SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period July 1 to Dec. 31, 1958 **Date of ~~Examination~~ last visit** Feb. 1958

Operator Ozark-Mahoning Company

Mine Name Hill-Ledford Tract

County and State Hardin County, Illinois

Docket No. and Commodity — **DMEA** - 2248 (fluorspar)

Contract No. — **Idm-E** 255

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 22 1958

DATE	INITIALS	CODE
12/22	C	220
		~~410~~
12/23	BEF	800
12/27	Zmk	600

Date of Contract June 2, 1953

Date of Certification July 7, 1954

Expiration Date of Royalty Payments June 2, 1963

Total Amount of Contract $ 122,715.00

Total Expenditures under Contract $ 85,482.54

Amount of Government Participation at 50 % $ 42,741.29

Royalty Payments ~~this Period~~ since last report $ 10,828.02

Previous Royalty Payments $ 28,550.62

Total Royalty Payments to ~~Date~~ Dec. 15, 1958 $39,378.64

Precent Government Participation Repaid 92.13

Royalty Due on Production to Date

Royalty Remarks Royalty has not been paid for any production during Oct., Nov., Dec., 1958.

	Tons	Analysis		
		CaF_2	Zn	Pb
Original Estimate of DMEA Reserves (Field Team Final Report) Mines [ ] Survey [ ] Joint [x]	463,600	35.5	2.58	0.12
Revised Estimate of DMEA Reserves (Field Team) Mines [ ] Survey [ ] Joint [ ]	None			
		CaF_2	Zn	
Increase of Reserves by work performed subsequent to DMEA project work	484,418	33.20	1.30	
Production DMEA ore (This period) April/to Sept. 30, 1958	10,515.3	45.41	0.55	
(Previous) to April 1, 1958	26,945.6	44.41	0.596	
Total (To date) to Sept. 30, 1958	37,461	44.70	0.58	
" Operator's ore found subsequent to DMEA work (This period)	None			
(Previous)				
(To date)				

Percent Revised Reserves mined 3.95% of 948,240 tons revised reserves.

(For Uranium Ores Only)

Initial Production Bonus:

Status of Operator: Ineligible [ ] Applied for [ ] Rec'ing pmt [ ] Pd up [ ]

Pounds U_3O_8 produced this period eligible for Bonus

Amount of Bonus paid to Operator this period $

Total pounds U_3O_8 produced to date eligible for Bonus

Total amount of Bonus paid to Operator to date

Bonus Royalty Paid $

Bonus Royalty Due $

Investment Data

Shafts

Size	Feet	Cost

Winzes

Size	Feet	Cost

Drifts & Crosscuts

Size	Feet	Cost

Raises

Size	Feet	Cost

Drilling

Type & Size	Feet	Cost

Rehabilitation

Description	Cost

Facilities

Mine Plant

Description	Cost

Mill

Description	Cost

Roads

Description	Cost

Signed H. L. Burmeister
Engineer

7446

REPORT OF VISIT TO CERTIFIED PROJECT

DMEA 2248 (Fluorspar), Contract
Idm-E 255, Ozark-Mahoning Company
Hill-Ledford Tract, Hardin County,
Illinois

2/11	C		220
12	Corr		100
12	JSP		110
2/24	EEP		800
			600

Mining operations resulting from exploration under this contract were inspected on January 24, 1958. The engineer was accompanied underground by Mr. E. A. Brecky, chief geologist. Mr. Brecky and Mr. A. G. Johnson, General Manager, were interviewed in the Company offices.

Production from this DMEA area from December 1955 to March 1957 came only from development work in sinking the shaft and cutting out the station on the 725 foot level. This being a bedded deposit only one level is necessary. Ore processed to December 31, 1957 totals 19,867.8 tons, having an average content of 41.90 percent CaF_2 and 0.69 percent zinc. Total royalties received amount to $18,578.20 which does not include royalty on 1567.75 tons processed in December 1957 but not sold as of the date of visit.

During November and December only a small amount of ore was produced as an effort was made to confine most work to needed development involving large amounts of waste rock. Development consisted largely of driving 325 feet of drift. The mine is now in a position to produce ore steadily for a considerable time without further development work.

Mine workings as of January 24, 1958 are shown in plan on attached Figure 1. The ore control structures are also indicated on the plan which is the same scale and coordinated with the map accompanying the Operator's final report. All churn drill holes shown were drilled under the DMEA program and values found in drilling were very similar to those found in

College Park gives a lot of interesting narrative but also not bad down facts according to reporting format.

DMBA-2248 (Fluorspar)
" 2838 (")
" 3338 (" , lead, zinc)

DMBA
2248

mining the areas where holes were encountered. The mining floor level varies only 21 feet from end to end of the workings as indicated on Figure 1 and this difference is accounted for by the regional dip to the northeast.

Structures A-A', B-B' and D-D', Figure 1, trace the strike course of what are locally known as "V" structures. These structures are accepted as being the result of solution of limestone along minor fractures and the subsequent subsidance and collapse of the limestone into a "V" along the strike of the original fracture. These partially open "V" areas were later the course of mineralized solutions. Some of these "V" structures contain angular blocks of limestone which measure, 1 x 1 x 2 feet. It will be noted that these structures are persistant along the strike and very definitely are an ore control.

Line E-E', Figure 1, represents what is locally termed, "open ground". This "open ground" area consists of open caverns and passages formed by solution of the Fredonia limestone. Solution action was not followed by collapse as in the "V" structure. The openings wander about to a certain extent and are usually lined with fluorspar and sphalerite but in places are barren of mineralization. In many instances the original cavern has been completely filled with mineral. The A-A' area contains a far greater percentage of both zinc and lead sulphides than the "V" type structures and for this reason is not being mined at present except to the extent necessary for exploration.

Rosiclare sandstone which forms the back of the workings, usually stands well with only the ore left as pillars for support. Roof bolts are occasionally used but have generally been found to be ineffective due to

small block slabbing above the bolt plate. The bedded ore averages approximately 9 feet in thickness. Mining progresses by advancing a face the full height of the ore and about 20 feet wide. Ore pillars left between drifts contain approximately 25 percent of the total ore. After normal mining is completed the pillars are removed by retreating toward the shaft. Ten percent of the entire ore body is lost when pillars are pulled and 90 percent has been recovered.

Leynor drills are used in advancing the drift faces. No sorting is done and mucking is carried on by the use of either a slusher in conjunction with a mobile loading ramp, or by using an Eimco No. 630 loader equiped with a $\frac{1}{2}$ yard scoop. Both these pieces of equipment are electrically operated on 220 volt current. Both types of mucking equipment deliver directly to 4 ton, rear dump, scrubber equiped diesel trucks. Crushing is done underground and trucks dump onto a 36 inch apron feeder discharging to a 24 x 36 inch jaw crusher driven by a 440 volt, 75 h.p. motor. The soft and friable feed accounts for the low horsepower. Crushed ore is discharged into a 50 ton pocket equiped with 2 measuring chutes with hydraulic gates serving the $2\frac{1}{4}$ ton skips which operate in balance. The hoisting unit includes a 6 man cage above the skip. The ore cycle of skip loading , hoisting and dumping is 60 seconds. The top dump skips discharge into a 250 ton bin, from which the ore is carried 19 miles by 10 ton diesel trucks to the Rosiclare mill.

