or reports from the Operator.
We did advise the Operator that we declared the Exploration Contract terminated and void, and referred them to Washington.
We cannot approve the documents relating to the project and it is our recommendation that you not approve them either.

Sincerely yours,

David Gallagher

David Gallagher
Executive
DMEA Field Team, Region VI

Attachments

/lh

P. S. The documents sent us with your letter of April 3 are being returned to you under separate cover.

COPY

June 27, 1951

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

Re: Docket No. DMA-1409X

Gentlemen:

Enclosed find executed Exploration Project Contract No. I-DMA-R24 dated June 27, 1951 with attached Exhibits and maps; also a set of monthly Progress Reports (Form-104). A progress report is to be submitted monthly in quadruplicate to the DMA field representative in your area where additional copies may be obtained.

Before commencing drilling operations, kindly comply with paragraph 4 of the Contract by submitting a copy of your proposed drilling contract to the Executive Officer of Region VI for his approval. His address is as follows:

Mr. David Gallagher
Executive Officer, DMA Field Team, Region VI
P. O. Box 431
Joplin, Missouri

A press release dated May 14, 1951 on "Questions and Answers on the Minerals Exploration Program" is enclosed for your information.

Sincerely yours,

G. O. Mittendorf, Director
Production Expansion Division

Enclosures

EMEllis/acl

cc to: Messrs. Mittendorf - Olund
Lyon David Gallagher, Region VI
Strobel Field Finance Sec. Bureau of Mines
Ellis Contract Services Sec. - G.A.O.

FILES

COPY

Joplin, Missouri

July 16, 1951

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

Re: Docket No. DMA-1409X

Gentlemen:

On June 29, 1951 I received a copy of the Defense Minerals Administration contract (I-DMA-E24) with your company for the purpose of drilling sulfur in Fort Bend County, Texas. The contract was accompanied by a carbon copy of a letter to you dated June 27, 1951 from C. O. Mittendorf, Director, Production Expansion Division, stating in part:

> "Before commencing drilling operations, kindly comply with paragraph 4 of the Contract by submitting a copy of your proposed drilling contract to the Executive Office of Region VI for his approval."

Although the contract is dated June 27, 1951 and paragraph 3 specified that work on the project shall commence within 10 days of that date, I have not yet heard from you.

Sincerely yours,

David Gallagher
Chairman
DMA Field Team, Region VI

DGallagher:lh

cc: O. N. Rove
C. O. Mittendorf

COPY

NATIONAL LEAD COMPANY
Mining Department
111 Broadway
New York 6, N. Y.

Allan R. Reiser
Assistant Manager

July 17, 1951

Mr. David Gallagher, Chairman,
DMA Field Team, Region VI,
United States Department of the Interior
Defense Minerals Administration
Joplin, Missouri

Re: Docket No. DMA-1409X

Dear Mr. Gallagher:

Enclosed please find an executed contract between the PLD Well Service Company of Houston, Texas, and the National Lead Company for the drilling of test sulfur wells on the Long Point Dome, Fort Bend County, Texas. You will note that this contract has been executed under date of July 17, 1951.

Drilling operations on this lease were started at 11 P. M., July 6.

We will supply you at the start of each month with monthly reports of progress as per outline sent to us. We trust that this will meet with your approval.

Yours very truly,

(S) A. R. Reiser

A. R. Reiser

ARR:EE
Enc.

Joplin, Missouri

July 20, 1951

Mr. J. L. Hoffland, General Counsel
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Through: Coordinating Committee

Subject: Docket DMA 1409X (Contract I-DMA-E24)

Dear Mr. Hoffland:

As an outgrowth of an application for exploration Docket DMA 1409X filed by the National Lead Company, the Washington office of Defense Minerals Administration arranged with them Exploration Contract Number I-DMA-E24. This contract first came to my attention accompanied by a letter of June 27, 1951 from G. O. Mittendorf, a copy of which is attached, advising the National Lead Company to comply with paragraph 4 of the contract by submitting a copy of the proposed drilling contract to me before commencing drilling operations.

On July 16, 1951 I wrote to the National Lead Company, the letter of which a copy is enclosed, advising them that I had not yet heard from them.

On July 20, 1951 I received from the National Lead Company a letter dated July 17, 1951 under the signature of A. R. Reiser, Assistant Manager, a copy of which is enclosed, and to which was attached a signed copy of drilling contract between the National Lead Company and the PID Well Service Company.

This contract stipulates that the National Lead Company will pay the PID Well Service Company a sum of $525 per day rental on the drilling rig for drilling Trone #1 well. However, Exhibit A, attached to, and a part of, Contract I-DMA-E24 specifies that six test holes will be drilled by contract drilling at a cost of $4.85 per foot to the caprock, plus other appropriate cost for coring and casing. The specifications and costs given in Exhibit A were those approved by the Washington office of the Defense Minerals Administration in their contract with the National Lead Company.

May I therefore request that you ascertain whether or not there has been a breach of the contract by the National Lead Company in respect to: (1) Their failure to comply with paragraph 4 of the

Joplin, Missouri
July 20, 1951

contract as stipulated in the letter from Mr. Mittendorf or, (2) in the departure of the submitted drilling contract from the agreed specifications of Exhibit A. Please see to it that I am adequately advised what policy to follow and what action to take in this case.

Sincerely yours,

David Gallagher
Chairman,
DPA Field Team, Region VI

cc: S. D. Holmer

Joplin, Missouri

July 30, 1951

Mr. A. R. Tolsor,
Assistant Manager
National Lead Company
Mining Department
111 Broadway
New York 6, New York

Dear Mr. Tolsor:

This will acknowledge receipt of your letter of July 17 and the drilling contract attached thereto.

The copy enclosed of my letter to Mr. Hoffland is self-explanatory.

Sincerely yours,

David Gallagher
Chairman,
VIZ Field Team, Region VI

Encl.
cc: J. L. Hoffland

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

COPY

July 25, 1951

Mr. David Gallagher, Chairman
DMA Field Team, Region VI
Post Office Box 431
Joplin, Missouri

My dear Mr. Gallagher:

This is in reply to your letter to me of July 20, 1951, referring to possible violations by the National Lead Company of its exploration contract I-DMA-E24 (Docket No. DMA 1409X).

In your letter you asked whether the Company was in violation of its contract because: (1) it failed to secure the approval of its drilling contract by DMA before commencing operations under it; and (2) the drilling contract departed from the specifications of Schedule A of the exploration contract.

There is no copy of the exploration contact in Washington, and I have no copy of the drilling contract. I cannot, therefore, say whether or not the drilling contract is, by its terms, in violation of the exploration contract.

The schedules to exploration contracts are, however, merely estimates. Consequently, if you feel that the drilling contract is a reasonable one under the circumstances, even though it differs from Schedule A, you can approve it, and make payments under it. If you do not feel that the contract is reasonable, you should notify the company to that effect, and inform it that no payments will be made by the Government for work done under the contract, or at least that no payments will be made in excess of the rates set forth in Schedule A. It is immaterial that work was begun under the drilling contract prior to the securing by the Company of approval of that contract by the Government. Whether or not you make payments for work done under the drilling contract will depend solely on whether or not you approve that contract, not on when the work was done, so long as it was done within the term of the exploration contract.

Sincerely yours,

J. L. Hofflund
General Counsel

xxxxxxxxxxxxx
Joplin, Missouri

August 28, 1951

Mr. Allan R. Reiner, Asst. Mgr.
National Land Company
Mineral Division
111 Broadway
New York 6, New York

Dear Mr. Reiner:

While awaiting Dr. Gallagher's expected return here about September 24, I am returning your July monthly progress report herewith for some clarification.

In the little pertinent information available here, I find that your contract with FED Well Service Company for drilling "Truax #1 Well" has never been approved, nor has a copy of a contract for drilling Well #2 ever been received for approval here. I note that you also completed Well #2 in July and I believe its cost can be included in this progress report.

I realize your first months overhead costs might be proportionately high in relation to the contract estimates. In view of the drilling contracts never having been approved and some of the items in your expenditure distribution report, particularly the "miscellaneous, etc.", not having been explained by appropriate footnote itemizations, I cannot approve the $24,037.86 amount for the partial Government reimbursement at this time.

I am certain you can clear up these things so that I or Dr. Gallagher can approve the reports without any possible future risk of embarrassment to you or to this office.

Very respectfully yours,

Clinton C. Knox,
Mining Engineer, U. S.
Bureau of Mines.

Acting for David Gallagher,
Chairman, D.M.A. Field Team,
Region VI.

NATIONAL LEAD COMPANY

C
O
P
Y

September 20, 1951

Mr. Clinton C. Knox
United States Department of the Interior
Defense Minerals Administration
Joplin, Missouri

Re: Docket No. DMA-1409-X

Dear Mr. Knox:

We wish to advise that with the completion of the Trone No. 2 Well, Long Point Dome, Fort Bend County, Texas, our test drilling on this property was concluded.

We believe that our report for the month of August should be delayed until such time as we can prepare a final report covering this project. This should be in your hands within the next two weeks. At the time of this final report, the questions raised in your letter of August 28 will be fully answered. We trust that the above meets with your approval.

Yours very truly,

A. R. Reiser

ARR:MM

XXXXXXXXXXX
Joplin, Missouri
November 29, 1951

Mr. Allan R. Reiser, Asst. Mgr.
National Lead Company
Mineral Division
111 Broadway
New York 6, New York

Re: Docket No. DMA 1409X
Contract I-DMA-E24

Dear Mr. Reiser:

Contract I-DMA-E24 between the "Government" and the National Lead Company, for the purpose of exploration drilling for sulfur on certain lands in Texas, was dated 27th day of June, 1951. The exploration was to have been completed within 2 months, namely, by August 27, 1951.

The drilling was to have been done according to terms set forth in an attached "Exhibit A". The subcontract for drilling was to have been approved by the Government in writing in advance of commencement of the drilling (Article 4). Monthly reports were to have been submitted to the Government (Article 13).

Our records do not show that these stipulations have been complied with. On September 20, 1951 you indicated that the requisite reports and other information would be furnished to us within 2 weeks; we have received no word from you since. It is now 3 months past August 27, 1951.

This is to advise you that this Field Team, Region VI, now considers Contract I-DMA-E24 terminated and void. We recommend that you donduct any further business connected herewith with our Washington office.

Sincerely yours,

David Gallagher
Chairman
Field Team, Region VI

/jd

CC - Operating Committee (5)
Field Finance Office-Amarillo (1)
Original & 1 A. R. Reiser

FILE COPY
SURNAME:
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Jaffert
Hoffman
Myer
Hedges
Jefferson

Mr. David Gallagher
Executive Officer
DMEA Field Team, Region VI
221 West 3rd Street
Joplin, Missouri

APR 1 1952

Re: Project DMA-1409, Cont. IDM-E-24
National Lead Company
111 Broadway
New York 6, New York

Dear Mr. Gallagher:

Under date of June 27, 1951 the Government entered into a contract with the National Lead Company to drill six holes in exploratory effort to find sulphur in quantities sufficient to justify commercial operation. After drilling two of the six holes and obtaining results from two holes previously drilled by another company, the contractor concluded that the possibility of finding a paying quantity of sulphur was very remote.

It appears from your reports that the National Lead Company did not live up to its contract in certain respects, such as, getting your prior approval for a drilling sub-contract and making prompt periodic reports on the progress of the exploration. The Company has given its reasons for its negligence and while they are not wholly satisfactory they are indicative that the Company did not intentionally overlook its relation with your office. Apparently, there was some correspondence and reports sent to you by the Company which you may not have received and which may have made a difference in your conclusion in regard to the contract.

The Contract Administration and Audit Division of DMEA made an examination of the Company's fiscal reports and vouchers. The Company furnished from their office in New York sufficient evidence to support the expenditures for which they are requesting reimbursement with the exception of $1,166.17. The Division has issued an Audit Certificate, the original and a copy of which is transmitted to you along with the MF-104's, and which meets the requirements of the Comptroller General of the United States for on-site audits.

I believe your position in the matter is that you would prefer the Washington Office to either accept or reject the Company's request for reimbursement. On the basis of the Company's final report of the work and our Audit Division's report of its audit, I do not

BL

hesitate to accept the work of the National Lead Company under Contract IDM-E-24 as having satisfied the contract in essential points.

I am therefore accepting the work of the contractor for the Government and request that you pass the vouchers for payment in the sum set forth in the Audit Certificate which is $17,793.56, unless you have information not yet reported to this office which would materially add to the evidence at hand.

Since the final report on this contract is rather voluminous I am enclosing only the two copies for your regional files. The other two copies are being held in suspense in this office pending advice from you that payment has been made.

Sincerely yours

C. O. Mittendorf (for) CC HI

Acting Administrator
Defense Minerals Exploration
Administration

Enclosures

JIChambers/wb
March 24, 1952

Copy to: Adm. Reading File
J. L. Hofflund
J. L. Chambers
Docket File
Hauch
Johnson

FILE COPY
SURNAME:
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

February 14, 1952

Memorandum

TO: Mr. C. O. Mittendorf
Acting Administrator

not stripped in R.R.

FROM: Jay L. Chambers (Signed) J. L. Chambers
Chief, Contract Administration and Audit Division

SUBJECT: DMA-1409 (Sulphur)
National Lead Company
111 Broadway, New York 6, New York
Exploration Project Contract IDM-E-24

Reference is made to my memorandum to you dated February 7, 1952.

An audit was made of the questionable items in the National Lead Company's July Progress Report and final Report.

An item of Travel Expenses for H. A. Neustadter in the amount of $225.11 in the July Progress Report and $44.06 in the final Report is not allowable. Most of this travel was prior to the date of the contract and it was agreed by Mr. Joseph P. Bonner of the National Lead Company and Mr. Hoffman of the Titanium Division of the National Lead Company to take out these items. It was also decided to take out an item of $27.37 covering one day's expenses in Austin, Texas, for W. M. Chapman which the National Lead Company's representatives considered insignificant and not worth their effort to support.

The miscellaneous purchases were satisfactorily accounted for and supported by adequate receipts.

As stated in the last paragraph of my memorandum to you dated February 7, 1952, I suggested that there should be a waiver by the Administrator to cover the operator's noncomplicance with the provisions of the contract as regards to having the drilling contract approved in writing in advance by the Government. After the issuance of such a waiver, I concur with Mr. Johnson's memorandum to you dated January 23, 1952, that we should pay the Government's share of the costs less the aforementioned exceptions.

Before issuance of Certification of Audit it will be necessary for you to waive some of the provisions of the contract which were not adhered to.

6e

The waiver mentioned in this memorandum should include two things: (1) the requirement that sub-contracts should have the prior written approval of the Government representative; and (2) the requirement that monthly reports should be submitted to the Executive Officer. The monthly reports were submitted after the completion of the contract which, of course, violates the requirement of current submission of these reports.

I wish to emphasize the point that while the National Lead Company's costs have been properly supported and we are willing to certify to that effect, the Government requires an acceptance of the work done; therefore, it will be necessary for an Engineer to certify that the work was done in accordance with the contract taking into consideration the waivers recommended.

RMHull/wb
February 14, 1952

Copy to: Admin. Reading File
Mr. Hofflund
Mr. Johnson
Mr. Chambers
Mails & Files
Docket File

FILE COPY
SURNAME:

800

Chambers

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

FEB 8 1952

Mr. Joseph P. Bonner
5509 Lambeth Road
Washington 14, D. C.

Dear Mr. Bonner:

Reference is made to Contract IDM-E-24 dated June 27, 1951, between the U. S. Government, represented by the Defense Minerals Administration (now Defense Minerals Exploration Administration), and the National Lead Company.

You are aware of the fact that the Government has not reimbursed the National Lead Company for any expenditures under this contract. I understand that you have indicated to Mr. Frank E. Johnson, Deputy Administrator of the Defense Minerals Exploration Administration, that the National Lead Company is willing to send the records and supporting data of the Company's operation under contract in question to Washington for our review.

There are a number of items in both the July and final report of the Company which our auditor would like to examine before making any recommendation in regard to a settlement. Therefore, it will be appreciated if the National Lead Company will send its records and supporting data to this Administration through your office or directly to the Administrator, whichever is more convenient.

Sincerely yours,

G. O. Mittendorf (JLW)

Acting Administrator
Defense Minerals Exploration
Administration

P.N.
2.8.52

JLChambers/wb
February 6, 1952

Copies to: Admin. Reading File
Mr. Hofflund
Mr. Johnson
Mr. Chambers
Mails & Files
Docket File

FILE COPY
SURNAME:

800

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

Memorandum

FEB 7 1952

TO: Mr. C. O. Mittendorf
Acting Administrator

not designed in R. R.

FROM: Jay L. Chambers (Signed) J. L. Chambers
Chief, Contract Administration and Audit Division

SUBJECT: DMA-1409 (Sulphur)
National Lead Company
111 Broadway, New York 6, New York
(Long Point Dome, Fort Bend County, Texas)
Exploration Project Contract - IDM-E-24

Reference is made to Mr. Hofflund's memorandum to you dated February 1, 1952 and Mr. Johnson's memorandum dated January 23, 1952.

I agree that an audit should be made of the operator's books and records in order to determine the Government's proper share of the costs which are allowable under the provision of the contract.

There are items appearing in the July Progress Report and final Report which appear to be questionable:

Travel Expense - July.....	$1,589.84
Travel Expense - Final Report...	497.71
Miscellaneous Purchases.....	1,148.63

I recommend that the offer made by Mr. Joseph P. Bonner of the National Lead Company be accepted and all records, books and other supporting material be forwarded to Washington at the earliest possible date, and I have prepared a letter for your signature along this line.

It is my thought that there should be a waiver by the Administrator to cover the operator's noncompliance with the provisions of the contract as regards to having the drilling contract approved in writing in advance by the Government.

Attachment
RMHull/wb
February 6, 1952

Copies to: ~~Mr. Hofflund~~
~~Mr. Johnson~~
Mr. Chambers
Mails & Files
~~Docket File~~

140

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

February 1, 1952

Memorandum

To: Acting Administrator

From: Chief Counsel

Subject: Docket No. DMA-1409, National Lead Company (Sulphur); Exploration Project Contract Idm-E 24

Reference is made to Mr. Johnson's memorandum to you dated January 23, and to my letter to Mr. David Gallagher, DMA Field Team, Region VI, dated July 25, 1951.

Mr. Johnson in the last page of his memorandum comes to this conclusion: "However, I believe we should have an audit made of the books and records of the Operator, to determine just what items and amounts can be allowed under the contract [the exploration project contract]."

I agree with this conclusion, but comment herewith on how it is to be carried out.

If the subcontract for drilling is reasonable, and Mr. Gallagher approves the subcontract, then the principal thing to be done under the audit is to determine that the payments made to the subcontractor are for work done under and pursuant to the provisions of the subcontract. If there are some incidental costs of the exploration project contract, such as engineering and geological services, and these additional costs are provided for in the exploration project contract, then the audit can include also a determination of the fact of the payment of these other costs outside of and in addition to payments under the subcontract for drilling.

The point I am trying to make clear is that we are not concerned with the subcontractor's costs but only with the propriety of the subcontract and the actual performance of work under the subcontract pursuant to its provisions.

JLHofflund/em
Copy to: Reports & Records
F. E. Johnson
J. L. Hofflund
chron.

J. L. Hofflund

J. L. Hofflund
Chief Counsel

Attachment

NATIONAL LEAD COMPANY
111 Broadway
New York 6, N. Y.

ALLAN R. REISER
ASSISTANT MANAGER
MINING DEPARTMENT

December 7, 1951

Mr. Joseph P. Bonner
5509 Lambeth Road
Washington 14, D. C.

Dear Mr. Bonner:

Enclosed herewith please find all the data pertaining to the Trone Sulfur Exploration Project which was entered into between National Lead Company and Defense Minerals Administration and referred to as Docket D.M.A. 1409-X. These data consist of:

1. Report for the month of July, 1951, which contains all pertinent engineering and geologic data for National Lead Company Holes Nos. 1 and 2, which comprises the total of all drilling on the Trone Sulfur Tract, Texas. This was returned to us by the D.M.A. Joplin, Missouri, Office.

2. Correspondence between D.M.A. Joplin field office and A. R. Reiser containing notification from the latter that the project had been completed and therefore work suspended on the completion of National Lead Company Drill Hole No. 2.

3. Final reports from National Lead Company to Defense Minerals Administration containing engineering and geological data, final ore reserve estimates and justification for abandonment of this project.

   Also included are final accounting forms which show manner of distribution of all funds expended by National Lead Company.

4. Copy of contract entered into June 27, 1951 between National Lead Company and Defense Minerals Administration for exploration work to be performed on the Trone Sulfur Tract.

5. Copies of proposals submitted by three sulfur contract drillers in Houston, Texas, offering their services and prices for drilling test holes on the Trone Tract.

   These are forwarded to you because some question has arisen as to the legality of our selection of the contractor for this job.

6. We submit also pencil sheet entitled "Analysis of Expenses Incurred re: Long Point Sulfur Dome Exploration" which shows that total expenditures prior to June 27, 1951 amounted to $795.17. The total cost directly connected with drilling subsequent to June 27, 1951 amounted to $35,958.12. The property option payments made to Cockburn Oil Corporation, in accordance with our agreement, amounted to $25,000. This comprised a total expenditure of $61,753.29.

7. You will note from the enclosed letter dated November 29, 1951 addressed to the undersigned by Mr. David Gallagher, Chairman, Field Team, Region VI, Defense Minerals Administration, that certain exceptions have been taken to our method of handling reports connected with this project. It will be noted from the attached file containing our letters to Mr. Gallagher that prior to November 29, 1951, we have attempted to explain the differences which occurred.

We believe that our work has resulted in an accurate evaluation of the Trone Sulfur Tract at minimum expense.

In order that the Washington office of Defense Minerals Administration may have knowledge of the pertinent facts, this complete evaluation is handed to you for transmission to the proper officials. It will be noted that this action was also been suggested by Mr. Gallagher.

COPY

Yours very truly,

A. R. Reiser

A. R. Reiser

ARR:CB
Encs.

400

FILE COPY
SURNAME:

Blakemore
Mittendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

DEC 4 1951

National Lead Company
111 Broadway
New York 6, New York

Dear Sirs:

In compliance with the telephoned request of your Mr. Wild on November 29, 1951, there are enclosed copies of MO-1 and MO-5.

In answer to Mr. Wild's question in regard to the percentage of participation by the Government in contracts covering exploration for Ilmenite, Rutile and Zircon, you are advised that Exploration Contracts for Ilmenite and Zircon cannot, at this time, be justified because the supply of each is adequate.

With respect to Rutile, the latest data concerning this mineral is to be made available to this agency within a few days. After we have examined the data we will be prepared to advise you further as to Exploration Contracts for this mineral.

Sincerely yours,

C. O. Mittendorf (fw) P.N. 12-4
Administrator
Defense Minerals Exploration
Administration

Encl
MO-1
MO-5

PBBlakemore/jem
11-30-51
cc to: Adm. Reading File
Reports & Records
Messrs. Mittendorf
Blakemore

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D. C.

DEC 3 8 36 AM '51

DEPARTMENT OF THE INTERIOR
RECEIVED
DEC 6 1951
Defense Minerals Administration,
Production Expansion Division.

