UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Withdrawn
~~Terminated (or cancelled)~~ without certification. DMEA No. 1738

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).	Project summary.
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.	
Recision Notice.	Final Field Team Report. (Tab)
Assignment of Contract.	Operator's Final Report.
Contract Amendments (latest on top).	Interim Reports.
✓ Contract with all exhibits and annexes.	On-site Exam Report(s). (Tab)
✓ Owner's Consent to Lien. (GUARANTEE AGREEMENT)	Settlement Sheets.
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 _____

cvl
Reviewer's Initials

7973

MF-200
(June 1951)

Original

Docket No. DMA 1738X
Commodity Zinc, Lead
Idm-E 231

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Standard Mining Corporation, 120 Wall Street, 31st Floor, New York 5, New York, 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 Missouri, County of Jasper described as follows: [3]

See Appendix No. 1

with respect to which the Operator represents and undertakes: [4]

(*a*) ~~That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached~~: _____

(*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 Sixty (60) days from the date of this contract shall commence work on a project of exploration for [5] Zinc - Lead; 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] Fourteen (14) 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. Any 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 currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. 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.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. 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.* 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 is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The 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, analytical work, accounting, 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 this 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, taxes, or any other indirect costs not expressly allowed by these provisions, 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. *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.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $32,902.50, which is 50 percent of the agreed estimated total cost of this project, $65,805.00.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator 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.

15. *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 for each additional 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 mineral deposit 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.

16. *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.

17. *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 sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Standard Mining Corporation
(Operator)

By C. Whitteudorf
Acting Administrator
Defense Minerals Exploration
Administration

By

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

APPENDIX NO. I

Lessor	Description
O'Keefe	W½ of the SE¼ Sec. 13, Twp. 28, Range 34
Buzzard	S½ of Lot 2 of the SW Fractional Quarter (W½ of SW¼) of Sec. 18, T28, R33, 14.18 acres beginning 22 chains and 40 links S of the NE corner of the SE¼, thence W8 chains and 38 links, thence S17 chains and 50 links, more or less to the S line of SE¼, thence E8 chains and 38 links more or less to point of beginning in Sec. 13, T.28, R.34, less 2 acres used as homesite in SE corner of last described parcel.
McMillen	All of N½ of Lot 2 of SW¼ except road right of way, Sec. 18, T.28, R.33.
Farley	E½ of the NE¼ of Sec. 24, T.24, R.34.
Johnson	E½ of SE¼ and a 12 acre strip off E side of NW¼ of SE¼ of Sec. 24, T.28, R.34, and Lot 2 of NW¼ and Lot 2 of SW¼ of Sec. 19, T.28, R.33.
Fenix	NE¼ of the NW¼ of Sec. 19, T.28, R.33.
Franks	E½ of SW¼ of Sec. 18, T.28, R.33.
Allen	SW¼ of the NW¼ of Sec. 20, T.28, R.33.
Aylor	SW Fractional quarter of NE¼ of Sec. 18, T.28, R.33.

Docket No. DMA - 1738X
Standard Mining Corporation
Exploration Project Contract

EXHIBIT "A"

Exploration Project:

The exploration program is to consist of churn drilling for relatively shallow zinc-lead ore deposits in favorable zones as outlined by geophysical surveys which is shown on map "A" and "B". An electrical resistivity method of geophysical surveying has been completed on 284 acres of the total 569 acres in the Operator's leased tract, and is to be completed as part of Phase II on the areas shown on Map "C".

The exploration project is to be carried out in three phases. If in the opinion of the Government the results of Phase I warrant the continuation of the project, then Phase II will be undertaken. Similarly, Phase III will be undertaken only with the approval of the Government.

Any requests for changes that may arise in the tentative drill hole locations that are shown on the attached maps, "A" and "B", may be authorized by the Government whenever practical.

PHASE I

The exploration program will start by churn drilling in a cross-sectional pattern as indicated on the attached 2 maps, "A" and "B", which also show by the numbers 1 to 3, the tentative priority order of starting the drill holes. Provision is made in the average estimated depths of the preliminary drill holes in order that the deeper ore horizons can be tested in wherever geologically practical. This total amount of churn drilling is not to exceed 8,000 lineal feet.

Estimated Cost of Phase I:

1.	Churn drilling by contract - 8000 feet @ $2.00/ft.	$ 16,000.00
2.	Supervisor - part time- 4 months @ $300.00/month	1,200.00
3.	Labor - 1 sampler for 4 months at approximately $300/mo.	1,200.00
4.	Assaying of samples	800.00
5.	Surveying hole location, engineering, maps, etc. Consulting engineer's surveying crew and equipment 5 days per month @ $50/day - 4 months @ $250/month	1,000.00
6.	Transportation 4 months @ $100/month	400.00
	Total estimated cost - Phase I	$ 20,600.00

PHASE II

This Phase includes (a) churn drill hole delineation of the ore deposits, inferred by drilling during Phase I, sufficiently to clearly indicate the ore reserves in the opinion of the Government. The proposed drilling is shown by numbers 4 to 12 on the attached maps, "A" and "B". (b) Meanwhile completing of geophysical surveying on the remaining unexplored Aylor, O'Keefe, Buzzard and Johnson tracts. These tracts are shown on the attached map, "C", (c) then start preliminary cross-sectional churn drilling of any favorable anomalies that may be indicated by that electrical resistivity work similarly to the drilling done in Phase I.

Estimated Cost of Phase II

(a) Delineation of favorable Phase I areas:

1.	Churn drilling by contract - 3500 ft. @ $2.00/foot	$ 7,000.00
2.	Supervisor - part time - 2 months @ $300/month	600.00
3.	Labor - 1 sampler for 2 months at approximately $300/month	600.00
4.	Assaying of samples	1,200.00
5.	Surveying hole locations, engineering, maps, etc. Consulting engineer's crew and equipment - 5 days per months @ $50/day - 2 months @ $250/month	500.00
6.	Transportation - 2 months @ $100/month	200.00
	Total Estimated Cost of Section (a) of Phase II	$10,100.00

(b) Geophysical Surveying:

1.	One consulting geophysicist and two man technical crew, including rental of electrical resistivity instruments and equipment, transportation and preparation of final maps and reports carrying out work on traverses 200 feet apart with observations at 100-foot intervals with 100-foot penetration depth.	
	Estimated 230 acres @ $13.00 per acre	$ 2,990.00
2.	Supervisor - part time for 1/2 month	150.00
3.	One consulting geologist and expenses for 3 days $100/day	300.00
4.	Labor - 3-man brushing crew for 15 days	360.00
5.	Surveying geophysical traverses, engineering, maps, etc. Consulting engineer's surveying crew and equipment - 6 days @ $50/day	300.00
	Total cost of Section (b) of Phase II	$ 4,100.00

Estimated Cost of Phase II (continued):

(c) Preliminary churn drilling in Phase II (b) geophysical survey Areas.

1.	Churn drilling by contract - 8,000 ft. @ $2.00/ft.	$ 16,000.00
2.	Supervisor - part time - 4 months @ $3.00/month	1,200.00
3.	Labor - a sampler for 4 months at approximately $300./month	1,200.00
4.	Assaying of samples	800.00
5.	Surveying hole locations, engineering, maps, etc. Consulting engineer's surveying crew and equipment 5 days per month @ $50./day - 4 months @ $250./month	1,000.00
6.	Transportation - 4 months @ $100./month	400.00
	Total estimated cost of section (c) of Phase II	$ 20,600.00
	Total Estimated Cost of Phase II	$ 34,800.00

PHASE III

This phase of the exploration project is provided to delineate the ore deposits that may be inferred by the preliminary drilling in preceding Phase II (c).

Estimated Cost of Phase III

1.	Churn drilling by contract - 3500 feet @ $2.00/foot	$ 7,000.00
2.	Supervisor - part time - 2 months @ $300./month	600.00
3.	Labor - 1 sampler for 2 months at approximately $300./month	600.00
4.	Assaying of samples	1,200.00
5.	Surveying hole locations, engineering, maps, etc. consulting engineer's crew and equipment - 5 days per month @ $50./day - 2 months @ $250./month	500.00
6.	Transportation - 2 months @ $100./month	200.00
	Total Estimated Cost, Phase III	$ 10,100.00

Total Estimated Cost of Phases I, II, and III

Phase I	$ 20,600.00
Phase II	$ 34,800.00
Phase III	$ 10,100.00
Supplies to be purchased as required, not to exceed	$ 305.00
Total Estimated Cost	$ 65,805.00

Fixtures and Improvements:

None

Operating Equipment:

To be rented:

None

To be Purchased:

None

Labor and Supervision:

1 Supervisor @ $600./month
1 Consulting Geologist @ $100./day - including expenses
1 Sampler at approximately $300./month
3 Laborers - brush cutters @ $1.00 each per hour

Rehabilitation:

None

Miscellaneous Costs:

Supplies to be purchased as required for the project

	Estimated Cost
Fuel for drying samples	$ 95.00
5 sample troughs and splitters @ $25./each	125.00
10 sample cans @ $4.50 each	45.00
10 sample tubs @ $4.00 each	40.00
Total estimated cost of supplies	$ 305.00

All churn drilling is to be done by contract, the cost is not to exceed $2.00 per foot and is to include all expenses necessary to complete the drilling.

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss:

WHEREAS, the United States of America and STANDARD ORE & ALLOYS CORPORATION, as of even date herewith expect to enter into an exploration project contract in which the undersigned has an interest; and

WHEREAS, by the terms of said exploration project contract the subordination agreements of the owners of the lands described in said contract would, except for this undertaking, be required by the Government;

NOW THEREFORE, in consideration of said exploration project contract and of the interest of the undersigned therein, the undersigned hereby undertakes and agrees to pay to the United States of America all sums that may fall due under the terms of said contract to reimburse the Government for its expenditures under the terms of said contract in the same manner and to the same extent as if the subordination agreements of the land owners had been given. If for any reason the net smelter 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 undersigned 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 undersigned agrees that the determination thereof by 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 undersigned.

STANDARD ORE & ALLOYS CORPORATION

C. A. Goldschmidt

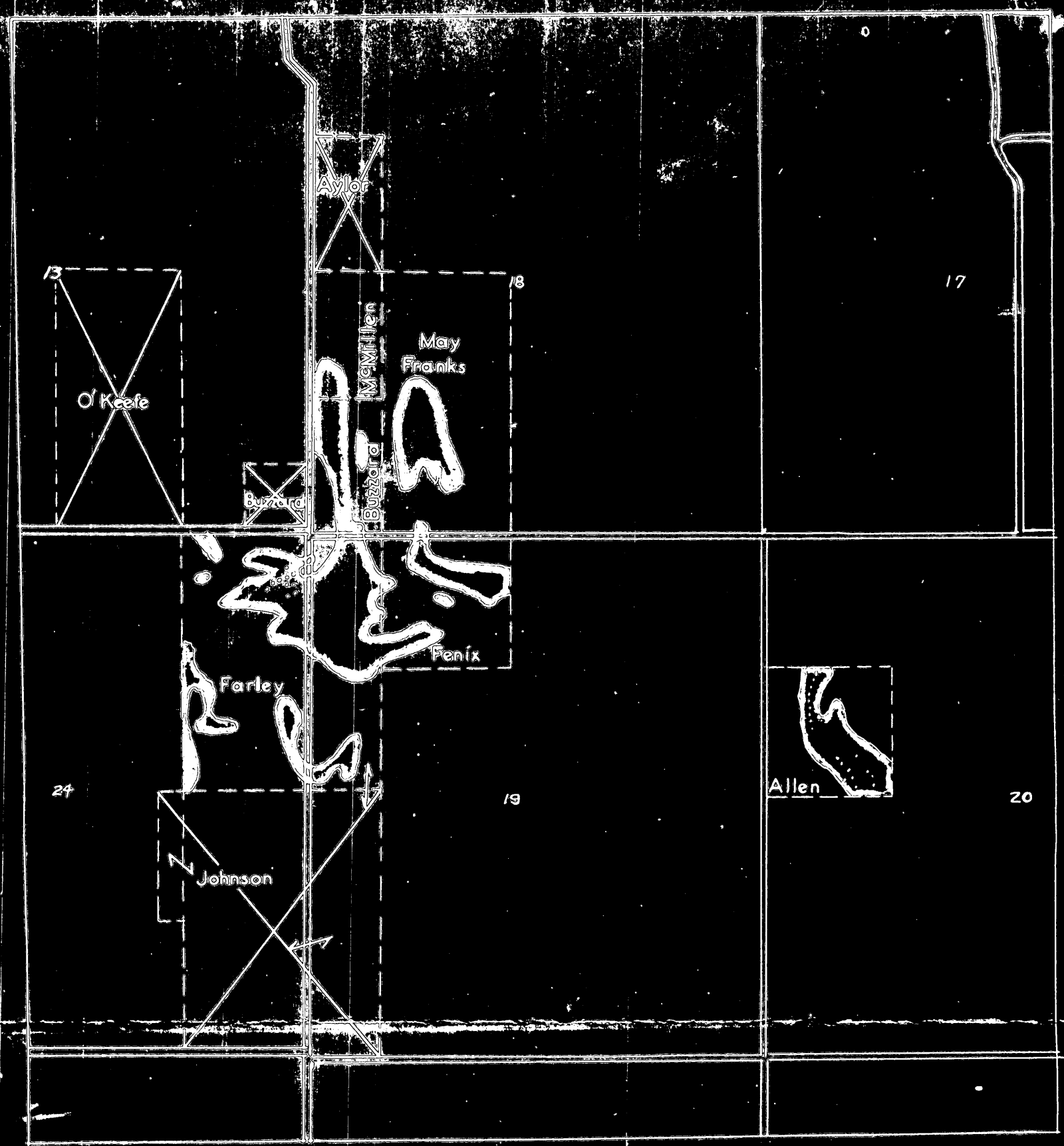
C. A. Goldschmidt,
Vice President

Attested

Eugene Schoener

Eugene Schoener
Secretary-Treasurer

June 21, 1951



Areas shown thus indicate slumpage and are favorable for drilling

Areas shown thus
total 232 Acres
and have not yet
been mapped by
sub-surface methods

Areas shown thus indicate drilling being done by applicant

STANDARD MINING CORP.
JOPLIN MO.
Scale: 4" = 1 mile June, 1951

Form MF-103
(April 1951)

U[redacted] DEPARTMENT OF THE INTER[redacted]
[redacted]ENSE 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 1738 X

Date received 6-27-51

Participation

Standard Mining Corp.
Box 823
Joplin, Missouri

Name and address of applicant

Date

FILL IN THIS BLOCK

Date of application

Estimated cost $84,400

Mineral or metal lead and zinc

Percentage of Government participation 50%

Location of mine northwest of Joplin, Mo.

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

*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

ive a description of the re[illegible] property that will be in any way involved in th[illegible]xploration project, including any [illegible]ine or operating property.

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 [illegible] 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.

STANDARD MINING CORP.
(Name of company)

By Paul Brock
(Signature of authorized official)

JUNE 25, 1951
(Date)

VICE PRES.
(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

IF-100
(h 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma 1738X

Date received 6-27-51

Standard Mining Corp.
120 Wall Street

New York City

Name and address of applicant

Date June 21,1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~Necessity Certificate pursuant to the provisions of Sec. 124(A) (Amortization)~~ ~~Depreciation~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) X other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

5 GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*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.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Walter J. McCauley	President	none	—	none	none	none	none
120 Wall St., New York City							
Paul Bock	Vice President	none	—	none	none	none	none
120 Wall St., New York City							
Eugene Schoener	Secretary-Treasurer	none	—	none	none	none	none
120 Wall St., New York City							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$ 200,000	$ 1,000	~~$0 par~~ value	10	none
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

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.

STANDARD MINING CORPORATION
(Name of company)

By PAUL BOCK
Paul Bock
(Signature of authorized official)

June 21, 1951
(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.

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

STANDARD MINING CORPORATION

GENERAL OFFICE:
120 WALL STREET
31ST FLOOR
NEW YORK 5, N.Y.
WHITEHALL 3-1600

MINES:
CUSHMAN, ARKANSAS
TEL: CUSHMAN 987M-4

Attachment to Form FM-100
June 21, 1951

Answers to Form MF-100 in accordance with instructions outlined:

1. (a) lead and zinc
   (b) none
2. answered in attachment to Form MF-103 (April 1951) under paragraphs 10 and 11
3. ditto under paragraphs 10 and 12
4. (a) the property is operated by the applicant
   (b) lessee
5. no production at the present time. see Form MF-103 under 16 (b). Production is estimated to begin June-December 1952
6. Answered under FM-103 paragraph 4 (b)
7. (a), (b), & (c) answered under paragraphs 10, 11, 16, 17 and 19 (FM-103)

8.& 9. see Form MF-100 filled in on form
10. (1), (2) & (3) none so far see engineer's report
11. same as above
12. (a) see attachment to FM-103
    (b) 1. & 2. see attachments to FM-103
    (c) 1.-6. attachment to FM-103
13. see FM-103 paragraph 12
14. see FM-103
15. see FM-103
16. operation presently employs one Drag Line operator $90.00 a week, one pump operator $45.00 a week, one mechanic and pump operator $65.00 a week, one office worker $33.00 a week, one engineer $140.00 a week, plus corporate officials and senior engineers from other projects devoting a given period of time to the operation.
17. see FM-103
18. No (see engineer's report)

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.

STANDARD MINING CORPORATION
(Name of company)

By PAUL BOCK
(Signature of authorized official)

June 21, 1951
(Date)

Vice President
(Title)

The Applicant

1. The applicant is a corporation.

2. Not applicable.

3. See form MF 100, filed under date of

4. (a) See form MF 100, filed under date of

(b) The exploration project will be under the direction of the following personnel:

Name	Position	Address
Lester Samuels	General Manager	Joplin, Mo.
John W. Gilbert	General Superintendant	Joplin, Mo.

Mr. Lester Samuels has been employed by the Standard Mining Corp. for two years, and has been engaged in manganese mining and general exploratory work for the search of non-ferrous mineral deposits.

Mr. J. W. Gilbert is employed as general superintendant for the Tri-State operations of the Standard Mining Corp. His experience consists of 27 years in mining direction of zinc, lead, coal, limestone, and silica sand operations.