H. L. Burmeister

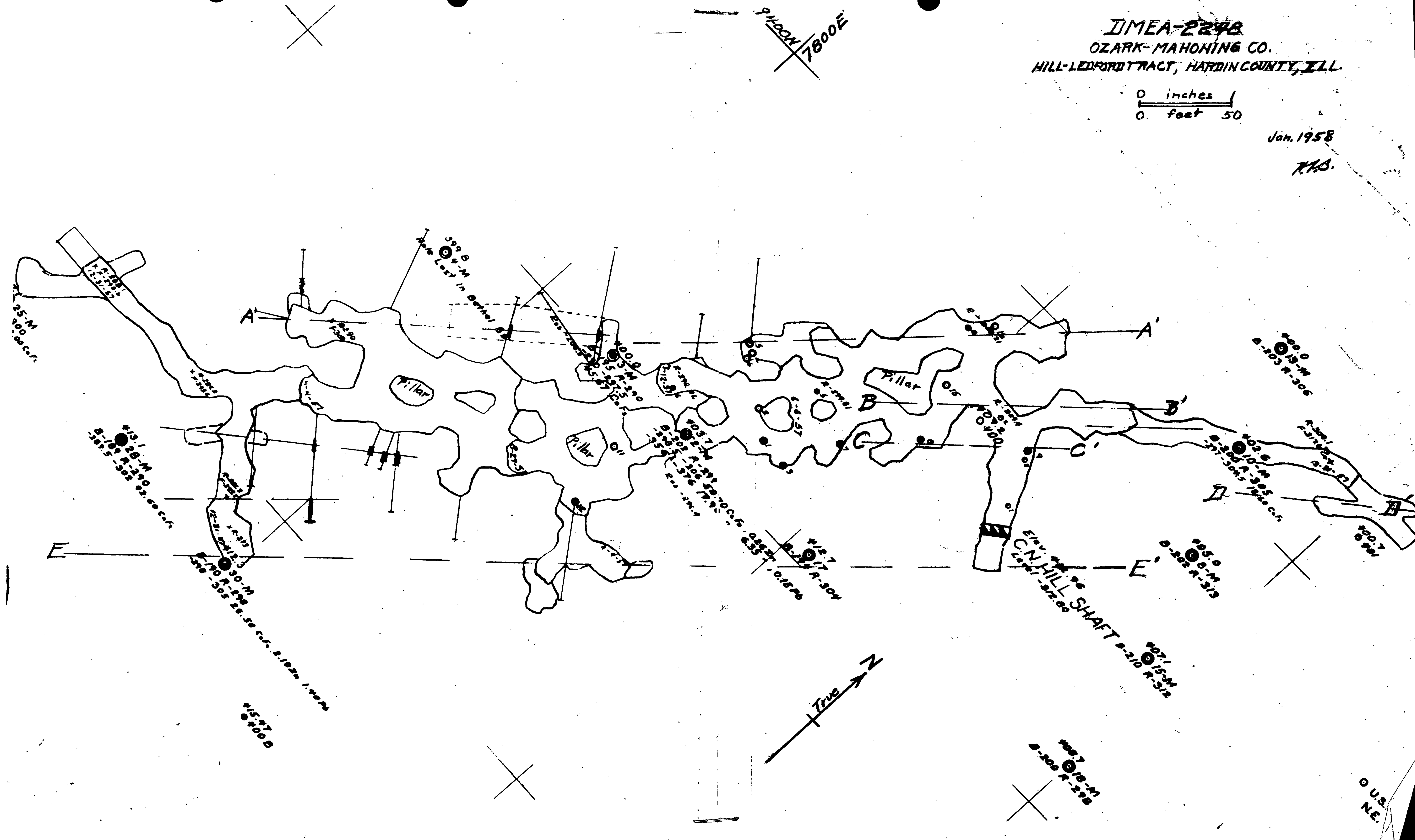
H. L. Burmeister
Mine Examination and Exploration Engr.

January, 1958

DMEA-2248
OZARK-MAHONING CO.
HILL-LEDFORD TRACT, HARDIN COUNTY, ILL.

0 inches 1
0 feet 50

Jan. 1958



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DMEA
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DATE	IN	CODE

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period June 30 to Dec. 31, 1957 **Date of Examination** None

Operator Ozark-Mahoning Co.

Mine Name Hill-Ledford Tract

County and State Hardin County, Illinois

Docket No. and Commodity --- **DMEA** - 2248 (fluorspar)

Contract No. --- **Idm-E** 255

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DMEA
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DATE	INITIALS	CODE
1-9	C	220
13	Cone	100
1/16	Hook	600

Date of Contract June 2, 1953

Date of Certification July 7, 1954

Expiration Date of Royalty Payments June 2, 1963

Total Amount of Contract $122,715.00

Total Expenditures under Contract $85,482.54

Amount of Government Participation at 50 % $42,741.27 31

* **Royalty Payments this Period** $13,999.13

Previous Royalty Payments $ 1,148.58

* **Total Royalty Payments to ~~Date~~** Nov.20 $15,147.71

Precent Government Participation Repaid 35.44

Royalty Due on Production to Date Not known

Royalty Remarks Royalty is due on production made in October, November and December, 1957.

NOTE: OUR RECORDS SHOW THE FOLLOWING:
Royalty Payments this Period 13,999.35
Total Royalty Payments to Nov 20. 15,147-93

Robert A. Lawrence
EXECUTIVE OFFICER
DMEA REGION V

	Tons	Analysis		
		CaF2	Zn	Pb
Original Estimate of DMEA Reserves (Field Team Final Report) Mines [ ] Survey [ ] Joint [xxx]	463,600	35.5	2.58	0.12
Revised Estimate of DMEA Reserves (Field Team) Mines [ ] Survey [ ] Joint [ ]	None			
		CaF2	Zn	
Increase of Reserves by work performed subsequent to DMEA project work	484,418	33.20	1.30	
Production DMEA ore (This period) to Dec. 15/57	12,101	not known		
(Previous) To June 30/57	8,167	"	"	
(To date)	20,268	"	"	
" Operator's ore found subsequent to DMEA work (This period)				
(Previous)				
(To date)				

Percent Revised Reserves mined 2.14% of 948,240 tons revised reserves.

(For Uranium Ores Only)

Initial Production Bonus:

Status of Operator: Ineligible [ ] Applied for [ ] Rec'ing pmt [ ] Pd up [ ]

Pounds U_3O_8 produced this period eligible for Bonus

Amount of Bonus paid to Operator this period $

Total pounds U_3O_8 produced to date eligible for Bonus

Total amount of Bonus paid to Operator to date

Bonus Royalty Paid $

Bonus Royalty Due $

Investment Data

Shafts Size	Shafts Feet	Shafts Cost	Winzes Size	Winzes Feet	Winzes Cost	Drifts & Crosscuts Size	Drifts & Crosscuts Feet	Drifts & Crosscuts Cost

Raises Size	Raises Feet	Raises Cost	Drilling Type & Size	Drilling Feet	Drilling Cost	Rehabilitation Description	Rehabilitation Cost

Facilities

Mine Plant Description	Mine Plant Cost	Mill Description	Mill Cost	Roads Description	Roads Cost

Recovery from 20,268 tons mined was 8153 tons of fluorspar concentrate averaging 41.74% CaF2 and 135 tons of zinc concentrate averaging 0.69% zinc. As of December 17, 1957 the working faces are in collapsed sandstone. Ore reserve estimates may have to be revised although the adjacent area drilling returned good ore values.