XXXXXXXXXXXXXX
Joplin, Missouri
November 29, 1951

Reviewed by Operating Committee 12/2/5 HB

Mr. Allan R. Reiser, Asst. Mgr.
National Lead Company
Mineral Division
111 Broadway
New York 6, New York

Re: Docket No. DMA 1409X
Contract I-DMA-E24

Dear Mr. Reiser:

Contract I-DMA-E24 between the "Government" and the National Lead Company, for the purpose of exploration drilling for sulfur on certain lands in Texas, was dated 27th day of June, 1951. The exploration was to have been completed within 2 months, namely, by August 27, 1951.

The drilling was to have been done according to terms set forth in an attached "Exhibit A". The subcontract for drilling was to have been approved by the Government in writing in advance of commencement of the drilling (Article 4). Monthly reports were to have been submitted to the Government (Article 13).

Our records do not show that these stipulations have been complied with. On September 20, 1951 you indicated that the requisite reports and other information would be furnished to us within 2 weeks; we have received no word from you since. It is now 3 months past August 27, 1951.

This is to advise you that this Field Team, Region VI, now considers Contract I-DMA-E24 terminated and void. We recommend that you conduct any further business connected herewith with our Washington office.

Sincerely yours,

David Gallagher
Chairman
Field Team, Region VI

/jd

cc - Operating Committee

Inspection Evaluation Division
Office Human Resources
DEC 8 1981
RECEIVED
DEPARTMENT OF THE INTERIOR

400
FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

November 30, 1951

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator

From: P. B. Blakemore

Subject: Report of telephone conversation with Dr. Gallagher, Executive Officer, Joplin, Missouri, November 29, 1951.

The purpose of the call was to obtain the latest information about Exploration Contracts with National Lead Co. which Dr. Gallagher was administering before replying to Mr. Wild of National Lead Co. by telephone.

Dr. Gallagher reported that the Company had drilled one hole under Contract Idm-E24 for Sulphur some time ago but had never filed a monthly progress report on it and apparently did not intend to do so.

With respect to the Contract Idm-E48, for Nickel, Cobalt, Copper and Lead, the September and October progress reports were being revised on account of wage changes and other minor points, however, these items had been resolved and payments will be made on them in the near future.

Dr. Gallagher said that he intends to discuss the methods of exploration employed so far by the Company as soon as the above accounting difficulties were corrected. He did not think it was necessary to require the monthly filing of Geophysical mapping, as it was preferable to have this in one piece and after the mapping of a given area was complete.

I discussed the draft of the attached proposed letter and found that he plans to do exactly what it contains.

P. B. Blakemore

PBBlakemore/meh
cc to: Reports and Records
Mr. Blakemore
Docket

BL

NATIONAL LEAD COMPANY
MINING DEPARTMENT
111 BROADWAY
NEW YORK 6, N.Y.

ALLAN R. REISER
ASSISTANT MANAGER

November 20, 1951

Dr. David Gallagher, Chairman
DMA Field Team, Region VI
United States Department of the Interior
Joplin, Missouri

Re: Docket DMA - 1409X

Dear Dr. Gallagher:

In accord with our letter of September 20, 1951 to Mr. Clinton C. Knox, Mining Engineer, U. S. Bureau of Mines, we are submitting herewith our final report on the above captioned project: Sulfur Exploration, G. W. Trone Properties, Long Point Dome, Fort Bend County, Texas.

We advised in our report entitled "Drilling Operations for the Month of July", dated August 8, 1951, that test holes National Lead Company No. 1 and National Lead Company No. 2 were completed during that month. A complete report on these holes was attached to this same report. Following the completion of National Lead Company Hole No. 2, a reconsideration of the project was made which included these new data coupled with the results made available to us by two previous test holes drilled on the G. W. Trone Tract by the Jefferson Lake Sulfur Company. The results of this analysis are contained in the report by our consulting geologist, Mr. John C. Myers, titled "Supplemental Report on G. W. Trone Properties, Long Point Dome, Fort Bend County, Texas".

An insufficient reserve of sulfur to make this property economic at the present time was determined by methods described in the above mentioned report by Mr. Myers. Therefore, exploration expenditures were terminated. One of our engineers remained on the job until liquidation of the materials that we had purchased for the drilling job had been arranged.

We are returning herewith our report "Drilling Operations for the Month of July" returned to us under date of August 28, 1951 with a covering letter by Mr. Clinton C. Knox, with the additions as requested in his letter.

Also enclosed is a copy of the contract between National Lead Company and PLD Well Service Company for the drilling of Trone No. 2 Well. This is an extension of the same contract as that previously submitted to you under date of July 17, regarding the drilling of the Trone No. 1 Well by the PLD Well Service Company, and for which we have not yet received your approval.

As a matter of explanation of the differences between our contract with the PLD Well Service Company and that contained in our original application to DMA, we would like you to understand that at the time of the original submission of our project to the Defense Minerals Administration we were able to obtain sulfur core drilling equipment on a contract basis, as outlined in our original proposal of the project. The lapse of time between submission of this original proposal and DMA approval resulted in loss of the original drilling contract and, therefore, it was necessary for us to enter into a new agreement. Reputable drilling contractors in the Gulf area were difficult to obtain at that time and the condition still exists. This has been caused by increased activity of oil well and sulfur drilling. The drilling contract forwarded to you under date of July 27 and the attached assignment extending the same conditions for the drilling of the Trone No. 2 Well was the result of our best judgment and negotiations with contractors then available to supply the services required.

We are handing you herewith our monthly report for July, 1951 and our final report, concluding our unsuccessful efforts to develop an economic sulfur property within the boundaries of the G. W. Trone Property, Long Point Dome, Fort Bend County, Texas.

Yours very truly,

A. R. Reiser

ARR:MM
Encs.

SUPPLEMENTAL REPORT

ON G. W. TRONE PROPERTIES

LONG POINT DOME, FT. BEND COUNTY, TEXAS

BY

JOHN C. MYERS
CONSULTING GEOLOGIST

October 4, 1951
1512 Niels Esperson Building
Houston 2, Texas

SUPPLEMENTAL REPORT
ON G. W. TRONE PROPERTIES
LONG POINT DOME, FT. BEND COUNTY, TEXAS

INTRODUCTION

Purpose of Report:

The Long Point Sulphur Company drilled nine tests for sulphur on the Long Point dome, Ft. Bend County, Texas, but two of the tests failed to reach caprock which was their objective. Following that exploration a report was prepared by the writer covering the estimated reserves of sulphur, and suggesting that more prospecting be done.

The National Lead Company attempted to complete the required prospecting but ceased their operations after drilling two holes. The purpose of this report is to re-examine the G. W. Trone properties, in the light of the two additional wells, to see what reserves of sulphur were indicated by a combination of the two companies' efforts.

At the beginning of the exploration by the National Lead Company, the writer requested that a survey be made of all the well locations so as to be sure there was no error in the locations. This survey was made by transit and it was found that no appreciable error existed except in one well; namely the Jefferson Lake Sulphur Company No. 2 G. W. Trone. As a result of that survey the well was moved 100 feet farther west and placed near the center of triangle "D" on the map of

the original report.

The Jefferson Lake Sulphur Company has given the estimates on its wells Nos. 1 and 2 G.W. Trone to the National Lead Company. The writer has his analysis of the cores from the Jefferson Lake Sulphur Company No. 1 Trone well, and will take the liberty of using Harvey Wilson's analysis of the same company's No. 2 well, since that company has furnished it. This, then, makes an additional four wells to be considered in the reserve analysis. You will notice on the map that B&P, which is Ballard-Pistulka Enterprise, has drilled its No. 3 well to caprock in search for oil. This well is used in adjusting our contours on the caprock. The other two wells, which Ballard-Pistulka Enterprise termed its "oil venture wells", are the Long Point Sulphur Company Nos. 6 and 9 both of which were originally drilled for sulphur and later an attempt was made to complete them as oil wells in sands above the caprock.

RESERVES

Calculations:

The attached core records show in detail the character and position of the formation that bears sulphur, as well as that of caprock. Sulphur is computed on the basis of equivalent-feet-of-solid sulphur (E.F.S.S.) for each well. This, when multiplied by the acre-feet in a given triangle and then by a factor of 2500 gives the long tons of sulphur in reserve. The calculations are shown in the attached table. On the attached

map each triangle is shown by dotted line and designated by a letter to correspond with that on the attached table. Below the letters the acres in each triangle are shown, and below that the tonnage of sulphur.

The Jefferson Lake Sulphur Company's wells could not be used in the original estimates and therefore the triangles were fairly elongated and large due to lack of density of the wells. Because of this 117,500 long tons of sulphur were estimated to be available for mining. At the present, by using the Jefferson Lake Sulphur Company's wells and those of National Lead, we have an estimate of 100,324 long tons available for mining.

Mineability:

In the Jefferson Lake Sulphur Company No. 2 G. W. Trone well there was a total of 144 feet of limestone with shows and traces of sulphur over 124 feet in all. However, the sulphur appears mostly in fractures and veins rather than being impregnated and included in the limestone itself. The gangue in this well would suggest that the sulphur is mineable in part only, contrary to that found in most of the other wells. For the most part, the sulphur is impregnated in the limestone and offers good mining conditions. As an example, the best well so far found in prospecting is the Long Point Sulphur Company No. 1 G. W. Trone. Here, the sulphur is almost entirely impregnated in the limestone and the gangue offered excellent possibilities

TONNAGE CALCULATIONS BY TRIANGLE

Triangle	Base Feet	Altitude Feet	Area Acres	Well No.	E.F.S.S.	Acre Feet Solid Sulphur	Sulphur Long Tons
"A"	955	255	2.80	L.P.S. 5	0.00		
				L.P.S. 6	0.00		
				L.P.S. 4	6.19	2.80 x 2.063 = 5.776	5.776 x 2500 = 14,440
				Average	2.063		
"B"	755	135	1.17	L.P.S. 9	1.57		
				N.L. 1	0.20		
				L.P.S. 4	6.19	1.17 x 2.653 = 3.104	3.104 x 2500 = 7,760
				Average	2.653		
"C"	380	280	1.22	L.P.S. 4	6.19		
				N. L. 1	0.20		
				L.P.S. 2	0.46	1.22 x 2.283 = 2.785	2.785 x 2500 = 6,962
				Average	2.283		
"D"	380	248	1.08	L.P.S. 4	6.19		
				L.P.S. 2	0.46		
				N.L. 2	1.54	1.08 x 2.730 = 2.948	2.948 x 2500 = 7,370
				Average	2.730		
"E"	412	324	1.53	L.P.S. 5	0.00		
				L.P.S. 4	6.19		
				J.L. 2	0.30	1.53 x 2.163 = 4.957	4.957 x 2500 = 12,393
				Average	2.163		

TONNAGE CALCULATIONS BY TRIANGLE

Triangle	Base Feet	Altitude Feet	Area Acres	Well No.	E.F.S.S.	Acre Feet Solid Sulphur	Sulphur Long Tons
"F"	412	175	.83	J.L. 2	0.30		
				L.P.S. 4	6.19		
				N.L. 2	1.54	.83 x 2.677 = 2.222	2.222 x 2500 = 5,555
				Average	2.677		
"G"	690	202	1.60	J.L. 2	0.30		
				N.L. 2	1.54		
				L.P.S. 1	4.99	1.60 x 2.277 = 3.643	3.643 x 2500 = 9,108
				Average	2.277		
"H"	900	189	1.95	N.L. 2	1.54		
				L.P.S. 2	0.46		
				L.P.S. 1	4.99	1.95 x 2.330 = 4.544	4.544 x 2500 = 11,360
				Average	2.330		
"I"	665	150	1.15	N.L. 1	0.20		
				J.L. 1	0.00		
				L.P.S. 2	0.46	1.15 x 0.220 = .253	.253 x 2500 = 633
				Average	0.220		
"J"	450	150	0.77	L.P.S. 9	1.57		
				J.L. 1	0.00		
				N.L. 1	0.20	0.77 x 0.590 = .454	.454 x 2500 = 1,135
				Average	0.590		

TONNAGE CALCULATIONS BY TRIANGLE

Triangle	Base Feet	Altitude Feet	Area Acres	Well No.	E.F.S.S.	Acre Feet Solid Sulphur	Sulphur Long Tons
"K"	758	155	1.17	L.P.S. 9	1.57		
				L.P.S. 3	0.96		
				J.L. 1	0.00	1.17 x 0.843 = .986	.986 x 2500 = 2,465
				Average	0.843		
"L"	833	247	2.36	L.P.S. 6	0.00		
				L.P.S. 3	0.96		
				L.P.S. 9	1.57	2.36 x 0.843 - 1.989	1.989 x 2500 = 4,973
				Average	0.843		
"M"	755	288	2.50	L.P.S. 6	0.00		
				L.P.S. 9	1.57		
				L.P.S. 4	6.19	2.50 x 2.587 = 6.468	6.468 x 2500 = 16,170
				Average	2.587		
Totals			20.13				100,324

for mining, in that it was vesicular in character.

The porosity, for the most part, lies through the sulphur-bearing zone, and at the base of the zone it increases so that the sulphur could readily be mined if found to exist in sufficient quantities to justify the expenditures necessary to do so.

CONCLUSIONS

The conclusions reached, after Long Point Sulphur Company drilled their seven test wells, was that 117,500 long tons of sulphur were indicated to be present in a given area of triangles, and that if an additional four core tests were drilled an appreciable additional tonnage of sulphur might be found. The locations of the four tests were recommended between the 800 and 900-foot contours on top of caprock.

The change in the location of the Jefferson Lake Sulphur Company No. 2 test to 100 feet west of its position as shown on maps in the original report, and the inclusion of this well in the estimates lowered the tonnage figure of the area, covered by triangle "D", in the original report. The low values found in the National Lead Company No. 2 test lowered the values in triangle "A" of the original report. The latter company's No. 1 test was disappointing because while it appeared to be well located it contained only 0.20 equivalent-feet-of-solid sulphur.

It can be seen that the area embraced by triangles covers the prospective area fairly well except perhaps for a small area south of triangle "G" between the Jefferson Lake

Sulphur Company No. 2 and Long Point Sulphur Company No. 1 wells, and an area north of the former company's No. 1, between it and the latter company's No. 3 well, near the north edge of the lease. There may be some appreciable values near Long Point Sulphur Company's No. 4 well in triangle "A", but the area is very small.

It is somewhat academic but the addition of four test wells to the area, covered originally by the seven tests, altered the estimate downward by fifteen per cent. It can be reasoned that the above occurred in an area embracing roughly eighty per cent of the prospective area, and that additional wells in the remaining twenty per cent of the prospective area would probably not add anything of worthwhile value.

The writer is of the opinion that the G.W. Trone lease has been adequately tested by the eleven holes. It was found that the per-acre average values are 4,984 long tons per acre. While testing of additional area might increase the sum total, it would not add more than 5,000 tons per acre. It is estimated that if eighty per cent of the prospective area has tested 4,984 long tons per acre, or 100,324 long tons, then the remaining twenty per cent of the prospective area would not increase the total by more than 20,000 long tons. A deposit of less than 150,000 long tons does not justify mining by present-day methods in our present-day economy.

Respectfully submitted,

John C Myers

JOHN C. MYERS

October 4, 1951

CORE RECORDS

JEFFERSON LAKE SULPHUR COMPANY NO. 1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	857.05- 862.05	4.00	Limerock, calcite, some shale, odor petroleum.	None	5	
2	862.05- 867.05	5.00	Broken limerock, odor petroleum.	None	5	
3	867.05- 872.05	5.00	Same.	None	5	
4	872.05- 877.05	5.00	Same.	None	5	
5	877.05- 882.05	4.00	Broken, porous limerock, calcite, show crystalline sulphur, odor petroleum.	Show	5	
6	882.05- 887.05	4.00	Porous, broken limerock, calcite, little shale on last 1-0'.	None	5	
7	887.05- 892.05	5.00	Broken, porous limerock, calcite, show crystalline sulphur.	Show	5	
8	892.05- 897.05	5.00	Same.	Show	5	
9	897.05- 902.05	5.00	Broken, slightly porous limerock, calcite, trace crystalline sulphur.	Trace	5	
10	902.05- 907.05	3.00	Broken, porous limerock, calcite, trace crystalline sulphur.	Trace	5	
11-23	907.05- 972.05	4.00	Same.	Trace	65	
24	972.05- 977.05	4.00	Same, no sulphur.	None	5	
25-29	977.05-1002.05	4.00	Same, no sulphur.	None	25	
30	1002.05-1007.05	4.00	Broken, porous, dark grey calcitic limerock, trace of sulphur.	Trace	5	
31	1007.05-1015.05	7.00	Anhydrite.		8	
32	1015.05-1020.05	4.00	Salt.		8	
						0.00

Top caprock 857 feet
Top salt 1015 feet
Total depth 1020.05 feet

NOTE: This log furnished by H. A. Wilson of Jefferson Lake Sulphur Company, and contains his estimates of sulphur.

JEFFERSON LAKE SULPHUR COMPANY NO. 2 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	928.50- 933.50	4.50	Badly oil stained, porous, light gray limestone, veins of calcite.	None	5	
2	933.50- 938.50	5.00	Same as above.	None	5	
3	938.50- 943.50	5.00	Same as above.	None	5	
4	943.50- 948.50	4.00	Top 4 feet porous limestone, veins of calcite, oil stained with trace of sulphur, Bottom 1 foot calcite.	Trace	5	
5	948.50- 953.50	5.00	Cavernous limestone, veins of calcite, traces of sulphur, badly oil stained.	Trace	5	
6	953.50- 958.50	5.00	Same as core #5.	Trace	5	
7	958.50- 963.50	5.00	Same as core #5.	Trace	5	
8	963.50- 968.50	5.00	Porous limestone, veins of calcite, show	1	5	0.05
9	968.50- 973.50	5.00	Very porous limestone.	1	5	0.05
10	973.50- 978.50	5.00	Same as core #9.	1	5	0.05
11	978.50- 983.50	5.00	Same as core #9.	1	5	0.05
12	983.50- 988.50	5.00	Same as core #9.	Trace	5	
13	988.50- 993.50	5.00	Very porous limestone.	Trace	5	
14	993.50- 998.50	5.00	Very porous limestone.	Trace	5	
15	998.50-1003.50	5.00	Very porous limestone.	None	5	
16	1003.50-1008.50	5.00	Very porous limestone, shows of sulphur.	1	5	0.05
17	1008.50-1013.50	5.00	Very porous limestone, traces of sulphur.	Trace	5	
18	1013.50-1018.50	5.00	Very porous limestone, traces of sulphur.	Trace	5	
19	1018.50-1023.50	5.00	Very porous limestone, traces of sulphur.	Trace	5	
20	1023.50-1028.50	5.00	Very porous limestone, traces of sulphur.	Trace	5	
21	1028.50-1033.50	5.00	Very porous limestone, traces of sulphur.	1	5	0.05
22	1033.50-1038.50	5.00	Very porous limestone, traces of sulphur.	Trace	5	

JEFFERSON LAKE SULPHUR COMPANY NO. 2 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
23	1038.50-1046.50	6.00	Very porous limestone.	Trace	8	
24	1046.50-1054.50	5.00	Very porous limestone.	None	8	
25	1054.50-1062.50	8.00	Very porous limestone.	Trace	8	
26	1062.50-1067.50	5.00	Very porous limestone.	Trace	5	
27	1067.50-1075.50	8.00	Impervious, massive gypsum.	None	8	
28	1075.50-1083.50	8.00	Impervious, massive gypsum.	None	8	
29	1083.50-1091.50	8.00	Impervious, massive gypsum.	None	8	
30	1091.50-1099.50	8.00	Impervious, massive gypsum.	None	8	
31	1099.50-1107.50	8.00	Top rock salt.	None	8	
32	1107.50-1115.50	5.00	Rock salt.	None	8	
						0.30

Top caprock 923.50 feet.
Top gypsum 1067.50 feet.
Top rocksalt 1099.50 feet.
Total depth 1115.50 feet.

NATIONAL LEAD COMPANY #1 G.W. TRONE

Began: 7-6-51 Completed: 7-16-51

Location: 1320' North & 350' West
H.&.T.C. R.R. Survey #67.Long Point
Fort Bend County, Texas.

Top cap rock 856'

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	840- 844'		Blue, calcareous shale.	None	4'	
	844- 860'		Drilled.			
2	860- 864'	3½'	Dense, black limestone with numerous veins of white calcite. Barren of sulphur, free oil shows throughout.	None	4'	
			864' set casing.			
	864- 879'		Drilled - no cuttings.			
3	879- 880'		Ran basket to catch material (cuttings).	Trace		
4	880- 883'	2½'	Massive, gray limestone with vugs and veins of sugary calcite. Barren of sulphur - free oil showing.	None	3'	
5	883- 888'	5'	White to gray, massive limestone with veins and vugs lined with calcite crystals, few small crystals of yellow sulphur trace.	Trace	5'	
6	888- 893'	5'	Massive, black to gray limestone, some dead oil, crystals of sulphur throughout.	Trace	5'	
7	893- 898'	5'	Massive, gray limestone with vugs and veins lined with calcite, few crystals of yellow sulphur. Bottom 4" had good show of sulphur with some dead oil.	Trace	5'	
8	898- 903'	4' 2"	Top 2' gray limestone, barren of sulphur.	None	2'	
			Next 6" gray limestone with sulphur crystals.	10	1/2	0.05
			Next 1'8" black, sugary limestone with calcite seams.	None	1-3/4	
9	903- 908'	5'	Massive, gray limestone, sugary texture, some crystalline sulphur in veins.	Trace	5'	

NATIONAL LEAD COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
10.	908- 915'	7'	Massive, black limestone 25% seams of calcite, vugs lined with calcite, few crystals of sulphur.	None	7'	
11.	915- 920'	2'	Gray to black, sugary limestone with calcite seams. Barren of sulphur.	None	5'	
12.	920- 927'	4'	Sugary, gray to black limestone, irregular seams and veins lined with calcite, barren of sulphur.	None	7'	
13.	927- 930'	2½'	Gray, sugary limestone with few vugs lined with calcite, some selenite crystals, few crystals of sulphur.	Trace	3'	
14.	930- 937'	6½'	Massive, sugary limestone with seams and vugs lined with yellow crystalline sulphur.			
			Top 2' sulphur crystals in veins.	2	2½'	0.05
			Bottom 4½' sulphur crystals in veins.	1	4½'	0.045
15.	937- 945'	8'	Massive limestone with veins lined with calcite occasional sulphur crystals, some pyrite and marcasite in seam at top.	None	8'	
16.	945- 952'	7'	Massive, sugary limestone with sulphur crystals in seams along with calcite - Top 3' trace.	Show	3'	
			Bottom 4' sulphur crystals more abundant.	2	4'	0.08
17.	952- 957'	5'	Top 6" massive limestone with seams of sulphur.	3	1/2	0.015
			Bottom 4½' porous, gray to black limestone with sulphur occasionally in seams mostly lined with calcite.	None	4½'	
18.	957- 962'	3½'	Sugary, gray limestone with seams of calcite and occasional crystals of yellow sulphur.	None	5'	
19.	962- 967'	5'	Massive limestone with seams of calcite, 20% calcite few crystals of sulphur.	None	5'	

NATIONAL LEAD COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
20	967- 972'	5'	Dark gray limestone and brown crystalline calcite. 50% calcite 50% lime.	None	5'	
21	972- 977'	5'	Massive, sugary limestone 10% calcite seams. Barren of sulphur.	None	5'	
22	977- 982'	5'	Massive, dark gray, sugary limestone occasional sulphur crystals.	None	5'	
23	982- 987'	4½'	Massive, gray limestone few vugs lined with calcite. Barren of sulphur.	None	5'	
24.	987- 994'	7'	Massive, dark gray limestone. Barren of sulphur, few seams lined with calcite.	None	7'	
25.	994-1001'	7'	Massive, dark gray limestone, vugs and seams of calcite, occasional crystals of sulphur.	None	7'	
26.	1001-1008'	5½'	Massive, dark gray limestone with dog-tooth spar in vugs, occasional crystals of sulphur.	None	7'	
27.	1008-1015'	5'	Massive, dark gray limestone, few seams lined with dog-tooth spar, getting gypsum in part, occasional crystals of sulphur.	None	7'	
28.	1015-1022'	4½'	Top 3½' massive limestone, barren of sulphur. Bottom 1 foot gypsum-anhydrite barren. Base of limestone marked by crevice filled with free oil.	None	7'	
29.	1022-1029'	7'	Massive, non-porous anhydrite, barren of sulphur.	None	7'	
30.	1029-1030'	1'	Massive, non-porous anhydrite, sugary. Barren of sulphur.	None	1'	

NATIONAL LEAD COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
31.	1030-1041'	11	Same as above.	None	11	
32.	1041-1056'	15	Top 9 feet anhydrite, massive and barren. Bottom 6 feet rock salt, crystal clear.	None	15	
						0.195

Top cap rock 856' determined by drilling.
Top salt 1050'.