5. The applicant is lessee of the property.

6. The applicant has no fee interests in this area.

7. The leases held by the applicant are all ten year mining leases, and are all in good standing. Copies of the leases are appended to this report and a summary of these contracts is as follows:

	Lesser	Date	Acres
1.	L. E. Farley	March 5, 1951	80.00
2.	W. E. Johnson	Feb. 23, 1951	177.00
3.	Frank Fenix	May 9, 1951	40.00
4.	Harry Buzzard	March 1, 1951	30.00
5.	Jack McMillen	March 1, 1951	20.00
6.	May Franks	Feb. 23, 1951	80.00
7.	Glenna Ayler	March 16, 1951	22.00
8.	Cecil Allen	March 20, 1951	40.00
9.	J. E. O'Keefe	March 14, 1951	80.00
		Total	569.00

8. See form MF 100, filed under date of

9. The applicant is prepared to invest 50% of the total cost of the project which is estimated to be $84,400, or an amount of $42,200. This sum is believed to be sufficient to pay our part of the cost of the project as outlined in question No. 23.

The Property

10. (a) The area to be explored consists of a total of 569 acres lying in the Four Corners area of Jasper County, Mo., and is situated approximately 8 miles northwest from Joplin, Mo. This area constitutes one of foremost centers of early mining in the Jasper County portion of the Tri-State district, and was a substantial producer of zinc and lead ores during the late 1890's and early 1900's. No mining of consequence has been prosecuted in the area since about 1910, and the property at the present time is composed of small farms and wooded brush land.

(b) The legal description of the various tracts under lease is as follows:

Lessor	Description	Acres
O'Keefe	W½ of the SE¼ Sec.13 Twp 28 Range 34	80+-
Buzzard	S½ of Lot 2 of the SW Fractional Quarter (W½ of SW¼) of Sec.18 T-28 R-33, 14 Acres beg. 22 chains and 40 links S of the NE corner of the SE¼ thence W8 chains and 38 links thence S 17 chains and 50 links more or less to the S line of said SE¼ thence E 8 chains and 38 links more or less to point of beg. in Sec.13 T-28 R-34 less 2 acres used as homesite in SE corner of last described parcel	30+-
McMillen	All of N½ of Lot 2 of SW¼ except road R/W Sec.18 T-28 R-33	20+-
Farley	E½ of the NE¼ Sec.24 T-28 R-34	80+-
Johnson	E½ of SE¼ and a 12 acre strip off E side of NW¼ of SE¼ of Sec.24 T-28 R-34 and lot 2 of NW¼ and lot 2 of SW¼ Sec.19 T-28 R-33	177+-
Fenix	NE¼ of the NW¼ Sec.19 Twp.28 Range 33	40+-
Franks	E½ of SW¼ Sec.18 Twp.28 Range 33	80+-
Allen	SW¼ of the NW¼ Sec.20 Twp.28 Range 33	40+-
Aylor	SW fractional quarter of the NE¼ of Sec.18 Twp.28 Range 33	22+-
	Total acres	569

11. Property names change rapidly; each individual gouger taking one of his own choice, and none holding the same name very long. Generally referred to as "The Four Corners Area". Some of the past names are:

Johnson Tract	Depth
Nellie J.	35-80 ft.
Johnson Mine	35-80
Hurlburt Mine	35-80

Farley Tract	
Laster Mine	25-40 ft.
Holden Mine	80
Bill Batten did some drilling	

Buzzard Tract	
Hoosier Mine	110 ft.
Four Corners Mine	110
Gates & Nales	110

McMillen Tract

H ole close to house had ore at 300 ft.

Franks	
Wiser Mill	60-120 ft.
Creller Mine (Excelsior)	60-120
Liza Mine	60- 90
Four Corner Mihe	70- 90
Red Mill Mine	70- 90

Fenix Tract	
Big Boy Mine	60-90 ft.

O'Keefe Tract	
Holden Mine	80 ft. (1901)
Baboo Mine	95-105
Carl Junction Syndicate	30- 60
Hoopoe Mine	77
Progressive Mine	105 (Indiana Men)
Dunham Mine	80
Big Hickory Mine	120

Allen Tract	
Morlin Mine	
Robertson Mine	
Cactus Mine	60-120 ft.
Wilcox Mine	
Bluebird Mine	
Doolittle Mine	

12. The Four Corners Area is located 8 miles northwest from Joplin, Jasper Co., Missouri, and can be reached by following Mo. Highway No. 43 north from Joplin for a distance of 4 miles, thence turning west along hardsurfaced road for a distance of 4 miles. The area is also served by excellent gravel roads which connect the area to points south, west, and north.

Railroad facilities on the Frisco Railroad are situated at Thoms Station, located 2½ Miles to the east, and connections with the Kansas City Southern, Missouri Pacific, and the Missouri, Kansas, & Texas railroads can be obtained in Joplin, Missouri.

13. The area lies in a district of moderate rainfall, and is situated upon the drainage divide between Turkey Creek to the south and Center Creek to the north. Both of these streams flow the year around. The subsurface ground water in the area is not excessive, and the dewatering for mining operations will afford no difficulty.

No outside power requirements will be needed for the initial exploratory work, since portable self-propelled churn drills are to be used. In the event of a commercial mining operation the major power requirements will be small, as the use of self-propelled trucks and shovels is anticipated. Electric power of sufficient quantity to serve all needs is available from the transmission lines of the Empire District Electric Co.

14. There are no usable structures or facilities on the property that could be devoted to the exploration work.

15. In the event mineralization of sufficient grade and tonnage can be blocked, the ore will be trucked to the Northside Custom Mill, owned by the Federal Mining and Smelting Co. This mill is situated 5 miles southeast from the project area, and can be reached over well-improved, all weather roads. Contract arrangements for the possible milling of ores from this area are presently being negotiated.

16. (a) The Four Corners area represents one of the early mining centers of the Tri-State district, and was a substantial producer of zinc and lead ores during the late 1890's and the early 1900's. These early operations were all small, being in the nature of many shallow shafts, and gouging operations. The ore deposits of the area are principally of the "soft ground" type, which necessitated considerable timbering and much hand mining. Operations of this type are extremely costly to mine, but were very profitable during the early boom period of the small operations in the Joplin district. With the advent of the

larger, mechanized mining operations, these "soft ground" deposits were mostly abandoned. Shallow mining in the Tri-State has been more or less dormant since about 1912, and very little exploration has been done for this type of mineralization as these deposits do not lend themselves to mechanized underground operations.

Very little is known concerning the details of the past shallow operations, however evidence from old shafts and mill foundations shows a total of more than 35 individual mines on the a rea under lease. These operations were for the most part poorly financed, and were developed through the sinking of prospect shafts, and were mined without b enefit of maps or exploratory drilling. Two of the more important mines in the area include (1) The Four Corners Mine, situated in the W½-SW-18-28 N-33W. The outline of workings of these mines are shown on the accompanying map.

16. (b) Production records for individual mining operations in the Tri-State for the years prior to 1912 are very vague, and are not available. However, the total production for the Mitchell, Sherwood, Thoms Station area, which includes the project area, is listed by the U. S. Bureau of Mines as 1,259,237 rock tons, having recoverable grade of 6.41 (60% Zinc) and 0.45 (80% lead). It is estimated that at least 25% of this production came from the Four Corners Area.

The only exploration in recent years has been by the Wildwood Mining Co., who drilled eight holes during the early 1940's in the NE-NE-24-28N-34W; a nd the work now in progress by the Standard Mining Corp. The drilling by the Wildwood Mining Co. showed shallow mineralization, b ut was not complete enough to block any tonnage of commercial ore.

16. (c) There are n o reports private, or otherwise, concerning this area.

17. There has been no operation in this area since about 1912.

18. (a) The mineralization of the area is typically of the shallow, soft ground type, which is closely associated with filled sink structures. These structures have resulted from the subsurface collapse of water course openings, and are usually partially filled by outliers of Cherokee (Pennsylvanian) shale. The ore deposits occur in the brecciated flint, limestone, a nd shale filling these structures, and is found at depths ranging from a few feet below the surface to as much as 150 feet. The mineralization is predominately sphalerite, although some galena is usually present.

18. (b) Copies of the maps showing the known extent of past operations are appended to this report. No assay data from these operations is available.

18. (c) No ore reserves are presently known; however the drilling now in progress has revealed commercial mineralization, and is sufficiently encouraging to warrant further exploration.

19. The Four Corners Area represents one of the more important shallow mining portions of the district that has been abandoned since about 1912. The purpose of this exploration project is to make a new study of the area through geological and geophysical investigations, and to prospect all portions of the leases which appear to be attractive for shallow ore deposition. In the event sufficient tonnage of ore can be blocked, these deposits will be mined through modern, open pit methods.

The Exploration

20. The exploration project is designed for the search of shallow zinc and lead deposits that are amenable to open pit operations.

21. The proposed work consists of (1) a preliminary geological and geophysical study, and (2) a follow-up p rospect drilling program. The preliminary geological and geophysical investigation has b een partially completed, and the prospect drillin g is now in progress. For the purpose of this project it is estimated that the preliminary geological and geophysical work will take approximately six months, and the prospect drilling can be completed in twelve months.

22. Geologically the area is similar to other mineralized portions of the Tri-State with the stratigraphy being as follows:

	Thickness (Feet)
Pennsylvanian System:	
Cherokee, shale	0-100
Mississippian System:	
Warsaw, cherty limestone	100±
Keokuk, cherty limestone	100±
Grand Falls, mostly chert	50±
Reeds Spring, cherty limestone	125±

Structurally the area has been rather severely deformed through the development of many erratically-shaped solution collapse structures. These structures are all of the filled-sink type, and are composed of brecciated flint and limestone of Keokuk and Warsaw age, which is overlain by remnants of black shale of lower Pennsylvanian age. Separating the filled-sinks is unaltered cherty limestone, completely barren of mineralization.

The search for ore deposits in areas such as this can but be accomplished through the mapping of the subsurface zones of porosity prior to drilling by the use of electrical resistivity surveys. A considerable portion of the area has been geophysically surveyed and the results show several very attractive anomalies. A copy of these results is appended to this report.

The Requirements and Costs

23. Estimated Cost of Project

Preliminary Geological and Geophysical Study:

Consulting Geologist, 6 days, @ $50.00 per day	$ 300.00	
Geophysical Work (Con tract) 15 days @ $200.00	3000.00	
Engineering (Contract)		
Maps, surveying, & reports, 40 days @ $50.00	2000.00	
Supervision (6 months)	3600.00	
		$8900.00

Prospect Drilling (Contract)

Drilling (5 rigs, 18 months)		
30,000 feet of drilling @ $2.00 per foot	$60,000.00	
Engineering (Contract) $100.00 per month	1,800.00	
Sampling and Assaying (estimated)	2,000.00	
Supervision	10,800.00	
Transportation, $50.00 per month	900.00	
		$75500.00

Total Cost of Project $84,400.00

24. At the present time the preliminary geological and geophysical work has been completed on approximately one half of the area under lease, and the initial drilling program is in progress. The time schedule as estimated for the project is as follows:

Additional geological and geophysical work to be completed in	4 months
Prospect drilling (5 rigs on contract) 30,000 ft., @ 1666 ft. per month	18 months
Total time to complete project	22 months

Dma 1738

MISSOURI HOLDINGS

1. Jasper Co. SE 1/4 of NW 1/4 in Sec. 33, TWP 28, Rge. 33. Acres: 40.

2. Jasper Co. SW 1/4 of NW 1/4 in Sec. 33, TWP 28N, Rge 33W. Acres: 40.

3. Lawrence Co. in Sec. 7, TWP 26, Rge 25. Acres more or less: 60.

4. Jasper Co. E 1/2 of SW 1/4 in Sec. 18, TWP 28, Rge 33. Acres: 80.

5. Jasper Co. in Sec. 24, TWP 28, Rge 34. and Lot 2 of NW 1/4 and Lot 2 of SW 1/4 in section 19, TWP 28, Rge 33.

6. Jasper Co. S 1/2 of Lot in Sec. 18, Rge 33, TWP 28. Acres: 21.2
in Sec. 13, TWP 28, Rge 34. Acres: 12.18

7. Jasper Co. All of N 1/2 of Lot 2 of SW 1/4 except Road Right of Way of Sec. 18, TWP 28, Rge 33. Acres: 219.

8. Jasper Co. in Sec. 13, TWP 29, Rge 33. Acres: 100.
in Sec. 18, TWP 29, Rge.32. Acres: 98.
in Sec. 13, TWP 29, Rge 32. Acres: 1.
in Sec. 13, TWP 29, Rge 33. Acres: 37.

9. Jasper Co. E 1/2 of NE 1/4 of Sec. 24, TWP 28, Rge 34.

10. Jasper Co. W 1/2 of SE 1/4 in Sec. 13, TWP 28, Rge 34.

11. Jasper Co. SW Fractional 1/4 of NE 1/4 of Sec. 18, TWP 28, Rge. 33.

12. Jasper Co. SW 1/4 of NW 1/4 in Sec. 20, TWP 28, Rge 33.

13. Jasper Co. S 1/2 of NE 1/4 and E 1/2 of SE 1/4 of NW 1/4 in Sec. 24, TWP 29, Rge 33. Acres: 100.

14. Lawrence Co. in Sec. 6, TWP 26, Rge 25. Known as Blythe Farm.

15. Lawrence Co. SW 1/4 of NW 1/4 of Sec. 5, TWP 26, Rge 25.

16. Lawrence Co. W 1/2 of SW 1/4 and NE 1/4 of SW 1/4 and E 1/2 of NW 1/4 in Sec. 5, TWP 26, Rge 25.

17. Lawrence Co. West Half of SE 1/4 of SE 1/4 in Sec. 6, TWP 26, Rge. 25.

18. Lawrence Co. NE 1/4 of NE 1/4 in Sec. 7, TWP 26, Rge 25. Acres more or less: 40.

19. Lawrence Co. in Sec. 6, TWP 26, Rge 25, Acres: 100.

20. Jasper Co. NE 1/4 of NW 1/4 in Sec. 19, TWP 28, Rge 33.

21. Lawrence Co. in Sec. 7, TWP 26, Rge 25.

22. Jasper Co. in Sec. 7 & 18, TWP 27N, Rge 32W. Rex Mining Co. Land. Acres: 600.

23. Newton Co. in Sec. 29, TWP 27, Rge 32.
in Sec. 30, TWP 27, Rge 32.
in Sec. 31, TWP 27, Rge 32.

24. Jasper Co. in Sec. 19, TWP 29, Rge 32.

MISSOURI HOLDINGS

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16. Lawrence Co. W 1/2 of SW 1/4 and NE 1/4 of SW 1/4 and E 1/2 of NW 1/4 in Sec. 5, TWP 26, Rge 25.

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19. Lawrence Co. in Sec. 6, TWP 26, Rge 25, Acres: 100.

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21. Lawrence Co. in Sec. 7, TWP 26, Rge 25.

22. Jasper Co. in Sec. 7 & 18, TWP 27N, Rge 32W. Rex Mining Co. Land. Acres: 600.

23. Newton Co. in Sec. 29, TWP 27, Rge 32.
in Sec. 30, TWP 27, Rge 32.
in Sec. 31, TWP 27, Rge 32.

24. Jasper Co. in Sec. 19, TWP 29, Rge 32.

COPY

Route No. 1, Box 500
Webb City, Missouri
May 4, 1951

Standard Ore and Alloys Co.
Mayflower Apartments
Joplin, Missouri

Attention: Mr. Lester Samuels

Dear Mr. Samuels:

In accordance with your request an electrical resistivity survey has been completed on the Farley, Buzzard, McMillan, Franks, Fenix, Johnson, and Allen tracts in the Four Corners area, northwest of Joplin, Jasper County, Missouri. The results of this work are shown on two (100-scale) maps appended to the report. The actual field surveys required a total of ten days with a three man crew being utilized. The work was commenced on March 19, 1951 and was continued on March 27 and 31, April 9, 10, 14, 17, 18, 19, and 20, and was completed on April 23, 1951. A brief discussion of the methods employed, interpretation, and results obtained is as follows:

Location and Coverage. -- The areas covered by the electrical resistivity surveys include (1) a total of 284 contiguous acres surrounding the crossroads community of Four Corners, lying approximately 8 miles northwest from Joplin, Missouri; and (2) the Allen tract, comprising a total of 40 acres, lying 1 mile southeast of the Four Corners

locality. The tracts surveyed consist of the SW¼ of Sec. 18, the N½ of the NW¼ of Sec. 19, and the SW¼ of the NW¼ of Sec. 19, T. 28 N., R. 33 W.; and the E½ of the NE¼ of Sec. 24, T. 28 N., R. 34 W.; and the SW¼ of the NW¼ of Sec. 20, T. 28 N., R. 33W.

In carrying out these surveys a more detailed coverage was recommended than is usually the case for reconnaissance work in wildcat areas. The closer spacing of the electrical observations was believed advantageous due to the complex nature of the "upper ground" ore deposits of this vicinity. With a more detailed picture of actual subsurface conditions the follow-up drilling program can be laid out to a much better a dvantage.

The surveys were made along a series of traverses which cross the various tracts on lines spaced 200 feet apart. The electrical observations were taken with a penetration depth of 100 feet at 100 foot intervals along the various traverse lines. At the completion of the survey a total of 790 electrical determinations were made.

<u>Method</u> -- The method used consists of the four electrode technique as devised by Wenner with a known electrical current being passed through the outermost electrodes and with the resulting potential drop being measured between the inner electrodes. B y using the above current configuration the electrical resistivity of a unit volume of ground can

be computed. The depth of penetration is controlled by the electrode spacing. In carrying out this work particular attention was made to keep the ground contact resistance within a reasonable limit of error. The results of this survey are expressed in meter ohms and have been contoured in units of 50.

Interpretation -- The use of electrical resistivity surveys has been highly advantageous in the search for upper ground deposits in the Tri-State district. Surveys of this type are in no way to be construed as ore finding techniques, but simply a method whereby the shallow zones of subsurface porosity can be mapped prior to drilling. Electrical resistivity anomalies have an almost direct relationship to the porosity of the subsurface formations, and as a consequence all horizontal changes in formational lithology are usually readily discernible from surveys of this type.

The interpretation of the results is usually extremely simple with the lowest readings indicating the more porous rocks, while the higher readings indicate a tight, or harder formation. A generalized table of values for use in the Four Corners vicinity is as follows:

Resistivity Values (Meter Ohms)		Formation
0	50	Shale or very open ground
50	100	Moderately open ground

Resistivity Values (Meter Ohms)		Formation
100	150	Intermediate zone (possible porpsity within limits of penetration, or a slight thickening of overburden)
150	250	Moderately hard limestone
250		Hard limestone

Electrical resistivity surveys are of principal value in exploration programs (1) as a guide to eliminate unnecessary "lime bar" drilling, and (2) to point out areas of subsurface porosity which might be expected to be mineralized. It is evident from this survey that many of the past ideas concerning possible extensions of the old mines are contrary to actual subsurface conditions. It is believed that much unnecessary drilling can be avoided by careful study of the electrical results.