Signed [signature]
Engineer

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DMEA
RECEIVED JUL 3 1957

DATE	INITIALS	CODE

Semi-Annual Reports of Certified Projects

Reporting Period Jan. 1 to June 30, 1957 Date of Examination None

Operator Ozark-Mahoning Company

Mine Name Hill-Ledford Tract

County and State Hardin County, Illinois

Docket No. and Commodity ---- DMEA - 2268 (Fluorspar)

Contract No. ---- Idm-E 255

Date of Contract June 2, 1953

Date of Certification July 7, 1954

Expiration Date of Royalty Payments June 2, 1963

Total Amount of Contract $122,715.00

Total Expenditures under Contract $85,482.54

Amount of Government Participation at 50 % $42,741.27

Royalty Payments this Period $375.24

Previous Royalty Payments $773.34

Total Royalty Payments to Date $1148.58

Percent Government Participation Repaid ~~2.67~~ 2.67

Royalty Due on Production ~~to Date~~ June 1 - $3,383.05

Royalty Remarks

375.24
3383.05
3758.29

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DMEA
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DATE	INITIALS	CODE
7/9	Cow	100
7/	Hook	100

	Tons	Analysis Ca2	U	Pb
Original Estimate of DMEA Reserves (Field Team Final Report Mines ☐ Survey ☐ Joint ☒	163,600	35.5	2.50	0.12
Revised Estimate of DMEA Reserves (Field Team) Mines ☐ Survey ☐ Joint ☐	None			
Increase of Reserves by work performed subsequent to DMEA project work	484,412 (Supplemental sheet)			
Production DMEA ore (This period)	4,695	34.36	0.76	
(Previous)	770	41.37	0.65	0.18
(To ~~date~~) June 1, 1957	5,773	35.34	0.74	
" Operator's ore (This period)	None			
found subsequest (Previous)				
to DMEA work (To date)				

Percent Revised Reserves mined 1.64

(FOR URANIUM ORES ONLY)

Initial Production Bonus:

Status of Operator: Ineligible ( ) Applied for ( ) Receiving payment ( ) Paid (

Pounds U_3O_8 produced this period eligible for Bonus
Amount of Bonus paid to Operator this period
Total pounds U_3O_8 produced to date eligible for Bonus
Total amount of Bonus paid to Operator to date
Bonus Royalty Paid $_____ Bonus Royalty Due

INVESTMENT DATA

Shafts Size	Feet	Cost	Winzes Size	Feet	Cost	Drifts and Crosscuts Size	Feet	Cost

Raises Size	Feet	Cost	DRILLING Type & Size	Feet	Cost	Rehabilitation Description	Cost

Mine Plant Description	Cost	Facilities Mill Description	Cost	Roads Description	Cost

Remarks: See supplemental sheet

Signed R. P. Burmeister
Engineer

Supplemental Sheet

The Ozark-Mahoning revised their total tonnage estimates as of December 31, 1956. This includes the ore discovered under the DMEA contract and the ore subsequently found by the company.

Block "A" - 374,695 tons - 35.26% CaF_2, 3.35% Zn, 0.82% Pb
Block "B", "C" and "D" - 497,420 tons - 33.80% CaF_2, 1.30% Zn
Bethel Ore - 76,125 tons - 29.00% CaF_2, 1.00% Zn

Total Reserves - 948,240 tons - 33.6% CaF_2, 2.0% Zn

In this reporting period there has been done approximately 600 feet of drift mining on this flat lying ore body.

The company reports that approximately $350,000.00 has been spent in shaft sinking, crosscutting, underground crushing plant and surface facilities. The company books show a total expenditure of $128,629.55 for churn drilling and diamond drilling.

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DMEA
RECEIVED JUL 3 1957

DATE	INITIALS	CODE

374 695
497 420
76 125
948 240

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT
Date 1-10

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. Non Metallic Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Investment data
   (1) where are settlement sheets
2.
3.
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert L. Williams

Semi-Annual Reports of Certified Projects

Reporting Period July 1 to Dec. 31, 1956 Date of Examination Nov. 1956

Operator Ozark-Mahoning Co.

Mine Name Hill-Ledford Tract

County and State Hardin County, Illinois

Docket No. and Commodity --- DMTA-2248 (fluorspar)

Contract No. --- Idm-E-255

RECEIVED JAN 10 1957 D.M.E.A.

Date of Contract June 2, 1953

Date of Certification July 7, 1954

Expiration Date of Royalty Payments June 2, 1963

Total Amount of Contract $122,715.00

Total Expenditures under Contract $85,482.54

Amount of Government Participation at 50% $42,741.27 ~~31~~ GAAD — OK

Royalty Payments this Period $545.30

Previous Royalty Payments $228.04

Total Royalty Payments to Date $773.34

Percent Government Participation Repaid 1.8%

Royalty Due on Production to Date None

Royalty Remarks See supplemental sheet

	Tons	Analysis % CaF_2	Zn	Pb
Original Estimate of DMEA: Reserves (Field Team Final Report) Mines / / Survey / / Joint / X /	463,600	35.5	2.58	0.12
Revised Estimate of DMEA Reserves (Field Team) Mines / / Survey / / Joint / /	None			
Increase of Reserves by work performed subsequent to DMEA project work	473,925	Percent CaF_2 34.8	Zn 2.37	Pb 0.11
Production DMEA ore (This period)				
(Previous)				
(To date)				
" Operator's ore found subsequent to DMEA work (This period)	None			
(Previous)	None			
(To date)	None			

Percent Revised Reserves mined _____

(FOR URANIUM ORES ONLY)

Initial Production Bonus:

Status of Operator: Ineligible ( ) Applied for ( ) Receiving payment ( ) Paid up ( )

Pounds U_3O_8 produced this period eligible for Bonus _____

Amount of Bonus paid to Operator this period $ _____

Total pounds U_3O_8 produced to date eligible for Bonus _____

Total amount of Bonus paid to Operator to date $ _____

Bonus Royalty Paid $ _____ Bonus Royalty Due $ _____

INVESTMENT DATA

After Certification.

Shafts Size	Feet	Cost	Winzes Size	Feet	Cost	Station & pockets ~~Drifts & Crosscuts~~ Size	Feet	Cost
6'x15' 3 compartment	790	$94,000					about	$8,800

Raises Size	Feet	Cost	DRILLING Type & Size	Feet	Cost	Rehabilitation Description	Cost
			Churn 8"	10,400	$25,300		

Facilities

Mine Plant Description	Cost	Mill Description	Cost	Roads Description	Cost
Head frame, hoist & facilities	$30,000				

$158'000

Remarks:

See supplemental sheet

Signed H. L. BURMEISTER
Engineer

Royalty Remarks

Royalties should come in steadily as soon as the shaft facilities are completed, probably about March 1957.

Other Remarks

Soon after certification the company drilled 6 holes immediately south of contract hole No. 1 and discovered a deposit branching southeastward from the contract-discovered deposit. The 6 holes covered an area 300' along the strike and 260' wide. In 1956 the company drilled 7 additional holes near the southern end of the contract area and found additional ore.

During the past 1½ years a 6' x 15', 3-compartment, vertical shaft has been sunk at a point 100' west of contract hole 15 M. As of Nov. 30, 1956 the shaft bottom is at 775' and is being extended to 790' which will allow mining of ore in the Sub-Rosiclare formation at that level.

The present main workings will be just under the Rosiclare sandstone at the 724' level. The blanket deposit is about 10' thick and averages 48% CaF_2 with very little lead or zinc. At present the 724' station has been cut out in the ore about 65' in a northwesterly direction and 30' northeasterly on the NW side of the shaft. Excavation has also been made below the 724' level for a coarse crusher and skip pockets.