NOTE: 893' mine water came to surface.

NATIONAL LEAD COMPANY #2 G. W. TRONE

Began: 7-18-51

Top Caprock 846'

Location: 790' NW along NE line from the South corner; Thence 365' SW at right angles.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	849 - 852	2½'	Massive, porous limestone, looks brecciated at top with some shale, some calcite, barren of sulphur.	None	3'	
2*	852 - 857	4 3/4	Massive limestone with calcite seams, about 75% calcite, free oil showing, some sulphur crystals.	None	5'	
3	857 - 858	1	Loose material looks like ashy sand, but believed to be cement fibertex and drilling mud, some small pieces of limestone with calcite seams.	None	1'	
4	858 - 863	4	Massive limestone with calcite seams Top 8" carries crystalline sulphur.	2	2/3	0.013
			Bottom 3'4" few crystals of sulphur, all very porous.	None	3 1/3	
5	863 - 868	4	Massive limestone, porous, bottom part contains few spots of crystalline sulphur.	None	5	
6	868 - 875	5	Massive, dark gray limestone with calcite seams, barren of sulphur.	None	7	
7	875 - 880	3	Massive, gray limestone sugary texture, some crystalline sulphur.	None	5	
8	880 - 887	1½	Believe top 1½' recovered. Massive limestone with intricate system of seams of calcite. Crystalline sulphur in seams only.	Show	7	
9	887 - 888	½	Recovered massive limestone which looks like it had been recovered from Core No. 8; some calcite and few sulphur crystals.	None	1	

*Bubbles of gas came out of core easily when exposed to atmosphere.

NATIONAL LEAD COMPANY #2 G. W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
10	888 - 889	1	Massive, gray limestone and calcite, 30% lime, 70% calcite, few sulphur crystals.	None	1	
11	889 - 894	5	Massive, gray limestone and calcite seams, 50% lime 50% calcite;	None	2½	
			Bottom 2½' sulphur crystals, strong oil odor.	2	2½	.050
12	894 - 901	7	Massive, gray limestone and calcite, looks like limestone breccia; limestone 70% and calcite 30%.			
			Top 4' few crystals of sulphur.			
			Bottom 3' more sulphur crystals.	Trace	7	
13	901 - 908	6½	Massive, gray limestone; looks like breccia; intricate seams of calcite, few sulphur crystals.	None	7	
14	908 - 915	7	Massive limestone with seams of brown and crystal-clear calcite, 10% calcite; limestone getting more sugary in texture, dark gray to black in color, occasional sulphur crystal.	None	7	
15	915 - 922	6	Massive, gray, sugary limestone somewhat gypsiferous near bottom.	None	2	
			Bottom 1' carries sulphur in greater amounts	None	5	
16	922 - 933	4	Drilled like 4' of rock, 6' of cavity and 1' of rock below cavity; Top 4' massive, sugary limestone with white irregular layers of lithographic limestone, sulphur scattered irregularly throughout; cavity may have been lined with sulphur-bearing sand, 70% sulphur, 30% sand, only 6" of sulphur-sand found.	2	4 7	.080
17	933 - 938	5	Massive, light gray limestone covered with free oil, top 1' 50% calcite; calcite seams 10% in rest of core; some amorphous sulphur	15 5	1 4	.150 .200

NATIONAL LEAD COMPANY #2 G. W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
18	938 - 943	5	Top 1' irregular pieces of sulphur sand;	70	1	.700
			Next 3' shale with irregular pieces of limestone, some sulphur;	None	3	
			Next 1' shale and sand carrying sulphur	10	1	.100
19	943 - 948	4½	Top 1' black shale	None	1	
			Next 1' sandy limestone with sulphur disseminated finely throughout.	10	1	.100
			Bottom 2½' massive, dark, sugary limestone with show sulphur throughout.	None	3	
20	948 - 953	5	Top 3' massive, gray limestone with amorphous and crystalline sulphur disseminated throughout.	5	3	.150
			Bottom 2' massive, sugary, black limestone with show sulphur disseminated throughout.	None	2	
21	953 - 959½	6½	Top 1' sandy, dense, limestone some sulphur	None	1	
			Bottom 5½' massive limestone with 10% calcite-sulphur disseminated throughout.	Trace	5½	
22	959½-965	2	959½-961½ cavity by drilling.			
			Bottom 2' calcite and limestone, 50% calcite occasional speck of crystalline sulphur.	None	5½	
23	965 - 972	5	Broken, massive limestone with calcite seams some sulphur throughout; one chunk of sulphur sand at top.	None	7	
24	972 - 979	3	Limestone and calcite 50-50, few specks of sulphur throughout.	None	7	
25	979 - 985	6	Top 2' irregular pieces of limestone, shale and sand, some sulphur in sand;	None	2	
			Bottom 4' massive, porous limestone, 10% calcite, few specks of sulphur.	None	4	
						1.543

Top of caprock 846' determined by drilling.

September 20, 1951

Mr. Clinton C. Knox
United States Department of the Interior
Defense Minerals Administration
Joplin, Missouri

Re: Docket No. DMA-1409-X

Dear Mr. Knox:

We wish to advise that with the completion of the Trone No. 2 Well, Long Point Dome, Fort Bend County, Texas, our test drilling on this property was concluded.

We believe that our report for the month of August should be delayed until such time as we can prepare a final report covering this project. This should be in your hands within the next two weeks. At the time of this final report, the questions raised in your letter of August 28 will be fully answered. We trust that the above meets with your approval.

Yours very truly,

A. R. Reiser

ARR:MM

cc Mr. F. H. Milliken
Mr. A. H. Hoffman
Mr. M. B. Tipton

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
[redacted]
Joplin, Missouri

August 28, 1951

Mr. Allan R. Reiser, Asst. Mgr.
National Lead Company
Mineral Division
111 Broadway
New York 6, New York

Dear Mr. Reiser:

While awaiting Dr. Gallagher's expected return here about September 24, I am returning your July monthly progress report herewith for some clarification.

In the little pertinent information available here, I find that your contract with PLD Well Service Company for drilling "Trone #1 Well" has never been approved, nor has a copy of a contract for drilling Well #2 ever been received for approval here. I note that you also completed Well #2 in July and I believe its cost can be included in this progress report.

I realize your first months overhead costs might be proportionately high in relation to the contract estimates. In view of the drilling contracts never having been approved and some of the items in your expenditure distribution report, particularly the "miscellaneous, etc.", not having been explained by appropriate footnote itemizations, I cannot approve the $24,057.86 amount for the partial Government reimbursement at this time.

I am certain you can clear up these things so that I or Dr. Gallagher can approve the reports without any possible future risk of embarrassment to you or to this office.

Very respectfully yours,

Clinton C. Knox

Clinton C. Knox,
Mining Engineer, U. S.
Bureau of Mines.

Acting for David Gallagher,
Chairman, D.M.A. Field Team,
Region VI.

AUG 27 1951

NATIONAL LEAD COMPANY

MINING DEPARTMENT
111 BROADWAY
NEW YORK 6, N.Y.

ALLAN R. REISER
ASSISTANT MANAGER

August 8, 1951

Mr. David Gallagher, Chairman,
DMA Field Team, Region VI,
United States Department of the Interior
Defense Mineral Administration
Joplin, Missouri

Re: Docket No. DMA-1409X
Report - Drilling Operations -
For the Month of July

Dear Mr. Gallagher:

Two holes, known as National Lead Company No. 1 and National Lead Company No. 2, were completed during this month.

Drilling operations at National Lead Company No. 1 location was commenced July 6, 1951 and completed July 16, 1951. No core was taken through overburden. At a depth of 856 feet, cap rock was encountered. From this depth to a total depth of 1056 feet, cap rock was cored. A complete log of this formation is attached. The equivalent feet of solid sulfur cored in this hole, as calculated by our geologist, amounted to 0.195. This hole was not considered to be of commercial grade.

Drilling operations at National Lead Company No. 2 location was commenced July 18 and completed July 31. Cap rock was reached at a depth of 846 feet and core was taken from 849 feet to 985 feet. A complete log of this formation is attached. The equivalent feet of solid sulfur cored in this hole, as calculated by our geologist, amounted to 1.54. This is considered to be a marginal ore hole.

Difficulties encountered during the drilling of these holes were as follows:

National Lead Company No. 1 Hole

a) Changing from rock bit to core bit to determine cap rock, and the necessity of reaming hole for casing in after each coring;

b) The leak which appeared in pipe when cementing in casing required a second cement job and also the drilling out of the additional cement; and

c) Drilling was stopped several times because of the inflow of mine water from adjacent Jefferson Lake Sulfur Company's mining operations, which necessitated making a weighted mud to block off this mine water.

National Lead Company No. 2 Hole

a) Loss of returns near top of cap rock and subsequent time lost remedying this condition with suitable sealing muds; and

b) Slow coring due to vugginess of the cap rock.

A plan map and sections of the area drilled are attached herewith.

Yours very truly,

A. R. Reiser

ARR:MM
Encs.

NATIONAL LEAD COMPANY #1 G.W. TRONE

Began: 7-6-51 Comp. 7-16-51

Top cap rock: 856'

Location: 1320' North and 350' West.
H.&.T.C. R.R. Survey #67.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	840 - 844'		Blue, calcareous shale.	None	4'	
	844 - 860'		Drilled.			
2	860 - 864'	3½	Dense, black limestone with numerous veins of white calcite. Barren of sulphur, free oil shows throughout.	None	4'	
			864' set casing.			
	864 - 879'		Drilled - no cuttings.			
3	879 - 880'		Ran basket to catch material, (cuttings).	Trace		
4	880 - 883'	2½	Massive, gray limestone with vugs and veins of sugary calcite. Barren of sulphur - free oil showing.	None	3'	
5	883 - 888'	5	White to gray, massive limestone with veins and vugs lined with calcite crystals, few small crystals of yellow sulphur trace.	Trace	5'	
6	888 - 893'	5	Massive, black to gray limestone, some dead oil, crystals of sulphur throughout.	Trace	5	
7	893 - 898'	5	Massive, gray limestone with vugs and veins lined with calcite, few crystals of yellow sulphur. Bottom 4" had good show of sulphur with some dead oil.	Trace	5	
8	898 - 903'	4' 2"	Top 2' gray limestone, barren of sulphur.	None	2	
			Next 6" gray limestone with sulphur crystals.	10	1/2	0.05
			Next 1'8" black, sugary limestone with calcite seams.	None	1 3/4	
9	903 - 908'	5'	Massive, gray limestone, sugary texture, some crystalline sulphur in veins.	Trace	5	
10.	908 - 915'	7'	Massive, black limestone 25% seams of calcite, vugs lined with calcite, few crystals of sulphur.	None	7	

OK

NATIONAL LEAD COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
11	915 - 920'	2	Gray to black, sugary limestone with calcite seams. Barren of sulphur.	None	5	
12	920 - 927'	4	Sugary, gray to black limestone, irregular seams and veins lined with calcite, barren of sulphur.	None	7	
13	927 - 930'	2½	Gray, sugary limestone with few vugs lined with calcite, some selenite crystals, few crystals of sulphur.	Trace	3	
14	930 - 937'	6½	Massive, sugary limestone with seams and vugs lined with yellow crystalline sulphur			
			Top 2' sulphur crystals in veins	2	2½	0.05
			Bottom 4½ sulphur crystals in veins	1	4½	0.045
15	937 - 945'	8	Massive limestone with veins lined with calcite, occasional sulphur crystals, some pyrite and marcasite in seam at top.	None	8	
16	945 - 952'	7	Massive, sugary limestone with sulphur crystals in seams along with calcite - Top 4' trace.	Show	3	
			Bottom 4' sulphur crystals more abundant	2	4	0.08
17	952 - 957'	5	Top 6" massive limestone with seams of sulphur.	3	1/2	0.015
			Bottom 4½ feet porous, gray to black limestone with sulphur occasionally in seams mostly lined with calcite.	None	4½	
18	957 - 962	3½	Sugary, gray limestone with seams of calcite and occasional crystals of yellow sulphur.	None	5	
19	962 - 967	5	Massive limestone with seams of calcite, 20% calcite few crystals of sulphur.	None	5	
20	967 - 972	5	Dark gray limestone and brown crystalline calcite. 50% calcite 50% lime	None	5	
21	972 - 977	5	Massive, sugary limestone 10% calcite seams. Barren of sulphur.	None	5	
22	977 - 982	5	Massive, dark gray, sugary limestone occasional sulphur crystals.	None	5	

NATIONAL LEAD COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
23	982 - 987'	4½	Massive, gray limestone few vugs lined with calcite. Barren of sulphur.	None	5	
24	987 - 994'	7	Massive, dark gray limestone. Barren of sulphur, few seams lined with calcite.	None	7	
25	994 -1001'	7	Massive, dark gray limestone, vugs and seams of calcite, occasional crystals of sulphur.	None	7	
26	1001 -1008'	5½	Massive, dark gray limestone with dog-tooth spar in vugs, occasional crystals of sulphur.	None	7	
27	1008 -1015'	5	Massive, dark gray limestone, few seams lined with dog-tooth spar, getting gypsum in part, occasional crystals of sulphur.	None	7	
28	1015 -1022'	4½	Top 3½ feet massive limestone, barren of sulphur. Bottom 1 foot gypsum-anhydrite barren. Base of limestone marked by crevice filled with free oil.	None	7	
29	1022 -1029'	7	Massive, non-porous anhydrite, barren of sulphur.	None	7	
30	1029 -1030'	1	Massive, non-porous anhydrite, sugary. Barren of sulphur.	None	1	
31	1030 -1041'	11	Same as above.	None	11	
32	1041 -1056'	15	Top 9' anhydrite, massive and barren. Bottom 6' rock salt, crystal clear.	None	15	
						0.195

Top cap rock 856' determined by drilling.
Top salt 1050'.

Note: 893' mine water came to surface.

SULPHUR ESTIMATE BY John C. Myers DATE 7/31/51 WELL NO. NL 2 DRILLED BY PLD LEASE Trome

LOCATION 790'N&365' W-SE Cor. ELEVATION GROUND AT WELL ON DATE ROTARY TABLE ABOVE GROUND 8'

BEGAN DRILLING 7/18/51 COMPLETED DRILLING 7/31/51 TOP CAPROCK 846' NOTES

CORE NO.	FROM	TO	REC.	FORMATION	SULPHUR PERCENTAGE	DISTANCE CORED	E. F. S. S.
1	849	852	2½'	Massive, porous limestone, looks brecciated at top with some shale, some calcite. Barren of sulphur.	None	3'	
2	852	857	4'9"	Massive limestone with calcite seams, about 25% calcite, free oil showing, some sulphur crystals.	None	5'	
3	857	858	1'	Loose materials, looks like ashy sand, but believed to be cement, fibertex and drilling mud. Some small pieces of limestone with calcite seams.	None	1	
4	858	863	4'	Massive limestone with calcite seams. Top 8" carries crystalline sulphur.	2	2/3	0/013
				Bottom 3'4" few crystals of sulphur, all very porous.	None	3 1/3	
5	863	868	4'	Massive limestone, porous, bottom part contains few spots of crystalline sulphur.	None	5'	
6	868	875	5'	Massive, dark gray limestone with calcite seams. Barren of sulphur.	None	7'	
7	875	880	3'	Massive, gray limestone, sugary texture, some c rystalline sulphur.	None	5'	
8	880	887	11/2'	Believe top 1½ feet recovered, massive limestone with intricate system of seams of calcite, crystalline sulphur in seams only.	None	7'	
9	887	888	½	Recovered massive limestone which looks like it had been recovered from Core No. 8. Some calcite and few sulphur crystals.	None	1'	

OK

NO. 16861-3M-4-51 OSCAR SPRINGER PRINT, GALVESTON

SULPHUR ESTIMATE BY | DATE | WELL NO. | DRILLED BY | LEASE

LOCATION | ELEVATION GROUND AT WELL | ON DATE | ROTARY TABLE ABOVE GROUND

BEGAN DRILLING | COMPLETED DRILLING | TOP CAPROCK | NOTES

CORE NO.	FROM	TO	REC.	FORMATION	SULPHUR PERCENTAGE	DISTANCE CORED	E. F. S. S.
10	888	889	1'	Massive, gray limestone and calcite. 30% lime, 70% calcite, few sulphur crystals.	None	1'	
11	889	894	5'	Massive, gray limestone and calcite seams. 50% lime, 50% calcite. Bottom 2½ feet sulphur crystals. Strong odor of oil.	None 2	2½ 2½	0.050
12	894	901	7'	Massive, gray limestone and calcaite, looks like limestone breccia. Limestone 70% and calcite 30%. Top 4' few crystals of sulphur. Bottom 3' more sulphur crystals.	Trace	7'	
13	901	908	6½'	Massive, gray limestone, looks like breccia, intricate seams of calcite. Few sulphur crystals.	None	7'	
14	908	915	7'	Massive limestone with seams of brown andcrystal-clear calcite. 10% calcite. Limestone getting more sugary in texture, dark gray to black in color, occasional sulphur crystal.	None	7'	
15	915	922	6'	Massive, gray, sugary limestone somewhat gypsiferous near bottom. Bottom 1 foot carries sulphur in greater amounts, show.	None	5'	
16	922	933	4'	Drilled like 4 feet of rock, 6 feet of cavity and 1 foot of rock below cavity. Top 4feet massive, sugary limestone with white irregular layers of lithographic limestone. Sulphur scattered irregular throughout. Cavity may have been lined with sulphur-bearing sand. 70% sulphur, 30% sand, only 6" of sulphur sand found.	2	4'	0.080

NO. 16881-3M-4-51 OSCAR SPRINGER PRINT, GALVESTON

SULPHUR ESTIMATE BY | DATE | WELL NO. | DRILLED BY | LEASE

LOCATION | ELEVATION GROUND AT WELL | ON DATE | ROTARY TABLE ABOVE GROUND

BEGAN DRILLING | COMPLETED DRILLING | TOP CAPROCK | NOTES

CORE NO.	FROM	TO	REC.	FORMATION	SULPHUR PERCENTAGE	DISTANCE CORED	E. F. S. S.
17	933	938	5'	Massive, light gray limestone covered with free oil. Top 1 foot 50% calcite, calcite seams 10% in rest of core. Some amorphous sulphur.	15 5	1' 4'	0.150 0.200
18	938	943	5'	Top 1 foot irregular pieces of sulphur sand. Next 3' shale with irregular pieces of limestone, some sulphur. Next 1 foot shale and sand carrying sulphur	70 None 10	1' 3' 1'	0/700 0.100
19	943	948	4½'	Top 1 foot black shale. Next 1 foot sandy limestone with sulphur disseminated finely throughout. Bottom 2½ feet massive, dark, sugary limestone with show sulphur throughout.	None 10 None	1' 1' 3'	 0.100
20	948	953	5'	Top 3' massive, gray limestone with amorphous and crystalline sulphur disseminated throughout. Bottom 2 feet massive, sugary, black limestone with show sulphur disseminated throughout.	5 None	3' 2'	0.150
21	953-	959½	6½	Top 1 foot sandy, dense limestone, some sulphur. Bottom 5½ feet massive limestone with 10% calcite, sulphur disseminated throughout.	None Trace	1' 5½'	
22	959½	965	2'	959½ to 961½ geet cavity by drilling. Bottom 2 feet calcite and limestone, 50% calcite, occasional specks of crystalline sulphur.	None	5½	
23	965	972	5'	Broken, massive limestone with calcite seams. Some sulphur throughout, one chunk of sulphur sand at top.	None	7'	

NO. 16861-3M-4-51 OSCAR SPRINGER PRINT, GALVESTON

SULPHUR ESTIMATE BY | DATE | WELL NO. | DRILLED BY | LEASE

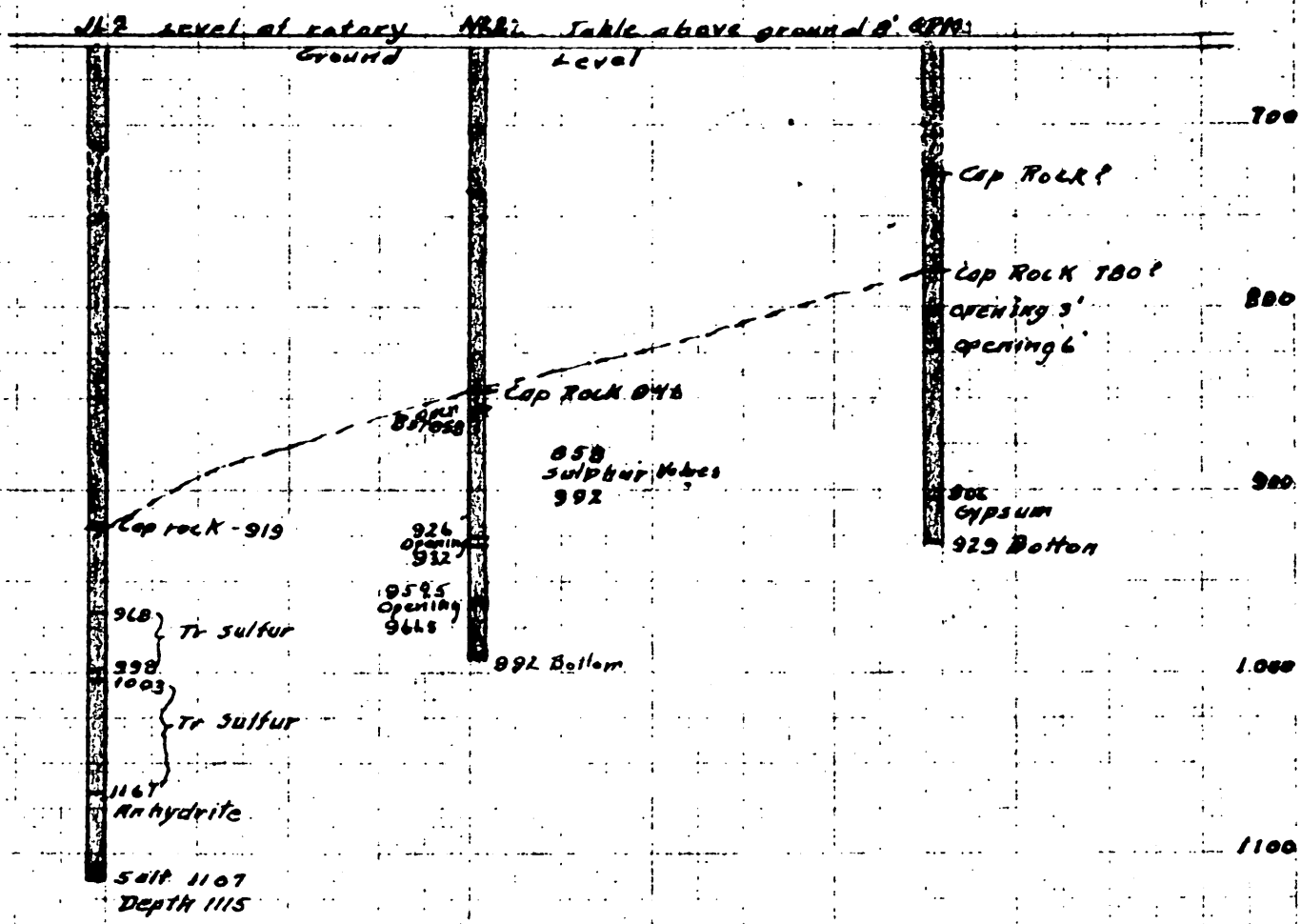
LOCATION | ELEVATION GROUND AT WELL | ON DATE | ROTARY TABLE ABOVE GROUND

BEGAN DRILLING | COMPLETED DRILLING | TOP CAPROCK | NOTES

CORE NO.	FROM	TO	REC.	FORMATION	SULPHUR PERCENTAGE	DISTANCE CORED	E. F. S. S.
24	972	979	3'	Limestone and calcite 50-50, few specks of sulphur throughout.	None	7'	
25	979	985	6'	Top 2 feet irregular pieces of limestone, shale and sand, some sulphur in sand.	None	2'	
				Bottom 4 feet massive, porous limestone, 10% calcite, few specks of sulphur.	None	4'	