Results -- The results obtained in both of the areas surveyed were very impressive with a considerable amount of subsurface porosity being outlined. In the Four Corners area three fairly large electrical "lows" are shown, portions of which have been formerly mined during early mining operations. The somewhat circular anomaly located in the E½ of the SW¼ of Sec. 18 is the site of the old Excelsior Mine which was one of the better producing properties of the northwest Joplin area. The old Four Corners Mine occupies the elongated "low" area striking

in a north-south direction through the W½ of the SW¼ of Sec. 18. Toward the south and centering in the NW¼ of the NW¼ of Sec. 19 is a broad "low" area that was partially developed during past mining operations.

In addition to the three large anomalous areas described above, the area contains several smaller electrical "lows". The most attractive of these structures is the elongated East-West "low" lying in the N½ of the NE¼ of the NW¼ of Sec. 19 Several smaller "lows" are situated in the E½ of the NW¼ of Sec. 24, and in the SW¼ of the NW¼ of Sec. 19, however these latter anomalies appear to be somewhat "flat" and may represent shale outliers instead of collapse structures. These features may be worthy of prospecting, but should be considered last.

On the Allen tract a very pronounced "low" area extending in a north-south direction across the property was outlined. Very little is known of the early mining operations on this tract, however a study of the old shafts and dumps on the property will probably reveal some information concerning the extent of past mining. From this study additional prospecting within the undeveloped portions of the electrical "low" can be intelligently laid out. The electrical "low" on this property represents the southeastern continuation of a large mineralized structure that has produced a considerable amount of high-grade, upper ground mineralization.

Conclusions -- The Four Corners area and the Allen tract are both situated in one of the better mineralized portions of the Tri-State district. This area was the scene of very extensive, upper ground mining operations during the early part of the 1900's, but has been almost completely dormant during the last 30 years. The results of the present geophysical survey show the area to be very extensively marked by collapse structures of the ore-bearing type, many of which appear totally unprospected.

The follow-up drilling on the geophysical results should be carefully planned, with holes being put down along lines of traverse which cross the more pronounced "low" areas. No method is known whereby the mineralized portions of the collapse structures can be delineated in advance to drilling; however, these features can be roughly outlined prior to prospecting by geophysics, and exploration in barren "lime" areas can be almost completely eliminated.

Respectfully submitted,

Dan R. Stewart
May 4, 1951

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 1

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 11 Ft. Stands at 6 Ft. Hole started 4/28/51 Completed 4/30/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	11	ft.	Soil & clay, Gray & brown flint
11	15	"	Sand
15	17	"	Gray & brown flint, Gray & blue flint
17	20	"	Good zinc shines, Gray & blue flint
20	22½	"	Fair zinc
22½	25	"	" " , White flint
25	27½	"	Good zinc s hines, Gray & white flint
27½	30	"	Few zinc shines, Gray & blue flint
30	3 5	"	Trace zinc
35	46	"	Gray, blue, & brown flint
46	47	"	Blue soap
47	50	"	Gray & blue flint

Approved By ..... Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 2

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 6 Ft. Stands at 3 Ft. Hole started 5/4/51 Completed 5/5/51

Casing used ..... Ft. 8¼" 39 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	4	ft.	Surface & clay
4	7	"	Creek gravel, sand boulders
7	10	"	" " " " zinc shines
10	13	"	Light & dark gray flint Fair zinc
13	16	"	Pale blue flint Good zinc
16	19	"	White shelly flint Fair zinc
19	22	"	White flint Good zinc
22	25	"	White & gray flint, "Hoggy" Good zinc
25	28	"	Gray flint, blue soap, Good zinc
28	31	"	Gray flint, soap s treaks, Good zinc
31	34	"	Gray flint, gray soap, Lead shines, Good zinc
34	37	"	Gray & blue flint, better lead shines, Good zinc
37	40	"	Gray & white flint harder Fair zinc
40	45	"	White flint, zinc shines
45	50	"	White flint, Zinc shines

Samples: SF-2	ZnS	PbS
7-10	1.92	0.87
10-13	18.36	0.43
13-16	3.15	0.07
16-19	1.50	0.05
19-22	2.94	0.03
22-25	4.32	0.17
25-28	13.74	0.48
28-31	8,64	0.37
31-34	13.98	0.94
34-37	4.62	0.38
37-40	1.26	0.19
40-45	1.29	0.10

Approved By ..... Driller Contractor J. E. Thomas

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. 3F 3

Land Four Corners Farley

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 24 Ft. Stands at Surface Ft. Hole started 5/9/51 Completed 5/10/51

Casing used _____ Ft. 8¼" 29 Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	4	ft.	Surface & clay
4	7	"	Gra vel & clay
7	10	"	Blue soap
14	24	"	Gray & blue flint, considerable iron
24	28	"	Loose white flint
22	50	"	Light & dark gray flint, soap seams, iron
50	60	"	Gray flint, gray soap, Trace of lead
60	65	"	Gray & blue flint
65	68	"	Gray flint, harder

Approved By _____ Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 4

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 20 Ft. Stands at Surface Ft. Hole started 5/14/51 Completed 5/15/51

Casing used ..... Ft. 8¼" 27 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	2	ft.	Soil & clay
2	10	"	Gravel
10	14	"	Gray soap
14	21	"	Black soap, iron
21	24	"	Soap, gray flint, iron
24	30	"	White flint, iron, Trace zinc
30	35	"	Gray and white flint, iron
35	40	"	Gray, white, and spotted flint
40	45	"	Gray and white flint, streaks gray soap
45	50	"	Gray & white flint, flakes of lime

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 5

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 24 Ft. Stands at Surface Ft. Hole started 5/16/51 Completed 5/17/51

Casing used ..... Ft. 8¼" 27 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	4	ft.	Soil and clay
4	8	"	Creek gravel
8	20	"	Gray soap
20	25	"	Gray flint, iron
25	40	"	Gra y flint, iron
40	45	"	Gray and s potted flint, iron
45	50	"	Gray flint, flakes of lime

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 6

Land: Four Corners Farley

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: J. E. Thomas Helper: F. V. Thomas

Water struck at: 24 Ft. Stands at: 2 Ft. Hole started: 5/18/51 Completed: 5/24/51

Casing used: Ft. 8¼" 49 Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	2	ft.	Soil & gravel
2	4	"	Clay
4	8	"	Gravel
8	10	"	Mud
10	12½	"	Gravel, Lead shines
12½	15	"	Gray & blue flint, Lead shines, Zinc s hines
15	18	"	Loos e gray flint, Fair lead, Good zinc
18	21	"	Gray flint, harder Lead shines, Zinc shines
21	27	"	Gray flint, "hoggy" Trace lead, Trace zinc
27	31	"	Gray flint, gray soap, " " " "
31	37	"	Gray soap, gray flint, " " " "
37	49	"	Gray & blue flint, Lead shines, Zinc shines
49	55	"	White flint, Better lead shines, Zinc shines
55	70	"	Light & dark gray flint, Lead shines, Zinc shines
70	75	"	Gray flint, gray soap, Trace lead, " "
75	88	"	Light & dark gray flint, soap streaks " "
88	90	"	Brown lime

Samples: SF 6

	ZnS	PbS
10-12½	0.66	0.13
12½-15	0.69	0.04
15-18	1.80	0.32
18-21	1.05	0.23

Approved By: Driller Contractor: J. E. Thomas

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 7

Land Four Corners - Farley

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 24 Ft. Stands at 2 Ft. Hole started 5/25/51 Completed 5/29/51

Casing used _____ Ft. 8¼" 30 Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	8	ft.	soil & gravel
8	15	"	gray soap
15	18	"	gray soap, iron
18	24	"	gray soap, iron, trace zinc
24	35	"	light & dark gray flint, iron
35	40	"	gray flint, iron, trace zinc
40	50	"	gray flint, iron, few zinc shines

Approved By _____ Driller Contractor J. E. Thomas

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 8

Land Four Corners - Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper .....

Water struck at 30 Ft. Stands at 12 Ft. Hole started 5-30-51 Completed 5-31-51

Casing used ..... Ft. 8¼" 30 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To	FORMATION
0	1 ft	Soil
1	18 "	Clay
18	25	Gray soap
25	30	gray soap, iron
30	35	gray flint, iron
35	40	gray flint, zinc shines, trace lead
40	45	gray flint, gray soap, trace zinc
45	55	gray flint, good zinc shines
55	60	gray flint, trace zinc

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 9

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 18 Ft. Stands at 6 Ft. Hole started 6/2/51 Completed 6/7/51

Casing used ..... Ft. 8¼" 30 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	2	ft.	Discard
2	3	"	Soil
3	7	"	Clay
7	10	"	Gravel
10	15	"	Sand, clay, gravel, iron
15	18	"	Dark flint, ZINCC SH INES
18	25	"	Gray & blue flint, iron, ZINC SHINES
25	35	"	Light & dark gray flint, iron, Trace Zinc
35	40	"	Blue soap, gray flint, iron, Trace Zinc
40	50	"	Light & dark gray flint, "hoggy"
	T.D.		

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 1

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 40 Ft. Stands at 40 Ft. Hole started 5/17/51 Completed 5/18/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
2	10	ft.	Orange clay, white light gray flint, some brown flint
10	15	"	Yellow clay, white light gray flint, some brown flint
15	32½	"	White light gray and blue flint, dark blue shale
32½	37½	"	White, light gray, and blue flint, dark blue shale iron ore
37½	45	"	Light & dark gray flint, light & dark blue flint, dark blue shale, lead and zinc shines
45	52½	"	Light & dark blue flint, white & light gray flint, traces lead & zinc, light blue shale
52½	70	"	Light & dark blue flint, light & dark grey flint, light gray shale
70	75	"	Light and blue flint, light gray lime

REMARKS:

Samples: Hole A-1

	ZnS	PbS
37½-40	0.60	0.34
40-42½	0.63	0.40
42½-45	0.30	0.43
45-47½	0.45	0.38
47½-50	0.51	0.18
50-52½	0.51	0.26

Approved By ..... Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 4

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Belk

Water struck at 45 Ft. Stands at 25 Ft. Hole started 5/16/51 Completed 5/18/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	5	ft.	Soil, clay, and creek gravel
5	15	"	Flint and yellow clay, creek gravel, some sandstone
15	20	"	Gray shale and some sandstone
20	25	"	Gray shale and lots of iron
25	40	"	Black shale and lots of iron
40	45	"	Black shale, some blue flint and lots of iron
45	50	"	Blue and gray flint, iron
50	55	"	Blue, gray, and speckled flint, iron
55	60	"	Blue and gray flint, soft gray lime, iron

Approved By ..... Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-5

Land Cecil Allen Land

Section ..... Twp. ..... Range ..... Sea Level Elev. .....

(SEE LOCATION ON BACK OF SHEET)

Drilled by C.L. Luke Helper Carl Bolk

Water struck at 20 Ft. Stands at 20 Ft. Hole started May 18'51 Completed May 21'51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To	FORMATION
0	5	Soil and yellow clay.
5	15	Yellow clay.
15	20	Yellow clay, Sandstone
20	25	Yellow clay and sandstone, lime boulders.
25	30	Soapstone, Sandstone and lime boulders.
30	35	Soapstone, Sandstone and iron.
35	50	Soapstone, Sandstone and iron.
50	53	Soapstone, iron and lime.

Approved By .....

Driller Contractor Tri State Drilling Co. Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. h-6

Land Cecil Allen Land

Section _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 50 Ft. Stands at 35 Ft. Hole started May 19'51 Completed May 22'51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	15	Yellow clay, Brown sandstone Boulders.
15	47½	Dark Blue shale, Light and dark blue flint, Lots of iron ore.
47½	50	Hard light and dark blue flint, Light brown sugar lime.
50	55	hard white light and dark blue flint.
55	75	Light and dark blue flint, and light brown flint. Ground very loose.
	75	Very hard ground.

Approved By _____ Driller Contractor Tri State Drilling Co, Inc.

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-7

Land: Cecil Allen Land

Section: _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C.L. Luke Helper: Carl Belk

Water struck at: 40 Ft. Stands at: 40 Ft. Hole started: May 21'51 Completed: May 24'51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	10	Light yellow clay and creek gravel.
10	30	Gray soapstone.
30	35	Gray soapstone and iron.
35	50	Blue and gray flint and iron
50	55	Blue and gray flint and good zinc.
55	60	Gray and white flint, zinc shines
60	66	Gray and white flint, zinc ~~XXXXX~~ traces.

Approved By _____ Driller Contractor: Tri State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. 1-8

Land: Cecil Allen Land

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at 55 Ft. Stands at 40 Ft. Hole started May 23'51 Completed May 23'51

Casing used Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole

From	To	FORMATION
0	10	Orange yellow and white clay.
10	25	Dark blue shale, white and grey flint, iron ore.
25	51	Brown sugar lime.
51	57½	White light gray and blue flint, very hard.
57½	60	Light and dark blue flint, traces of lead.
60	75	White light gray and blue flint, very hard.

Approved By

Driller Contractor Tri State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-9

Land Cecil Allen Land

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brown

Water struck at 35 Ft. Stands at 40 Ft. Hole started May 24'51 Completed May 25'51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	15	Light yellow clay
15	25	Yellow clay, Brown and Rock.
25	30	Blue shale
30	35	Blue shale, traces zinc.
35	40	Light blue and light gray flint.
40	45	Light and dark blue flint, traces of lead.
45	55	Light gray and white flint.
55	66	Light gray, white and light blue flint. Some gray lime.

Approved By _____ Driller Contractor Tri State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 10

Land Four Corners- Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Belk

Water struck at 40 Ft. Stands at 40 Ft. Hole started May 25 Completed May 28

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	10	ft.	soil & yellow clay
10	15	"	gray soapstone & creek gravel
15	25	"	dark gray soapstone
25	30	"	" " " " blue & gray flt. iron
30	40	"	blue & gray flt. iron,
40	50	"	" " & blak flt. iron

Approved By .....

Driller Contractor C. L. Luke

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 11

Land: Four Corners - Cecil Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: no water Ft. Stands at: Ft. Hole started: 5-26-51 Completed: 5-26-51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	5	ft.	yellow clay
5	29	"	blue shale
29	32½	"	hard light blue and grey flint, traces lead
32½	45	"	light and dark grey and white brown flint very loose ground
45	57	"	white and light grey flint very hard

Approved By: Driller Contractor: John Hayes

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 12

Land: Four Corners - Allen

Section: _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at 60 Ft. Stands at 40 Ft. Hole started 5-28-51 Completed 5-28-51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	15	ft.	yellow clay
15	20	"	yellow clay, brown sand rock, lead shines
20	25	"	light grey shale, traces lead
25	40	"	light grey shale
40	42½	"	light grey shale, blue lime, lead shines
42½	57½	"	grey and blue shale, - white, gray, and light blue flint, traces lead
57½	60	"	white, grey and light blue flint, traces zinc, blue shale
60	65	"	dark blue shale, light grey white and light blue flint zinc shines
65	75	"	light and dark blue flint, white and gray flint few zinc shines

Samples: A 12

	ZnS	PbS
15-17½	0.72	2.66
17½-20	0.33	1.31
20-22½	0.57	0.80
22½-25	0.36	0.76
40-42½	0.69	0.46
42½-45	1.02	0.48
45-47½	0.57	0.38
47½-50	0.60	0.38
50-52½	0.90	0.18
52½-55	0.42	0.08
55-57½	0.78	0.13
57½-60	1.11	0.02
60-62½	0.75	0.04
62½-65	0.81	0.04
65-70	0.78	0.09
70-75	0.84	0.07

Approved By _____ Driller Contractor John Hayes

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 13

Land: Allen (Four Corners)

Section: _____ Twp. _____ Range: _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl Belk

Water struck at 70 Ft. Stands at 50 Ft. Hole started May 28 Completed 29

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	10	ft. fill soil & yellow clay
10	15	" yellow clay
15	20	" light gray soapstone some blue flt.
20	30	" dark gray soapstone & iron
30	45	" black soapstone, blue & gray flt. iron
45	50	" " " " " " "
		lead shines
50	55	" black soapstone, blue & gray flt. iron, lead
55	70	" blue flt. gray selvage, iron, lead & zinc, & lime iron,
		lead & zinc shines

Samples: A-13	ZnS	PbS
50-55	0.57	1.70
55-57½	1.80	1.55
57½-60	1.72	1.83
60-62½	3.63	4.44
62½-65	2.25	3.55
65-67½	0.81	0.87
67½-70	2.97	7.68
70-75	1.11	1.63

Approved By _____ Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 14

Land Four Corners - Allen

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Bolk

Water struck at xx Ft. Stands at xx Ft. Hole started May 29 Completed May 31

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	10	ft.	spil & yellow clay
10	20	"	yellow clay, sandstone, iron, some lead shines
20	30	"	sandstone, iron, some lead shines
30	35	"	" " black soapstone
35	40	"	" " gray soapstone
40	75	"	Gray selvage, iron, thin lead shines
75	81	"	black soapstone, iron some soft lime

Approved By _____ Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 15

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: 60 Ft. Stands at: 50 Ft. Hole started: 5-29-51 Completed: 5-30-51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole

From	To		FORMATION
0	15	ft.	light yellow clay
15	30	"	dark blue shale
30	40	"	light blue, white, brown, and grey flint
40	55	"	blue shale, white light blue and grey flint
55	65	"	white, lgit-light grey, blue flint

Approved By: Driller Contractor: John Hayes

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 16

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: Ft. Stands at: Ft. Hole started: 6-1-51 Completed: 6-1-51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	10	ft.	yellow clay, brown surface rock
10	35	"	blue shale iron ore
35	40	"	blue shale brown sandstone
40	47	"	blue lime
47	48	"	one foot blue shale
48	53	"	blue and gray lime
53	55	"	white and light grey flint
55	69	"	white, blue, and light grey flint Very hard

Approved By: Driller Contractor: John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 17

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl Belk

Water struck at: 00 Ft. Stands at: 00 Ft. Hole started: May 31 Completed: June 1

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	10	ft.	s oil & yellow clay
10	15	"	yellow c lay & creek gravel
15	20	"	gray soapstone
20	30	"	black soapstone , iron
30	45	"	sandstone, gray selvage, iron
45	65	"	gray selvage ,iron, soft lime
65	75	"	black soapstone iron

Approved By: Driller Contractor: C. L. Luke

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 18

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 28 Ft. Stands at 25 Ft. Hole started 6/1/51 Completed 6/2/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	25	ft.	Orange and yellow clay
25	40	"	Blue limestone
40	55	"	Dark blue shale, Lots of iron ore
55	65	"	Dark blue flint, white flint, gray lime
65	72	"	Dark blue flint, blue lime, gray lime

Approved By .....