The top 110' of shaft is concreted, followed by 340' of lagged 6' sets , below which is 190' of unlagged sets, the balance being untimbered. No dividers have been placed to allow for lowering crushing equipment next month. Shaft timbers are 6" x 6" oak posts and 6" x 8" wall plates. Mucking was done with a 3/8-cu.yd. clamshell hung directly on the hoisting cable and actuated by a tugger hoist bolted to the clamshell. A 1½-ton bucket was used without crosshead in sinking.

The overall cost of the shaft exclusive of concrete was $120 per foot which is considered by the company to be $20 in excess of what it should be. All work was done on company time.

Hoisting facilities consist of a new 90' timber headframe and a 150 h.p.single-drum electric hoist, hoisting 2½ ton skips in balance.

Further detail on sinking methods, equipment and costs will be found in the "Interim Report on Certified Project" under date of May 1, 1956, and "Field Inspection Report of Certified Project", under date of Dec. 21, 1955.

RECEIVED
JAN 10 1957
D.M.E.A.

Interim Report on Certified Project

Docket No. DMEA-2248 (fluorspar)
Contract No. Idm-E255
Operator: Ozark-Mahoning Co.
Location: Hill-Ledford Tract,
Hardin County, Ill.

RECEIVED
MAY 7 - 1956

This project was visited on April 23, 1956 incidental to other DMEA work in the immediate vicinity. The following information was obtained from Mr. A. G. Johnson, Gen. Manager, and Mr. E. A. Brecky, geologist.

The sinking headframe at the new shaft has been torn down to be replaced by a new one which will be 93' high and constructed of treated 12"x 12" timbers. At the time of visit forms were being taken from the concrete foundation for a 5' diameter, single drum, herringbone-gear-drive hoist. The hoist will be driven by a 150 h.p. electric motor. Two 2½-ton skips will be operated in balance.

The shaft was completed at 750' and a 50' drift was driven in ore at the 724' level on a N.45°W. bearing before taking down the sinking headframe. The drift level at the shaft is lower than only the upper of the faulted sections of the bedded deposit. All of the faulted blocks may, however, be mined above the level due to the fact that they incline downward toward the shaft at about 5 percent. Diesel trucks will be used for all underground haulage, the grade to a concrete coarse ore pocket being in favor of the load. An underground crusher will deliver to a concrete shaft pocket.

Previous to sinking this shaft all underground work had been done on a contract basis. All this work is now done on company time. The 6' x 15' inside dimension shaft described in the interim report of December 21, 1955 was sunk on company time at a cost of $120.00 per foot .

This cost is considered by the management to be excessive by $20.00 per foot.

Negotiations are underway to drill a 4- or 5-foot diameter churn drill hole for ventilation. The hole is to be located about 1400 feet southwest of the shaft.

Due largely to lack of steel beams for ore bins, it is expected that drifting will not be resumed until about October 1956.

Additional royalty will be paid soon on a small amount ore produced from the drift but not yet treated.

H. L. Burmeister

H. L. Burmeister

May 1, 1956

2248

ACTION ON INITIAL
ORIGINAL FIELD INSP. REPORT

Date 1-5

Referred to:

~~1. Mr. Hildebrand~~
~~2. Mr. Gordon~~
3. ~~Mr. Stamper~~
4. ~~Docket Control Mails and Files~~
5. ~~Mr. Martelle~~ ~~Division~~
6. Docket Control Mails and Files

Note comments in report regarding:

1. Investment ?

2.

3.

4.

and take appropriate action.

- - o o o - -

Action taken by Division:
Mail Pack. 42, 941-31 Docket

ROBERT E. MILLS

Initials

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

Field Inspection Report of Certified Contract
by H. L. Burmeister

December 21, 1955

Docket No. DMEA 2248 (Fluorspar-Lead-Zinc)
Contract No. Idm-E255
Ozark-Mahoning Co.
Hill-Ledford Tract, Hardin County, Illinois

RECEIVED
JAN 5 1956

The status of this certified contract was reviewed in the field Dec. 15, 1955. Data were obtained from E. A. Brecky, company geologist and by on site inspection of the shaft being sunk on the property. General Manager A. G. Johnson was not available for interview as he is on an extended trip.

After completion of drilling under this contract the company churn drilled 6 holes for their own account to further delineate the ore in this tract. These holes covered an area measuring 260 feet wide and 300 feet along the strike immediately south of contract drill hole No. 1. Two of the six holes encountered mineable widths of good ore and have thereby extended the width of the ore body explored by DMEA drilling. At present this Tract is being further explored by a drill hole located 140 feet due south of contract drill hole 31M. The hole has not yet reached the ore horizon. Additional drilling is planned to extend the ore zone further to the south.

The shaft being sunk to develop the Hill-Ledford ore is located 100 feet west of contract hole 15M. Work on the shaft was stopped from Jan. 1955 to May 1955 at which time sinking was resumed. The shaft measures 6' x 15' inside concrete or timber and contains 3 compartments. Concrete lining is carried from the collar to a depth of 110' below which timber sets and logging is used to a depth of 440' below the collar. From 440 feet to the present bottom at 720 feet the shaft is in hard self supporting sandstone which has not been timbered. The 8" x 8" oak timber sets are spaced at 10 feet and are logged with random widths of 2" oak planks. A small station is being cut at the 720' level at which point the shaft encountered 18 inches of fluorspar mineralization immediately under the Rosiclare sandstone. No drifting will be done on this level at present.

The shaft will be continued to an approximate depth of 800' at which point drifting will be started in a southwesterly direction. About 1000' of drifting will be done and an air shaft raised or a large diameter hole bored for ventilation before production will start.

At present it is estimated that production may begin during the summer of 1956. In view of the present advance rate this estimate seems optimistic. It is probable that Government royalties on production may be reasonably expected in less than a year from the date of this report.

Operational Data on Shaft Sinking

The following data were obtained during an inspection of the shaft.

The surface plant includes an 18' x 24' hollow block combined office and change room which also contains a charging unit for hat lamp batteries. A small rock bin is integrated with the 8" x 8" timbers used in the 30' headframe. The hoist serving a 5/8" wire rope is powered by a 75 h.p. electric motor.

All work is done on company time with the following equipment:

42" x 42" Cylindrical sinking bucket
55 pound Jackhammer
7/8" hexigon drill steel with tungsten-carbide chisel point bits which require resharpening after 105' of drilling in sandstone and after 300' in limestone.
3/8 cu.yd. mucking clam shell equipped with air tugger hoist.
One "Reda" electrically driven submerged deep well pump.

Sinking Methods

The 42 hole round is drilled to an average depth of 5' with 2 jackhammers. A round contains 8 "V" cut holes and 2 pony cut holes. Standard delay detonators are used in the following sequence for cuts - Pony cuts on zero delay, one inside "V" set on 1st delay, the other inside "V" set on 2nd delay and the outside "V" sets on 3rd delay. Forty percent gelatine powder is used. Mucking is done by the use of the 3/8 cu.yd. clam shell with an integrated air tugger which actuates the jaws. The mucker is hung from the hoisting cable and is raised or lowered by the surface hoistman. Three or four passes are required to fill a bucket. No guides are installed and no sinking crosshead is used. No water problem is encountered as the "Reda" pump is installed at the 744' level of old drill hole No. 2M and keeps the shaft drained by pumping about 100 c.f.m.

Time cycle

Drilling and loading 3-3/4 hrs.
Blasting, clearing smoke and ready to muck about 2 hrs.
Mucking about 12 hrs.
On a 6 day 3 shift basis, advance averages about 5' per day.

COMMENTS

It is probable that the time presently required for the mucking cycle could be greatly reduced by installing guides and a sinking cross-head to reduce bucket spin and increase hoisting speed.