NO. 16881-3M-4-51 OSCAR SPRINGER PRINT, GALVESTON

Section 'A - A'

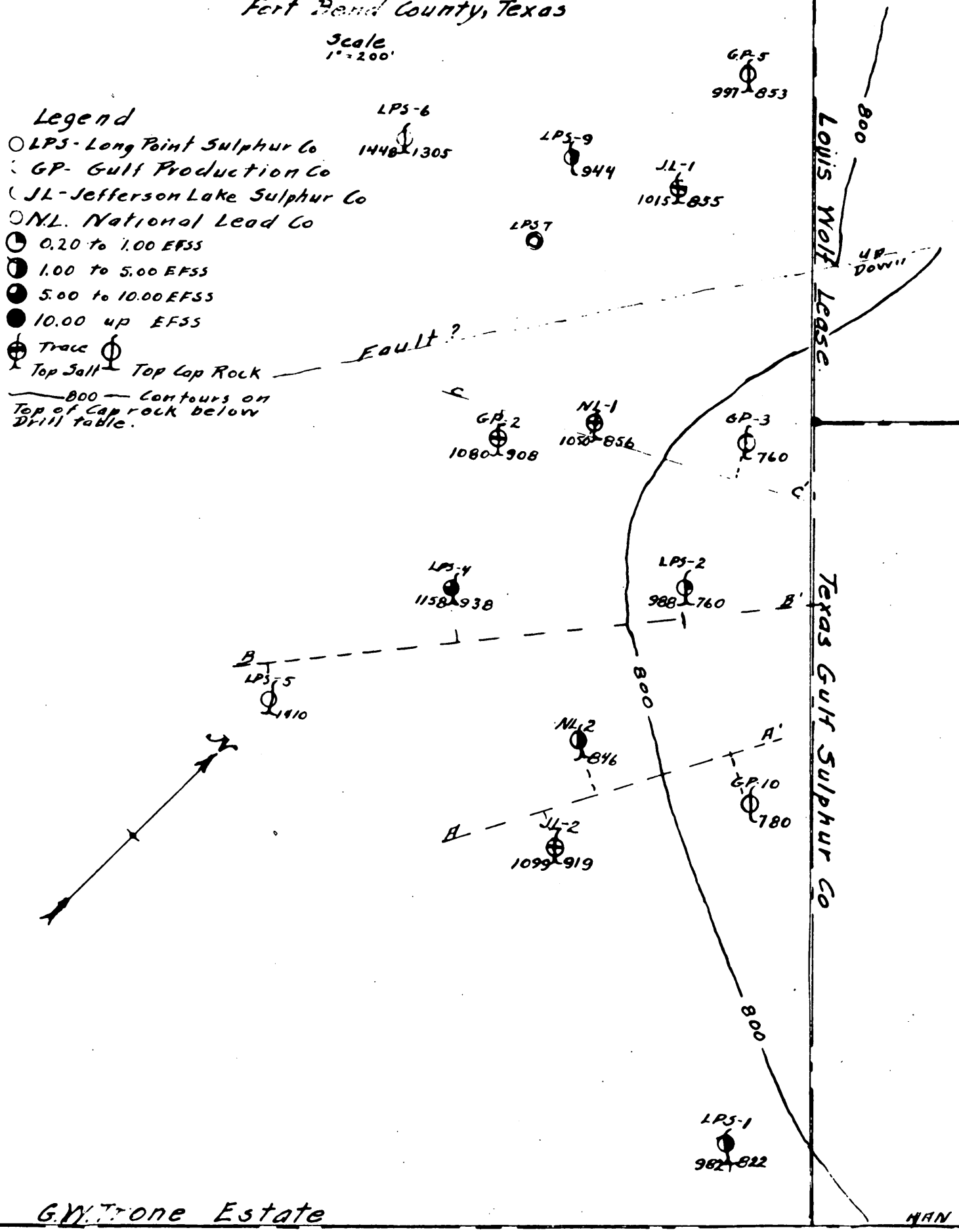


National Lead Company
Lease on the Trone Property
Fort Bend County, Texas

Scale
1" = 200'

National Lead Company
Lease on Trone Property
Fort Bend County, Texas

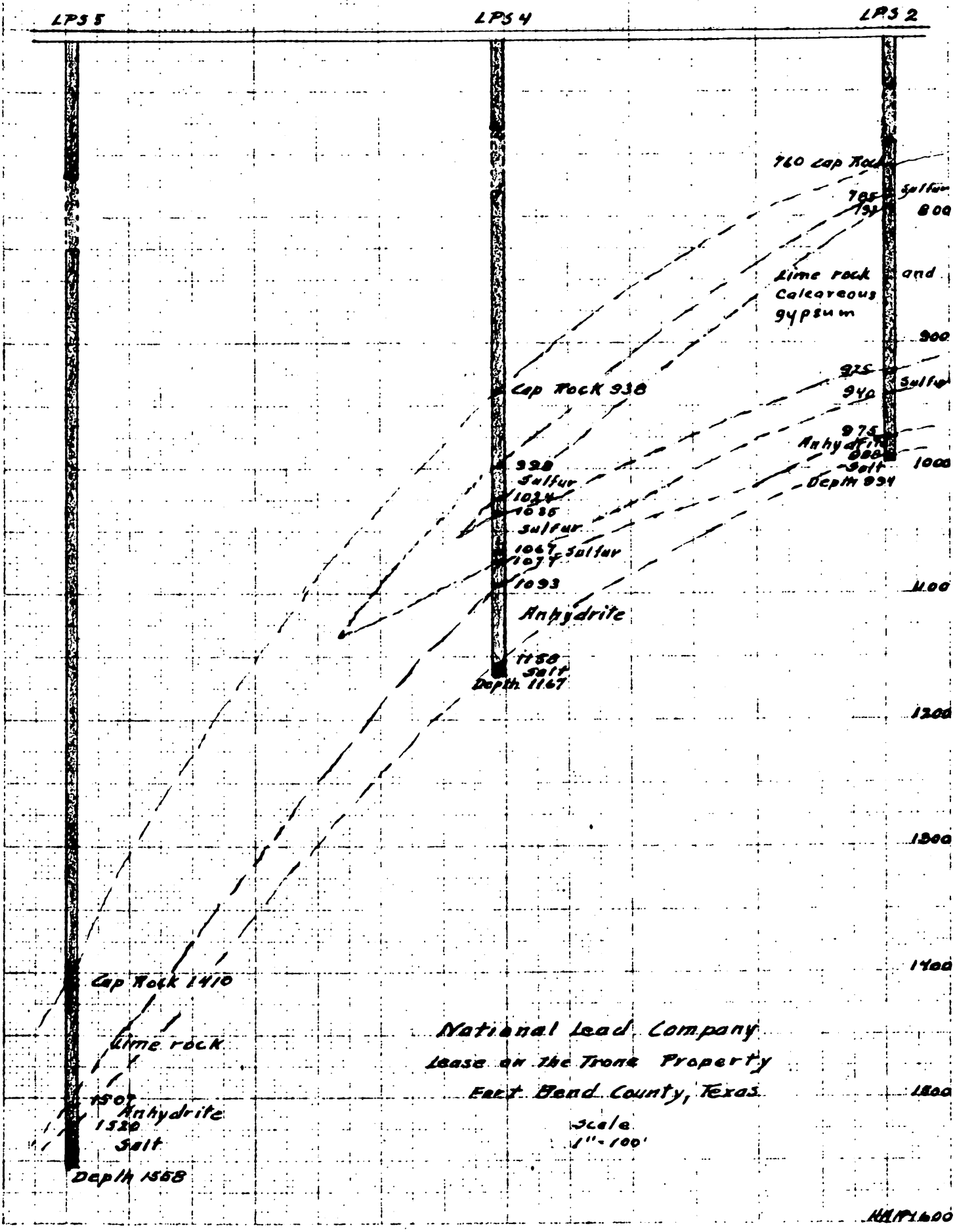
Scale
1" = 200'



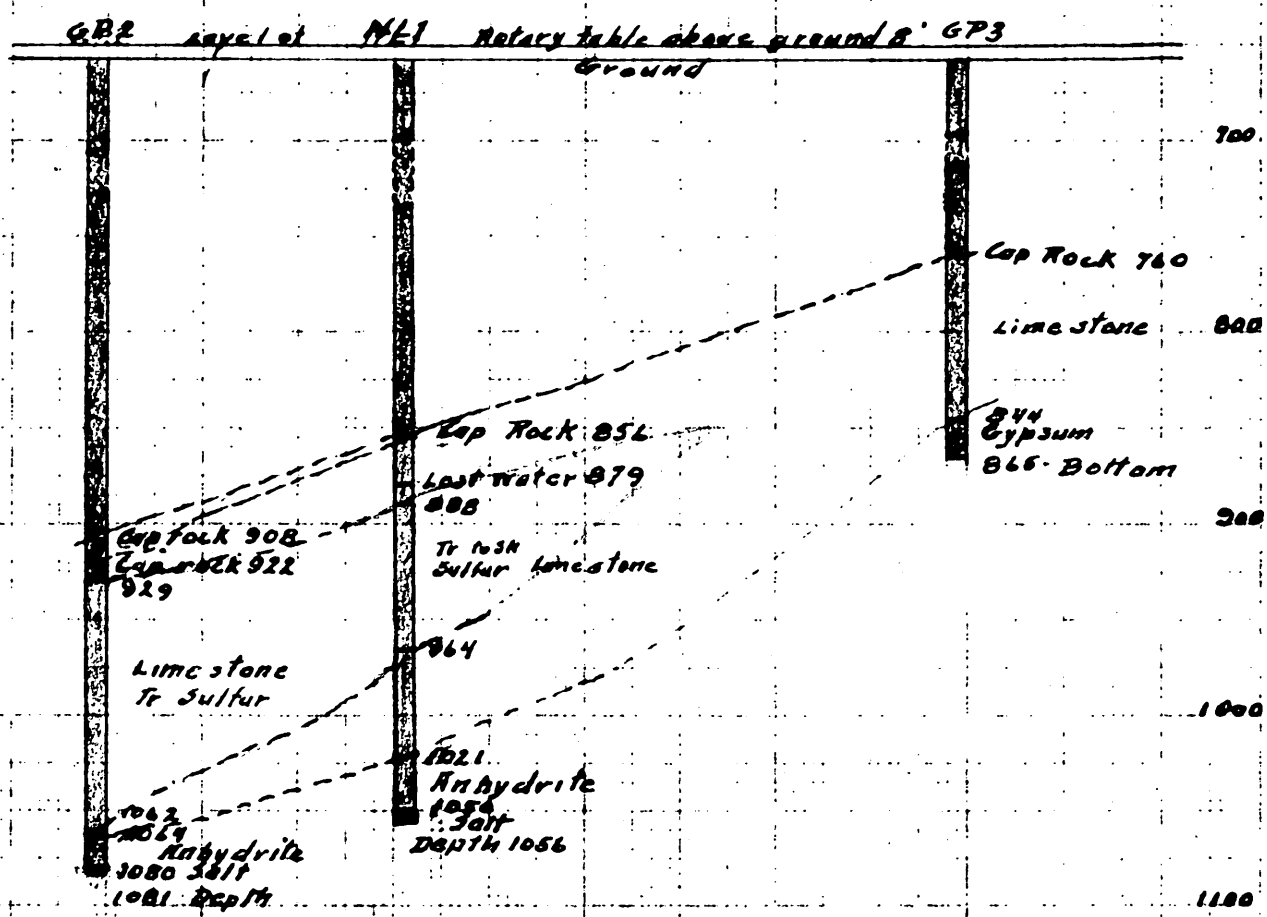
G.W. Trone Estate

HAN

Section B-B'


LPS 5
LPS 4
LPS 2
760 Cap Rock
785
791
Sulfur
800
Lime rock and Calcareous gypsum
900
925
940
Sulfur
975
Anhydrite
980
Salt
Depth 994
1000
Cap Rock 938
938
Sulfur
1024
1036
Sulfur
1067
1077
Sulfur
1093
1100
Anhydrite
1158
Salt
Depth 1167
1200
1300
1400
Cap Rock 1410
Lime rock
1500
Anhydrite
1520
Salt
Depth 1568
1600
National Lead Company
Lease on the Trone Property
Fort Bend County, Texas
Scale
1" = 100'

Section C-C'



National Lead Company
Lease on the Trone Property
Fort Bend County Texas
Scale
1" = 200'

August 2, 1951

National Lead Company
Mining Department
111 Broadway
New York 6, New York

Attention: Mr. A. R. Peiser

Gentlemen:

Reference is made to our contract dated July 17, 1951 relative to the drilling of the Trone #1 Well, Long Point Dome, Fort Bend County, Texas.

This letter will evidence our agreement that said contract of July 17, 1951 and all its terms and provisions shall also apply to the Trone #2 Well drilled by us for you at said Long Point Dome in Fort Bend County, Texas, except the drilling commencement date mentioned in paragraph 4 thereof shall be deleted.

If this represents your agreement will you please accept same in the space provided below on duplicate originals enclosed, returning one copy for our files.

Yours very truly,

PLD WELL SERVICE COMPANY

Howard Parker

Howard Parker

HP/le

ACCEPTED:

NATIONAL LEAD COMPANY

By _____

FILE COPY
SURNAME:

Jones

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

July 25, 1951

Mr. David Gallagher, Chairman
DMA Field Team, Region VI
Post Office Box 431
Joplin, Missouri

My dear Mr. Gallagher:

This is in reply to your letter to me of July 20, 1951, referring to possible violations by the National Lead Company of its exploration contract I-DMA-E24 (Docket No. DMA 1409X).

In your letter you asked whether the Company was in violation of its contract because: (1) it failed to secure the approval of its drilling contract by DMA before commencing operations under it; and (2) the drilling contract departed from the specifications of Schedule A of the exploration contract.

There is no copy of the exploration contract in Washington, and I have no copy of the drilling contract. I cannot, therefore, say whether or not the drilling contract is, by its terms, in violation of the exploration contract.

The schedules to exploration contracts are, however, merely estimates. Consequently, if you feel that the drilling contract is a reasonable one under the circumstances, even though it differs from Schedule A, you can approve it, and make payments under it. If you do not feel that the contract is reasonable, you should notify the company to that effect, and inform it that no payments will be made by the Government for work done under the contract, or at lease that no payments will be made in excess of the rates set forth in Schedule A. It is immaterial that work was begun under the drilling contract prior to the securing by the Company of approval of that contract by the Government. Whether or not you make payments for work done under the drilling contract will depend solely on whether or not you approve that contract, not on when the work was done, so long as it was done within the term of the exploration contract.

Sincerely yours,

J. L. Hofflund

J. L. Hofflund
General Counsel

WCJones/ema

Copy to: L. F. Strobel
W. C. Jones
J. L. Hofflund
Chron.
Files
Olaf Rove, Geological Survey,
Room,4214 - G.S. Bldg.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
[redacted]
Joplin, Missouri

July 20, 1951

Mr. A. R. Reiser,
Assistant Manager
National Lead Company
Mining Department
111 Broadway
New York 6, New York

Dear Mr. Reiser:

This will acknowledge receipt of your letter of July 17 and the drilling contract attached thereto.

The copy enclosed of my letter to Mr. Hofflund is self-explanatory.

Sincerely yours,

David Gallagher

David Gallagher
Chairman,
DMA Field Team, Region VI

Encl.
cc: J. L. Hofflund

Joplin, Missouri

July 20, 1951

Mr. J. L. Hoffland, General Counsel
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Through: Coordinating Committee

Subject: Docket DMA 1409X (Contract L-DMA-324)

Dear Mr. Hoffland:

As an outgrowth of an application for exploration Docket DMA 1409X filed by the National Lead Company, the Washington office of Defense Minerals Administration arranged with them Exploration Contract Number L-DMA-324. This contract first came to my attention accompanied by a letter of June 27, 1951 from C. O. Mittendorf, a copy of which is attached, advising the National Lead Company to comply with paragraph 4 of the contract by submitting a copy of the proposed drilling contract to me before commencing drilling operations.

On July 16, 1951 I wrote to the National Lead Company, the letter of which a copy is enclosed, advising them that I had not yet heard from them.

On July 20, 1951 I received from the National Lead Company a letter dated July 17, 1951 under the signature of A. R. Reiser, Assistant Manager, a copy of which is enclosed, and to which was attached a signed copy of drilling contract between the National Lead Company and the PID Well Service Company.

This contract stipulates that the National Lead Company will pay the PID Well Service Company a sum of $525 per day rental on the drilling rig for drilling Trone #1 well. However, Exhibit A, attached to, and a part of, Contract L-DMA-324 specifies that six test holes will be drilled by contract drilling at a cost of $4.85 per foot to the approx, plus other appropriate cost for coring and casing. The specifications and costs given in Exhibit A were those approved by the Washington office of the Defense Minerals Administration in their contract with the National Lead Company.

May I therefore request that you ascertain whether or not there has been a breach of the contract by the National Lead Company in respect to: (1) Their failure to comply with paragraph 4 of the

Joplin, Missouri
July 20, 1951

contract as stipulated in the letter from Mr. Mittendorf or, (2) in the departure of the submitted drilling contract from the agreed specifications of Exhibit A. Please see to it that I am adequately advised what policy to follow and what action to take in this case.

Sincerely yours,

David Gallagher
Chairman,
DMA Field Team, Region VI

cc: A. R. Reiser

July 17, 1951

Mr. David Gallagher, Chairman,
DMA Field Team, Region VI,
United States Department of the Interior
Defense Minerals Administration
Joplin, Missouri

Re: Docket No. DMA-1409X

Dear Mr. Gallagher:

Enclosed please find an executed contract between the PLD Well Service Company of Houston, Texas, and the National Lead Company for the drilling of test sulfur wells on the Long Point Dome, Fort Bend County, Texas. You will note that this contract has been executed under date of July 17, 1951.

Drilling operations on this lease were started at 11 P. M., July 6.

We will supply you at the start of each month with monthly reports of progress as per outline sent to us. We trust that this will meet with your approval.

Yours very truly,

A. R. Reiser

ARR:MM
Enc.

Trone Sulfur
-Texas

July 17, 1951

Mr. Howard Parker
P L D Well Service Company
810 Sterling Building
Houston 2, Texas

Dear Mr. Parker:

We are returning herewith one executed copy of drilling contract between the P L D Well Service Company and National Lead Company, dated July 17, 1951, for the drilling of sulfur wells on the Trone Tract, Long Point Dome, Fort Bend County, Texas.

We are also in receipt of copy of your certificate of insurance coverage for this drilling work, dated June 19, and an insurance policy between United States Casualty Company and National Lead Company entitled "Policy No. SM 389888", covering any legal liability to the National Lead Company in connection with your drilling of sulfur wells on the same tract. We understand that you will enclose the cost of the coverage extended in Policy SM 389888 on your invoices, as the work progresses.

Your cooperation is sincerely appreciated.

Yours very truly,

A. R. Reiser

ARR:MM
Enc.
cc Mr. H. A. Neustaedter
(with copy of deed)

bcc Mr. F. R. Milliken

bcc Mr. Tipton, with following enclosures:
(1) Original deed, dated July 17, 1951, as mentioned above
(2) Insurance Policy No. SM 389888, U.S.Casualty Co./N.L.Co. effective June 29, 1951 (expiration date: 6/29/52)
(3) Certificate of insurance coverage from the Traders & General Insurance Co. of Dallas, Texas, to PLD Well Service Company, dated June 19, 1951.

DRILLING WORKOVER

PLD WELL SERVICE COMPANY

TELEPHONE PR-4365
810 STERLING BUILDING
HOUSTON 2, TEXAS

July 7, 1951

National Lead Company
111 Broadway
New York, New York

Attention: Mr. Reiser,
Asst. Production Manager

Gentlemen:

At the request of your Mr. Harold Neustaedter, we have procured, and enclose herewith for your perusal, an insurance policy covering your legal liability in connection with the drilling of your sulphur wells, Trone Lease, Long Point Dome, Fort Bend County, Texas. $6.061 / 100 paper

We will enclose the cost of this coverage on our invoices to you as the work progresses, the charge being outlined according to the letter of transmittal from our carrier, also attached.

We appreciate very much the opportunity to do this work for you.

Yours very truly,

PLD WELL SERVICE COMPANY

Howard Parker

Howard Parker

HP/le
enclosures 2

$ 6,000 / hole
.061
6000
36000
$ 366.00

JOHN S. DUNN AND COMPANY

General Insurance

ATWOOD 2303

809 CAROLINE STREET
HOUSTON 2, TEXAS

July 6, 1951

JUL 7 1951

P.L.D. Well Service Company
810 Sterling Building
Houston, Texas

Attention: Mr. Parker

Re: Trone #1
National Lead Company

Gentlemen:

We are pleased to enclose U. S. Casualty Company policy #SM-389888 together with a copy of same.

The policy covers the legal liability of National Lead Company in connection with work being done for them by your Company for Bodily Injury and Property Damage, excluding principally underground damage claims.

We understand National Lead Company is to reimburse you for the cost of this insurance and upon completion of each well you should bill them for $.061 for each one hundred of the cost to them of work done by you.

We trust the policy will be found in order and you may want to send the original to National Lead Company. Please call us if there are any questions.