Driller Contractor John Ha yes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 19

Land: Four Corners Allen

Section: _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl B elk

Water struck at: 60 Ft. Stands at: 60 Ft. Hole started: 6/2/51 Completed: 6/7/51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	10	ft.	Sandstone, black soapstone, lead & zinc (Dump)
10	25	"	Yellow clay
25	30	"	Black soaps tone, creek gravel, lead shines
30	40	"	Yellow clay, creek gravel, lead shines
40	45	"	Gray soapstone, iron, lead & zinc shines
45	60	"	Black soapstone, iron, lead & zinc shines
60	65	"	Black soapstone, gray salvage, iron, lead & zinc shines
65	70	"	Gray flint, boulders, lead shines
70	75	"	Gray flint boulders, lime, lead shines

Approved By _____ Driller Contractor: C. L. Luke

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STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 20

Land: Four Corners Cecil Allen

Section: _____ Twp: _____ Range: _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: 20 Ft. Stands at: 10 Ft. Hole started: 6/5/51 Completed: 6/6/51

Casing used: _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	20	ft.	Yellow and orange clay
20	30	"	Light gray soap stone, blue sugar lime
30	75	"	Blue shale, light and dark blue flint, lots of iron ore
75	90	"	White, light, and dark blue flint

Approved By _____ Driller Contractor: John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 21

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 80 Ft. Stands at 50 Ft. Hole started 6/7/51 Completed 6/8/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	25	ft.	Orange, yellow, brown clay
25	45	"	Dark blue shale
45	55	"	Dark blue sugar lime, some white flint
55	75	"	Dark blue shale
75	83	"	Gray and blue lime, white and gray flint
83	85	"	White, light gray flint, gray lime
85	90	"	White, light gray flint

Approved By ..... Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 1

Land Four Corners Farley

Section _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 11 Ft. Stands at 6 Ft. Hole started 4/28/51 Completed 4/30/51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	11	ft.	Soil & clay, Gray & brown flint
11	15	"	Sand
15	17	"	Gray & brown flint, Gray & blue flint
17	20	"	Good zinc shines, Gray & blue flint
20	22½	"	Fair zinc
22½	25	"	" " , White flint
25	27½	"	Good zinc s hines, Gray & white flint
27½	30	"	Few zinc shines, Gray & blue flint
30	3 5	"	Trace zinc
35	46	"	Gray, blue, & brown flint
46	47	"	Blue soap
47	50	"	Gray & blue flint

Approved By _____ Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 2

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 6 Ft. Stands at 3 Ft. Hole started 5/4/51 Completed 5/5/51

Casing used ..... Ft. 8¼" 39 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	4	ft.	Surface & clay
4	7	"	Creek gravel, sand boulders
7	10	"	" " " " zinc shines
10	13	"	Light & dark gray flint Fair zinc
13	16	"	Pale blue flint Good zinc
16	19	"	White shelly flint Fair zinc
19	22	"	White flint Good zinc
22	25	"	White & gray flint, "Hoggy" Good zinc
25	28	"	Gray flint, blue soap, Good zinc
28	31	"	Gray flint, soap s treaks, Good zinc
31	34	"	Gray flint, gray soap, Lead shines, Good zinc
34	37	"	Gray & blue flint, better lead shines, Good zinc
37	40	"	Gray & white flint harder Fair zinc
40	45	"	White flint, zinc shines
45	50	"	White flint, Zinc shines

REMARKS:

Samples: SF-2	ZnS	PbS
7-10	1.92	0.87
10-13	18.36	0.43
13-16	3.15	0.07
16-19	1.50	0.05
19-22	2.94	0.03
22-25	4.32	0.17
25-28	13.74	0.48
28-31	8.64	0.37
31-34	13.98	0.94
34-37	4.62	0.38
37-40	1.26	0.19
40-45	1.29	0.10

Approved By ..... Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 3

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 24 Ft. Stands at Surface Ft. Hole started 5/9/51 Completed 5/10/51

Casing used ..... Ft. 8¼" 29 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	4	ft.	Surface & clay
4	7	"	Gra vel & clay
7	10	"	Blue soap
14	24	"	Gray & blue flint, considerable iron
24	28	"	Loose white flint
22	50	"	Light & dark gray flint, soap seams, iron
50	60	"	Gray flint, gray soap, Trace of lead
60	65	"	Gray & blue flint
65	68	"	Gray flint, harder

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 4

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 20 Ft. Stands at Surface Ft. Hole started 5/14/51 Completed 5/15/51

Casing used ..... Ft. 8¼" 27 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	2	ft.	Soil & clay
2	10	"	Gravel
10	14	"	Gray soap
14	21	"	Black soap, iron
21	24	"	Soap, gray flint, iron
24	30	"	White flint, iron, Trace zinc
30	35	"	Gray and white flint, iron
35	40	"	Gray, white, and spotted flint
40	45	"	Gray and white flint, streaks gray soap
45	50	"	Gray & white flint, flakes of lime

Approved By ..... Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 5

Land: Four Corners Farley

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: J. E. Thomas Helper: F. V. Thomas

Water struck at: 24 Ft. Stands at: Surface Ft. Hole started: 5/16/51 Completed: 5/17/51

Casing used: Ft. 8¼" 27 Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	4	ft.	Soil and clay
4	8	"	Creek gravel
8	20	"	Gray soap
20	25	"	Gray flint, iron
25	40	"	Gra y flint, iron
40	45	"	Gray and s potted flint, iron
45	50	"	Gray flint, flakes of lime

Approved By: Driller Contractor: J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 6

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 24 Ft. Stands at 2 Ft. Hole started 5/18/51 Completed 5/24/51

Casing used ..... Ft. 8¼" 49 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	2	ft.	Soil & gravel
2	4	"	Clay
4	8	"	Gravel
8	10	"	Mud
10	12½	"	Gravel, Lead shines
12½	15	"	Gray & blue flint, Lead shines, Zinc s hines
15	18	"	Loos e gray flint, Fair lead, Good zinc
18	21	"	Gray flint, harder Lead shines, Zinc shines
21	27	"	Gray flint, "hoggy" Trace lead, Trace zinc
27	31	"	Gray flint, gray soap, " " " "
31	37	"	Gray soap, gray flint, " " " "
37	49	"	Gray & blue flint, Lead shines, Zinc shines
49	55	"	White flint, Better lead shines, Zinc shines
55	70	"	Light & dark gray flint, Lead shines, Zinc shines
70	75	"	Gray flint, gray soap, Trace lead, " "
75	88	"	Light & dark gray flint, soap streaks " "
88	90	"	Brown lime

Samples: SF 6

	ZnS	PbS
10-12½	0.66	0.13
12½-15	0.69	0.04
15-18	1.80	0.32
18-21	1.05	0.23

Approved By ..... Driller Contractor J. F. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 7

Land: Four Corners - Farley

Section: Twp: Range: Sea Level Elev:

(SEE LOCATION ON BACK OF SHEET)

Drilled by: J. E. Thomas Helper: F. V. Thomas

Water struck at: 24 Ft. Stands at: 2 Ft. Hole started: 5/25/51 Completed: 5/29/51

Casing used: Ft. 8¼" 30 Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	8	ft.	soil & gravel
8	15	"	gray soap
15	18	"	gray soap, iron
18	24	"	gray soap, iron, trace zinc
24	35	"	light & dark gray flint, iron
35	40	"	gray flint, iron, trace zinc
40	50	"	gray flint, iron, few zinc shines

Approved By: Driller Contractor: J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 8

Land: Four Corners - Farley

Section: _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by: J. E. Thomas Helper: _____

Water struck at: 30 Ft. Stands at: 12 Ft. Hole started: 5-30-51 Completed: 5-31-51

Casing used: _____ Ft. 8¼" 30 Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	1	ft Soil
1	18	" Clay
18	25	Gray soap
25	30	gray soap, iron
30	35	gray flint, iron
35	40	gray flint, zinc shines, trace lead
40	45	gray flint, gray soap, trace zinc
45	55	gray flint, good zinc shines
55	60	gray flint, trace zinc

Approved By: _____ Driller Contractor: J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. SF 9

Land Four Corners Farley

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by J. E. Thomas Helper F. V. Thomas

Water struck at 18 Ft. Stands at 6 Ft. Hole started 6/2/51 Completed 6/7/51

Casing used ..... Ft. 8¼" 30 Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	2	ft.	Discard
2	3	"	Soil
3	7	"	Clay
7	10	"	Gravel
10	15	"	Sand, clay, gravel, iron
15	18	"	Dark flint, ZINCC SH INES
18	25	"	Gray & blue flint, iron, ZINC SHINES
25	35	"	Light & dark gray flint, iron, Trace Zinc
35	40	"	Blue soap, gray flint, iron, Trace Zinc
40	50	"	Light & dark gray flint, "hoggy"
	T.D.		

Approved By .....

Driller Contractor J. E. Thomas

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 1

Land: Four Corners Cecil Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: 40 Ft. Stands at: 40 Ft. Hole started: 5/17/51 Completed: 5/18/51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
2	10	ft.	Orange clay, white light gray flint, some brown flint
10	15	"	Yellow clay, white light gray flint, some brown flint
15	32½	"	White light gray and blue flint, dark blue shale
32½	37½	"	White, light gray, and blue flint, dark blue shale iron ore
37½	45	"	Light & dark gray flint, light & dark blue flint, dark blue shale, lead and zinc shines
45	52½	"	Light & dark blue flint, white & light gray flint, traces lead & zinc, light blue shale
52½	70	"	Light & dark blue flint, light & dark grey flint, light gray shale
70	75	"	Light and blue flint, light gray lime

Samples: Hole A-1

	ZnS	PbS
37½-40	0.60	0.34
40-42½	0.63	0.40
42½-45	0.30	0.43
45-47½	0.45	0.38
47½-50	0.51	0.18
50-52½	0.51	0.26

Approved By: Driller Contractor: John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-4

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Belk

Water struck at 45 Ft. Stands at 25 Ft. Hole started 5/16/51 Completed 5/18/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	5	ft.	Soil, clay, and creek gravel
5	15	"	Flint and yellow clay, creek gravel, some sandstone
15	20	"	Gray shale and some sandstone
20	25	"	Gray shale and lots of iron
25	40	"	Black shale and lots of iron
40	45	"	Black shale, some blue flint and lots of iron
45	50	"	Blue and gray flint, iron
50	55	"	Blue, gray, and speckled flint, iron
55	60	"	Blue and gray flint, soft gray lime, iron

Approved By .....

Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-5

Land Jesse Allen Land

Section ..... Twp. ..... Range ..... Sea Level Elev. .....

(SEE LOCATION ON BACK OF SHEET)

Drilled by O.L. Luke Helper Carl Belk

Water struck at 20 Ft. Stands at 20 Ft. Hole started May 18'51 Completed May 21'51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To	FORMATION
0	5	Soil and yellow clay.
5	15	Yellow clay.
15	20	Yellow clay, Sandstone
20	25	Yellow clay and sandstone, lime boulders.
25	30	Soapstone, Sandstone and lime boulders.
30	35	Soapstone, Sandstone and iron.
35	50	Soapstone, Sandstone and iron.
50	53	Soapstone, iron and lime.

Approved By .....

Driller Contractor Tri State Drilling Co. Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-6

Land Cecil Allen Land

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 50 Ft. Stands at 55 Ft. Hole started May 19'51 Completed May 22'51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	15	Yellow clay, Brown sandstone Boulders.
15	47½	Dark Blue shale, Light and dark blue flint, Lots of iron ore.
47½	50	Hard light and dark blue flint. Light brown sugar lime.
50	55	Hard white light and dark blue flint.
55	75	Light and dark blue flint, and light brown flint. Ground very loose.
	75	Very hard ground.

Approved By _____ Driller Contractor The State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-7

Land: Owell Allen Land

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: O.L. Luke Helper: Earl Belk

Water struck at 40 Ft. Stands at 40 Ft. Hole started May 21'51 Completed May 24'51

Casing used Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole

From	To	FORMATION
0	10	Light yellow clay and creek gravel.
10	30	Gray soapstone.
30	35	Gray soapstone and iron.
35	50	Blue and gray flint and iron
50	55	Blue and gray flint and good zinc.
55	60	Gray and white flint, zinc shines
60	66	Gray and white flint, zinc ~~XXXXX~~ traces.

Approved By:

Driller Contractor: Tri-State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-8

Land: Cecil Allen Land

Section: ____ Twp. ____ Range ____ Sea Level Elev. ____
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes | Helper: Alvie Brewer

Water struck at: 55 Ft. Stands at: 40 Ft. | Hole started: May 23'51 Completed: May 23'51

Casing used: ____ Ft. 8¼" ____ Ft. 6¼" ____ Ft. 4⅞" Left in hole: ____

From	To	FORMATION
0	10	Orange yellow and white clay.
10	25	Dark blue shale, white and gray flint, iron ore.
25	31	Brown sugar lime.
31	57½	White light gray and blue flint, very hard.
57½	60	Light and dark blue flint, traces of lead.
60	75	White light gray and blue flint, very hard.

Approved By: ____

Driller Contractor: Tri State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A-9

Land Cecil Allen Land

Section _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brown

Water struck at 55 Ft. Stands at 40 Ft. Hole started May 24 1951 Completed May 25 1951

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To	FORMATION
0	15	Light yellow clay
15	25	Yellow clay, Brownsand Rock.
25	30	Blue shale
30	35	Blue shale, traces zinc.
35	40	Light blue and light gray flint.
40	45	Light and dark blue flint, traces of lead.
45	55	Light gray and white flint.
55	66	Light gray, white and light blue flint. Some gray lime.

Approved By _____ Driller Contractor Tri State Drilling Co., Inc.

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 10

Land: Four Corners- Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl Belk

Water struck at: 40 Ft. Stands at: 40 Ft. Hole started: May 25 Completed: May 26

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	10	ft.	soil & yellow clay
10	15	"	gray soapstone & creek gravel
15	25	"	dark gray soapstone
25	30	"	" " " " blue & gray flt. iron
30	40	"	blue & gray flt. iron,
40	50	"	" " & black flt. iron

Approved By: Driller Contractor: C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 11

Land Four Corners - Cecil Allen

Section _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at no water Ft. Stands at _____ Ft. Hole started 5-26-51 Completed 5-26-51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	5	ft.	yellow clay
5	29	"	blue shale
29	32½	"	hard light blue and gray flint, traces lead
32½	45	"	light and dark grey and white brown flint very loose ground
45	57	"	white and light grey flint very hard

Approved By _____ Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 12

Land: Four Corners - Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at 60 Ft. Stands at 40 Ft. Hole started 5-28-51 Completed 5-28-51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To	FORMATION
0	15	ft. yellow clay
15	20	" yellow clay, brown sand rock, lead shines
20	25	" light grey shale, traces lead
25	40	" light grey shale
40	42½	" light grey shale, blue lime, lead shines
42½	57½	" grey and blue shale, - white, gray, and light blue flint, traces lead
57½	60	" white, grey and light blue flint, traces zinc, blue shale
60	65	" dark blue shale, light grey white and light blue flint zinc shines
65	75	" light and dark blue flint, white and gray flint few zinc shines

Samples: A 12

	ZnS	PbS
15-17½	0.72	2.66
17½-20	0.33	1.31
20-22½	0.57	0.80
22½-25	0.36	0.76
40-42½	0.69	0.46
42½-45	1.02	0.48
45-47½	0.57	0.38
47½-50	0.60	0.38
50-52½	0.90	0.18
52½-55	0.42	0.08
55-57½	0.78	0.13
57½-60	1.11	0.02
60-62½	0.75	0.04
62½-65	0.81	0.04
65-70	0.78	0.09
70-75	0.84	0.07

Approved By ..... Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 13

Land Allen (Four Corners)

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Belk

Water struck at 70 Ft. Stands at 50 Ft. Hole started May 28 Completed 29

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To	FORMATION
0	10	ft. fill soil & yellow clay
10	15	" yellow clay
15	20	" light gray soapstone some blue flt.
20	30	" dark gray soapstone & iron
30	45	" blak soapstone, blue & gray flt. iron
45	50	" " " " " " "
		lead shines
50	55	" blak soapstone, blue & gray flt. iron, lead
55	70	" blue flt. gray selvage, iron, lead & zinc, & lime iron,
		lead & zinc shines

Samples: A-13

	ZnS	PbS
50-55	0.57	1.70
55-57½	1.80	1.55
57½-60	1.72	1.83
60-62½	3.63	4.44
62½-65	2.25	3.55
65-67½	0.81	0.87
67½-70	2.97	7.68
70-75	1.11	1.63

Approved By ..... Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 14

Land Four Corners - Allen

Section _____ Twp. _____ Range _____ Sea Level Elev. _____

(SEE LOCATION ON BACK OF SHEET)

Drilled by C. L. Luke Helper Carl Belk

Water struck at xx Ft. Stands at xx Ft. Hole started May 29 Completed May 31

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	10	ft.	soil & yellow clay
10	20	"	yellow clay, sandstone, iron, some lead shines
20	30	"	sandstone, iron, some lead shines
30	35	"	" " black soapstone
35	40	"	" " gray soapstone
40	75	"	Gray selvage, iron, thin lead shines
75	81	"	black soapstone, iron some soft lime

REMARKS

Approved By _____ Driller Contractor C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 15

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: 60 Ft. Stands at: 50 Ft. Hole started: 5-29-51 Completed: 5-30-51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	15	ft.	light yellow clay
15	30	"	dark blue shale
30	40	"	light blue, white, brown, and grey flint
40	55	"	blue shale, white light blue and grey flint
55	65	"	white, lgit-light grey, blue flint

Approved By: Driller Contractor: John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 16

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: Ft. Stands at: Ft. Hole started: 6-1-51 Completed: 6-1-51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To	FORMATION
0	10	ft. yellow clay, brown surface rock
10	35	" blue shale iron ore
35	40	" blue shale brown sandstone
40	47	" blue lime
47	48	" one foot blue shale
48	53	" blue and gray lime
53	55	" white and light grey flint
55	69	" white, blue, and light grey flint Very hard

Approved By:

Driller Contractor: John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 17

Land: Four Corners - Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl Belk

Water struck at: 00 Ft. Stands at: 00 Ft. Hole started: May 31 Completed: June 1

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To	FORMATION
0	10	ft. s oil & yellow clay
10	15	" yellow c lay & creek gravel
15	20	" gray soapstone
20	30	" black soapstone , iron
30	45	" sandstone, gray selvage, iron
45	65	" gray selvage ,iron, soft lime
65	75	" black soapstone iron

Approved By:

Driller Contractor: C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 18

Land: Four Corners Cecil Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: John Hayes Helper: Alvie Brewer

Water struck at: 28 Ft. Stands at: 25 Ft. Hole started: 6/1/51 Completed: 6/2/51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	25	ft.	Orange and yellow clay
25	40	"	Blue limestone
40	55	"	Dark blue shale, Lots of iron ore
55	65	"	Dark blue flint, white flint, gray lime
65	72	"	Dark blue flint, blue lime, gray lime

Approved By: Driller Contractor: John Ha yes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 19

Land: Four Corners Allen

Section: Twp.: Range: Sea Level Elev.:
(SEE LOCATION ON BACK OF SHEET)

Drilled by: C. L. Luke Helper: Carl B elk

Water struck at: 60 Ft. Stands at: 60 Ft. Hole started: 6/2/51 Completed: 6/7/51

Casing used: Ft. 8¼" Ft. 6¼" Ft. 4⅞" Left in hole:

From	To		FORMATION
0	10	ft.	Sandstone, black soapstone, lead & zinc (Dump)
10	25	"	Yellow clay
25	30	"	Black soaps tone, creek gravel, lead shines
30	40	"	Yellow clay, creek gravel, lead shines
40	45	"	Gray soapstone, iron, lead & zinc shines
45	60	"	Black soapstone, iron, lead & zinc shines
60	65	"	Black soapstone, gray selvage, iron, lead & zinc shines
65	70	"	Gray flint, boulders, lead shines
70	75	"	Gray flint boulders, lime, lead shines

Approved By: Driller Contractor: C. L. Luke

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 20

Land Four Corners Cecil Allen

Section _____ Twp. _____ Range _____ Sea Level Elev. _____
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 20 Ft. Stands at 10 Ft. Hole started 6/5/51 Completed 6/6/51

Casing used _____ Ft. 8¼" _____ Ft. 6¼" _____ Ft. 4⅞" Left in hole _____

From	To		FORMATION
0	20	ft.	Yellow and orange clay
20	30	"	Light gray soap stone, blue sugar lime
30	75	"	Blue shale, light and dark blue flint, lots of iron ore
75	90	"	White, light, and dark blue flint

Approved By _____ Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

STANDARD MINING CORPORATION

DRILL RECORD

HOLE No. A 21

Land Four Corners Cecil Allen

Section ..... Twp. ..... Range ..... Sea Level Elev. .....
(SEE LOCATION ON BACK OF SHEET)

Drilled by John Hayes Helper Alvie Brewer

Water struck at 80 Ft. Stands at 50 Ft. Hole started 6/7/51 Completed 6/8/51

Casing used ..... Ft. 8¼" ..... Ft. 6¼" ..... Ft. 4⅞" Left in hole .....