H. L. Burmeister

Defense Library
APR 27 1955

REPORT OF INSPECTION OF CERTIFIED CONTRACT

April 11, 1955

DMEA Docket No. 2248 - (Fluorspar, Zinc, Lead)
Contract Idm-E255
Operator: Ozark-Mahoning Company
Mahoning Mining Division
Rosiclare, Illinois
Property: Hill-Ledford Tract
Hardin County, Illinois

Summary: Work on this contract, dated February 18, 1952, was started March 1, 1952. Stage I, consisting of 33 churn drill holes and totaling 25,500 feet, was completed January 15, 1953. Stage II, consisting of 11 churn drill holes and totaling 9,678 feet, was started August 1, 1953 and was terminated before completion on March 10, 1954. An ore body estimated by Operator at 463,600 tons of 35.5 percent fluorspar, 2.58 percent zinc, and 0.12 percent lead was blocked out by drilling under Stage I. No additional ore was developed under Stage II. The deposit was considered of sufficient quantity and of suitable grade to make an attractive mining ventire and the exploration was certified as a discovery on July 7, 1954.

The total cost of the project was $85,482.54. The Government's share was 50 percent or $42,741.27, which is now due for repayment as royalties from any production prior to February 18, 1962.

Progress of Development Work: Since March 10, 1954 the Operator has drilled 6 additional churn drill holes to aid in delineating the discovery body. This drilling enlarged the ore body and enabled the Operator to better choose a site for the shaft. A working shaft 16' x 8' has now been sunk to a depth of 40' and concreted. A wooden sinking headframe about 50' high has been erected. The hoist has been mounted on a platform in the headframe about 25' above the collar. The compressor has been set. A cinder block change room and office is now being built. The development program will probably require 18 to 24 months. Some production will probably result from the development but not immediately. This development work displays the same high caliber of planning and execution which we have encountered constantly in our association with this Operator.

/s/ G. L. Neumann

College Park, Md.
4/19/55

DMEA
Summary Report
December 31, 1954

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin County, Ill.
Docket No.:	DMEA-2248 (Stage II - Amended)
Contract No.:	Idm-E255
Commodity:	Fluor-Zinc-Lead
Total Cost:	$122,715.00
Government Participation:	$61,357.50 - 50%
Duration of Contract:	Feb. 18, 1952 to June 30, 1954

The purpose of this contract was to explore for fluorspar in the Hill-Ledford Tract by systematic churn drilling. This tract had been drilled sporadically by different operators over a period of several years.

The original contract, which authorized 25,500 feet of churn drilling, was completed in January 1953. Ore reserves of 463,600 tons averaging 35.5 percent fluorite, 2.58 percent zinc and 0.12 percent lead were indicated. A Certificate of Discovery or Development was issued on May 29, 1953. The contract was amended June 2, 1953 to permit additional drilling to explore for the possible extension of the deposit to the northeast of the certified area. This amendment authorized an additional 25,000 feet of churn drilling at a cost of $60,750.00.

Work under this amendment started in June 1953. On February 2, 1954, Amendment No. 2 extended the termination date of Annex II from February 18, 1954 to June 30, 1954. Results of drilling were discouraging and after churn drilling 9,678 feet in 11 holes at a cost of $23,517.54, Annex II was terminated after commencement but before completion on May 24, 1954. The Certificate of Discovery on the original contract also applies to Annex II.

Following is a summary of costs and footage drilled:

	No. of holes	Feet Drilled	Cost	Gov't share @ 50%
Original contract -	38	25,500	$61,965.00	$30,982.50
Annex II -	11	9,678	$23,517.54	$11,758.77
Totals -	49	35,178	$85,482.54	$42,741.27

The auditor's Report of Review dated June 4, 1954, approved the above expenditures.

The Operator's and Field Team's Final Reports were submitted in July 1954. No production has been made from this certified contract and no royalty repayment to the Government has been made.

DMEA
Summary Report
June 30, 1954

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin County, Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Zinc-Lead
Total Cost:	$122,715.00 - Stage II (Amended)
Government Participation:	$61,357.50 - 50%
Duration of Contract:	Feb. 18, 1952 to Feb. 18, 1954, amended to June 30, 1954

The purpose of this contract was to explore for fluorspar in the Hill-Ledford Tract by systematic churn drilling. This tract had been drilled sporadically by different operators.

The original contract, which authorized 25,500 feet of churn drilling was completed in January 1953. Ore reserves of 463,600 tons averaging 35.5 percent fluorite, 2.58 percent zinc and 0.12 percent lead were indicated. A Certificate of Discovery was issued on May 20, 1953. The contract was amended June 2, 1953 to permit additional drilling to explore for the possible extension of the deposit to the northeast of the certified area. This amendment authorized an additional 25,000 feet of churn drilling at a cost of $60,750.00

Work under this amendment started in June 1953. On February 2, 1954, Amendment No. 2 extended the termination date of Annex II from February 18, 1954 to June 30, 1954. Results of drilling were discouraging and after churn drilling 9,678 feet in 11 holes at a cost of $23,517.54, Annex II was terminated after commencement but before completion on May 24, 1954. The Certificate of Discovery on the original contract also applies to Annex II.

Following is a summary of costs and footage drilled:

	No. of holes	Feet Drilled	Cost	Gov't share @ 50 %
Original contract -	38	25,500	$61,965.00	$30,982.50
Annex II -	11	9,678	$23,517.54	$11,758.77
Totals -	49	35,178	$85,482.54	$42,741.27

The auditor's Report of Review dated June 4, 1954, approved the above expenditures.

The Operator estimated that this project increased the reserves of inferred minable ore by 463,600 short tons after deducting 25 percent for pillars and low grade areas. This tonnage was estimated to contain an average of 35.5 percent fluorite, 2.6 percent zinc and 0.12 percent lead.

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin County, Ill.
Docket No.:	IMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc
Date of Certification:	May 20, 1953 - (Stage I)

Plans for shaft sinking and development are being made.

There has been no production from the area explored under this contract, therefore, no royalty payments have been received.

April 6, 1954

Mr. W. T. Miller
Executive Officer
Bureau-Survey Field Team
Defense Minerals Exploration Administration
Region VIII
U. S. Department of the Interior
Defense Minerals Administration
College Park, Maryland

Dear Mr. Miller:

Enclosed herewith you will find five copies of Form MF-104, Operator's Monthly Report and Voucher, as well as five copies of Form MF-104A, Operator's Unit Cost and Progress Report for the month of March, 1954.

These forms are in connection with Stage II, amended Exploration Project Contract, Docket No. DMEA 2148, Contract DIIM-2295, dated June 2, 1953 and covers the prospecting which we are now doing on the Hill-Ledford Tract in Hardin County, Illinois.

Very truly yours,

OZARK-MAHONING COMPANY
Mahoning Mining Division

E. A. Brecke

E. A. Brecke

EAB:blc

Enclosures

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1954 Docket No. DMEA 220 Contract No. Amendment Tarp 255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Fontolaro, Illinois

Contract Amount, $60,750.00 Government Participation: 50 % Amount, $30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts: Churn	510.30	23007.21	23517.51			
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	510.30	23007.21	23517.51			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date April 6, 1954 *Payee OZARK-MAHONING COMPANY

Per A M Sperberg Title Cost Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 255.15

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 4/15/54 Vou. No. DMEA-60
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E255 in accordance with the terms of the contract.