Yours very truly,

JOHN S. DUNN & COMPANY

By: Jack Culbertson
Jack Culbertson

JC/nja
encl.

UNITED STATES CASUALTY COMPANY

June 21, 1951

Mr. Howard Parker
P L D Well Service Company
810 Sterling Building
Houston 2, Texas

Dear Mr. Parker:

This is to acknowledge receipt of your letter and bid of June 19 for drilling to be performed on the Long Point Dome, Fort Bend County, Texas, submitted at the request of Mr. R. W. Wilson of our Baroid Sales Division.

A copy of the data submitted has been forwarded to Mr. Harold A. Neustaedter, who will be in charge of the sulfur drilling project. You may expect to hear directly from him shortly after his arrival in Texas.

We wish to thank you for your quotation and the enclosed certificate of insurance.

Yours very truly,

A. R. Reiser

ARR:MM

cc Mr. H. A. Neustaedter
Mr. R. W. Wilson
Mr. M. B. Tipton

DRILLING

cc HAN 6/21/51

WORKOVER

PLD WELL SERVICE COMPANY

TELEPHONE PR-4365
810 STERLING BUILDING
HOUSTON 2, TEXAS

June 19, 1951

National Lead Company
111 Broadway
New York, New York

Attention: Mr. Reiser,
Asst. Production Manager

Gentlemen:

At the request of Mr. R. W. Wilson, Baroid Sales, Houston, we submit our quotation in connection with the drilling of Sulphur Exploratory Wells, Long Point Dome, Fort Bend County, Texas.

For the sum of $525.00 per 24-hour day, we will drill these wells and furnish the following:

525 / 7 = 75 / hole, $367 $9,000 Est. in CER.

1. Complete power drilling rig with derrick, substructure, blowout preventors, air compressor for jetting water well and drill pipe.

2. Rig maintenance and supplies.

3. Labor, taxes and insurance (workmen's compensation, public liability and property damage, automobile public liability and property damage.)

It is our understanding you are to diamond core these wells. If so, we feel our experience in this type of coring is comparable to any contractor in the Gulf Coast today because during the last five years, we have performed this work for the major oil companies, sometimes as much as 3500 feet of continuous diamond coring in 8500 foot wells.

In the event we are granted the contract, we will have our experienced superintendent and men on this job.

We enclose for your perusal certificates of our insurance coverage.

We appreciate the opportunity to place our bid on this work and hope that we are granted the work.

Very truly yours,

PLD WELL SERVICE COMPANY

Howard Parker

Howard Parker

HP/le

JOHN S. DUNN AND COMPANY

General Insurance

ATWOOD 2303

809 CAROLINE STREET
HOUSTON 2, TEXAS

June 19, 1951

National Lead Company
111 Broadway
New York, New York

Re: P L D Well Service Company

Gentlemen:

In accordance with the instructions of our insured, we are very pleased to enclose Certificate of Insurance, in duplicate.

If we can be of further service to you in connection with this insurance, please communicate direct with this office.

Sincerely yours,

JOHN S. DUNN & COMPANY

By F. M. Stevenson, Jr.

F. M. Stevenson, Jr.

FMS/vmh
cc: P L D Well Service Company
810 Sterling Building
Houston, Texas

Traders & General Insurance Company
Dallas, Texas

UNITED STATES CASUALTY COMPANY

Mittend

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Joplin, Missouri

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 19 1951
LANDON F. STROBEL
Executive Secretary

July 16, 1951

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

Re: Docket No. DMA-1409X

Gentlemen:

On June 29, 1951 I received a copy of the Defense Minerals Administration contract (I-DMA-E24) with your company for the purpose of drilling sulfur in Fort Bend County, Texas. The contract was accompanied by a carbon copy of a letter to you dated June 27, 1951 from C. O. Mittendorf, Director, Production Expansion Division, stating in part:

"Before commencing drilling operations, kindly comply with paragraph 4 of the Contract by submitting a copy of your proposed drilling contract to the Executive Office of Region VI for his approval."

Although the contract is dated June 27, 1951 and paragraph 3 specified that work on the project shall commence within 10 days of that date, I have not yet heard from you.

Sincerely yours,

David Gallagher
Chairman,
DMA Field Team, Region VI

DGallagher:lh

cc: O. N. Rove
C. O. Mittendorf

EXECUTIVE SECRETARY
LANDON B. SIMONEE

JUL 1 1981

RECEIVED
DEPARTMENT OF THE INTERIOR
BUREAU MINERAL MANAGEMENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C.

NATIONAL LEAD COMPANY
111 BROADWAY
NEW YORK 6, N.Y.

TITANIUM DIVISION

July 6, 1951

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 10 1951
LANDON F. STROBEL
Executive Secretary

Mr. C. O. Mittendorf, Director
Production Expansion Division
Defense Minerals Administration
Washington 25, D.C.

Re: Docket No. DMA-1409X

Dear Mr. Mittendorf:

This will acknowledge receipt of your letter of June 27 with executed Exploration Project Contract No. I-DMA-E24.

We will comply with your requests that Progress Reports, Form-104, be submitted to you monthly and that our proposed drilling contract be submitted to your Region VI Executive Officer.

We appreciate your cooperation in this matter and your very prompt attention to our application for Government cooperation under the Minerals Exploration Program.

Very truly yours,

Frank Milliken

Frank R. Milliken
Assistant Manager

FRM:ah

THIS PAPER OPACIFIED AND BRIGHTENED WITH TITANOX A (TITANIUM DIOXIDE)

FILE COPY
SURNAME:

Ellis
Mittendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

June 27, 1951

National Lead Company
Titanium Division
111 Broadway
New York 6, New York

Re: Docket No. DMA-1409X

Gentlemen:

Enclosed find executed Exploration Project Contract No. I-DMA-E24 dated June 27, 1951 with attached Exhibits and maps; also a set of monthly Progress Reports (Form-104). A progress report is to be submitted monthly in quadruplicate to the DMA field representative in your area where additional copies may be obtained.

Before commencing drilling operations, kindly comply with paragraph 4 of the Contract by submitting a copy of your proposed drilling contract to the Executive Officer of Region VI for his approval. His address is as follows:

Mr. David Gallagher
Executive Officer, DMA Field Team, Region VI
P. O. Box 431
Joplin, Missouri

A press release dated May 14, 1951 on "Questions and Answers on the Minerals Exploration Program" is enclosed for your information.

Sincerely yours,

SIGNED

C. O. Mittendorf, Director
Production Expansion Division

Enclosures

EWEllis/ecl

cc to: Messrs. Mittendorf - Olund
Lyon David Gallagher, Region VI
Strobel Field Finance Sec. Bureau of Mines
Ellis Contract Services Sec. - G.A.O.

FILES

FILE COPY
SURNAME:
Guthrie

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

June 26, 1951

Memorandum

To: C. O. Mittendorf

From: J. L. Hofflund

Subject: National Lead Company exploration contract -- Docket No. DMA-1409X

This office has reviewed the contract in the above-styled case and finds it in satisfactory form for execution subject to the approval by the Government, as provided in paragraph 4 of the exploration contract, of the subcontract under which the labor is to be supplied.

At the time of execution the effective date should be inserted in the contract.

Your file on the case is returned herewith.

J. L. Hofflund

J. L. Hofflund
General Counsel

Attachments

R.R.Guthrie/ema

Copy to: L. F. Strobel
R. R. Guthrie
J. L. Hofflund
Chron.
Files

June 21, 1951

Mr. Grover Geiselman
Production Service Company
3382 Old Spanish Trail
Houston 4, Texas

Dear Mr. Geilselman:

This is to acknowledge receipt of your letter and bid of June 18 for drilling to be performed on the Long Point Dome, Fort Bend County, Texas, submitted at the request of Mr. R. W. Wilson of our Baroid Sales Division.

A copy of the data submitted has been forwarded to Mr. Harold A. Neustaedter, who will be in charge of the sulfur drilling project. You may expect to him directly from him shortly after his arrival in Texas.

Thank you for your quotation.

Yours very truly,

A. R. Reiser

ARR:MM

cc Messrs. H. A. Neustaedter
R. W. Wilson
M. B. Tipton

6/21/51

To Mr. Milliken
Mr. Tipton

For your information.

Please return.

A. R. REISER

cc HAN 6/21/57

PRODUCTION SERVICE COMPANY

3382 OLD SPANISH TRAIL • PHONE KE-6671
HOUSTON 4, TEXAS

June 18, 1951

National Lead Company
111 Broadway
New York, N. Y.

Att: Mr. A. R. Reiser,
Assistant Production Manager

Gentlemen:

We have been asked to estimate and bid on cost of drilling several 1000' to 1200' test holes on your property located on the Long Point Dome, Fort Bend County, Texas.

We feel that work of this type should be done on a day rate basis in all fairness to our company and to you as operator. The rig which we propose to use for this work is of the same type regularly used for drilling sulphur wells at New Gulf by Texas Gulf Sulphur Company. The rig will consist of 87' Lee C. Moore jack-knife derrick with substructure and pipe racks, Cardwell 200 HP drawworks and all necessary blow-out equipment, power pumps, etc. Our regular rate for this rig will be $550.00 per 24-hour day with drill pipe and $525.00 without drill pipe. At the foregoing rate we furnish rig complete including all necessary gas and water lines, air compressor for jetting your water well, and any other standard rig equipment. You, as operator, would pay for all mud and chemicals, surface pipe and protection pipe, all cement and cementing services, bits, fuel, coring equipment, and all other items customarily furnished by operator. We estimate that the transportation charge for moving rig to location will be $1,400.00 and the cost of moving out will be made to next location to which rig may be moved or back to our Houston yard, whichever is the nearer.

We understand that you plan to drill six or eight test holes and we estimate seven days overall time for each well. We plan to skid complete rig from location to location after once setting up on the first well. We understand that the lease terrain will permit such skidding and we estimate that rig can be skidded

PRODUCTION SERVICE COMPANY

3382 OLD SPANISH TRAIL • PHONE KE-6671

HOUSTON 4, TEXAS

June 18, 1951

and set up on new location in approximately eight hours with the use of necessary trucks and cat.

We feel that our equipment is the proper type and size to do your test drilling, and we will have a rig available for the work.

We appreciate the opportunity of being considered for this work and would be pleased to hear from you at an early date.

Yours very truly,

PRODUCTION SERVICE COMPANY

By: Grover Gussleman

ln

cc: Mr. R. W. Wilson
35 Artesian Place
Houston, Texas

June 21, 1951

Mr. J. K. Butler, Vice President
Oil Production Maintenance, Inc.
Esperson Building
Houston 2, Texas

Dear Mr. Butler:

We wish to acknowledge receipt of your letter of June 6 and your telegram of June 12, covering a contract price for our drilling to be performed on the Long Point Dome.

We are indeed sorry that your rig has had its existing job extended and will not be available until the fore part of July. Our Mr. Harold A. Neustaedter, who will be in charge of this job, is now on his way to Houston. With a copy of this letter we are asking him to contact you after he has determined the date at which our drilling can be started. As you know, it is to our best interest to start our drilling test work at the earliest possible date, and we hope that the situation may present itself where we can take advantage of your services.

Yours very truly,

A. R. Reiser

ARR:MM

cc Mr. H. A. Neustaedter
Mr. R. W. Wilson
Mr. M. B. Tipton

E. COCKRELL, JR.

J. K. BUTLER

OIL PRODUCTION MAINTENANCE, INC.

WORKOVERS • WELL SERVICING • DRILLING • CONSULTING

cc HAN 6/20/51

ESPERSON BUILDING

PHONE PReston 1000

HOUSTON 2, TEXAS

June 6, 1951

Mr. A. R. Reiser, Assistant Manager
Mining Department
National Lead Company
111 Broadway
New York, N. Y.

Dear Sir:

We propose to drill your test wells on the Long Point Dome under the following conditions and with the following prices:

1. Drill hole and set approximately 150 feet of 12" conductor pipe.

2. Drill hole and set approximately 1000 feet of 8 5/8" casing, and cement casing as per Company's instructions.

3. Take any type core recommended by Operator and follow Operator's instructions as to length of core, etcetera. (All of No. 3 to be done on day work basis.)

In the event that we should drill three wells, our price is $4.75 per foot. Should the time element be such that we may drill six wells with one rig, then our price will be $4.50 per foot. The day rate on this rig will be $465.00 per day.

As the Contractor, we would furnish complete two-pump power drilling rig, all necessary labor, one full-time toolpusher, all fuel, all bits, all necessary pits and water supply system. The National Lead Company, as Operator, would furnish all drilling mud and chemicals and would make their existing water well available to us for our use.

In the event that you should desire to use us as Contractors, we would appreciate hearing from you at the earliest possible opportunity. We certainly appreciate the opportunity afforded us in being allowed to bid on this work, and hope that we may be the successful contractors.

Very truly yours,

OIL PRODUCTION MAINTENANCE, INC.

BY J. K. Butler
J. K. BUTLER, VICE PRES.

4.50 150 2250 850 3100

4.50 850 2250 3600 3865.00

JKB/ebw

WUCD10 PD

HOUSTON TEX 12 201P

cc HAN 6/20/51

A R REISER, ASST MGR MINING DEPT

NATIONAL LEAD CO 111 BROADWAY NYK

DUE TO CIRCUMSTANCES BEYOND OUR CONTROL THE RIG WICH WE PLANNED TO USE WHEN WE GAVE YOU OUR BID ON THE LONG POINT SULPHUR TEST WXXXXXXXXX WELLS HAS HAD ITS EXISTING JOB EXTENDED AND WILL NOT BE AVAILABLE AT OUR BEST ESTIMATE FOR TWENTY TO TWENTY-FIVE DAYS. THIS WAS CAUSED BY AN UNEXPECTED DEVELOPMENT IN THE CONDITION OF THE CASING WHICH WE DID NOT KNOW OF WHEN DISCUSSING THE JOB WITH YOU. KNOWING THAT TIME IS OF THE ESSENCE TO YOU WE WISH TO ADVISE YOU SO THAT YOU MAY MAKE YOUR DECISION ACCORDINGLY. WE WISH TO THANK YOU FOR YOUR CONSIDERATION

OIL PRODUCTION MAINTENANCE INC BY J K BUTLER.

IN FIRST LINE MK READ RIG WHICH..

337PEST.

CLR..

HLDR 10

30

[illegible]

[illegible]

[illegible]

[illegible]

Subject: Recommendation for Contract Approval

Name of Applicant: National Lead Company, Titanium Division
111 Broadway
New York 6, New York

[illegible] 1409-X

Commodity: Sulphur

Amount Requested: $97,679

[illegible]: $97,679

Recommendation: 50% $48,839.50

Tom Lyon
[illegible]

JUN 12 1951

June 4, 1951

U. S. Dept. of Interior,
Defense Minerals Administration,
Washington, D. C.

Gentlemen:-

Supplementing the information given in our "Application for Aid for an Exploration Project Pursuant to Mineral Order 5", Form MF-103, dated May 30, 1951, we wish to state in answer to question No. 9:-

The applicant is prepared to invest sufficient money to pay his part of the project, specifically, one-half of the estimated $97,679. cost, or $48,840.

Yours very truly,

Vice President

d

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1409-X

Commodity Sulphur

Total Amount $ 97,679

Govt. Participation 50%

1. Name and Address of Applicant National Lead Co., Titanium Division, 111 Broadway, New York 6, N.Y.

2. Location of Property Long Point Dome, Fort Bend County, Texas

3. Mineral or metal Sulphur Is it listed in Section 9 of MO-5? YES

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

see memo attached

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes, Lessee (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? NO- Applicant states that Lease is being prepared and will Be Furnished this week (6/11)

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? Yes

a) MF-201? _____

b) MF-202 Applicant states they are being forwarded (6/11)

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? NO

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes

Is a field check needed on this point? NO

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed? Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? See Detail Estimate If so, attach a draft.

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? NO

g) Is a field examination necessary to complete Exhibit A? NO

11. Exhibit B (question 23-d)*

a) Is it applicable? Not Applicable

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed? NO

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? Yes If so, attach a draft. Detail Estimate Attached

c) Are rents and charges reasonable? Yes

d) Is a field check needed? NO

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? Yes

c) Is the schedule excessive for the work proposed? NO

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? NO

14. Exhibit E (question 23-c)*

a) Is it applicable? Not Applicable

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? NO

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? _____

Reviewed by: [illegible]

Date 8/12/59

97692

1409-T

Recommendation —

That contract be granted allowing 50% assistance on $97,679.00 exploration program as set forth in application and attached Detail Estimate.

Contract should state that the $12,623.00 Contingency Fund may be drawn upon for unforeseen operational expense only and not for overhead.

NB — Applicant's Representative here, Mr. J. P. Bonner (phone Olive 4309) has assured us that the Lease and Subordination are being prepared and will be in our hands in the next few days —

[illegible]
6/12/57

Geological review of the National Lead Company application for exploration grant for Long Point Dome, Fort Bend County, Texas. (DMA-1409X).

Drilling results to date--The recent drilling by the Long Point Sulphur Company has indicated a rather low sulfur content for this part of the Long Point Dome. The best holes (1 and 4) show a sulfur content of less than 3 percent for the full thickness of the caprock. About 14 other holes were drilled previously on this tract by several other companies, but results are not presented; this information, if available, would be helpful in appraising the drilling results of the Long Point Sulphur Company.

Conclusions--The information presented seems to indicate, at best, a distinctly marginal sulfur deposit. If there had not been important sulfur production from the north and south flanks of the dome by the Texas Gulf Sulphur Company and the Jefferson Lake Sulphur Company, I would conclude that the deposit on this tract had very little promise. However, drilling of salt dome sulfur deposits is difficult to appraise; the possibility exists that a minable deposit may yet be found on this tract.

G. H. Espenshade
June 11, 1951

Form NL-4 2M 10-50

DETAIL ESTIMATE

Nature of Work: ADDITIONAL TEST DRILLING - LONG POINT SULFUR DOME

Location of Work: Fort Bend County, Texas

Estimated By: M.B. Tipton & A.R. Reiser Drawing No. _____ Est. Cost: $97,679.00 Date: May 18, 1951

Sheet No. _____ Of _____

Item No.	Quan.	DESCRIPTION	Estimate Costs Material	Estimate Costs Labor	Actual Costs Material	Actual Costs Labor	Total Est. Costs	Total Act. Costs
1		Contract drilling						
		of six (6) test holes, each including the						
		following work items:						
		a - 900 ft. to caprock @ $4.85 per ft.	$ 26,190.00				$ 26,190.00	
		b - Coring through 200 ft. caprock, estimated						
		240 hours @ $18.75 per hour	27,000.00				27,000.00	
		c - casing 1,100 ft. @ $2.85 per foot	18,810.00				18,810.00	
2	1	Core barrel	1,500.00				1,500.00	
	12	Cutter heads	1,800.00				1,800.00	
		Core catchers	500.00				500.00	
		Pickup truck or jeep	1,800.00				1,800.00	
		Consulting geologist fee		2,000.00			2,000.00	
		Misc. field labor		1,056.00			1,056.00	
		Supervision (2 men, N.L. Co.)		2,400.00			2,400.00	
		Living expenses for above		1,500.00			1,500.00	
		Chemical analysis of cores	500.00				500.00	
		Contingency fund (15%)					12,623.00	
		TOTALS	$ 78,100.00	6,956.00			97,679.00	

NATIONAL LEAD COMPANY

111 BROADWAY

NEW YORK 6, N.Y.

June 4, 1951

U. S. Department of Interior,
Defense Minerals Administration,
Washington, D. C.

Gentlemen:

Supplementing the information given in our "Application For Aid For an Exploration Project Pursuant to Mineral Order 5", Form MF-103, dated May 30, 1951, we wish to state in answer to question No. 9:-

The applicant is prepared to invest sufficient money to pay his part of the project, specifically, one-half of the estimated $97,679.00 cost, or $48,840.00.

Yours very truly,

J. A. Reid

Vice President

d

PROGRESS REPORT ON
LONG POINT SULPHUR COMPANY'S SULPHUR PROPERTY
LONG POINT DOME, FORT BEND COUNTY, TEXAS

BY

JOHN C. MYERS
CONSULTING GEOLOGIST

March 29, 1951
1512 Emperson Building
Houston 2, Texas

PROGRESS REPORT ON
LONG POINT SULPHUR COMPANY'S SULPHUR PROPERTY
LONG POINT DOME, FORT BEND COUNTY, TEXAS

SUMMARY

Core samples have been examined from seven test holes, and from sight examination and calculations the total prospective area amounts to the total of the area of the five triangles, which is 16.20 acres. In this area a total of 117,500 long tons of sulphur are estimated to be available for mining.

It is believed that with an additional three or four test wells appreciable additional tonnages of sulphur will be indicated.

It is obvious that insufficient test wells have been drilled on the Trone land by Long Point Sulphur Company between the 800 and 900-foot contours on the caprock. It is between these contours that the greatest sulphur tonnage per acre has been found at the south edge of the dome, and it is logical to believe that this area on the Trone land will be the best productive area. This is already indicated by the results obtained in wells Nos. 1 and 4, and in view of the fact that the area between the 800 and 900-foot contours remains practically untested the above mentioned additional drilling is recommended.

The surface area embraced by the triangles is 16.20 acres, and that lying between the 800 and 900-foot contour is of the order of 8-3/4 acres.

Respectfully submitted,

John C Myers

JOHN C. MYERS
Consulting Geologist

March 29, 1951

PROGRESS REPORT ON
LONG POINT SULPHUR COMPANY'S SULPHUR PROPERTY
LONG POINT DOME, FORT BEND COUNTY, TEXAS

INTRODUCTION

Early in 1950 the Long Point Sulphur Company began drilling sulphur test wells on the G. W. Trone Estate property at the west side of the Long Point Dome in Fort Bend County, Texas.

The property of the company is located in the H.&.T.C. R.R. Survey #67 and consists of 320 surface acres. A total of nine wells have been drilled but two of the wells failed to reach their objective because of misinterpretation of the true caprock or dome material, and setting of protection string of casing too soon causing eventual loss of the hole as a sulphur test. Wells Nos. 7 and 8 therefore are omitted from the text because they never reached their caprock objective.

The field work consisted of an examination of hand samples and an estimate of the percentage of sulphur contained therein for various segments of the caprock. The samples were not quartered, ground, or chemically analyzed for sulphur content because it was not deemed necessary to do so. Experience has taught that sampling by chemical analysis is not more adequate than sight estimates, probably due to the fact that neither method can overcome the errors due to cavities in the caprock.

The purpose of this report is to demonstrate the progress made in the sulphur prospecting on the Trone land with a

view to giving an estimate of the amount of sulphur indicated by the test wells, and from the findings made to show that further prospecting is justified, with a further view to building a plant once additional sulphur is found.

HISTORY OF THE DOME

The Pathfinder Oil Company leased the area of the Long Point Dome in 1923, and drilled four shallow dry holes. In 1924 they subleased their holdings to the Gulf Production Company. The Gulf Production Company surveyed the area with refraction seismograph and found the salt dome. The first well to hit dome material was drilled by this company in 1924. Later they gave up their sulphur rights to the Texas Gulf Sulphur Company who found mining conditions favorable and brought about the first production in March 1930 one year after the first production at Boling. They are reported to have extracted 402,000 tons from the north flank of the dome and considered the balance of the dome non-commercial. However, they had purchased a great deal of the mineral interests under the rest of the dome, and therefore, were protected from any competitor in the future. Mining operations were discontinued in 1938. The Gulf Production Company were to share equally with the Texas Gulf Sulphur Company in the net profits from the operation at Long Point and Boling Domes. In the latter part of 1934, however, the former company exchanged its rights under this and other contracts for 1,300,000 shares of Texas Gulf Sulphur Company stock.