From	To		FORMATION
0	25	ft.	Orange, yellow, brown clay
25	45	"	Dark blue s hale
45	55	"	Dark blue sugar lime, some white flint
55	75	"	Dark blue shale
75	83	"	Gray and blue lime, white and gray flint
83	85	"	White, light gray flint, gray lime
85	90	"	White, light gray flint

Approved By ..... Driller Contractor John Hayes

THE JOPLIN PRINTING CO., JOPLIN, MO. 2500 3-51 32422

MINING LEASE

THIS INDENTURE, Made this 14th day of MARCH, 19 51, by and between

John E. O'Keefe and Cora Beneke O'Keefe, his wife

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corporation hereinafter referred to as Lessee.

WITNESSETH. 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

West Half (W½) of the Southeast Quarter (SE¼)

of Section 13, Township 28, Range 34, and containing ..... acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Bank of Carthage Bank, at Carthage, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Seven & one-half per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, sampled, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereof. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within six months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 20.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of three years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at 1401 N. Garrison, Carthage, Mo. or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

STANDARD ORE AND ALLOYS CORPORATION

By Seth Samuels

Lessee

John E. O'Keefe

Cora Beneke O'Keefe

Lessor

7

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri }ss.
COUNTY OF Jasper

BE IT REMEMBERED, That on this 14th day of March 1951, before me personally appeared John E. O'Keefe and Cora Beneke O'Keefe, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires Feb. 13, 1953 — A B Conner, Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF ..... }ss.
COUNTY OF .....

BE IT REMEMBERED, That on this ..... day of ..... 19..... before me a Notary Public in and for the County and State aforesaid, came ..... and ..... who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the year and day last above written.

My commission expires ..... Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF ..... }ss.
COUNTY OF .....

Before me, Notary Public, in and for said County and State, on this ..... day of ..... 19..... personally appeared ..... and ..... his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that ..... executed the same as ..... free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires ..... Notary Public.

NO. .....

MINING LEASE

FROM

TO

Dated ..... 19.....
Section ..... Township ..... Range .....
County .....
No. Acres .....

STATE OF ..... }ss.
COUNTY OF .....
This instrument was filed on record on the ..... day of ..... 19..... at ..... o'clock ..... M., and duly recorded in Book ..... Page ..... of the records of this office.
By ..... Deputy.
When recorded
Return to .....

THE JOPLIN PRINTING CO., JOPLIN, MO. 2M 4-48 15688

MINING LEASE

THIS INDENTURE, Made this 20th day of March, 1951, by and between Cecil A. Allen and Ola Pearl Allen, his wife

hereinafter (whether one or more) referred to as Lessor, and Standard Mining Corporation, Joplin, Missouri hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

Southwest Quarter (SW¼) of the Northwest Quarter (NW¼)

of Section 20, Township 28, Range 33, and containing 40 acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at ______ Bank, at ______ State of ______ on or before the tenth (10th) day of each month a royalty of Seven & one-half per centum of the gross sale price of all the zinc concentrates and Ten per centum of the gross sale price of all the lead ~~and/or zinc~~ concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within six months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 40.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of three years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at ______ or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

STANDARD MINING CORPORATION

By [signature]

Lessee

Ola Pearl Allen

Cecil A. Allen

Lessor

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF _____ } ss.
COUNTY OF _____

BE IT REMEMBERED, That on this _____ day of March 19 51 before me personally appeared Cecil A. Allen and Ola Pearl Allen, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires _____ _____
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF _____ } ss.
COUNTY OF _____

BE IT REMEMBERED, That on this _____ day of _____, 19 _____, before me a Notary Public in and for the County and State aforesaid, came _____ and _____ who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the year and day last above written.

My commission expires _____ _____
Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF _____ } ss.
COUNTY OF _____

Before me, Notary Public, in and for said County and State, on this _____ day of _____, 19 _____, personally appeared _____ and _____ his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that _____ executed the same as _____ free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires _____ _____
Notary Public.

NO. _____

MINING LEASE

FROM

TO

Dated _____, 19 _____
Section _____ Township _____ Range _____
County _____
No. Acres _____

STATE OF _____ } ss.
COUNTY OF _____

This instrument was filed on record on the _____ day of _____, 19 _____, at _____ o'clock _____ M., and duly recorded in Book _____ Page _____ of _____ the records of this office.

By _____, Deputy.

When recorded

Return to _____

THE ARGUS PRINTING CO., ARTHUR, NEB. SIN 4-48 15885

MINING LEASE

THIS INDENTURE, Made this 16th day of March, 19 51, by and between

Glenna M. Ayler

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corporation hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

Southwest Fractional Quarter of the Northeast Quarter of Section 18, Township 28, Range 33,

of Section 18, Township 28, Range 33, and containing _____ acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Merchants & Miners Bank Bank, at Webb City, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Seven and one half per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereof. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within Six months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 22.50, in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of Ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Webb City, Missouri or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

Standard Ore and Alloys Corpn.

By Seth Samuels

Lessee

Glenna M. Ayler

Lessor

(9)

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF MISSOURI }
COUNTY OF Jasper } ss.

BE IT REMEMBERED, That on this 16th day of March 19 51, before me personally appeared Glenna M. Ayler and _____ man _____ to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires _____ _____ Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF _____ }
COUNTY OF _____ } ss.

BE IT REMEMBERED, That on this _____ day of _____ 19 _____, before me a Notary Public in and for the County and State aforesaid, came _____ and _____ who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the year and day last above written.

My commission expires _____ _____ Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF _____ }
COUNTY OF _____ } ss.

Before me, Notary Public, in and for said County and State, on this _____ day of _____ 19 _____, personally appeared _____ and _____ his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that _____ executed the same as _____ free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires _____ _____ Notary Public.

NO. _____

MINING LEASE

FROM [redacted]

TO [redacted]

Dated [redacted] 19 51

Section _____ Township _____ Range _____

County _____

No. Acres _____

STATE OF _____ }
COUNTY OF _____ } ss.

This instrument was filed on record on the _____ day of _____ 19 _____ o'clock _____ M., and duly recorded in Book _____ Page _____ of the records of this office.

By _____ Deputy.

When recorded _____

Return to _____

[illegible] 4-60 [illegible]

MINING LEASE

THIS INDENTURE, Made this 23 day of February, 1951, by and between Helen Franks a single woman, Margaret Franks Christman and Albert her husband and Emily Franks Child and Huntley her husband

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corp.
hereinafter referred to as Lessee.

WITNESSETH: 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

East 1/2 of SW 1/4

of Section 18, Township 28, Range 33, and containing 80 acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at First National Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of 7½ per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within Six Months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 22.50, in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above stated, and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of 2 years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Moana Apts. - Joplin, MO., or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

Standard Ore and Alloys Corp.
By Seth Samuels
Lessee

Margaret Franks Christman
Albert Christman
Emily Franks Child
Huntley Child (by Emily Franks Child)
Helen Franks
Lessor

(8)

MINING LEASE

THIS INDENTURE, Made this 1st day of March, 1951, by and between Jack A. McMillen and Hazel his wife

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corpn. hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

All of N. 1/2 of Lot 2 of SW 1/4 except road right of way.

of Section 18, Township 28, Range 33, and containing 21.9 acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Bank, at Carl Junction State of Missouri on or before the tenth (10th) day of each month, a royalty of Seven and 5/8 per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessee said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to bring ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, sampled, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard practice and procedure. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above provided on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within Six Months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessee.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $ 10.00, in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above stated, and the same shall also cover the right and privilege to the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In like manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of One years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at Rt 1, Carterville Mo as to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessee, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

STANDARD ORE AND ALLOYS CORPORATION

By Seth Samuels

Lessee

Jack A. McMillen

Hazel McMillen

Lessor

(5)

MINING LEASE

THIS INDENTURE, Made this 1st day of ~~February~~ MARCH, 19 51, by and between

Harry Buzzard and Ammia Buzzard, his wife

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corporation hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit: S½ of Lot 2 of the SW frl. Quarter (W½ of SW¼) of Sec. 18, Twp. 28, 33, containing 21.2 acres more or less.

14.18 acres described as beg. 22 chains and 40 links S of the NE corner of the SE¼, thence W 8 chains and 38 links, thence S 17 chains and 50 l more or less to the S line of said SE¼ thence E 8 chains and 38 lin or less to point of beginning in Sec. 13, Twp. 28, Rge. 34, less 2 used as homesite in the SE corner of the last described parcel.

of Section ____, Township ____, Range ____, and containing ____

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to erect buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, and to make use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at ____, State of ____, on or before the tenth (10th) day of each month, a sum equal to Seven & one-half per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month, with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of cash, from the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where operated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by present or future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground mining or operations in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said land on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands, with or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or plant in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to mill ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, sampled, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands covered hereby all such products shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within six months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. ~~If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender operations the sum of $_____ in the manner hereinafter provided, such payment or tender shall operate as a stay for three (3) months from and after the period of time above stated, and the same shall also cover the rights and privileges in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period, in like manner and upon like payments or tenders. The commencement of prospecting or mining operations may be further deferred or suspended after having been commenced for like periods, successively, during the term of _____ years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor, at _____ or to the bank hereinbefore mentioned or its successors, for Lessor's credit, on or before the date on which such rentals shall become payable.~~

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

20. During such time as lessee shall be engaged in the bona fide exploration or production of ores on any adjacent property or in the erection of a mill on any adjacent property, the same shall be sufficient in all respects to satisfy the requirements of this lease as to prospecting or mining.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

Harry Buzzard

Ammia Buzzard

LESSEE

STANDARD ORE AND ALLOYS CORPORATION

By ____

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri
COUNTY OF Jasper } ss.

BE IT REMEMBERED, That on this 1st day of ~~February~~ Mar 1951 before me personally appeared Harry Buzzard and Ammia Buzzard, his wife to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said County, the day and year last above written.

My term expires 7/23/52

D. M. Clifton
Notary Public.

KANSAS FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

BE IT REMEMBERED, That on this day of 19 before me a Notary Public in and for the County and State aforesaid, came and who are personally known to me to be the same persons who executed the foregoing instrument of writing, and who duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the year and day last above written.

My commission expires

Notary Public.

OKLAHOMA FORM OF ACKNOWLEDGMENT

STATE OF
COUNTY OF } ss.

Before me, Notary Public, in and for said County and State, on this day of 19 personally appeared and his wife, to me known to be the identical persons who executed the within and foregoing instrument and acknowledged that executed the same as their free and voluntary act and deed, for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal upon the date last above written.

My commission expires

Notary Public.

MINING LEASE

NO.

FROM

TO

Dated 19

Section Township Range County

No. Acres

STATE OF
COUNTY OF } ss.

This instrument was filed in record on the day of 19 at o'clock M. and duly recorded in Book Page

4

MINING LEASE

THIS INDENTURE, Made this 9th day of May, 19 51, by and between Frank Fenix and Pearl Fenix, his wife

hereinafter (whether one or more) referred to as Lessor, and Standard Mining Corporation, Joplin, Missouri hereinafter referred to as Lessee.

WITNESSETH, 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

Northeast Quarter (NE¼) of the Northwest

Quarter (NW¼)

of Section 19, Township 28, Range 33, and containing ______ acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at Citizen State Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty of Seven & one-half per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within 6 months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. ~~If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of [illegible] in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months [illegible] above stated, and the same shall also cover the right and privilege to the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period [illegible] the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods successively during the term of [illegible] years from the date hereof. All rentals due hereunder may be paid by [illegible] mailed postage prepaid to Lessor at [illegible] or to the bank hereinbefore mentioned, [illegible] shall become payable.~~

~~Said bank [illegible] or such other bank as Lessor may in writing hereafter designate and its successors, [illegible] are hereby made the agents of Lessee [illegible] all rentals and royalties herein provided for and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes in ownership of said land or said rentals or royalties.~~

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby ~~warrants and agrees to defend the title to the lands herein described, and~~ agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment, any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

STANDARD MINING CORPORATION

By J W Gilbert
Agt.
Lessee

Frank Fenix
Pearl Fenix
Lessor

1010

MINING LEASE

THIS INDENTURE. Made this 23rd day of February, 19 51, by and between Charles P. Johnson and Maude S. Johnson, his wife; Georgia Johnson Moore, unmarried and William Sharpe, unmarried,

hereinafter (whether one or more) referred to as Lessor, and Standard Ore and Alloys Corporation, hereinafter referred to as Lessee.

WITNESSETH. 1. That in consideration of the covenants and agreements hereinafter set out, to be kept and performed by Lessee, Lessor does hereby lease unto Lessee for prospecting and mining for lead and zinc ores, for ten years from the date hereof, the following described land (for the purposes hereof considered as one parcel) situated in Jasper County, State of Missouri to-wit:

East ½ of SE¼ and a 12-acre strip off East side of NW¼ of SE¼ of Section 24, Twp. 28, Range 34, and Lot 2 of NW¼ and Lot 2 of SW¼ of Section 19, Township 28, Range 33

of Section _____, Township _____, Range _____, and containing 176.87 acres, more or less.

2. The Lessor hereby gives and grants unto Lessee, for said term, the exclusive right and license to prospect and mine said land for lead and zinc ores, together with the right and license to prepare for market on said premises and remove and sell all lead and zinc concentrates produced from said ores, with the right to construct buildings or other structures and to make excavations, openings, stockpiles, dumps, ditches, drains, roads, tracks, and other improvements upon said premises, including the use of water in said operations, and to place such machinery thereon as Lessee may deem necessary for efficiently prospecting and mining said land and treating the ores mined therefrom, with the right in Lessee to remove all property so placed thereon at any time during the term hereof or within one year after the termination of this lease.

3. IN CONSIDERATION WHEREOF, Lessee agrees to pay unto Lessor at First National Bank, at Joplin, State of Missouri, on or before the tenth (10th) day of each month, a royalty Seven & one-half per centum of the gross sale price of all the lead and zinc concentrates produced and sold from said land during the preceding month with the privilege to Lessee to consume such concentrates and pay Lessor said percentage of the market price thereof as royalty thereon. For the protection of the Lessor and to the end that there may be no dispute as to the market price of concentrates so consumed, it is expressly agreed that if Lessor be not satisfied with the market price used in making royalty settlements, Lessor shall have and hereby agrees to take said percentage of said concentrates, or concentrates of like quality, in lieu of said royalty, at the bins where stored and further agrees to give written notice at once in the event Lessor is not satisfied as aforesaid.

"Lead and Zinc Concentrates" is hereby defined to mean the saleable zinc and/or lead minerals as recovered at the mill or concentrating plant where treated, including, in addition to lead or zinc, any and all other metals or elements contained in such concentrates, whether or not such metals or elements, by presently known or by future discovered methods of recovery, are valuable.

For the purpose of royalty payments the sale price shall include any premium money received from any governmental agency, up to but not exceeding the amount of premium money on which royalty may be paid under law or valid regulation issued by any governmental agency having jurisdiction thereof.

4. Lessor agrees to pay Lessor's proportionate part of any taxes assessed or levied by the State in which said lands are located or any subdivision thereof, or by the Federal Government against the ores and/or concentrates produced from the lands covered hereby.

5. The Lessee will keep accurate books showing quantities and kinds of concentrates produced from said lands, and sold or consumed, when and to whom sold, and the money received from sales and such books of account shall be open to inspection by Lessor at all reasonable hours.

6. All mining operations shall be carried on in a miner-like and workman-like manner and may be conducted by shaft and underground tunnels or excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining Lessee shall not be liable for damages done to the surface of said lands on account of such mining.

7. It is further understood and agreed that all ores mined from the lands covered hereby may be cleaned and prepared for market on this or other lands within or without the local area within which the lands covered hereby are located, as may be deemed desirable by Lessee, as an independent operation, or in a mill or mills in which other ores are being treated, commonly referred to as a central concentrating plant and that such plant or plants may be located on these lands, with the right to treat ores from other lands therein. If said central concentrating plant shall be equipped with automatic weighing and sampling devices, then such ores shall be weighed, assayed, treated, handled and concentrates determined, sold and accounted for in the manner which is now or may hereafter be established as standard method and practice thereat. If said central plant shall not be equipped with automatic weighing and sampling devices, then the ores mined from the lands covered hereby shall not be commingled with ores from other lands before or during milling, nor shall any concentrates recovered therefrom be commingled with the concentrates recovered from ores from other lands, and said concentrates shall be sold and accounted for separately from any other concentrates.