Signature [illegible] Title Mining Eng. Date 4-9-54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Miller Title Executive Officer Date 4/9/54

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 16 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1954 Docket No. DMEA 210 Contract No. [illegible] Stage II
Operator's Name Quartz-Tabeder Company Minerals Fluorspar
Address Pedelaro, Nevada

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.13	520.30	210	03237.56	1670		25000	2.13
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		520.30	210	03237.56				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								60,750.00

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

Date April 6, 1954 Operator Quartz-Tabeder Company

Per A M Spurberg Title Works Accountant

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

April 6, 1954

SUPPLEMENTAL SHEET
HILL-LEDFORD TRACT

STATUS OF HOLES - COMPLETED AND DRILLING

M-53 Completed	Previously Reported	640	Balance	210 ft.
			Total	210 ft.

Remarks:

Attached are copies of the log of churn drill hole No. 53-M and copies of 400 foot scale map showing all holes completed under this project. Drilling east of the highway has been discontinued because of the discouraging results. 54-M is drilling west of the highway as shown on the maps; however, an amendment to include this work under this contract has not been approved to date.

STARL-DARWING COMPANY

Mill-Ledford Tract
Drill Hole: 53-M
Elevation: 419.5
Location: 779' north and 2006' east of the SW corner of NW¼ of Sec. 24 T 11 S R 9 E or 48' north and 333' east of No. 52-M
Drilled by: Forsland and Hubler
Examined by: L. A. Brooks
Casing: 32 feet

Started: 1-19-54
Finished: 3-10-54

Water:
80-85 Fairly strong
175-180 " "
380-385 " "
Stands @ 70'

0-30	Surface
30-55	Gray shale, sand streaks
55-90	Gray shale calcareous
90-100	Gray sand
100-135	Gray shale calcareous
135-150	Gray sand Tar Springs
150-180	Gray shale sand streaks
180-230	Light gray crinoidal lime Glen Dean
230-250	Gray and brown lime, shaly
250-265	Gray shale sandy
265-295	Gray sand. Hardinsburg
295-305	Dark gray sand
305-370	Gray and brown lime, shale streaks
370-380	Gray shale
380-385	Gray and maroon shale
385-455	Gray calcareous shale
455-465	Shaly gray sand
465-515	Gray sand
515-580	White sand
580-645	Gray shelly sand
645-675	White sand
675-680	Gray shaly sand. Base of Bethel 680
680-700	Light gray lime
700-715	Brown lime, little green salvage
715-725	" " , con. salvage
725-750	Dark brown lime, little shale
750-760	Brown lime, sandy
760-782	Residuals sand
782-795	White oolitic lime
795-820	Light brown oolitic lime
820-840	Dark brown lime
840-845	" " " , little oily white oolitic lime
845-850	Oily white oolitic lime

Defense Minerals Administration
APR 1 1954

March 27, 1954

Mr. W. T. Millar
Executive Officer
Bureau-Survey Field Team
Defense Minerals Exploration Administration
Region VIII
U. S. Department of the Interior
Defense Minerals Administration
College Park, Maryland

Dear Mr. Millar:

Enclosed herewith you will find five copies of Form MF-104, Operator's Monthly Report and Voucher, as well as five copies of Form MF-104A, Operator's Unit Cost and Progress Report for the month of February, 1954.

These forms are in connection with Stage II, amended Exploration Project Contract, Docket No. DMEA 2268, Contract #IDM-2255, dated June 2, 1953 and covers the prospecting which we are now doing on the Hill-Ledford Tract in Hardin County, Illinois.

Very truly yours,

OZARK-MAHONING COMPANY
Mahoning Mining Division

E. A. Brecke

E. A. Brecke

EAB:blc

Enclosures

104 (Rev.)
April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Budget Bureau No. 42-R036.4
Approval expires 6-30-53.

APR - 1 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Amended Stage II

Month of February, 1954 Docket No. DMEA 2248 Contract No. IMM-E255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 60,750.00 Government Participation: 50 % Amount, $ 30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	1312.20	21,695.04	23,007.24			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1312.20	21,695.04	23,007.24			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Mar. 27, 1954 *Payee OZARK-MAHONING COMPANY

Per A M Spesberg Title Works Accountant

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 656.10

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 3/30/54 Vou. No. DMEA-59
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E255 (Stage II) in accordance with the terms of the contract.

Signature R. W. Arthur Title Secretary Date 3/29/54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Mullen Title Executive Officer Date 3/29/54

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1962)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR - 1 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Amended Stage II

Month of February 1954 Docket No. DMEA 2248 Contract No. IMT-E255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	1312.20	540	23,007.24	9468		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		1312.20	540	23,007.24				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS								$60,750.00

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

Date March 27, 1954 Operator OZARK-MAHONING COMPANY

Per A M Sperberg Title Works Accountant

REMARKS:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

March 27, 1954

SUPPLEMENTAL SHEET

MILL-LEDFORD TRACT

Status of Holes - Completed and Drilling

M-53	Drilling	(Previously reported 100)	Balance	540 feet
			Total	540 feet

Remarks:

Attached to this report is a 400 foot scale map showing location of all holes completed under this project including M-53 now drilling. Drilling progress has been slow by reason of repair work on the rigs.

February 2, 1954

Mr. W. T. Millar
Executive Officer
Bureau-Survey Field Team
Defense Minerals Exploration Administration
Region VIII
U. S. Department of the Interior
Defense Minerals Administration
College Park, Md.

Dear Mr. Millar:

Enclosed herewith you will find five copies of Form MF-104, Operator's Monthly Report and Voucher, as well as five copies of Form MF-104A, Operator's Unit Cost and Progress Report for the month of January, 1954.

These forms are in connection with Stage II, amended Exploration Project Contract, Docket No. DMEA 2248, Contract #IDM-2255, dated June 2, 1953 and covers the prospecting which we are now doing on the Hill-Ledford Tract in Hardin County, Illinois.

Very truly yours,

OZARK-MAHONING COMPANY
Mahoning Mining Division

E. A. Brecke

E. A. Brecke

EAB:fhb

Encls.

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Amended

Month of January, 1951 Docket No. DMEA 2246 Contract No. [illegible]-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $60,750.00 Government Participation: 50 % Amount, $30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	1244.90	20,650.24	21,895.04			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1244.90	20,650.24	21,895.04			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Feb. 2, 1951 *Payee Ozark-Mahoning Company

Per [illegible] Title Asst. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 522.45

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 2/12/54 Vou. No. DMEA-57
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Um E 255(A) in accordance with the terms of the contract.

Signature L. Beuman Title Mining Eng. Date 2-4-54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. G. Miller Title Executive Officer Date 2/5/54

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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FEB 15 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Amended Stage II

Month of January 1954 Docket No. DMEA 2240 Contract No. [illegible]255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Cookclare, Illinois

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	1044.90	430	21,695.04	8920		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		1044.90	430	21,695.04				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

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

Date Feb. 2, 1954 Operator OZARK-MAHONING COMPANY

Per [signature] Title Asst. Sec.-Treas.

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

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

February 2, 1954

SUPPLEMENTAL SHEET

HILL-LEDFORD TRACT

Status of Holes - Completed and Drilling.

M-52	Completed (Previously Reported 485	Bal.	330 ft.
M-53	Drilling (Depth 1-31-54)		100 ft.
			430 ft.

Remarks: Attached to this report is the log of M-52 and a 400 ft. scale map showing location of all holes completed under this project including M-53 which is now drilling.

Drill Hole M-52 showed higher contacts than drill holes M-44 and M-48 which we feel is an unfavorable structural condition.