In the latter part of 1938 the Jefferson Lake Sulphur Company started prospecting Long Point Dome for sulphur and drilled several test holes. They constructed a plant and started mining sulphur on the north side of the dome in 1946. This operation proved to be a successful one. The Jefferson Lake Sulphur Company have mined the following tonnages of sulphur since 1946 from this dome:

	Quarters Ending				
Years	3-30	6-30	9-30	12-30	Total Annual
1946		11,336	56,452	53,417	121,205
1947	46,689	37,690	44,169	38,072	166,620
1948	30,493	35,258	38,355	34,261	138,367
1949	36,972	41,020	48,672	32,619	159,283
1950	33,526	33,714	51,628	53,640	172,508
	147,680	159,018	239,276	212,009	757,983

From the south flank of the dome the past production to approximately March 1, 1951 is reported to amount to about 480,000 long tons.

In the early part of January 1950 test wells proved the presence of rich sulphur deposits along the boundary line between the H.&.T.C. R.R. Surveys Nos. 101 and 111 on the boundary line between the Davis and Beard lands. The total production at present taken from approximately 3-1/2 acres of this area has amounted to about 295,000 tons. It is estimated that this is about 1/3rd of the total sulphur indicated from test wells in this particular area which amounts to approximately 11 acres and is colored yellow on the map.

GEOLOGY

The Long Point Salt Dome is a typical Gulf Coast shallow piercement-type dome. Sedimentary rocks above the dome consist of sand, gravel, and clay to a depth roughly of 600 feet. On the attached contour map is shown the top of the caprock symbolized by the letter "C". The top of the salt is shown by an extension of the letter "C" into an "S" placed at the left side of the well.

It can be seen from the contour map that the sulphur extracted at the north side of the dome covers the greatest area to date. However, large quantities of sulphur have been extracted in a relatively small area at the south side of the dome.

The significant fact that stands out on this contour map is that the sulphur is concentrated between the 700 and 900-foot contours both at the north and at the south flanks, with the exception of a small area near the 600-foot contour at the south edge of the dome.

The dome itself, down to the 1500-foot contour, has a diameter of approximately 6500 feet. While data show that the caprock and salt extend much farther out than the 1500-foot contour it was not considered necessary to show this because it is not important to the purpose of this report.

Application of Geology:

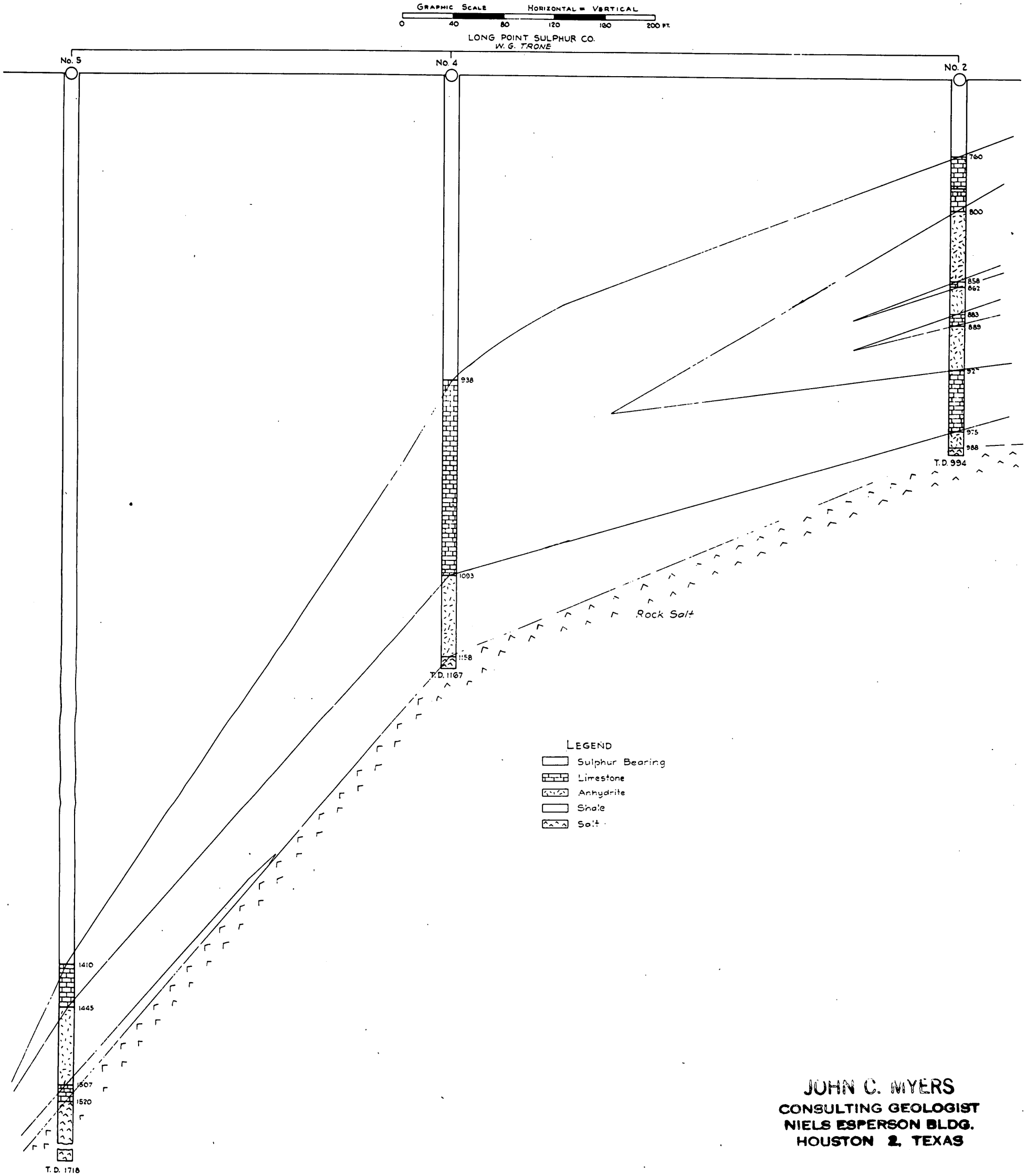
Prospecting on the Trone tract at the west side has proven that commercial production is available on this tract, but

not enough holes have been drilled to outline the prospective area. The attached cross section shows the character of the caprock from the No. 2 well through No. 4 down to No. 5 well. It can be seen from this that the No. 4 well is in the position where the greatest thicknesses of limestone caprock is present, and that in the No. 2 well the limestone zones are separated by anhydrite. This appears to indicate that in the position of the No. 4 well the caprock shows greater alteration than in the position of the No. 2 well.

One of the theories of the origin of caprock is that the gypsum of the caprock is of sedimentary origin and was deposited simultaneously with and over the salt body. The gypsum, therefore, capped the salt mass in its upward growth and, during the rise and the various stages of equilibrium of the salt mass, the vadose waters altered the gypsum into limestone on the one hand, and anhydrite on the other, so that sulphur became a by-product of this alteration. The sulphur, obviously, is directly connected with this alteration because it occurs in a transition zone between barren limestone above and barren anhydrite below.

The shale and sedimentary rocks above the caprock together with the barren limestone form the hanging wall, and the impervious anhydrite at the base forms the floor or footwall on this dome. The cross section illustrates this situation at Long Point in that more than one mineable zone is present. In the No. 2 well approximately from 780 feet down to 858 feet is one zone, and from 889 to 980 feet is a second zone. It appears that

CROSS SECTION-LOOKING NORTHWEST
LONG POINT DOME - S.W. FLANK
FORT BEND COUNTY TEXAS



JOHN C. MYERS
CONSULTING GEOLOGIST
NIELS ESPERSON BLDG.
HOUSTON 2, TEXAS

the caprock on the sulphur domes has been altered by vadose waters which come up from the periphery of the dome and alter the shoulder of the caprock more than they alter the top of the caprock, so that the sulphur is found in irregular patches in the form of a belt about the periphery or shoulder of the dome.

CALCULATION AND ESTIMATION

Method of Calculation:

The attached core records show in detail the character, where, and how much formation was included in the various sulphur-bearing zones, and also shows the appreciable footage barren of anhydrite or detrital material that was excluded from the percentages.

The percentage of sulphur is obtained by taking the percentage estimated per vertical foot for each well and determining the equivalent-feet-of-solid-sulphur and shown in the core records as "E.F.S.S.".

The altitude and base of each triangle was measured by scaling the distances from maps drawn on the scale of one inch equals two hundred feet. The map is attached hereto for ready reference.

The area in acres of each triangle is determined by calculating the square feet in each triangle and dividing it by the number of square feet in an acre. The average of the equivalent feet-of-solid-sulphur for the three wells, that make up the triangle, is considered the average equivalent feet-of-solid-sulphur for the triangle. This figure is multiplied by the number

of acres in the triangle to get the total acre-feet of solid sulphur for each triangle. The acre-feet of sulphur is then multiplied by a factor of 2500 to get the long tons of sulphur for each triangle. One acre-foot of sulphur weighs 2500 long tons.

Table I, attached hereto, shows the calculations of each triangle into acres. Table II shows the calculations of the average equivalent-feet-of-solid-sulphur for each triangle, and Table III shows the calculations from acre to tons of sulphur.

At the back of the report is a detailed estimate and description of each and every core taken from the seven wells used in the report.

Inaccuracy of Data:

The transition zone from limestone to anhydrite brings about many cavities of unequal number, size, and shape. Often in drilling a well the drill stem enters a cavity with the result that no sample or core is obtained, in which case the driller records "cavity" as an example of the formation penetrated. These cavities usually occur in the transition or sulphur zone. Other errors entering into the calculation are the slope of the hole in reference to the slope of the sulphur-bearing zone. Unquestionably the slope of the sulphur-bearing zone is such that the area is much greater than the surface area in acres projected upward to the surface from that zone, but this is compensated for by the greater vertical length of the sulphur-bearing zone penetrated by the drill, so that the amount of possible error from this source is not large, unless the hole deviates from the vertical such that the thickness of the sulphur-bearing zone, as

TABLE I

AREA OF TRIANGLES

Triangles	Base	Altitude	Quotient	Sq. Ft. in Area	Acres
"A"	1020	340	346,800	173,400	3.98
"B"	730	370	270,100	135,050	3.10
"C"	1320	210	277,200	138,600	3.18
"D"	1050	330	346,500	173,250	3.97
"E"	1010	170	171,700	85,850	1.97
				Total Acres	16.20

TABLE II

EQUIVALENT-FEET-OF-SOLID-SULPHUR

Triangles	Well #1	Well #2	Well #3	Well #4	Well #5	Well #9	Average
"A"	4.985	.46		6.195			3.880
"B"		.46		6.195		1.57	2.741
"C"		.46	.96			1.57	0.997
"D"	4.985			6.195	0.00		3.726
"E"				6.195	0.00	1.57	2.588

TABLE III

TONNAGE

Triangles	Area Acres	Average E.F.S.S.	Acre Ft. Sulphur	Long Tons of Sulphur
"A"	3.98	3.88	15.44	38,600
"B"	3.10	2.741	8.50	21,250
"C"	3.18	0.997	3.17	7,925
"D"	3.97	3.726	14.79	36,975
"E"	1.97	2.588	5.10	12,750
				117,500

shown by the drill, is approximately its true thickness. No corrections for the above factors are made in this report.

The outline of any given area, for the purpose of estimation of sulphur tonnage, is based in part on judgment and in part on the tonnage of sulphur estimated in individual wells, and the number of wells within a given area together with factors such as character of gangue and slope of the sulphur-bearing zone. All these must be considered as a whole.

Hot mine waters that are used in the mining of sulphur follow paths of least resistances and how far in any given direction water with an effective melting temperature will extend, is important to an accurate estimate. These mine waters affect the gangue to the detriment of good mining conditions in some cases. Theoretically then, if enough wells are drilled within a given area, all the sulphur will be recovered up to an economic limit. Therefore, from a practical standpoint, mining conditions enter into the program.

It is considered permissible to add or subtract from an area composed of triangles in estimating or determining, with good judgment, the tonnage of sulphur to a close approximation. In the present case, any acreage subtracted in one place would be added to in another so that the triangles are strictly adhered to. The prospective area was divided into triangles formed by drawing lines between three wells in such a manner that each triangle has the shortest leg possible. Designation of the triangle is given by letters of the alphabet.

G. W. TROWE LAND

A great many holes have been drilled by others on this tract but practically all of them, with the exception of two, were drilled for oil. The two that were drilled in prospecting for sulphur were drilled by the Jefferson Lake Sulphur Company. The samples of the latter two named wells are not available to the writer.

It can be seen from the map of the southwest flank of the dome that the Nos. 1 and 4 are the holes that carry the greatest equivalent-feet-of-solid-sulphur, and that these two wells lie between the 800 and 950-foot contour on the caprock. The triangles used have the shortest legs possible between prospect holes. It is acknowledged that these wells are too far apart to accurately judge the intervening area between them. Nevertheless, in making these calculations, it is found that better than 100,000 tons of sulphur are indicated and that with an additional well near the center of the triangles marked "A", "B", and "D" it is believed that a great deal of additional tonnage of sulphur will be indicated. It might be advisable to drill more than one well to these triangles, and an additional one near the center of triangle "C".

CORE RECORD

LONG POINT SULPHUR COMPANY #1 G.W. RONE

Date: 7-3-50

Top Caprock: 822'

Location: 135' each way from southeast corner of H&TC R.R. S[illegible] #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	844 - 856	4'	Porous limestone with shows of oil.	0	12	.00
2	856 - 857	1'	Dark limestone and calcite, very porous, shows of sulphur, fractured, calcite in veins.	0	1	.00
	857 - 859	2'	White limestone, sulphur showing in impregnations.	5	2	.10
	859 - 861	2'	Black limestone with veins of white calcitic limestone impregnated with sulphur.	1	2	.02
3	861 - 862	1'	Black and white streaked limestone, barren and porous.	0	1	.00
	862 - 865	3'	White and black porous limestone with sulphur inclusions.	1	3	.03
	865 - 866	1'	White sandy limestone porous with sulphur inclusions, much calcite in veins.	1	1	.01
4	866 - 868	2'	Casing gave way, had to stop to cement casing.	5	1	.05
			White limestone, porous sulphur impregnations.	1	1	.01
5	868 - 872	4'	Blue, calcareous, sandy shale, probably barren.	0	4	.00
	872 - 873	1'	Blue and white limestone, porous and brittle with sulphur inclusions, some amorphous.	Show	1	.00
6	873 - 878	5'	Criss-crossed seams of calcareous material in porous limestone, sulphur impregnations throughout.	8	5	.40
7	878 - 883	4'	White fine-grained limestone, looks like gouge material or Kaolinite. Bottom 1 foot has fault at 45%.	Trace	4	.00

LONG POINT SULPHUR COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
7	878 - 883	4'	1/2 of core, gray sand impregnated with sulphur. 1/2 of core white barren limestone.	Trace	1'	.00
8	883 - 887	4'	Gray sandstone with sulphur inclusions and some white limestone gouge material, irregular, very porous.	(Good) Show	4'	.00
	887 - 888	1/2	Shale, calcareous, sandy, some specks of sulphur.	Trace	1'	.00
9	888 - 890	2'	Blue shale, calcareous, no sulphur.	0	2'	.00
	890 - 892	2'	Sandy shale or shaley sand, much loose sulphur showing.	10	2'	.20
	892 - 893	1'	Black oily limestone with sulphur impregnations.	10	1'	.10
10	893 - 894.5	1/2	Blue sandy shale, non-calcareous. No sulphur shows.	0	1/2	.00
	894.5- 898	3½'	Porous, vuggy, limestone, blue calcite lined vugs. Sulphur inclusions.	Trace	3½'	.00
11	898 - 900	2'	Porous limestone, vugs and veins lined with black calcite crystals, sulphur inclusions.	Show	2'	.00
	900 - 903	3'	Same as above, with more sulphur inclusions.	5	3'	.15
12	903 - 908	5'	Black, porous, limestone, black calcite lining veins. Sulphur inclusions.	1	5'	.05
13	908 - 913	3½'	Porous limestone, with veins of sulphur throughout. Lost part, probably best ore.	2	5'	.10
14	913 - 916.5	3½'	Massive, porous, limestone, sulphur inclusions.	(Good) Show	3½'	.00
	916.5- 918	1/2	Limey sandstone with brecciated particles of shale. Nodules of white limestone, sulphur impregnated.	5	1½	.075
15	918 - 920	1'	Limey sandstone. Same as above.	0	2'	.00
	920 - 923	3'	Porous limestone, sulphur inclusions.	5	3'	.15
16	923 - 928	4'	Porous limestone, sulphur inclusions.	1	5'	.05

LONG POINT SULPHUR COMPANY #1 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
17	928 - 933	2'	Porous limestone, white with calcite veins, sulphur impregnated.	1	5'	.05
18	933 - 938	5'	Porous limestone with sulphur inclusions. 6" of limey sandstone, barren.	Trace	5'	.00
19	938 - 941	3'	Sandy limestone with sulphur inclusions.	Trace	3'	.00
	941 - 943	2'	Vesicular limestone, sulphur impregnations.	2	2'	.04
20	943 - 948	3½'	Same as above. Sandstone piece at top (6") must have come from above.	1	5'	.05
21	948 - 953	3'	Same as above, shale at top, came from above.	2	5'	.10
22	953 - 955.5	2½	Sand and sulphur.	50	2½'	1.25
	955.5- 957.5	1½	Dense, porous, limestone with some sulphur inclusions.	Trace	1½'	.00
	957.5- 959.5	1½	Sand and sulphur and lime, fragments 2" in diameter.	50	1½'	.75
	959.5- 961	2½	Vesicular limestone, some sulphur inclusions	0	2½'	.00
23	961 - 965.5	4½	Vesicular limestone, dark blue, slight inclusions of sulphur.	0	4½'	.00
	965.5- 967	1½	Sand, lime, and sulphur fragments.	50	1½'	1.25
	967 - 968	8"	Gypsum and anhydrite, dark blue, non-calcareous and barren of sulphur.	0	1'	.00
24	968 - 971.5	3½'	Gypsum and anhydrite, some sulphur inclusions in form of small flakes, and flakey gypsum	0	3½'	.00
	971.5- 982	10½'	Massive anhydrite (probably salt at bottom and lost).	0	3'	.00
25	982 - 985	8'	White, transparent salt, clean salt rock.	0	3'	.00
			Total equivalent-feet-of-solid-sulphur. .			4.985

LONG POINT SULPHUR COMPANY #2 G.W. TRONE

Date: 7-23-50

Top Caprock: 760'

Location: 1050' north and 200' west of southeast corner of H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	762 - 774	5	Dark, gray, massive, granular limestone, oil stained, barren of sulphur.	0	12	.00
2A	774 - 780½	4	Same as above.	0	6½	.00
2B	780½ - 783½	3	Same as above.	0	3	.00
	783½ - 785½	2	Dark, green, limey, shale, white limey breccia mixed into it, barren.	0	2	.00
	785½ - 787	2	White, porous, vesicular limestone, good show of sulphur.	1	2½	.125
3	787 - 788	1	Hard, massive, vesicular limestone 45° fracture filled with shale, barren.	1	1	.00
4	788 - 793	5	Same as above with pores or cavity filled with calcite crystals, show of sulphur 10° dip of fractures across core.	Show	5	.00
5	793 - 798	5	Same as above but is barren of sulphur.	0	5	.00
6	798 - 803	5	Top 2' same as above, bottom 3' more massive limestone, non-porous, barren.	0	5	.00
7	803 - 808	5	Top 2' white-bedded gypsum, next 12" of calcareous gypsiferous shale, brecciated. Bottom 2' gypsum with some seams filled with sulphur crystals.	Show	2	.00
8	808 - 813	5	Barren gypsum with show sulphur in top 4" of core, massive, not porous. Fracture 18" above bottom is 4" of crystalline gypsum in porous part of core.	0	5	.00
9	813 - 818	5	Massive, white gypsum with black seams like bedding planes, thin as paper throughout. 1" of white Kaolinitic gouge material.	0	5	.00
10	818 - 823	4	Top 6" gray shale, calcareous, rest of core			

LONG POINT SULPHUR COMPANY #2 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S
10	818 - 823	4	is massive, white gypsum, few specks of sulphur.	0	5	.00
11A	823 - 828	4	Top 1' limestone, few sulphur streaks, Next 2" massive gypsum; next 1' calcareous gypsum slightly porous, few crystals of sulphur.	0	5	.00
11B	828 - 833	5	Top 2' gypsiferous, porous limestone, with sulphur crystals; Bottom 3' massive gypsum.	Trace 0	2 3	.00 .00
12A	833 - 838	5	Massive gypsum, banding of crystals of gypsum barren of sulphur.	0	5	.00
12B	838 - 843	5	Massive gypsum, paper-thin banding of selenite, occasional crystal of sulphur.	0	5	.00
13A	843 - 848	5	Top 2" porous gypsum; 2' massive 45° banded gypsum; 10" porous gypsum with sulphur; bottom 3' massive gypsum, barren.	Trace	5	.00
13B	848 - 853	5	Massive gypsum, 4" of selenite in pores in center of core with trace of sulphur.	0	5	.00
14	853 - 858	5	Top 4' massive gypsum, barren and non-porous bottom 1' porous gypsum, selenite and sulphur crystals.	0	5	.00
15A	858 - 862	4	Dark, gray shale, calcareous, many white particles of non-calcareous clay.	0	4	.00
15B	862 - 867	4	Massive, white gypsum, banded at bottom, barren and non-porous.	0	5	.00
16A	867 - 872	4	Top 6" dark, gray, calcareous shale, massive, banded gypsum, barren and non-porous.	0	5	.00
16B	872 - 877	5	Massive, non-porous gypsum.	0	5	.00
17A	877 - 882	2	Massive gypsum, barren and non-porous.	0	5	.00
17B	882 - 883	1	Same as above 45° banding.	0	1	.00
18A	883 - 888	4	Calcareous shale, dark gray color.	0	5	.00
18B	888 - 893	4½	Top 18" dark, gray, calcareous shale, next 2' of massive limestone, 18" of massive gypsum, slightly porous, trace of sulphur.	0	5	.00

LONG POINT SULPHUR COMPANY #2 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
19A	893 - 898	5	Massive, barren gypsum, granular, minute spots of sulphur.	Trace	5	.00
19B	898 - 903	4	Same as above.	Trace	5	.00
20	903 - 913	4	Massive gypsum, few flakes or patches of sulphur, more porous in bottom 6", more sulphur at bottom and also calcite-lined vugs.	0	10	.00
21	913 - 923	2½	Top 6" fragments of gypsum, specks of sulphur. Bottom 2' massive gypsum, few sulphur inclusions.	Trace	10	.00
22	923 - 928	3	Top 2' massive gypsum, trace of sulphur inclusions.	0	3	.00
			Bottom 1' broken gypsum and calcite, sulphur inclusions.	5	2	.10
23	928 - 933	2	Top 1' dark, gray, calcareous shale.	0	1	.00
			Bottom 1' broken limestone with sulphur inclusions.	Trace	1	.00
24	933 - 935	2	Broken limestone, porous, trace of sulphur inclusions.	Trace	2	.00
25	935 - 938	3	Broken, porous limestone with sulphur inclusions throughout.	Show	3	.00
			Mine water broke in at 892-893 - used Baroid.			
26	938 - 940	2	Massive black, sugary limestone, few sulphur crystals.	Show	2	.00
27	940 - 942	2	Massive, vesicular limestone, barren, calcite seams.	0	2	.00
28	942 - 944	2	Same as above, few sulphur crystals.	0	2	.00
29	944 - 946	2	Same as above.	0	2	.00
30	946 - 948	2	Same as above.	0	2	.00