8. If ores and rock from the lands covered hereby are milled on other lands the tailings, rock and other by-products resulting therefrom shall belong to the owner of such other lands or of the lands upon which same are deposited, and if ores and rock from this or other lands are milled upon the lands, covered hereby all such materials shall belong to Lessor, provided, however, Lessee shall at all times during the life of this lease have the right to remill said tailings and other by-product materials, and during the period of such remilling operation Lessee shall be relieved from the obligation to conduct prospecting or mining operations, and provided further, Lessee shall at all times during said period have the right to remove and sell said tailings and other by-product materials upon the payment of a royalty at the rate above specified on all such sales.

9. Lessee shall have the right to use underground tunnels or drifts for haulage-ways of ores from other lands and to remove ores and minerals mined on the lands covered hereby through a shaft or shafts on adjoining lands and to hoist ores and minerals mined on adjoining lands through a shaft or shafts on this land, provided the ores and minerals mined on the lands covered hereby shall not be commingled with other ores and minerals except as above provided.

10. The Lessor shall have the right to enter upon said land for the purpose of inspection and examination, not unnecessarily interfering with the prospecting and mining operations of Lessee.

11. The Lessee shall commence prospecting or mining upon said lands within six months from the date hereof. Such prospecting or mining shall be carried on continuously and shall not be suspended at any time for longer than thirty days except on account of unavoidable accidents, strikes or other conditions beyond the control of Lessee, and except that when the sale value of the concentrates produced from said premises is such that mining thereof cannot be profitably carried on by Lessee, operations may be suspended until prices improve so that mining can be profitably conducted; provided, suspensions of operations for said last mentioned cause shall not continue longer than six (6) months without the written consent of Lessor.

12. If prospecting or mining operations should not be commenced on said land within the time hereinbefore provided and Lessee shall pay or tender to Lessor the sum of $.25¢ per acre in the manner hereinafter provided, such payment or tender shall operate as a rental for three (3) months from and after the period of time last above fixed and the same shall also cover the right and privilege in the Lessee to defer the commencing of said prospecting or mining operations for and during the said three (3) months period. In the manner and upon like payments or tenders, the commencement of prospecting or mining operations may be further deferred or suspended after having been commenced, for like periods, successively during the term of ten years from the date hereof. All rentals due hereunder may be paid by Lessee's check mailed, postage prepaid, to Lessor at 1905 Sergeant Ave, Joplin, Mo. or to the bank hereinbefore mentioned, or its successors, for Lessor's credit, on or before the date any such rentals shall become payable.

Said bank, or such other bank as Lessor may in writing hereafter designate and its successors by power irrevocable is hereby made the agent of Lessor to accept all rentals and royalties herein provided for, and the same shall continue as a depository of such royalties or rentals during the life of this lease regardless of changes of ownership of said land or said rentals or royalties.

13. Lessee shall furnish Lessor a true copy of the log of each drill hole put down on said land by Lessee, showing any assays made of cuttings therefrom, and shall, upon request of Lessor, furnish print of any underground workings on said land.

14. After the expiration of the term hereinbefore fixed, this lease shall continue in force and effect so long thereafter as ore shall be produced therefrom by the Lessee, or Lessee shall continue prospecting or mining operations on said land or any part thereof, in good faith.

15. Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the Lessee shall have the right, at any time, to redeem for Lessor by payment any mortgages, taxes or other liens on the above described lands, in event of default of payment by Lessor, and be subrogated to the rights of the holder thereof.

16. Lessee shall pay for damages caused by operations hereunder to growing crops and/or any improvements on said land.

17. In case of failure of Lessee to keep and perform the terms of this lease, Lessor may give thirty days' written notice of the violation complained of, and if such violation or default is not removed within said period this lease shall thereupon terminate, at the option of the Lessor which remedy shall be exclusive.

18. The Lessee may at any time, if Lessee desires to do so, pay all royalties then due, surrender and terminate this lease by giving seven days' written notice of intention so to do and thereupon Lessee shall be relieved from all obligations hereunder, with like effect as if this lease had not been made.

19. The terms and conditions of this lease shall be binding upon and inure to the benefit of the heirs, successors, legal representatives and assigns of the parties hereto.

20. ~~The Lessee may at any time, upon the payment of one dollar ($1.00) and all royalties due hereunder, surrender and release of record at Lessee's cost all or any part of the acreage covered hereby, this lease to continue in force and effect as to the acreage not so surrendered.~~

21. In the event a concentrating mill shall be erected on said premises, and in the further event Lessee shall suspend mining operations and the milling of ores mined on said premises, Lessee shall pay to Lessor the sum of fifty cents per ton of concentrates produced from the milling of ores mined from other lands during such time as mining of ores on the lands herein described shall be so suspended, and the operation of said mill in treating ores mined from other lands shall be sufficient in all respects to maintain this lease in force and effect.

22. Any notice authorized or required to be given lessee hereunder may be delivered personally to any duly authorized agent of Lessee, or mailed by registered mail, postage prepaid, addressed to Lessee at 120 Wall Street, New York 5, New York, or such other address as Lessee may designate in writing to Lessor, and the depositing of any such notice in the mails, so addressed, shall be considered delivery to Lessee. Likewise, any such notice authorized or required to be given Lessor may be delivered to Lessor personally or mailed to Lessor by registered mail, postage prepaid, addressed to Lessor at 1905 Sergeant Ave., Joplin, Mo., and the depositing of any such notice in the mails shall constitute delivery thereof.

IN WITNESS WHEREOF, the parties hereto have duly executed this indenture the day and year first above written.

Charles P. Johnson
Maude S. Johnson
Georgia Johnson Moore
William Sharpe by Charles P. Johnson
Lessor
atty in fact

STANDARD ORE & ALLOYS CORPORATION

MISSOURI FORM OF ACKNOWLEDGMENT

STATE OF Missouri }
COUNTY OF Jasper } ss.

BE IT REMEMBERED, That on this _____ day of _____ 19 51, before me personally appeared Charles P. Johnson and Maude S. Johnson, his wife, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal at my office in said county the day and year last above written.

My term expires _____ _____ Notary Public.

[redacted] }
[redacted] OF _____ } ss

[redacted] day of _____, 1951, before me, a Notary Public in [redacted] and State, personally appeared Georgia Johnson [redacted] to be the person described in and who executed [redacted] instrument and she acknowledged to me that she executed [redacted] her free act and deed. And the said Georgia Johnson Moore [redacted] herself to be single and unmarried.

[redacted] WHEREOF, I have hereunto set my hand and affixed my [redacted] the day and year last above written.

_____ Notary Public

My commission expires: _____.

STATE OF MISSOURI }
COUNTY OF JASPER } ss

On this _____ day of _____, 1951, appeared before me Charles P. Johnson, to me personally known to be the person described in and who executed the above instrument, and acknowledged that he executed the same as the free act and deed of William Sharpe, for whom he is agent and attorney in fact.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

_____ Notary Public

My term expires _____.

NO. _____ RECORDING _____ R _____ Dated _____ Section _____ Township _____ C _____ No. Acres _____ STATE OF _____ COUNTY OF _____ This instrument was filed on the _____ day of _____ A.D. _____ at _____ o'c _____ in Book _____ the records of this office. By _____ When recorded _____ Return to _____

THE JOPLIN PRINTING CO., JOPLIN, MO

3

Form 33 - Printed and for Sale by [illegible] P. Schnur Ptg Co., Joplin, Mo.

MINING LEASE

THIS INDENTURE, Made and entered into this Fifth day of March, 1951, by and between ELIZA JANE ANDERSON and T. M. ANDERSON, her husband, and LUCRETIA E. FARLEY, a single person as parties of the first part and STANDARD ORE AND ALLOYS CORPORATION as party of the second part

WITNESSETH: That the parties of the First part in consideration of the undertakings and agreements hereinafter stated, to be kept and performed by the party of the Second part, its successors and assigns, do by these presents demise and lease unto the said party of the Second part, its successors and assigns, the following described real estate in Jasper County, State of Missouri, to-wit:

~~The North (N) twenty (20) acres of the North~~ except a tract ~~east Quarter (NE¼), except a tract 55 feet by~~ by 200 feet ~~200 feet out of the Northeast (NE) corner~~ Northeast (NE) East one-half (E½) of the Northeast Quarter (NE¼) of Sec. 24, T.28, R. 34

1st. The said party of the second part, its successors and assigns, shall ~~immediately~~ within 6 mo commence the work of mining said land in good faith, and shall place and have on said land, sufficient pumps and machinery to drain same of water, so as to permit of efficient mining thereof, and shall properly operate the same and shall increase the capacity thereof from time to time as becomes necessary.

2nd. The said party of the Second part, its successors and assigns, shall mine said land in a good, thorough and workmanlike manner; shall keep all shafts and drifts well and securely timbered and supported, and shall not remove such timbers and supports so as to endanger the ground, or permit the same to cave or fall in. Mining shall be carried on in good faith, continuously and shall not be suspended at any time, except on written permission of the said parties of the First part.

The said party of the Second part shall have the right to remove all rough or crush stuff from said land, to be cleaned on other land and rough or crush stuff from other land may be brought from the other land, to be cleaned and prepared for market on said land.

3rd. The party of the Second part, its successors or assigns, shall keep a correct account of the minerals mined, the kind and weight thereof, to whom sold and the price received therefor; which books shall be open to the inspection of the parties of the First part at all reasonable times.

4th. The party of the Second part, its successors and assigns, shall pay to the parties of the First part on Monday of each week, as rent or royalty, 7 1/2 per cent of the market value of all ores mined or sold during the preceeding week, with a statement showing the amount and kinds of ore sold, to whom sold, and the price received for same. Mail to First Natl. Bank Columbus, Kans

5th. The party of the second part, its successors and assigns, shall have the right to erect all necessary buildings and machinery on said land for the purpose of mining and dressing, crushing and cleaning ores thereon, and remove the same at the expiration or forfeiture of this lease, except timbering and other improvements necessary to support the ground. All uses of the ground not consistent with thorough and proper mining, as herein required, are hereby reserved to said parties of the First part.

6th. Any failure to comply with and perform the requirements of this lease in good faith at any time shall end and determine the same and the parties of the First part may declare an ouster, re-enter upon and hold said demised premises.

7th. This lease shall not be recorded unless and until ores in paying quantities shall be discovered.

8th. Mining may be carried on by excavating in the manner known as strip or open-pit mining, and in the event of any strip or open-pit mining, second party shall not be liable for damages done to the surface of said lands.

9th. Permission is hereby given to remove dirt from said premises to other lands to be cleaned and prepared for market. Surface of said premises reserved to first parties where not used by second party for mining purposes. Second party to furnish first parties true copy of log of all holes sunk on said premises. Second party to keep all gates closed. Second party shall not disturb present roadway by mining operations, and will pay damages to growing crops caused by said operations. Renter is to have use of all ground except where mining is in operation. Permission is also given to mill ores from other lands on the lands herein described.

10th. Surface conditions around the well shall not be disturbed.

11th. Mining shall not be suspended for longer than thirty (30) days at any one time without the written permission of first parties, and in the event of the violation of any of the terms hereof, first parties may give to second party ten (10) days' written notice of such violation, and if such violation or default shall not be corrected within said ten (10) days, this lease may be forfeited, at the option of first parties.

12th. Any mine on said property shall be named and known as the ~~"Linda Jean" mine.~~ "Linda Jane" mine.

Subject to these conditions this lease shall remain in full force for a term of ten (10) years from date hereof, and if operating at the end of this term shall renew the same for a life term.

IN WITNESS WHEREOF, we have hereunto set our hands and seals the day and year first aforesaid.

Lucretia E. Farley (SEAL)
Eliza Jane Anderson (SEAL)
T. M. Anderson (SEAL)
First Parties

STANDARD ORE AND ALLOYS CORPORATION
By Peter Samuels

STATE OF MISSOURI
County of Jasper } ss. On this ..... day of March 1951, before me, a Notary Public in and for said County, personally appeared Eliza Jane Anderson and Anderson, her husband and Lucretia E. Farley

to me known to be the person S described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed. And the said Lucretia E. Farley

further declared herself to be single and unmarried.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in ....., in said County and State the day and year first above written.

My term expires ..... 19.....

.....
Notary Public

STATE OF .....
County of ..... } ss. IN THE OFFICE OF THE RECORDER OF DEEDS

I, ..., Recorder of said County, do hereby certify that the within instrument of writing was, with the certificate theron, at ..... o'clock and ..... minutes ..... M., on the ..... day of ..... A. D., 19....., duly filed for record in this office, and is recorded in the records of this office, in Book ..... at page .....

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at ..... this ..... day of ..... A. D., 19.....

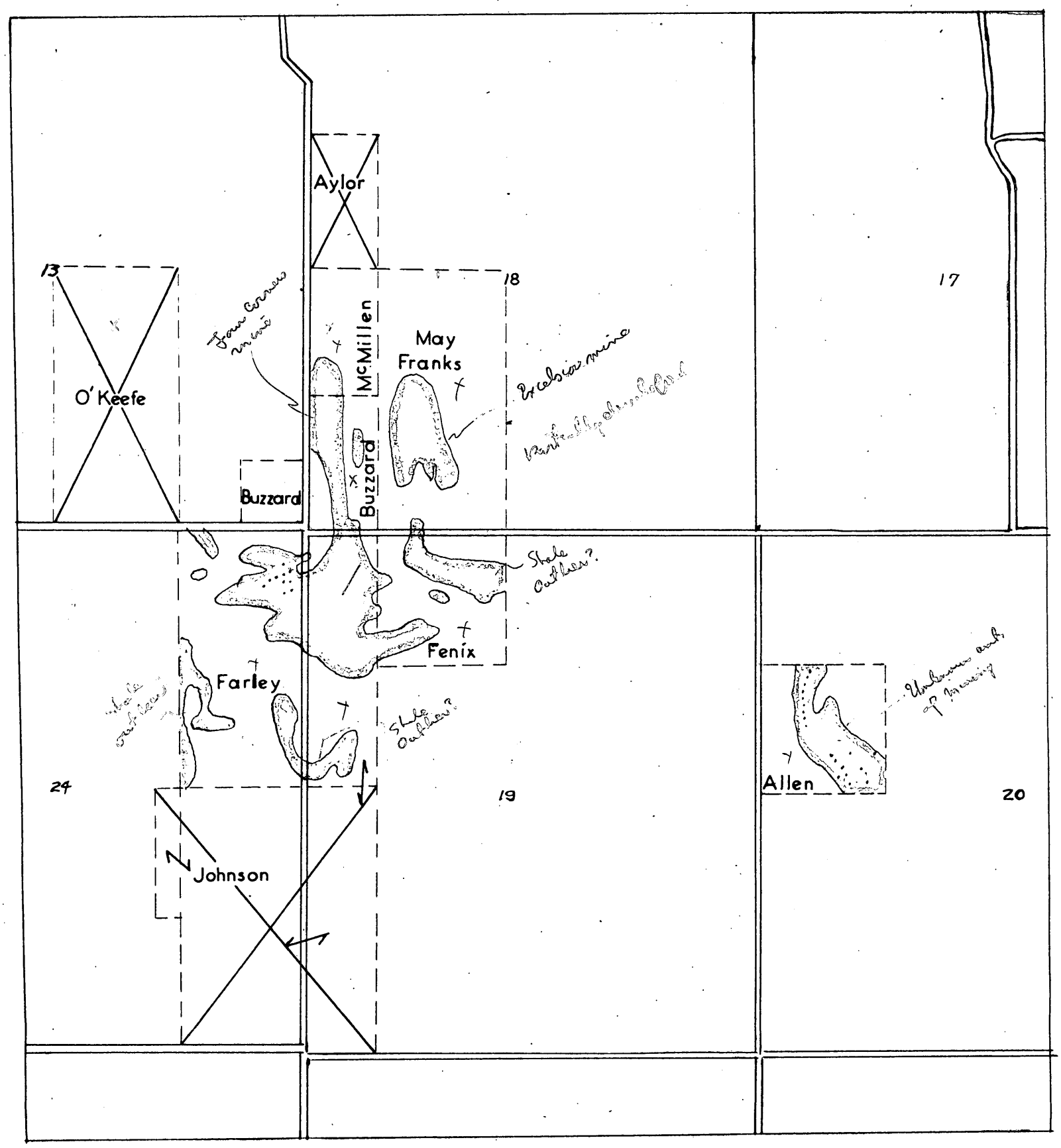
..... Recorder

.....

MINING LEASE

FROM

TO



Areas shown thus indicate slumpage and are favorable for drilling

Areas shown thus

total 232 Acres and have not yet been mapped by sub-surface methods

Areas shown thus indicate drilling being done by applicant

STANDARD MINING CORP.
JOPLIN MO.
Scale: 4" = 1 mile June, 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Joplin, Missouri
April 4, 1952

Operating Committee
Defense Minerals Exploration
Administration
U. S. Department of Interior
Washington 25, D. C.

Re: Docket No. DMA 1738X
Contract No. Idm-E-231
Standard Mining Corp.

Dear Sirs:

All material in connection with this docket was returned to Washington February 18, 1952 except this which is being forwarded herewith.

Sincerely yours,

David Gallagher

David Gallagher
Executive Chairman
DMEA Field Team, Region VI

/jd
Encl.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
APR 8 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D.C.~~
Joplin, Missouri
February 18, 1952

Operating Committee
Defense Minerals Exploration
Administration
U. S. Department of Interior
Washington 25, D. C.

Re: Docket No. DMA 1738X
Contract No. Idm-E-231
Standard Mining Corp.

Dear Sirs:

As requested in your letter of February 14, 1952, we are returning herewith all the copies of the subject contract and other documents in our possession for filing in Washington.

On January 28, 1952 we transmitted to Paul Bock one complete copy of the contract and attachments and all six of the copies of MF-200 for signature. Mr. Bock returned all six copies of the MF-200, but we have not yet received from him the one set of attachments and presume that he has retained them.

Sincerely yours,

David Gallagher

David Gallagher
Chairman
DMEA Field Team, Region VI

DG/jd
Enclosures

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

FEB 2 (1952

FILE COPY
SURNAME:

200

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

FEB 14 1952

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

Dear Mr. Gallagher:

This will acknowledge your memorandum dated February 11, 1952 in which you forwarded a letter from Paul Bock, Vice President of the Standard Mining Corporation, reference Docket No. DMA 1738X (Contract Idm-E-231).

Please return all copies of the contract and all other pertinent documents, for filing in this office.

Sincerely yours,

ROBERT E. ADAMS

R.E.A. 2-14-52

Robert E. Adams
Acting Administrative Officer
Defense Minerals Exploration
Administration

READAMS/meb
2-14-52
cc to: Adm.Reading File
Mails & Files

Note: incoming letter held in Mr. Adams' office.