OHIO-MONONGAHELA COMPANY

Hill-Ledford Tract
Drill Hole No. 52-W
Elevation: 387.8
Location: 750' north and 365' east of S.W. Corner of S.E. ¼ of N.W. of Sec. 24 or 57' south and 857' east of No. 48-W.

Started 12-9-51
Finished 1-19-51
Water 35 - 40
Sands at 23 ft.
No lower water encountered

Drilled by: Moreland and Hubler
Examined by: H. A. Pennie
Casing: 20 feet

0 - 18	Surface
18 - 45	Gray sandy shale
45 - 55	Gray shale
55 - 70	Gray and brown lime, shaly
70 - 95	Gray shale sandy
95 - 125	White sand
125 - 140	Gray sandy shale
140 - 165	Gray crinoidal lime
165 - 210	Brown lime shaly
210 - 220	Gray shaly sand
220 - 280	Gray sand, few shale partings, Murrinsburg
280 - 305	Gray and brown lime shale streaks
305 - 330	Gray shale, lime streaks
330 - 350	Gray lime, little maroon shale
350 - 375	Gray lime, shaly
375 - 425	Gray calcareous shale
425 - 440	Gray sandy shale
440 - 500	Cypress sand
500 - 530	Gray sand, little shale
530 - 600	Gray shaly sand
600 - 635	White sand
635 - 640	" " , little gray lime. Base of Bethel 637.
640 - 665	Gray and brown lime
665 - 685	Gray lime, occ. s-livage
685 - 705	Brown lime
705 - 715	Lower O'Hara lime
715 - 730	Beaverdam sand
730 - 760	Light gray oolitic lime
760 - 780	Light brown lime
780 - 800	Dark brown lime
800 - 815	Light gray oolitic lime

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 29 1954

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

January 28, 1954

Memorandum

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Docket DMEA-2248 - (Fluorspar)
Ozark-Mahoning Company, Hill-Ledford Tract
Hardin County, Illinois
Contract No. Idm-E255 (Amended)

Transmitted herewith in quadruplicate is G. L. Neumann's Field Inspection Report of January 22, 1953, for subject contract.

W. T. Millar

W. T. Millar

Enclosures

Defense Minerals Administration
RECEIVED
JAN 29 1954

DMEA
Field Inspection Report
January 22, 1954
by
G. L. Neumann, Engineer

DMEA Docket No. 2248 - (Fluorspar-Zinc-Lead)
Ozark-Mahoning Co., Rosiclare, Illinois
Property: Hill-Ledford Tract, Hardin Co., Illinois
Contract No. Idm-E255 - (Amended)

Drilling under this amendment to explore a northeastern extension of the already certified Hill-Ledford deposit has been very discouraging. Ten holes have been completed to date for a total of 8828 feet. Only minor mineralization has been encountered and no major breaks in the formation have been indicated.

Work on the southern east-west cross section will continue east for 600 feet with 2 more holes. If results are not more encouraging the drilling on this section will probably be stopped. The operator is preparing an amendment to authorize the use of the remaining footage of the contract to explore an indicated north-south split from the northeast trending main deposit. The operator will also ask for an extension of the time limit specified which was not extended at the time the new contract was added as an amendment to the original contract.

Sufficient evidence exists to indicate a possible split from the discovery deposit and to the east of it. I recommend this amendment and also the time extension.

Progress has slowed down on account of the holiday season and inclement weather. Hole 53M is being drilled 300 feet east of 52M on the east-west cross section of holes 26M, 29M, 44M, 48M and 52M. Hole 54M is planned 300 feet east of 53M. The drilling on the indicated northwest-southeast cross fault was all negative and this work has been stopped.

The usual high caliber of work still prevails on this contract, although the results have been very discouraging.

G. L. Neumann

Form MF-53 (Rev.) (April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 29 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Amended Stage II

Month of December, 1953 Docket No. DMEA 2248 Contract No. [illegible]255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Rosiclare, Illinois

Contract Amount, $ 60,750.00 Government Participation: 50 % Amount, $ 30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Churn	2029.05	18621.09	20650.14			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2029.05	18621.09	20650.14			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Jan. 4, 1954 Payee OZARK-MAHONING COMPANY

Per F. R. Gaddon Title Ass't. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 1,014.53

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 1/27/54 Vou. No. DMEA-56
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E255 in accordance with the terms of the contract.

Signature [illegible] Title Mining Eng. Date 1-7-54

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. O. Miller Title Executive Officer Date 1/7/54

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 29 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Amended Stage II

Month of December 1953 Docket No. DMEA 2210 Contract No. [illegible]-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	2029.05	835	20650.14	8490		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		2029.05	835	20650.14				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Jan. 6, 1954 Operator OZARK-MAHONING COMPANY

Per J. R. Bradshaw Title Ass't. Sec.-Treas.

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

(Instructions on reverse)

Remarks:

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Atomic Energy Commission
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2 0 1954

January 4, 1954

SUPPLEMENTAL SHEET

KILL-LEDFORD TRACT

Status of Holes - Completed and Drilling

N-50	Completed (Previously Reported 740')	Bal.	155 Ft.
N-51	Completed (Previously Reported 690')	Bal.	195 "
N-52	Drilling (Depth 12-31-53)		485 "
		TOTAL	835 Ft.

REMARKS:

Attached hereto are copies of logs of above drill holes No. 50 and 51. The drilling continues discouraging as both holes are blank with no indications of structure or open ground.

A 400 ft. scale map is enclosed showing the location of all holes completed under this project, including N-52, now drilling. We have cut down to one rig.

OZARK-MAHONING CO.

Hill-Ledford Tract
Drill Hole: 50-W
Elevation: 398.0
Location: 1708' north and 918' east of the S.W. Corner of N.W. ¼ of Sec. 24, Twp. 11 S., Range 9 E., Hardin County, Illinois or 12 ft. south and 300 ft. west of 49-W.

Started 11-6-53
Finished 12-5-53

Water: 37 ft. Fair
Stands at 21 ft.
No lower water apparent

Drilled by: B. W. Bales
Examined by: R. A. Brooks
Casing: 32 ft.

0 - 30	Surface
30 - 60	Gray shale, streak brown lime
60 - 80	Black shale, few lime streaks
80 - 115	Gray shale sand streaks
115 - 135	Gray shale, sandy
135 - 165	Gray sand
165 - 180	Gray sand, shale streaks
180 - 205	White sand
205 - 280	Gray shale, sandy
280 - 280	Light gray crinoidal lime, Glen Dean
280 - 290	Gray shale sandy
290 - 350	Gray sand, shaly streaks. Hardinsburg
350 - 385	Gray and brown lime, shale streaks
385 - 415	Gray shale, lime streaks
415 - 435	Gray and maroon shale
435 - 505	Gray carbonaceous shale
505 - 520	Gray shale sandy
520 - 625	White sand
625 - 685	Gray shelly sand
685 - 700	White sand
700 - 710	Gray sand, few shaly partings
710 - 715	" " and gray lime. Base of Bethel 712
715 - 730	Brown lime
730 - 735	" " , little green shale
735 - 770	Shale and salvage, com. brown lime
770 - 785	Dark brown shaly lime
785 - 790	Lower O'Hara lime
790 - 815	Rosiclare sand, com. brown lime
815 - 845	Light gray oolitic lime
845 - 870	Light brown lime
870 - 880	Dark brown lime
880 - 885	" " " , com. Sub Rosiclare sand
885 - 890	Some green shale, little light gray lime
890 - 895	Light gray oolitic lime

OZARK-MARKING COMPANY

Bill-Ledford Trust
Drill Hole No. 52
Elevation: 307
Location: 2707' north and 611' east of the SW corner of NW¼ of Sec. 24, T 11 S, R 9 E, Hamilton County, Illinois or 899' west of 50-51