LONG POINT SULPHUR COMPANY #2 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
31	948 - 953	5	Massive, black limestone, vesicular, porous few flakes of crystalline sulphur.	1	5	.05
32	953 - 958	5	Same good gangue as above, some flakes of sulphur.	1	5	.05
33	958 - 963	5	Same as above.	1	5	.05
34	963 - 968	5	Top 1' same as above.	1	1	.01
			Bottom 4' same as above with sulphur crystals.	2	4	.08
35	968 - 974	3	Black, massive, vesicular limestone, few sulphur crystals, porous.	0	6	.00
36	974 - 979	5	Massive gypsum, light gray with few small flakes of sulphur (Top 6" black limestone)	0	5	.00
37A	979 - 984	5	Massive, white gypsum, barren.	0	5	.00
37B	984 - 988	4	Massive, white, barren gypsum.	0	4	.00
	988 - 994	6	Top rock salt 988'. Rock salt clear and opaque.	0	6	.00
			Total equivalent-feet-of-solid-sulphur			.46

LONG POINT SULPHUR COMPANY #3 G.W. TRONE

Date: 8-26-50

Top Caprock: 980'

Location: 2380' north and 150' west of the southeast corner H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
A	969 - 980	11	Top 10'8" calcareous, light gray shale. Bottom 1' gray limestone. Top cap rock.	0	11	.00
1	980 - 982	2	Massive, fractured limestone, seams filled crystalline calcite, barren of sulphur.	0	2	.00
2	982 - 987	3	Same as above, barren of sulphur, calcite oil stained. Failed to get casing down to top of cap rock, Had to set liner, therefore had to use smaller core barrel. Well blew out with gas. First mine water came in sulphurous and salty.	0	5	.00
3	987 - 992	5	Bottom 2' massive limestone with calcite seams, some specks of sulphur. Top 3' black calcareous shale, may be slough because of not landing liner properly.	0	5	.00
4	992 - 997	5	Top 3' black, calcareous shale slough. Bottom 2' massive, tight limestone, few specks of sulphur.	0	5	.00
5	997 - 1012	5	Brecciated, massive limestone, calcite seams oil show, barren of sulphur, small faults and fractures exhibited. There are fragments of hard, tight shale brecciated throughout.	0	5	.00
6	1012 - 1017	4	Top 1' calcareous, black shale, sandy, oil show. Bottom 3' massive, fractured black limestone seams filled with crystalline calcite, with sulphur crystals.	0	5	.00

LONG POINT SULPHUR COMPANY #3 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
7	1017 - 1022	5	Top 4' bluish, dark, shale, non-calcareous and barren.			
			Bottom 1' massive limestone, gray, few specks of sulphur crystals.	0	5	.00
8	1022 - 1027	5	Top 2' shale muck, may be from up hole. Next 2' dark blue brecciated shale with sand breccia conchoidal-fracture fragments, non-calcareous.			
			Bottom 1' compact, gray limestone, all barren of sulphur.	0	5	.00
9	1027 - 1032	2½	Massive limestone with calcite seams, porous, flakes of crystalline sulphur.	0	5	.00
10	1032 - 1038	4	Porous, massive limestone with calcite seams and crystalline sulphur.	2	6	.12
11	1038 - 1043	5	Top 3' shale mud, calcareous slough; 6" non-calcareous, dark blue shale, conchoidal fractures.	0	3½	.00
			Bottom 1'6" porous, massive limestone with calcite seams and crystalline sulphur, vertical or nearly vertical seams or fractures badly fractured and porous.	2	1½	.03
12	1043 - 1048	5	Top 2' shale muck; 6" dark blue shale, non-calcareous conchoidal fracture.	0	2½	.00
			Bottom 2½' massive limestone with calcite seams and crystalline sulphur, porous.	5	2½	.125
13	1048 - 1053	4	Top 6" shale muck, barren of sulphur.	0	1	.00
			Bottom 3½' massive, brecciated limestone with calcite seams, vesicular in part of core, porous.	5	3½	.125
14	1053 - 1058	5	Top 1' shale, calcareous muck.	0	1	.00
			Next 2' massive limestone with calcite seams and crystalline sulphur.	7	2	.21

LONG POINT SULPHUR COMPANY #3 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
14	1053 - 1058	5	Bottom 2' massive limestone porous, calcite vugs and seams, few flakes of crystalline sulphur.	0	2	.00
15	1058 - 1063	2	Massive, fine-grained limestone, few flakes of crystalline sulphur.	5	5	.25
16	1063 - 1068	5	Top 4' shale muck, barren, slough. Bottom 6" massive limestone, tight, barren, light gray color.	2	4	.08
			Next 6" black limestone, vesicular in character, few sulphur crystals.	2	1	.02
17	1068 - 1073	3	Black, sandy limestone, vesicular, porous, calcite seams, few crystals of sulphur.	0	5	.00
18	1073 - 1078	3	Top 6" shale muck, barren. Next 2' sandy textured, massive limestone, barren of sulphur. 6" massive, white, sugary gypsum and barren.	0	5	.00
19	1078 - 1088	6	Massive, white gypsum, barren.	0	10	.00
20	1088 - 1098	5½	Top 6" black, vesicular limestone with seams of calcite and crystalline sulphur. Next 2' 10" massive, barren, sugary gypsum. Next 2" lime with calcite and sulphur flakes. Next 2' massive, barren, sugary gypsum.	0	10	.00
21	1098 - 1108	10	Massive, sugary gypsum, barren of sulphur.	0	10	.00
22	1108 - 1118	10	Massive gypsum, barren of sulphur.	0	10	.00
23	1118 - 1128	5	Massive gypsum, barren of sulphur.	0	10	.00
	1128 - 1133	5	Massive gypsum, barren of sulphur.	0	5	.00
	1133 - 1138	5	Massive gypsum, barren of sulphur.	0	5	.00

LONG POINT SULPHUR COMPANY #3 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S
24	1138 - 1157	19	Top 13' mucky shale. Middle 2' shale. Bottom 4' gypsum.	0	19	.00
25	1157 - 1168	11	Top 8' mucky shale. Bottom 3' gypsum.	0	11	.00
26	1168 - 1178	10	Top 4' massive gypsum, barren of sulphur. Bottom 6' salt. Gypsum-salt contact dip 30°.	0	10	.00
27	1178 - 1198	2"	Rock salt.	0	20	.00
			Total equivalent-feet-of-solid-sulphur			.96

LONG POINT SULPHUR COMPANY #4 G.W. TRONE

Date: 10-4-50

Top caprock: 938'

Location: 1050' north and 580' west of the southeast corner of H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S
1	920 - 925	5	Dark gray, calcareous shale.	0	5	.00
2	925 - 930	5	Dark gray, calcareous shale.	0	5	.00
3	930 - 938	8	Dark gray, calcareous shale.	0	8	.00
	938 - 943	2	Mealy, light gray limestone, oil stained, barren of sulphur.	0	5	.00
4	943 - 948	5	Very dense, light gray limestone, with seams of porous calcite, barren of sulphur.	0	5	.00
5A	948 - 953	2	Porous, dark gray limestone and gray calcite 90% calcite, barren of sulphur.	0	5	.00
5B	953 - 958	5	Porous, dark gray limestone with calcite, 80% calcite, all badly stained with fresh oil.	0	5	.00
6	958 - 963	5	Dark gray or black, porous limestone seams of calcite badly oil stained, vertical or near vertical seams, barren of sulphur.	0	5	.00
7A	963 - 968	5	Same as core No. 6. Calcite is a replacement, oil stained.	0	5	.00
7B	968 - 973	5	Same as Core No. 6, more porous than above, oil stained.	0	5	.00
8A	973 - 978	3	Same as Core No. 6, only more porous, oil stained.	0	5	.00
8B	978 - 983	5	Same as Core No. 6, only more porous and the percentage of calcite increased to 10%.	0	5	.00
9A	983 - 988	1	Same as Core No. 6, only more porous with percentage of calcite increasing, causing loss of core.	0	5	.00
9B	988 - 993	2	Same as Core No. 6 except for 6" core of white gouge material near center, oil stained.	0	5	.00
10A	993 - 996	2	Top 16" same as Core No. 6, oil stained.	0	5	.00

LONG POINT SULPHUR COMPANY #4 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
10A	993 - 996	2	Next 6" calcareous shale. Bottom 6" same as Core No. 6. Shale may or may not be in place.	0	3	.00
10B	996 -1001	5	Upper 3' dark gray, porous limestone with 20% calcite, oil stained.	0	2½	.00
			Bottom 2' dark gray limestone, porous and calcite. 60% calcite, good crystalline sulphur impregnations. Dip 45 to 50 degrees.	10	2½	.25
11	1001 -1006	5	Top 2' porous limestone with calcite and sulphur inclusions and impregnated sulphur.	10	2	.20
			Middle 1' dense limestone with porous calcite seams, barren of sulphur.	0	1	.00
			Bottom 2' porous, dark gray limestone with sulphur crystals and impregnations of sulphur throughout.	25	2	.50
12	1006 -1011	5	Top 4' is porous limestone with sulphur impregnations.	10	4	.40
			Bottom 1' dense, light gray, dolomitic limestone, trace of sulphur.	0	1	.00
13	1011 -1014	3	Light gray, tight, dolomitic, dense limestone with crystalline sulphur inclusions.	2	3	.06
14	1014 -1017	2	Same as Core No. 13.	5	3	.15
15	1017 -1024	5	Same as Core No. 13, more sulphur inclusions and impregnations.	25	7	1.75
16	1024 -1029	2	Dense limestone with calcite seams, traces of sulphur.	0	5	.00
17	1029 -1036.5	5	Top 1' dense brecciated, light gray shale. Barren of sulphur. (2½' cavity in this core near center).	0	1	.00
			Next 2" is 90% mealy, calcite oil stained, with traces of sulphur.	0	4½	.00
			Next 1' calcite and sulphur.	Trace	1	.00
			Bottom 1' dense, gray limestone, some sulphur crystals.	25	1	.25

LONG POINT SULPHUR COMPANY #4 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
18	1036.5-1042	5½	Porous, brecciated limestone with sulphur inclusions and impregnations.	2	5½	.11
19	1042 -1047	5	Porous, brecciated limestone with 10% seams of oil-stained calcite, show of sulphur.	Show	5	.00
20	1047 -1052	5	Light gray, dense, dolomitic limestone with crystalline sulphur impregnated in it, some of it is sandy and carries seams of calcite, all brecciated somewhat.	25	5	1.25
21	1052 -1057	5	Top 2' dark gray dense limestone, some sulphur crystals.	0	1	.00
			Bottom 3' is porous gray to black limestone with sulphur impregnated in it.	20	4	.80
22	1057 -1062	5	Dense, gray limestone porous, traces of sulphur except for middle 1' of limestone with good sulphur show.	15	1	.15
23	1062 -1067	5	Top 1' dark gray, porous limestone with sulphur.	10	1	.10
			Bottom 4' porous, gray limestone with some sulphur crystals.	0	4	.00
24	1067 -1072	3	Top 1' calcite and limestone, some sulphur	0	1	.00
			Bottom 2' porous limestone with sulphur inclusions.	5	2	.10
25	1072 -1077	1	Top 6" dense, dark gray, brecciated limestone with oil-stained calcite and sulphur crystals.	5	2½	.125
			Bottom 6" porous limestone, traces of sulphur	0	2½	.00
26	1077 -1082	4	Dark gray, porous, brecciated limestone, some sulphur showing.	0	5	.00
27	1082 -1087	5	Dark gray, porous limestone and some white amorphous calcite, some sulphur crystals.	0	5	.00
28	1087 -1092	3	Same as Core No. 27 except for absence of sulphur.	0	5	.00

LONG POINT SULPHUR COMPANY #4 G.W. Trone

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
			Reduce 5" cores at this point to 2½" cores because they got stuck.			
29	1092-1097	5	Top 1' same as Core No. 28. Bottom 4' anhydrite. Barren of sulphur.	0	5	.00
30A	1097-1105	5	Dense, dark gray anhydrite, barren of sulphur	0	8	.00
30B	1105-1112	7	Dense, dark gray, barren anhydrite.	0	7	.00
31A	1112-1120	2	Dense, dark gray, barren anhydrite.	0	8	.00
31B	1120-1130	5	Dense, dark gray, barren anhydrite.	0	10	.00
32A	1130-1143	13	Dense, dark gray, barren anhydrite.	0	13	.00
32B	1143-1148	5	Dense, dark gray, barren anhydrite.	0	5	.00
33A	1148-1153	5	Dense, dark gray, barren anhydrite.	0	5	.00
33B	1153-1158	5	Dense, dark gray, barren anhydrite.	0	5	.00
33B	1158-1162	0	Drilled like salt, believed to be top of salt.	0	4	.00
34	1162-1167	0	Did not recover core but did get some salt brine, believed to be salt.	0	5	.00
			Total equivalent-feet-of-solid-sulphur.			6.195

LONG POINT SULPHUR COMPANY #5 G.W. TRONE

Date: 11-16-50

Top Caprock: 1410'

Location: 860' north and 880' west of the southeast corner H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
A	1026 - 1031	5	Top 6" gumbo (red). Rest of core light green conchoidal fractured shale.	0	5	.00
Drld.	1031 - 1056		Sedimentary beds.	0	0	.00
Drld.	1056 - 1066		Sedimentary beds.	0	0	.00
1	1051 - 1068	2	Hard, dense sandstone (like whetstone) apparent dip 60°, calcareous.	0	7	.00
2A	1068 - 1073	5	Top 8" hard, dense, calcareous sandstone, Dip 10°. Bottom 4'4" dark gray, calcareous shale.	0	5	.00
2B	1073 - 1078	4	Calcareous, dark, greenish, slick, fractured shale. Dip 45°.	0	5	.00
2C	1078 - 1083	5	Same as above except dip 45° vertical, slickensides and fractures.	0	5	.00
3A	1083 - 1090.5	7½	Top 2' same as above, Middle 4' is calcareous packed sand, no show or odor. Rest light green shale 25° dip with small fragments of hard lime, showing stress fractures. This lime appears to divide shaley sand from shale at bottom.	0	7½	.00
3B	1090.5- 1098	7½	Top 3' light green shale. Flat dip. 6" hard sandy limestone. 3' sandy, light green shale, calcareous. Bottom 1' white, calcareous sand, some pyrite throughout and small concretions with geods in center, highly calcareous.	0	7½	.00
4	1098 - 1113	15	Top 12' light green sand, gaseous odor, some free oil. 1' calcareous sandstone. Dark gray, sandy shale on bottom 2'.	0	15	.00

LONG POINT SULPHUR COMPANY #5 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
5A	1113 - 1118	3	Dark gray, sandy, calcareous shale. Bottom 2' calcareous sandstone 20° dip, cavernous.	0	5	.00
5B	1118 - 1123	3½	Porous, hard, calcareous, sandstone, no show of oil or gas.	0	5	.00
6	1123 - 1128	4	Hard, cavernous, black, calcareous sandstone. Barren of sulphur, oil or gas.	0	5	.00
7	1128 - 1133	3½	3' same as Core #6. Bottom 6" calcareous shale may be sloughed into hole.	0	5	.00
8	1133 - 1138	3	2' same as Core #6. 1' calcareous, sandy shale may be sloughed into hole.	0	5	.00
9	1138 - 1143	3	Sandy, calcareous shale, may be sloughed into hole. Some fragments of porous sandstone. Same as Core #6.	0	5	.00
10	1143 - 1153	1	Fragmentary, bottom 2" hard, dense limestone, then 3" sloughed shale. Thin fragments of dense limestone with seams of calcite, barren of sulphur.	0	10	.00
11	1153 - 1166	6	Sandy shale, light green, dip 5°, No shows of oil or gas.	0	13	.00
12A	1166 - 1171	5	Light green, slickensided shale, mealy texture for 3' and then 2' cavernous limestone, dense with calcite seams. Quicksand found in caverns.	0	5	.00
12B	1171 - 1176	5	Top 1' quicksand, green and coarse. Bottom 4' mealy, light greenish-blue shale.	0	5	.00
13	1176 - 1191	5	1' fragments of limestone and sandstone from uphole perhaps; 4' bluish-green calcareous shale, one lime concretion; white fragments of lime in bottom 6" of shale.	0	15	.00
Drld.	1191 - 1283		Bit sample from 1279-83' is hard, sandy lime. Bit sample from 1283-86' is hard, sandy lime.	0	92	.00
14	1283 - 1301	4	Top 2" hard limestone, sandy oil odor, with			

LONG POINT SULPHUR COMPANY #5 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
14	1283 - 1301	4	fossil pectens; 18" hard, sandy limestone, cavernous, dark gray, barren; 18" sandy shale, slight gas odor. Bottom 10" porous gray, sandy limestone with oil and gas odor.	0	18	.00
15A	1301 - 1308	6	Sandy shale and shale, 45° dip, strong odor of oil and gas.	0	7	.00
15B	1308 - 1315	6	Same as Core #15A.	0	7	.00
16A	1315 - 1325	5	Sandy shale, show of oil and gas, odor strong.	0	10	.00
16B	1325 - 1335	5	Sandy shale and shale, slight gas odor.	0	10	.00
Drld.	1335 - 1418		1335-1410' sandy shale and shale. 1410-1417' limestone caprock with selenite crystals.	0	83	.00
17	1418 - 1428	6	Top 2½' cavernous limestone with white calcite seams 50-50; 2' calcareous, dark green shale sloughed into hole perhaps; Bottom 18" porous limestone with seams of white calcite barren of sulphur.	0	10	.00
18	1428 - 1440	2	Porous, dark gray, cavernous limestone, badly oil stained. Same as Core #17 lime, all barren of sulphur.	0	12	.00
19A	1440 - 1445	2½	Cavernous, gray limestone, strong gas odor, barren of sulphur.	0	5	.00
19B	1445 - 1450	5½	Top 2" cavernous limestone, oil stained. Rest is dense, dark gray anhydrite. Top anhydrite 1444.5'.	0	5	.00
20A	1450 - 1455	5	Top 4' light green shale and sand, strong odor of gas. Pecten fragments in shale. Bottom anhydrite oil stained, barren of sulphur.	0	5	.00
20B	1455 - 1460	5	Top 3' dense, sugary anhydrite, partly oil stained. 60° fractures, 2" dense, black limestone, oil stained. 2' of dense, sugary anhydrite, oil stained in spots. Barren of sulphur.	0	5	.00

LONG POINT SULPHUR COMPANY #5 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
21A	1460 - 1470	10	Two inches brecciated limestone, calcite seams Rest is dense, sugary textured, oil stained, growth lines 65° angle. Barren of sulphur.	0	10	.00
21B	1470 - 1480	10	Dense, oil stained, sugary anhydrite. Barren of sulphur.	0	10	.00
22	1480 - 1500	6	Top 1' sand and shale, sloughed into hole, Rest is dense, sugary, very hard anhydrite barren of sulphur, oil stained at top.	0	20	.00
23A	1500 - 1507	5	Top 3" brecciated limestone, may have fallen into hole. Rest of core is massive, dark gray, sugary anhydrite. Strong gas odor, barren of sulphur.	0	7	.00
23B	1507 - 1518	11	Dense, sugary, dark gray, massive anhydrite. No fractures, barren of sulphur.	0	11	.00
24	1518 - 1538	6	Top 4½' sandy shale and sand, sloughed into hole. Bottom 1½' dense anhydrite, barren. Core barrel plugged, probably after 1½ to 2' of anhydrite, then coring time changed probably indicating change in formation at 1520'. May be top of salt.	0	20	.00
25	1538 - 1558	6"	Brecciated limestone fragments, probably sloughed into hole as it is same material as occurs in many cores at top. Believe core was taken entirely in rock salt.	0	20	.00
						.00

LONG POINT SULPHUR COMPANY #6 G.W. TRONE

Date: 1-11-50

Top Caprock: 1305.54'

Location: 1785' north and 665' west of the southeast corner of H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
A	947 - 955	5	Dip 45°, massive, porous, friable, hard, calcareous sandstone, coarse and barren of sulphur.	0	8	.00
B	955 - 970	5	Massive, bedded sandstone, barren of sulphur. 45° dip, coarse, friable, calcareous, brecciated.	0	15	.00
1A	978 - 984	6	Massive, cavernous, lignitic sandstone. Barren of sulphur or oil, dip 45°, calcareous and hard. Some calcite veins.	0	6	.00
1B	984 - 988.5	1½	Same as above.	0	4½	.00
2A	988.5 - 994.5	6	Same as above with lignitic and porous, some spots of black oil.	0	6	.00
2B	994.5 -1002	4	Same as above, no oil showing.	0	7½	.00
3A	1002 -1011.59	5	Top 4' same as above with spots of oil showing. Bottom 1' green, calcareous shale.	0	9½	.00
3B	1011.59-1017.59	6	Top 1' shale at top (same as above shale). Bottom 5' hard, porous, cavernous, calcareous sandstone, saturated with black oil (15.5°).	0	6	.00
4A	1017.59-1025.09	6	Top 6" sand, saturated with oil, fault gouge at bottom. Next 3' of sand, green, coarse-grained, friable and has no oil in it, therefore fault gouge separates two sands, top saturated, bottom barren of oil. Bottom 2½' of green sandy shale.	0	7½	.00
4B	1025.09-1032.59	6	Top 18" dark green shale. Next 3½' calcareous massive sand. Bottom 1' green shale, 45° dip. All of core barren of oil and sulphur.	0	7½	.00

LONG POINT SULPHUR COMPANY #6 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
5	1032.59-1047	5	Top 2' sandy shale. Bottom 3' fine, white sand, all barren of sulphur.	0	14⅓	.00
6	1047 -1062	2	Soft, medium-grained water sand.	0	15	.00
7	1062 -1082.25	2	Soft, medium gray, water sand.	0	20¼	.00
8	1082.25-1097.82	6	Hard, firm, coarse sand to medium water sand.	0	15½	.00
9A	1097.82-1105.32	7½	Top 6½' soft, loose, fine to medium sand. Bottom 1' blue, non-calcareous shale.	0	7½	.00
9B	1105.32-1112.82	6	Bluish-green, sandy shale.	0	7½	.00
10A	1112.82-1118	6	Sandy shale, fossiliferous, casts of worm borings. Borings smell of oil.	0	6	.00
10B	1118 -1123	5	Bluish-green shale with worm borings. Dip 54° and 30'.	0	5	.00
10C	1123 -1128	5	Same as above, but calcareous.	0	5	.00
11A	1128 -1132	4	Same as above.	0	4	.00
11B	1132 -1137	5	Sandy shale - worm borings.	0	5	.00
11C	1137 -1142	5	Green, sandy shale. Dip same as above.	0	5	.00
12A	1142 -1148	6	Dark green, sandy shale.	0	6	.00
12B	1148 -1155	7	Top 3' sand - shaley. Bottom 5' green, sandy shale, mostly shale.	0	7	.00
13A	1155 -1162	6	Top 4' green shale. Bottom 2' fossiliferous shaley sand, nest of pectens.	0	7	.00
13B	1162 -1169	7	Top 2' green shale. 6" fine, soft sand (water sand). 6" of green shale; 2' shaley sand; 2' green shale.	0	7	.00
14	1169 -1179	10	Top 9' shale. Bottom 1' calcite and lime, all barren of sulphur.	0	10	.00
Drld.	1179 -1183.22		Bit sample is green shale.	0	4	.00
15A	1183.22-1193.22	5	Blue shale.	0	10	.00
15B	1193.22-1203.22	5	Dark gray shale with bottom 2" lime nodule.	0	10	.00
16	1203 -1211.5	5	Dark gray shale, some lime nodules.	0	7½	.00
17	1211.5 -1221.5	2	Dark gray shale.	0	10	.00
Drld.	1221.5 -1259		Drilled like shale.	0	38	.00