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

Mr. Thomas

February 11, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 1[illegible] 1952

To: DMEA Operating Committee

From: David Gallagher

Subject: Standard Mining Corporation
Docket No. DMA 1738X
Contract Idm-E-231

Attached is a copy of a self-explanatory letter from Paul Bock, Vice President of the above company advising that he is not signing the contract, as the company has decided not to undertake the exploration.

The copies of the unsigned contract and all other pertinent documents are being retained in the Joplin file. They will be forwarded to Washington if you so request.

David Gallagher

David Gallagher

Attachment

DG/lh

FEB 11 1952

STANDARD MINING CORPORATION

GENERAL OFFICE:
120 WALL STREET
31ST FLOOR
NEW YORK 5, N.Y.
WHITEHALL 3-1600

MINES:
CUSHMAN, ARKANSAS
TEL: CUSHMAN 987M-4

February 6, 1952

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

Re: Docket No. DMA 1738X
Standard Mining Corporation
Exploration Project Contract Idm-E-231

Dear Mr. Gallagher:

Thank you very much for your letter of January 28, 1952, with one complete copy of the above mentioned contract with attachments, and one original and four copies of Form MF-200.

Since, in the meantime, we found out that our efforts in similar explorations in the same region did not meet with the success we had hoped for, we have decided, for the time being, not to embark upon a new venture which would consume our and the Government's money without too much hope for the establishment of a profitable exploration.

I deeply regret, therefore, that I have to return to you all copies* of the contract without our signature, knowing that you yourself have spent considerable time and effort by helping us in this matter.

Sincerely yours,

STANDARD MINING CORPORATION

Paul Bock

PB:ur

Paul Bock, Vice President

*returned 6 copies of forms MF-200
but did not return attachments.
PB 2/12/52

xxxxxxxxxxxxxxx
Joplin, Missouri

January 28, 1952

Mr. Paul Bock
Standard Mining Corporation
120 Wall Street, 31st Floor
New York 5, New York

Re: Docket No. DMA 17[illegible]X
Standard Mining Corporation
Exploration Project Contract Idm-E-231

Dear Mr. Bock:

The original and five copies, with bulky attachments, of the above-subject contract already signed by C. O. Mittendorf, Acting Administrator, Defense Minerals Exploration Administration, have been forwarded to me for my review and for appropriate signature on behalf of the Standard Mining Corporation.

Enclosed is one complete copy of the contract, with all attachments, and also the original and four copies of Form MF-200, the portion of the contract on which signature is needed, detached from the bulky maps and attachments which I have retained here to facilitate mailing.

If the terms and conditions of this contract are satisfactory will you please have all six copies of Form MF-200 signed by a duly authorized official of the Standard Mining Corporation; retain as your copy of the contract one copy of MF-200, complete with the attachments enclosed, and return the original and four signed copies of Form MF-200 to me so that I can re-attach the maps and other documents and give appropriate distribution to these copies of the contract.

Sincerely yours,

David Gallagher
Executive,
DMEA Field Team, Region VI

Attachments

DG/lh

FILE COPY
SURNAME:

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

Moulds

JAN 9 1952

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

Re: Docket No. DMA 1738X
Standard Mining Corporation
Exploration Project Contract Idm-E231

Dear Mr. Gallagher:

We are enclosing the original and five copies of the above subject contract, signed by this office for the Government, together with Appendix No. 1, Exhibit "A" (4 pages), Guaranty Agreement, 9 leases and 3 maps.

If the terms and conditions of this contract meet with your approval and are satisfactory to the Operator, all six copies should be signed by a duly authorized official of the Company. One copy should be given to the Operator, one copy retained by your office and the original and three copies returned to this office. However, if there are any changes required which cannot be made by amending the contract by authority delegated to you, all the contract copies should be returned to this office with your comments regarding the proposed changes.

Sincerely yours,

Signed S.H. 1-9-52

Chairman, Operating Committee
Defense Minerals Exploration
Administration.

Enclosures - 6

JWAlt/hmj
12-18-51

APPROVED:

cc to: Adm. Reading File
Mails and Files
Mr. Mittendorf
Mr. Alt
Mr. Moulds
Mr. Mote
Mr. McKnight
Region VI
Docket

Member, Bureau of Mines

Member, Geological Survey

FILE COPY
SURNAME:

Guthrie

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

140

R. & R.

December 11, 1951

Memorandum

To: Director, Production Expansion Division

From: Chief Counsel

Subject: Standard Mining Corporation, exploration project contract--Docket No. DMA-1738x

The draft of the exploration project contract in this case, submitted to us on December 7, is approved as to legal form and sufficiency for signature on behalf of the Government, subject to:

1. Proper signature on behalf of the applicant.

2. Proper dating prior to delivery.

3. Government approval of any subcontracts.

4. Correction of the typographical error in the exhibit under Phase II, (a), 1; the $1,000 should be $7,000.

Your file on the case is returned herewith.

J. L. Hofflund
J. L. Hofflund
Chief Counsel

Attachment

RRGuthrie/em

Copy to: Reports and Records
R. R. Guthrie
J. L. Hofflund
chron.

STANDARD MINING CORPORATION

GENERAL OFFICE:
120 WALL STREET
31ST FLOOR
NEW YORK 5, N.Y.
WHITEHALL 3-1600

MINES:
CUSHMAN, ARKANSAS
TEL: CUSHMAN 987M-4

October 31, 1951

ok.

Registered

Mr. Tom Lyon, Director
Supply Division
U.S. Department of the Interior
Defense MineralsAdministration
Washington 25, D.C.

Dear Mr. Lyon:

Re: DMA-1738

In answer to your request of October 23rd, 1951 for 6 copies of the Lease Agreements on the "Four Corners Tract" on which we have an application for a DMA loan, we are enclosing herewith 6 copies of each of the 9 Lease Agreements.

Very truly yours,

STANDARD MINING CORPORATION

Paul Bock

ss Paul Bock

Encl.

Pr.

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
NOV 2 3 38 PM '51

FILE COPY
SURNAME: 350

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

Newcomb (ETM)
McKnight
Johnston.

Re: DMA-1738

OCT 23 1951

a.z.e.

Mr. Paul Bock, Vice President
~~Standard Mining Corporation~~
Box 823
Joplin, Missouri

Dear Mr. Bock:

Your application for an exploration loan on property in Jasper County, Missouri, has been reviewed by the Defense Minerals Administration.

In order to complete your application, it will be necessary for you to send in six (6) copies of your lease agreements. Further processing of your application can be made when we have received these copies.

Very truly yours,

SIGNED

10/23

Tom Lyon, Director
Supply Division

ELNewcomb:emp
G 10-16-51
Copies to: David Gallagher Region VI (2)
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket files

McKnight
6/5/51
Bishop to Johnson.

OCT 23 1951

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1738

To: Production Expansion Division

Commodity Lead, zinc

From: Director, Supply Division

Total Amount $84,400 requested
$20,600 recommended

Govt. Participation 50% $10,300

1. Name and Address of Applicant Paul Bock, Vice President, Standard Mining Corporation, Box 823, Joplin, Missouri

2. Location of Property Secs. 18, 19, and 20, T. 28 N. R 33 W., and Secs. 13 and 24, T. 28 N., R. 34 W., Jasper County, Missouri

3. Mineral or metal Lead, zinc Is it listed in Section 9 of MO-5?

If not, application will be rejected.

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

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

a) Good Yes, see attached draft

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
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? No (see 17)

Does the lease have sufficient time to run to cover a future productive period? Don't know

*question numbers are those of MF-103

4. (a) The "sink" geological structures in the Tri-State district favor the discovery of "soft ground" ore deposits by resistivity methods. The "low" areas indicated by resistivity anomalies appear to be directly related to zones of high porosity which have often been mineralized. Though the resistivity method is not a direct ore finding technique, it does indicate the most favorable areas for drilling. The proposed drilling of geophysical "lows" (Phase I of the program) can be justified on the basis that previous projects of this kind in the district have been reasonably successful.

7. Are subordination agreements necessary? Yes

a) MF-201? _____

b) MF-202 Yes (see attached Guaranty Agreement)

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, see MF-200

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? Yes If so, attach a draft. See MF-200

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? No

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. See MF-200

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? No

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.
Recommended that Phase I of program be approved - E.L. Newcomb

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? Letter has been sent to applicant for a copy of his lease.

Returned herewith are:

6 copies MF-200
2 " MF-100
1 " MF-103

Reviewed by: E. L. Newcomb GS

Date 10-15-51

approved:
A M Fraons,
Acting Director
Mineral Division

INT.-DUP. SEC., WASH., D.C. 99009

xxxxxxxxxxxxx
Joplin, Missouri

October 8, 1951

Mr. Jack Gilbert, Superintendent
Standard Mining Corporation
Box 823
Joplin, Missouri

Subject: Docket No. DMA-1738X
Zinc-Lead Exploration
Jasper County, Missouri

Dear Jack:

Enclosed is one of the six copies of a proposed DMA exploration contract, all six of which will be transmitted to Washington, D. C. immediately upon receiving your consent. They were typed in this office upon the basis of the rough draft that you and I mutually prepared and appear to me to be fair to all parties concerned. I believe you will find that Exhibit "A", attached as a part of the proposed contract, gives a detailed clarification of the various questions which I have brought up since the above subject application docket was returned from Washington to David Gallagher of this office by the DMA Coordinating Committee on September 7, 1951. Also attached as a part of each copy of the contract are two maps showing the proposed preliminary churn drilling pattern we have likewise mutually agreed upon.

It is regrettable that all the owners of the tracts still refuse to sign the "Landlord's Subordination Agreement" in spite of all your renewed efforts. In lieu of those agreements we can hope that there is still a possibility for the approval of the application in view of the copies of the "Guarantee Agreement" transmitted to the Defense Minerals Administration with Mr. Goldschmidt's letter of June 21, 1951. He mentioned that such an alternative had been suggested by G. L. Hoffhund, General Counsel of DMA, in a letter dated May 2, 1951 and that those copies should be attached to the above subject application docket.

Should the above-mentioned proposed DMA Exploration Project contract be approved by the Production Expansion Division, Defense Minerals Administration, Washington 25, D. C., all six copies will be transmitted to Mr. Paul Rock, Vice President, Standard Mining Corp., 120 Wall Street, 31st Floor, New York 5, N. Y., for his signature of approval for that Corporation.

Very respectfully yours,

Clinton C. Knox
For David Gallagher

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

October 8, 1951

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
OCT 10 5 PM '51

Memorandum

To: Chairman, Lead-Zinc Commodity Committee

Through: Landon F. Strobel

From: Clinton C. Knox, for the Field Team, Region VI

Subject: Standard Mining Corporation
Jasper County, Missouri
Docket No. DMA 1738X

Enclosed are six copies of a proposed exploration project, each with attached Exhibit "A" and two maps showing tentative preliminary hole locations for the Standard Mining Corporation, Jasper County, Missouri, Docket No. DMA 1738X.

The location of drill holes have been planned by this office in consultation with a representative of the applicant. The estimated costs for preliminary engineering, geological and geophysical work is a substantial item in the contract, but the Field Team feels that the costs compare very favorably with other such projects. It should be noted that this work will be part of Stage II, which must be preceded by reasonable success in Stage I drilling.

The Subordination Agreement, Form MF-202, is the chief cause of so few attractive exploration applications in the Tri-State district because farmers in this particular locality will not tie up their entire holdings under such an agreement. This situation is most unfortunate because of the great potential production still remaining in this district. The applicant has signed a guarantee agreement similar to that accepted from the National Lead Company and the American Zinc Company. However, it is hoped that this will meet with the approval of the Committee.

From a potential production standpoint, this appears to be an attractive project for DMA. I cannot vouch for the personalities involved.

Clinton C. Knox

Clinton C. Knox

OCT 10 1951

5

FILE COPY
SURNAME: 350

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

Lyons (E.T.M.)
McKnight
Bishop
Billingsley

Re: DMA-1738X
Standard Mining Corp.
Lead, zinc
Exploration loan $84,400

Mr. David Gallagher
Executive Officer, DMA-Field Loan
Region VI
221 West 3d Street
Joplin, Missouri

G. E. C.

Dear Mr. Gallagher:

The attached application submitted by the Standard Mining Corporation, Box 823, Joplin, Missouri, for a loan to explore their properties in secs. 18, 19, and 20, T. 28 N., R. 33 W., and secs. 13 and 24, T. 28 N., R. 34 W., Jasper County, Missouri, has been reviewed by the Defense Minerals Administration.

It is believed that geologically the exploration is warranted and that the methods of exploration are satisfactory. However, there are some questions regarding costs, supervision and overhead that can best be answered by conference with the applicant. Specifically the information required is as follows:

(1) The rate of $200 per day for geophysical work appears high. This might be justified, but it will be necessary to know the number of men in the crew, their salaries, whether or not the crew surveys and brushes lines, etc.

(2) The engineering and supervisory costs for both the geophysical work and drilling also appear high and should be checked.

(3) On all costs where labor is involved there should be an itemization of the number of men, number of days, wage and salary rates for each classification.

The applicant should be requested to submit a map indicating locations of drill holes at least for that part of the property on which the geophysical work has been completed.

Also required will be six copies of Form MF-202 "Landlord's Subordination Agreement", for each of the properties involved in the exploration. Six copies of Form MF-201, "Mortgagor's Subordination Agreement", also should be obtained for any property against which there are any claims, liens, or encumbrances.

Very truly yours, B.J.
Tom Lyon 9/7

Tom Lyon, Chairman
Coordinating Committee

EJLyons:emp
8-31-51 G
Copies to: Chief, Lead-Zinc Br.

E. T. McKnight 4204
R. H. Mote GSA
Reports & Records
Directors r. file
Br. r. file GSA 4204

for Bureau of Mines

S. Roger for Geological Survey

FILE COPY
SURNAME:

350

Lyons (ETL)
McKnight
Bishop
Gallagher
Thayer
Wyoon

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

Re: DMA-1738X

SEP 7 1951

Standard Mining Corporation
Box 823
Joplin, Missouri

Gentlemen:

Your application for a loan to explore your properties in secs. 18, 19, and 20, T. 28 N., R. 33 W., and secs. 13 and 24 in T. 28 N., R. 34 W., Jasper County, Missouri has been reviewed by the Defense Minerals Administration and has been referred to Mr. David Gallagher, Executive Officer, DMA Field Team, 221 West 3d Street, Joplin, Missouri, for further information and advice.

Very truly yours,

SIGNED BJ 9/7

Tom Lyon, Director
Supply Division

EJLyons:emp
G 8-31-51
Copies to: David Gallagher Region VI (2)
Chief, Lead-Zinc Branch
E. T. McKnight 4204 GSA
R. H. Mote
Reports and Records
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

FILE COPY
SURNAME:

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

June 29, 1951

Mr. Paul Bock, Vice President
Box 823
Joplin, Missouri

Subject: DMA-1738X
Re: Exploration Loan -
Four Corners Area

My dear Mr. Bock:

Receipt is acknowledged of your application and attachments of June 25, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1738X and referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on June 28, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1738X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
File
Herres
Lyon

STANDARD MINING CORPORATION

GENERAL OFFICE:
120 WALL STREET
31ST FLOOR
NEW YORK 5, N.Y.
WHITEHALL 3-1600

Joplin, Missouri
MINES:
CUSHMAN, ARKANSAS
TEL: CUSHMAN 987M-4

New York, June 25, 1951

To the Director
Defense Minerals Authority
Washington, D.C.

Dear Sir:

An application for a D. M. A. loan as authorized by Mineral Order No. 5, Defense Production Act of 1950, will accompany this letter. The application folder will contain sub-surface resistivity maps which cover a portion of the area and surface maps which will show the drilling, and will also have on the surface maps a partial delineation of the underground workings for the area involved. There also is a district map that is scaled one inch to the mile, which will serve to quickly locate the area in relation to its proximity to Joplin, Missouri. This area is shown in colors as is also the location of the mill to which the ores, when produced, will be shipped for concentration. There is also an additional sketch at a scale of four inches to the mile which shows the immediate area and also designates the portions of each separate lease that have been found by resistivity to be the most likely spots for drilling. The holes which have already been drilled by the applicant on the Farley lease and the Allen lease are designated, although they are rather small but will serve the purpose of showing the drilled areas. There remains a total of 232 acres which have not yet been covered by the resistivity survey and funds for this survey are included in our application. A separate report to the Standard Mining Corporation from a district geologist will serve to further clarify what we wish to accomplish.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951
LAMBERT F. STROBEL
Executive Secretary

Very truly yours,

STANDARD MINING CORP.

Paul Bock

Paul Bock, Vice President

PB:FF

June 22, 1951

Mr. Frank H. MacPherson, Manager
U. S. Atomic Energy Commission
Raw Materials Office
Box 270
Grand Junction, Colorado

Subject: Standard Mining Corporation

Dear Mr. MacPherson:

Under date of June 2, we are in receipt of a letter from the subject company requesting priority assistance in securing a D7 caterpillar tractor to assist in a drilling campaign covering uranium claims in the Squaw Park area of Utah.

As we have no information relative to the merit of applicant's operations, we are going to ask you to kindly give us your opinion as to the possibilities and the merit of this application for equipment. Caterpillar tractors of this size are in very short supply and applications should receive consideration only where justified.

Yours very truly,

E. T. Miller
Requirements Division

ETMiller:fdr

Copy to: Files
Admin. Reading File
Mr. Strobel
Mr. Montag
Mr. Miller

CABLE: STANDORES

STANDARD ORE & ALLOYS CORPORATION

120 WALL STREET

NEW YORK 5, N. Y.

WHITEHALL 3-1600

IN REPLY REFER TO:

June 21, 1951

United States Department
of the Interior
Defense Minerals Administration
Washington 25, D.C.

Gentlemen:

We herewith submit guarantee agreement as requested by your General Counsel, Mr. G. L. Hofflund, as per his letter dated May 2, 1951, which is given in lieu of land holder's guarantee.

Very truly yours,

STANDARD ORE & ALLOYS CORP.

C. A. Goldschmidt

C. A. Goldschmidt

CAG:FF
Enc.

(attached to contract)

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

May 2, 1951

Standard Mining Corporation
120 Wall Street
31st Floor
New York 5, New York

Attention: Mr. Karl J. Schumer

Gentlemen:

Reference is made to your letter to me of April 25, referring to a telephone conversation with you on that date concerning the requirement in our exploration program for the subordination agreement of landlords.

The purpose of this requirement, as indicated in your letter, is clear. It has seemed to us in the case of leasehold interests the only practicable guarantee of repayment to the Government from minerals located on those interests is by means of the subordination agreement of the land owner. If any equivalent substitute can be devised, I think that the Government should accept it if the lessee-applicant would prefer it. The problem is to devise such an equivalent substitute.

You have suggested that you or your holding corporations would be willing to guarantee the repayment of the money that might otherwise be due to the Government under the contract with subordination agreements of landlords attached.

The only difficulty I have with this suggestion is that the subordination agreements of landlords would come into effect only in the event that the subject mineral deposit should be operated by someone other than the lessee. In this event, there seems to be no sure way of ascertaining what the net smelter returns from operations would be, and any payments that might be due the Government are based entirely on net smelter returns. Of course, the smelter or whoever operates the property in place of the present lessee, might be willing to supply us with the necessary net smelter returns, but there is no certainty that this would be the case.

In these circumstances, it seems to me that any lessee or interests connected with the lessee that would prefer to guarantee the payments to the Government as a substitute for subordination agreements from landlords, would have to broaden their undertaking somewhat as follows:

> WHEREAS, the United States of America and _____, as of even date herewith expect to enter into an exploration project contract in which the undersigned has an interest; and
>
> WHEREAS, by the terms of said exploration project contract the subordination agreements of the owners of the lands described in said contract would, except for this undertaking, be required by the Government;
>
> NOW THEREFORE, in consideration of said exploration project contract and of the interest of the undersigned therein, the undersigned hereby undertakes and agrees to pay to the United States of America all sums that may fall due under the terms of said contract to reimburse the Government for its expenditures under the terms of said contract in the same manner and to the same extent as if the subordination agreements of the land owners had been given. If for any reason the net smelter 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 undersigned 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 undersigned agrees that the determination thereof by 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 undersigned.

Please consider the foregoing, and if it seems practicable to you prepare a form of such undertaking and submit it with your application for aid for an exploration project.

JLHofflund/em

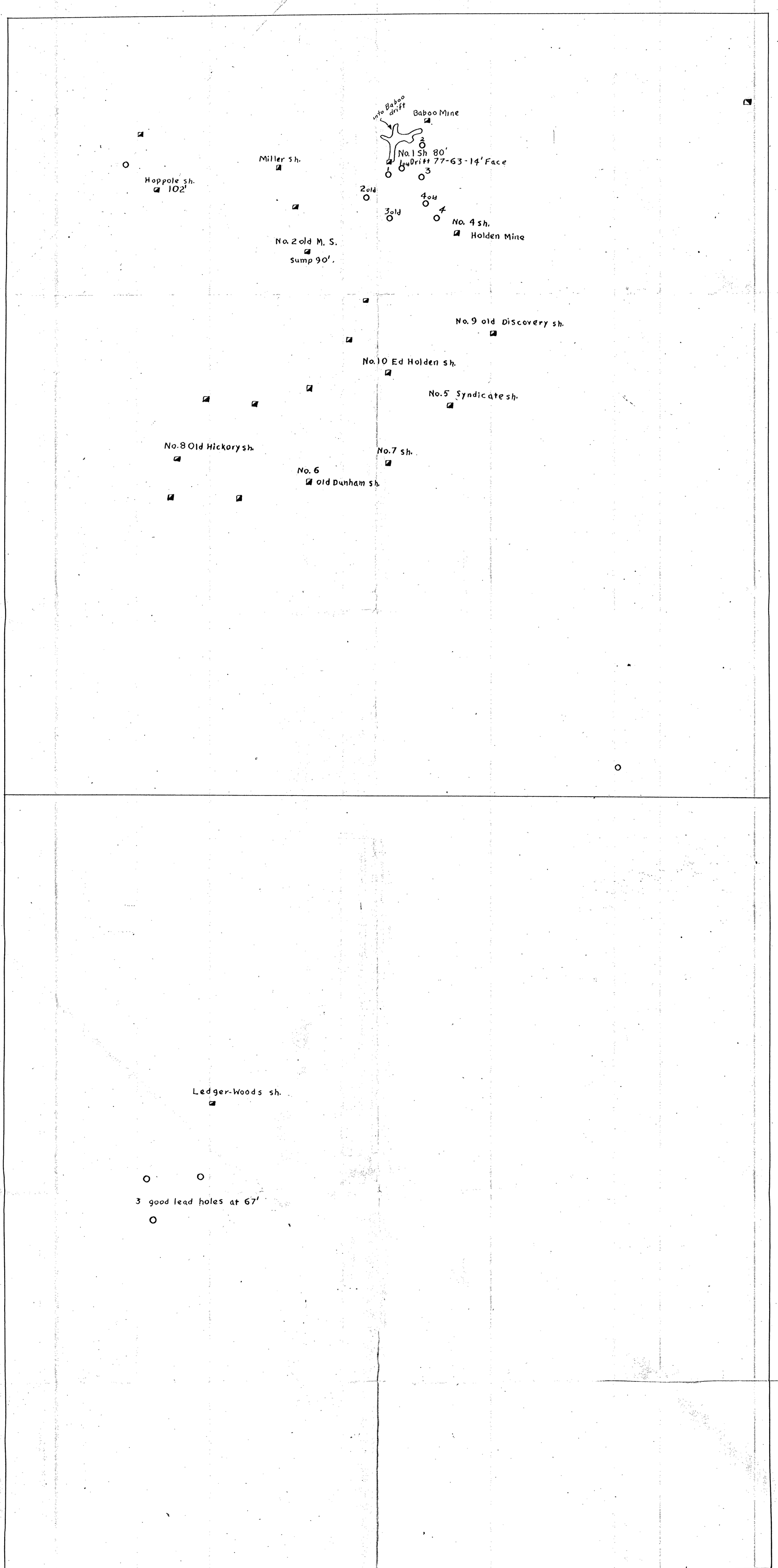
Very truly yours,

J. L. Hofflund

J. L. Hofflund
General Counsel

Copy to: Adm. Reading File
C. O. Mittendorf
L. F. Strobel
C. J. Koontz

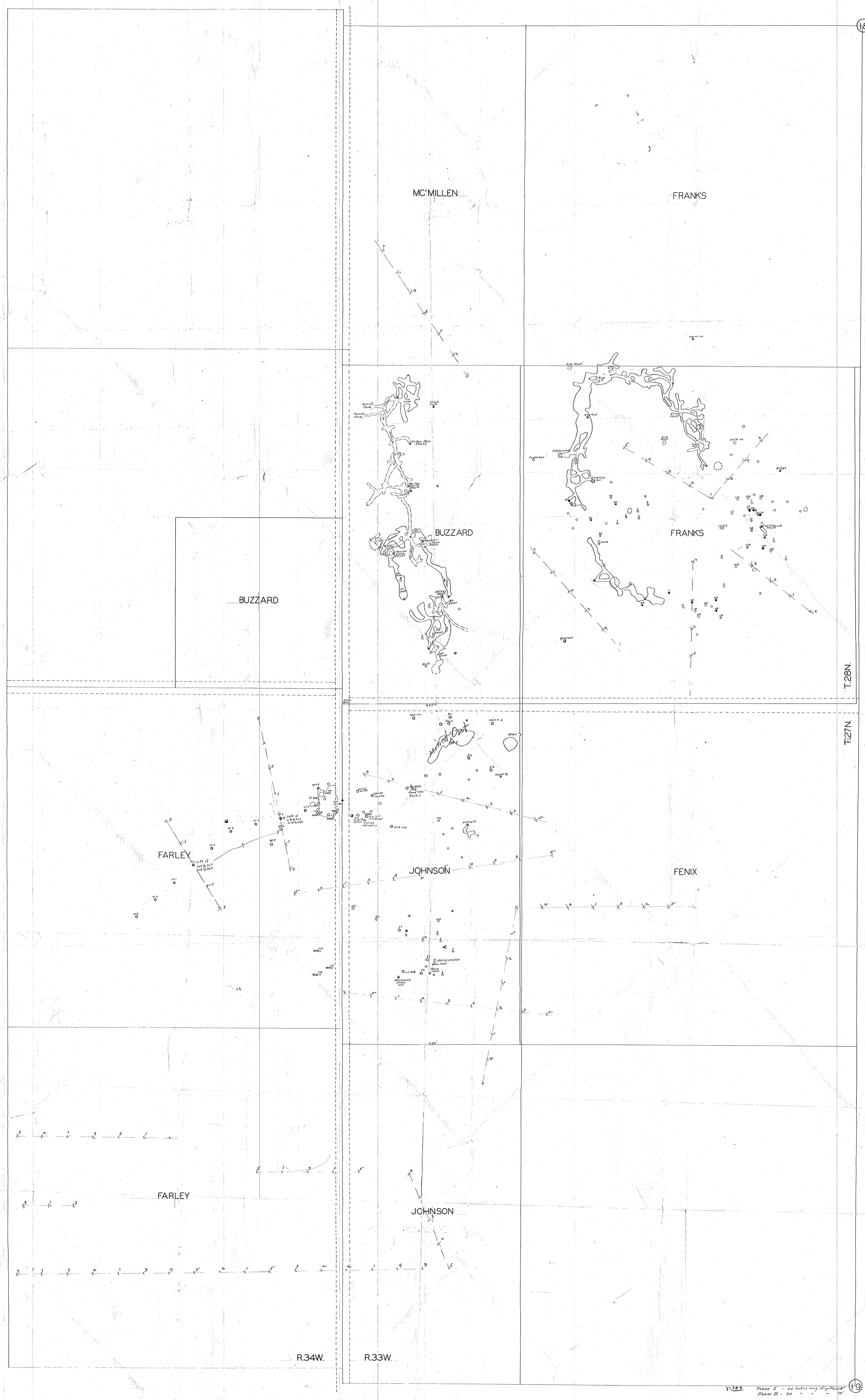
J. L. Hofflund Files



STANDARD MNG. CO.
O'KEEFE LAND
FOUR CORNERS AREA

W 1/2 SE 1/4 Sec. 13 - T. 28n. - R. 34w.
JASPER CO. MO.
SCALE 1" = 100'

● GOOD HOLE
⦶ SHINE HOLE
O BLANK HOLE


18
MC'MILLEN
FRANK'S
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T.28N.
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FARLEY
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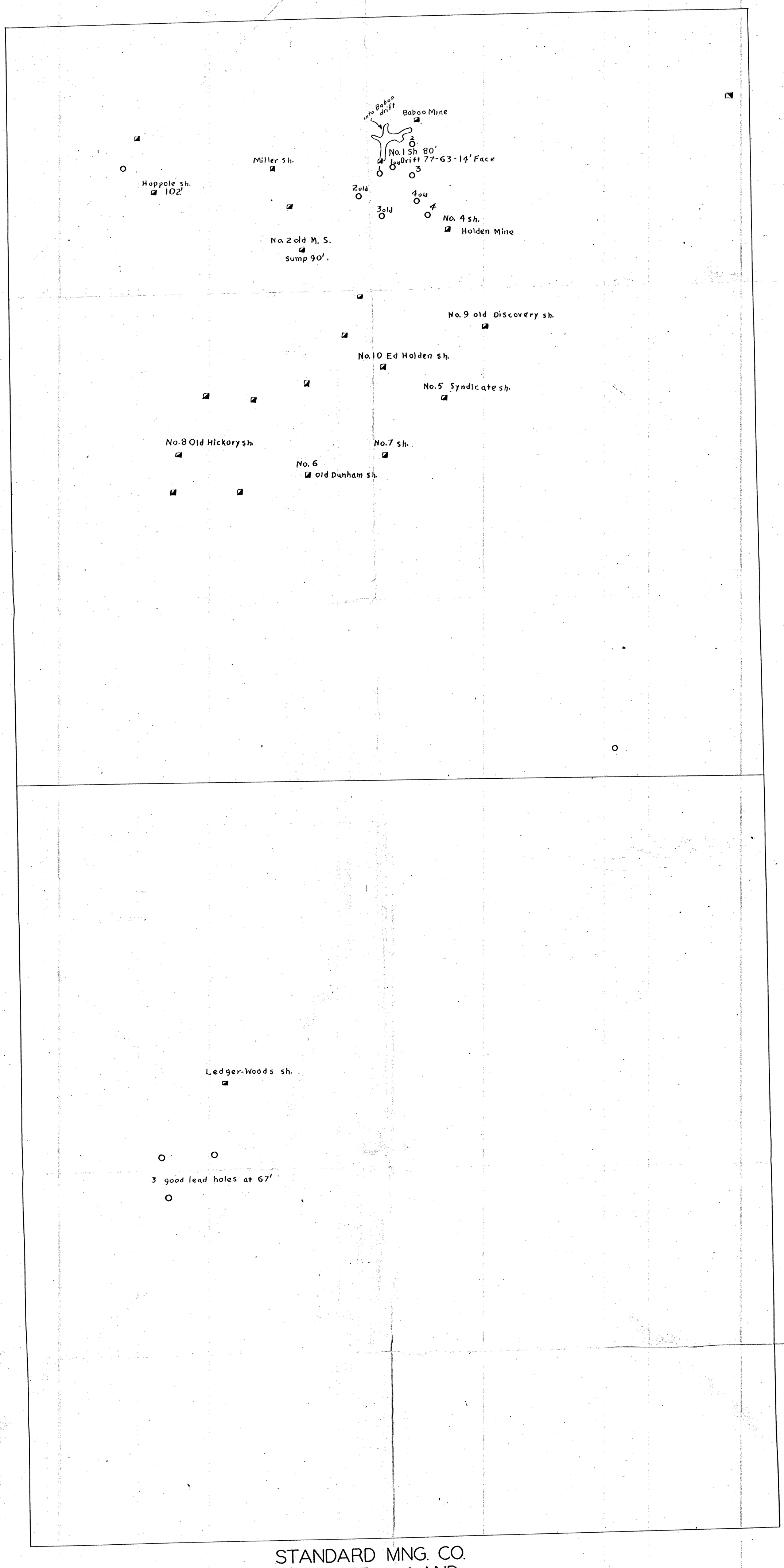
19
FOUR CORNERS AREA
STANDARD MNG. CORP.
scale 1"=100'
may 1951
wm. stewart
eng. co.

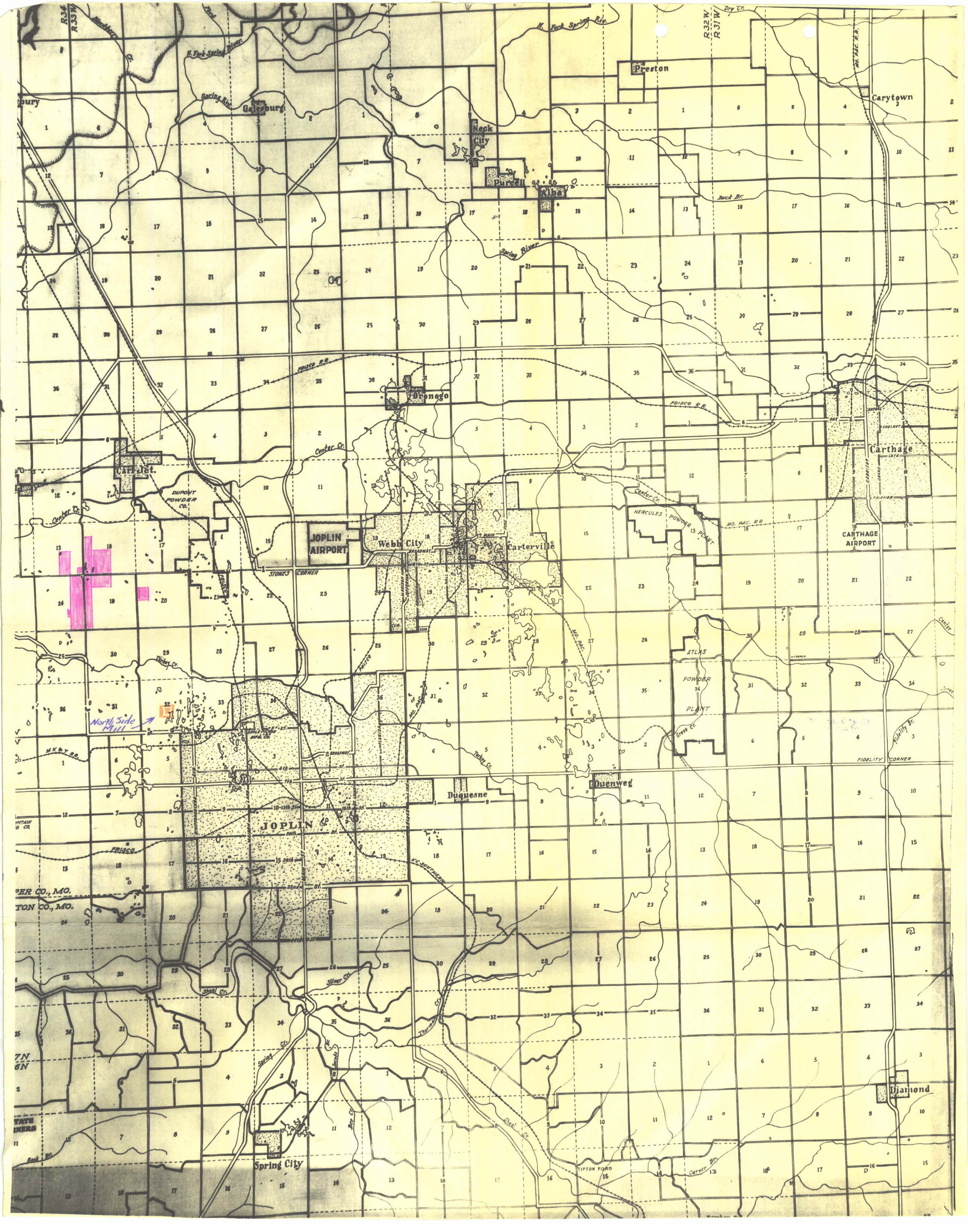
No. 28



STANDARD MNG. CO.
O'KEEFE LAND
FOUR CORNER'S AREA

W 1/2 SE 1/4 Sec. 13 - T. 28n. - R. 34w.
JASPER CO. MO.
SCALE 1" = 100'

● GOOD HOLE
Ⓓ SHINE HOLE
O BLANK HOLE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N. Fork Spring River
Spring River
Galesburg
Neck City
Purdell
Alba
Preston
Carytown
Buck Br.
Dry Cr.
Mo. Pac. R.R.
Frisco R.R.
Oronogo
Carl Jct.
DUPONT POWDER CO.
Center Cr.
JOPLIN AIRPORT
Webb City
Carterville
STONES CORNER
Carthage
CARTHAGE AIRPORT
HERCULES POWDER PLANT
ATLAS POWDER PLANT
Turkey Cr.
North Side Mill
M.K.&T. RR.
Duquesne
Duenweg
JOPLIN
FIDELITY CORNER
K.C. SOUTHERN
Silver Cr.
Shoal Cr.
Spring Cr.
Thermal Cr.
Spring City
Diamond
TIPTON FORD
Carver Br.
Grove Cr.
Fidelity Br.
Rock Br.