LONG POINT SULPHUR COMPANY #6 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
18	1259 -1265	4	Hard, firm, calcareous sandstone with streaks of white calcite, brecciated.	0	6	.00
19A	1265 -1275	4	Same as above.	0	10	.00
19B	1275 -1285	4	Same as above.	0	10	.00
20	1285 -1295	5	Bluish-green shale.	0	10	.00
Drld.	1295 -1306.54		1295-99' shale, 5 minutes per foot. 1299-1300' shale. 1302-1305' shale. 1305.54' top of caprock. 1305.54-1306.54' took 25 minutes. Lost returns at bottom.	0	11¼	.00
21	1306.54-1311.54	3	Dark gray limestone, barren of sulphur. Saturated with dead oil.	0	5	.00
22	1311.54-1316.54	5	Massive anhydrite, barren of oil and sulphur.	0	5	.00
23A	1316.54-1321.54	1½	Massive, barren anhydrite.	0	5	.00
23B	1321.54-1327.27	5	Massive anhydrite, barren of sulphur.	0	5-3/4	.00
24	1327.27-1340.77	5	Same as above with oil show in fracture.	0	13-1/2	.00
25	1340.77-1360.77	2	Same as above, barren of sulphur.	0	20	.00
26A	1360.77-1370.77	2½	Same as above.	0	10	.00
26B	1370.77-1380.77	3	Same as above.	0	10	.00
27A	1380.77-1390.77	4	Same as above.	0	10	.00
27B	1390.77-1400.77	4	Same as above.	0	10	.00
28A	1400.77-1409.77	6	Same as above.	0	9	.00
28B	1409.77-1416.77	6	Same as above.	0	7	.00
28C	1416.77-1423.77	6	Same as above.	0	7	.00
29A	1423.77-1429.77	4	Same as above, massive, sugary anhydrite.	0	6	.00
29B	1429.77-1436.77	4	Same as above.	0	7	.00
29C	1436.77-1443.77	5	Same as above.	0	7	.00
30A	1443.77-1453.77	4	Same as above.	0	10	.00
30B	1453.77-1460.77	5	Same as above.	0	7	.00

LONG POINT SULPHUR COMPANY #6 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
31A	1460.77-1470.77	1½	Same as above.	0	10	.00
31B	1470.77-1480.77	4	Anhydrite, some free oil in cores.	0	10	.00
32	1480.77-1489.53	5	Anhydrite. By means of drilling, the top of salt is estimated at 1485.03'. Light, gravity-free oil in anhydrite.	0	8-3/4	.00
33	1489.53-1509.53	0	Bit plugged, drilled like salt.	0	10	.00
						.00

LONG POINT SULPHUR COMPANY #9 G.W. TRONE

Date: 3-23-51

Top Caprock: 944'

Location: 1750' north and 390' west of the southeast corner of H&TC R.R. Sur. #67, Ft. Bend County, Texas.

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
1	898 - 920.75	6-3/4	Medium-grained salt and pepper sand, oil show in top; 6'9" of dry, calcareous shale dark gray color.	0	22-3/4	.00
2	920.75- 926	4	Dark blue, sandy shale. 45° dip.	0	5-1/4	.00
Drld.	926 - 946.44		Cutting blue shale from 926-944'. 944-946' blue limestone cuttings. Top of caprock.	0	20-1/2	.00
Drld.	946.44- 947.78		Cuttings blue limestone with calcite crystals.	0	1-1/4	.00
3	947.78- 956.28	5-3/4	Top 3" porous blue limestone with veins of calcite with oil odor. Next 2' of blue shale, non-calcareous. 2½' of brecciated gray, sandy limestone and calcite. 1' of sand, porous limestone, badly broken, plugged barrel.	0	8-1/2	.00
4	956.28- 977	5-1/2	5½' dark gray, massive limestone with large seams of calcite throughout. Shows of oil, free oil on cores.	0	20-3/4	.00
5	977 - 982	5	Top 6" gray, fine limestone, massive and tight. 4½' gray limestone and calcite seams (50-50), free oil on cores. Barren of sulphur. First mine water at 977.5'.	0	5	.00
6A	982 - 987	5	5' of dark gray limestone with irregular seams of calcite. Free oil showing. Barren of sulphur.	0	5	.00
6B	987 - 992	5	5' of porous, massive limestone with 50% calcite seams. Free oil. Barren of sulphur.	0	5	.00

LONG POINT SULPHUR COMPANY #9 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
7A	992 - 997	4	Porous, massive limestone with 50% calcite, free oil. Barren of sulphur. Mine water broke in for few minutes while coring.	0	5	.00
7B	997 -1002	4.6	3'6" massive limestone, calcite seams, free oil. Barren of sulphur.	0	4	.00
			Bottom 1 foot massive limestone and calcite sulphur inclusions.	7	1	.07
8	1002 -1007	4	Dark gray limestone with 20% calcite, some crystalline sulphur.	Trace	5	.00
9	1007 -1011	3	Porous, gray limestone with veins of calcite, few small specks of crystalline sulphur.	0	4	.00
10	1011 -1016	5	Dark gray, massive limestone, some crystalline sulphur. Traces of sulphur except at bottom where one 2" piece had some shows of sulphur.	0	5	.00
11	1016 -1021	20"	6" of finely disseminated crystalline sulphur.	20	6"	.10
			Remainder of core has small traces of sulphur.	0	4½	.00
12	1021 -1026	5	Top 3' massive, porous limestone. Mine water broke in. Barren of sulphur.	0	3	.00
			Bottom 2' dark gray, massive limestone with sulphur inclusions.	10	2	.10
13	1026 -1031	4	Dark gray limestone with sulphur inclusions, 50% and 50% dark gray shale.	5	5	.25
14	1031 -1034.75	3.75	Dark gray, calcareous shale in top 3'.	0	3	.00
			Bottom 9" is gray limestone with sulphur crystals.	5	3/4	.0375
15	1034.75-1038.5	3.75	Massive, porous, gray limestone impregnated with sulphur. 1' sulphur show in center	20	1	.20
				Trace	2-3/4	.00

LONG POINT SULPHUR COMPANY #9 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
16	1038.5 -1041	2½	Gray, massive limestone. Traces of sulphur impregnations.	0	2½	.00
17	1041 -1044.5	3	Shale and limestone 50-50 with sulphur inclusions of crystals and amorphous sulphur	Trace	3½	.00
18	1044.5 -1046.5	2	Limey shale with sulphur crystals. Badly broken and mixed.	10	2	.20
19	1046.5 -1051.5	5	Massive limestone porous with sulphur inclusions, not more than trace.	Trace	5	.00
20	1051.5 -1056.5	4½	Massive, porous, gray limestone with sulphur inclusions.	5	5	.25
21	1056.5 -1061.5	2	Massive limestone few specks of crystal sulphur. Oil showing.	0	5	.00
22	1061.5 -1067	5½	Massive, porous limestone with calcite crystals, oil show. Few small specks of crystalline sulphur.	0	5½	.00
23	1067 -1071	4	Gray, broken, porous limestone with sulphur inclusions.	2	4	.08
24	1071 -1075.78	2.78	Cut 1-foot then 2-foot cavity, recovered 2.78' broken limestone, traces of sulphur	Trace	4.78	.00
25	1075.78-1079	5	Massive, dark gray limestone with sulphur inclusions. Part of Core #24 recovered.	5	5	.25
26	1079 -1083	4	Massive, dark gray, porous limestone. Few traces of crystalline sulphur.	0	4	.00
27	1083 -1087.5	3½	Top 2¾' massive, porous, dark gray limestone few sulphur crystals. Bottom 1¾' massive gypsum-anhydrite.	0	4½	.00
28	1087.5 -1093	4	Massive anhydrite, barren of sulphur.	0	5½	.00
29A	1093 -1096.5	3	Massive anhydrite, top 2' barren. Bottom 1' has sulphur inclusions.	Trace	3½	.00

LONG POINT SULPHUR COMPANY #9 G.W. TRONE

Core No.	Depth	Rec.	Formation	Sul.%	Dist. Cored	E.F.S.S.
29B	1096.5 -1101.5	5	Top 3' massive anhydrite, some sulphur. Bottom 2' dark gray limestone with sulphur inclusions.	2	2	.04
30A	1101.5 -1108.5	7	Massive, limey gypsum. Top 2' carries sulphur inclusions. Rest of core barren.			
30B			Massive gypsum-anhydrite, barren of sulphur.			
30C			Massive gypsum-anhydrite, barren of sulphur.	Trace	7	.00
31	1108.5 -1113.5	5½	Massive gypsum-anhydrite. Barren of sulphur.	0	5	.00
32	1113.5 -1132.5	17	Top 17' massive anhydrite, barren of sulphur. Bottom 2' drilled like salt.	0	19	.00
33	1132.5 -1136.5	2"	Fragments of rock salt.	0	4	.00
			Total Equivalent-Feet-of-Solid-Sulphur			1.57

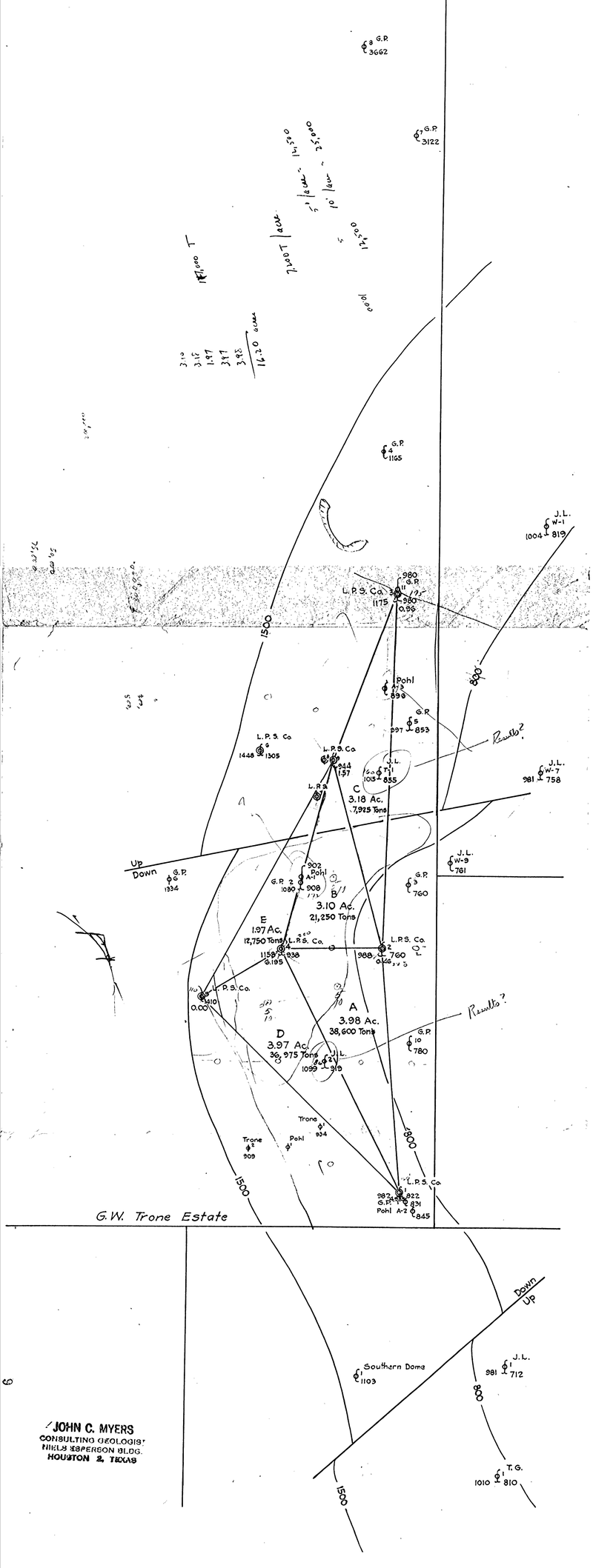
LONG POINT DOME - S. W. FLANK
FORT BEND COUNTY - TEXAS
Scale: 1 in. = 200 ft.

LEGEND

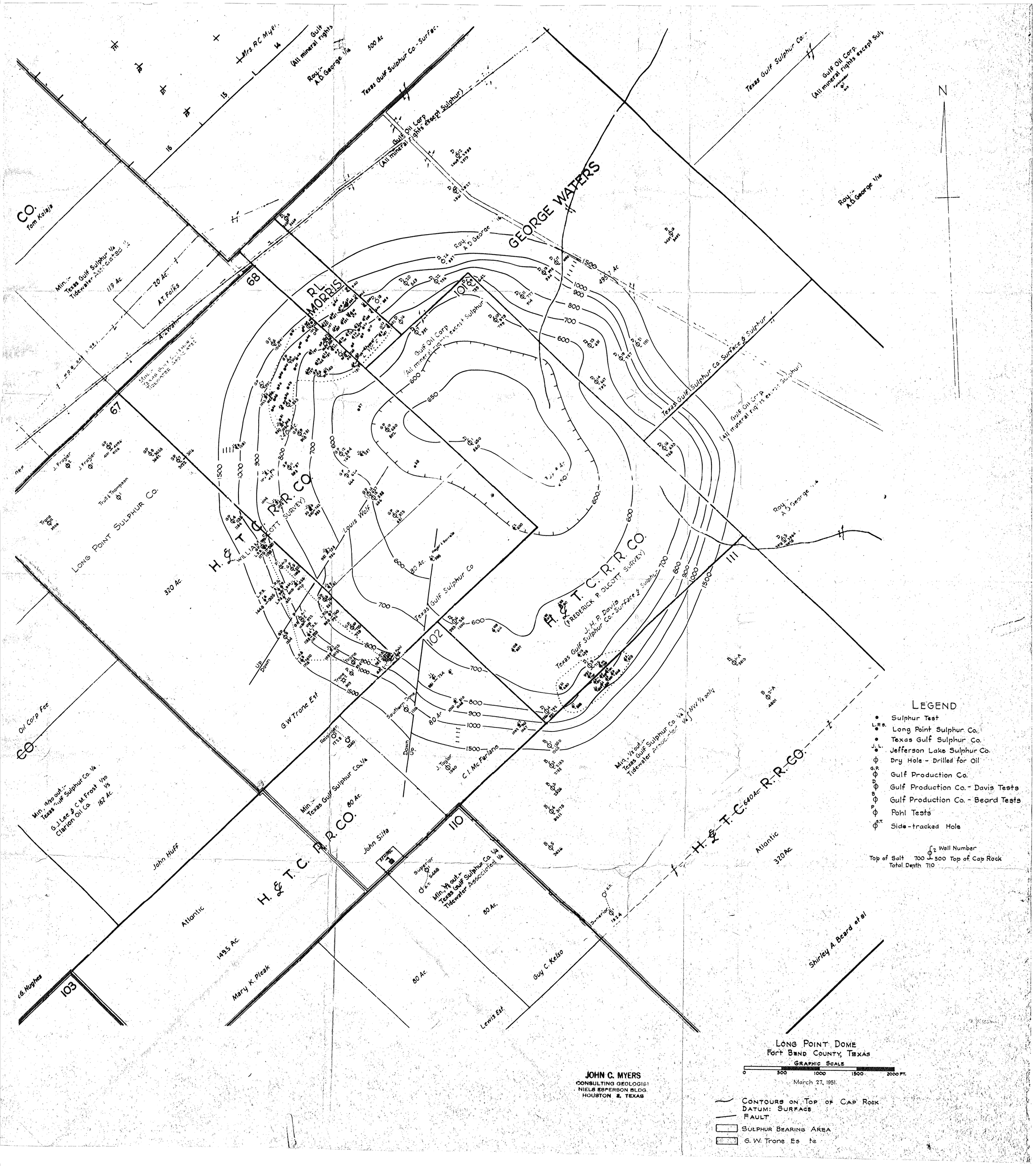
- ◎ L.P.S. - Long Point Sulphur Co.
- ○ G.P. - Gulf Production Co.
- ○ J. L. - Jefferson Lake Sulphur Co.
- ϕ 1 Well Number
- Top Salt 1000 ⊥ 750 Top Cap
- Contours on Top Cap Rock. Datum: Surface
- Fault
- Sulphur Bearing Area

March 27, 1951

5 Red Figure under well is Equivalent Fee of Solid Sulphur

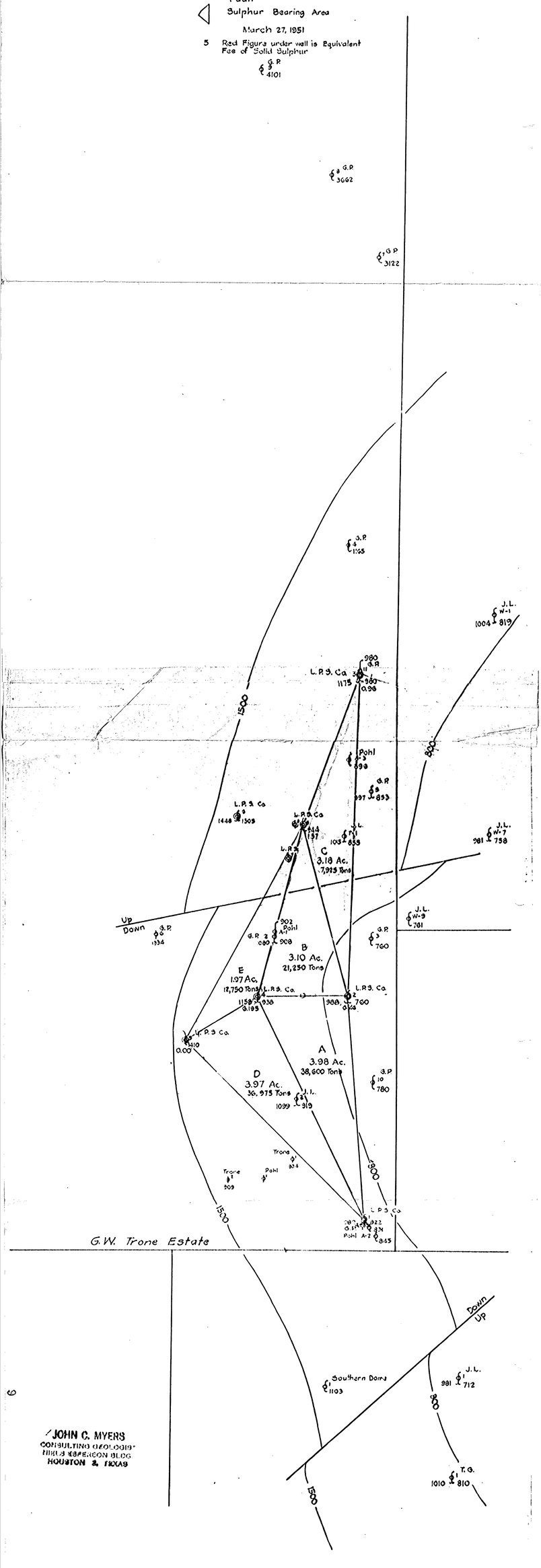


JOHN C. MYERS
CONSULTING GEOLOGIST
NIELS ESPERSON BLDG.
HOUSTON 2, TEXAS


GEORGE WATERS
R.L. MORRIS
H. & T. C. R.R. CO.
LONG POINT SULPHUR CO.
Texas Gulf Sulphur Co.
Gulf Oil Corp.
(All mineral rights except Sulphur)
Texas Gulf Sulphur Co. - Surface
Texas Gulf Sulphur Co. - Surface & Sulphur
Roy. A.B. George 1/16
Mrs. R.C. Myers
Tom Kolaja
A.T. Folks
A.T. Walker
J. Frazier
Trull & Thompson
Louis Wolf
J.H.P. Davis
(FREDERICK P. DUCOTT SURVEY)
WILLIAM DUCOTT SURVEY
G.W. Trone Est
Oil Corp Fee
J. Taylor
C.I. McFarlane
John Silta
John Huff
Mary K. Pleak
Guy C. Kelso
Lewis Est.
Shirley A. Beard et al
Atlantic
Superior
Reisinger
Southern Trone
Up
Down
N
LEGEND
Sulphur Test
L.R.S. Long Point Sulphur Co.
Texas Gulf Sulphur Co.
J.L. Jefferson Lake Sulphur Co.
Dry Hole - Drilled for Oil
G.P. Gulf Production Co.
D. Gulf Production Co. - Davis Tests
B. Gulf Production Co. - Beard Tests
P. Pohl Tests
S.T. Side-tracked Hole
Well Number
Top of Salt 700 500 Top of Cap Rock
Total Depth 710
LONG POINT DOME
Fort Bend County, Texas
GRAPHIC SCALE
0 500 1000 1500 2000 FT.
March 27, 1951.
JOHN C. MYERS
CONSULTING GEOLOGIST
NIELS ESPERSON BLDG.
HOUSTON 2, TEXAS
CONTOURS ON TOP OF CAP ROCK
DATUM: SURFACE
FAULT
SULPHUR BEARING AREA
G. W. Trone Estate

LONG POINT DOME - S. W. FLANK
FORT BEND COUNTY, TEXAS
GRAPHIC SCALE
0 100 200 300 400 500 FT.
LEGEND
L. P. S. - Long Point Sulphur Co.
G. P. - Gulf Production Co. (Drilled for Oil)
J. L. - Jefferson Lake Sulphur Co.
Top Salt 1000 1 Well Number 750 Top Cap 3.00 Equivalent Feet of Sulphur
Contours on Top Cap Rock. Datum: Surface
Fault
Geology by: John C. Myers Sept. 29, 1951 Houston, Texas
N. L. - National Lead
B. & R. - Ballard & Pistulka
Fault
Up
Down
G. W. Trone Estate
Louis Wolf
Meyer & Sorrelle
C. L. McFarlane
Southern Dome
Texas Gulf Sulphur
L
2.36 Ac.
4873 Tons
K
1.17 Ac.
2465 Tons
M
2.50 Ac.
16,170 Tons
B
1.17 Ac.
7760 Tons
J
0.77 Ac.
1135 Tons
I
1.15 Ac.
633 Tons
A
280 Ac.
14,440 Tons
C
1.22 Ac.
6962 Tons
D
1.08 Ac.
7370 Tons
E
1.53 Ac.
12,383 Tons
F
0.88 Ac.
5555 Tons
H
1.95 Ac.
11,360 Tons
G
1.60 Ac.
9108 Tons

LONG POINT DOME - S. W. FLANK
FORT BEND COUNTY - TEXAS
Scale: 1 in. = 200 ft.



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