Started: 11-5-53
Finished: 28-9-53

Water: 10-15 Feet
Casing: 3 25'

Core: 790 - 793
No lower water apparent

Drilled by: Moreland and Butler
Examined by: E. A. Bowles
Casing: 24'

0-20	Surface
20-30	Light brown lime, shaly and oxidized
30-35	" " " "
35-75	Dark gray shale, coal streaks
75-110	Gray shale, lime streaks
110-205	Gray sand, shale streaks
205-225	Gray shale, lime streaks
225-280	Gray oolitical lime - Glen Dean
280-300	Gray sand
300-320	Gray shaly sand
320-370	Gray and brown lime, shale streaks
370-390	Gray calcareous shale
390-410	Gray lime, shaly
410-415	Gray and maroon shale
415-435	Gray calcareous shale
435-480	Gray shale, sandy
480-525	White sand
525-670	Gray shaly sand
670-700	White sand
700-710	Gray lime. Base of Bethel 700
710-720	Brown lime
720-730	" " little green mineral
730-750	" " con. mineral
750-775	Brown lime
775-780	Loose O'Hara lime
780-800	Resistant sand
800-820	Light gray oolitic lime
820-855	Light brown lime
855-870	Dark brown lime
870-875	" " " con. Sub-Resistant sand
875-880	Con. Sub-Resistant sand, little light gray lime
880-885	Light gray oolitic lime

Div. Robertson

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

January 15, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Semi-Annual Report on Certified Projects.

In accordance with the instructions given in DMEA Circular No. 32, dated April 28, 1953, there is enclosed in quadruplicate the Semi-Annual Report on Certified Projects in Region VIII, as of December 31, 1953.

W. T. Millar

Docket No.:	DMEA-2248 - (Fluorspar-Lead-Zinc)
Contract No.:	Idm-E255
Operator:	Ozark-Mahoning Company Rosiclare, Illinois
Mine & Location:	Hill-Ledford Tract Hardin County, Illinois
Date of Certification:	May 29, 1953
Production:	None
Royalties due the Government:	None
Royalties paid the Government:	None

Operator's interest in this property has not been transferred.

Tests for lowering the water level on this property have been completed and the results are considered favorably. Shaft sinking and development will probably start in the spring of 1954.

Mrs. Robertson

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DEC 31 1953

College Park, Maryland

December 30, 1953

Memorandum

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: G. L. Neumann for W. T. Millar, Executive Officer, DMEA, Region VIII

Subject: Docket No. DMEA-2248 - (Fluorspar)
Ozark-Mahoning Company, Hill-Ledford Tract
Hardin County, Illinois
Contract No. Idm-E255 - Amended - (Stage II)

Transmitted herewith are two copies of the November progress report from the Ozark-Mahoning Company, for subject contract, which has been certified for payment by the Finance Officer, DMEA, Region VIII.

G. L. Neumann

Enclosures 2

GLN:rwa

copy for Mr. Selfridge
DMEA Files 2

1[illegible]IF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53

DEPARTMENT OF THE INTER
Defense Minerals Administra
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DEC 31 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1953 Docket No. DMEA 228 Amended Contract No. Stage II IT4-E255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 60,750.00 Government Participation: 50% Amount, $ 30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Chern	4247.64	14373.45	18621.09			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	4247.64	14373.45	18621.09			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Dec. 1, 1953 *Payee OZARK-MAHONING COMPANY

Per [signature] Title Asst. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,123.82

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 12/30/53 Vou. No. DMEA-55
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm 6255 in accordance with the terms of the contract.

Signature [illegible] Title Mining Eng. Date 12-7-53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. O. Miller Title Executive Officer Date 12/9/53

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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DEC 31 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1953 Docket No. DMEA 22b8 Amended Contract No. Stage II IDM-8255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	2.43	4247.64	1748	18621.09	7663		25000	2.43
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		4247.64	1748	18621.09				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date December 1, 1953 Operator OZARK-MAHONING COMPANY

Per J. R. Cadden Title Ass't. Sec.-Treas.

Remarks:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

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DEC 3 1 1953

December 1, 1953

SUPPLEMENTAL SHEET
MILL-LEDGED TRACT

Status of Holes - Completed and Drilling

M-47	Completed (Prev. reported 790') Bal.	145 ft.
M-49	Completed (Prev. reported 790') Bal.	173 ft.
M-50	Drilling (Depth 11-30-53)	760 ft.
M-51	Drilling (Depth 11-30-53)	670 ft.
	Total - - -	1748 ft.

Remarks:

Attached hereto are copies of logs of shown drill holes No. 47-M and 49-M. Both holes are blank with no indications of fracturing or open ground.

A 400 foot scale map is also attached showing the location of completed holes as well as those now drilling. As soon as holes No. 50 and 51 are completed, it is our intention to cut down to one drill rig.

CHARL-MANNING COMPANY

Hill-Lofland Tract
Hole No. 16-E
Elevation: 447.2
Location: 2735' N. 1295' W. of SE Cor. of
NE¼ of NE¼ of Sec. 24, Twp. 11 S,
R 9 E, Hardin County, Illinois
or
300' W. 13' N. of 16-E

Started: 10-6-53
Completed: 11-6-53

Water: 85 - 90 ft.
No lower water satisfactory
Casing 81 ft.

Drilled by: R. N. Sales
Examined by: A. C. Johnson
Casing: 36' - 44"

0-85	Soil, clay and boulders
85-65	Shale and selvage - lime streaks
65-110	Dark colored shaly lime. Base of Menard 110 ft.
110-165	Sandy shale - shaly sand
165-180	Vienna lime - light gray and shaly
180-185	Dark colored shaly lime
185-250	Gray sand - shale streaks
250-255	Dark colored sandy shale - some lime. Base Tar Springs 255'
255-300	White and light gray lime
300-325	Shaly lime - shale seams. Base of Glen Dean - 325 ft.
325-355	Sandy shale - shaly sand
355-360	Gray sand - shaly at base. Hardinsburg base @ 360 ft.
360-420	Gray to light gray lime
420-430	Gray lime, sev. selvage
430-460	Gray lime - shale and selvage
460-470	Chocolate colored shale
470-535	Gray and dark colored lime - shale and selvage. Base of Golconda 535'
535-575	Gray sand - shale seams
575-615	White sand. Hard and tight.
615-655	Muddy gray sand
655-767	White sand. Base of Bethel 767 ft.
767-770	Gray lime
770-790	Gray lime - selvage
790-815	Dark colored shaly lime
815-845	Lighter colored lime
845-865	Reddish sand
865-885	Light gray lime
885-900	Gray lime
900-915	Brown lime
915-925	White lime

CLARK-MENDO [illegible]

Hill-Ledford Tract
Hole No. 47-N
Elevation: 467.7
Location: 1346' W. 684' N. of S.W. Cor. of S.E.¼ of N.W. ¼ of Sec. 24, Twp. 11 N., R. 9 E., Hardin County, Illinois

296' E. ½' S. of 43-N

Started 9-30-53
Completed 11-5-53

Water: 175 - 180' Light
625 - 630' Light
Stands 400 ft.

Drilled by - Moreland & Mahler
Examined by: A. O. Johnson
Casing - 28 ft. 6¼"

0 - 28	Soil, clay and boulders
28 - 70	Dark colored lime
70 - 80	do do do , salvage
80 - 130	Dark colored shaly lime. B. Menard 130 ft.
130 - 180	Shaly sand - shale and salvage streaks
180 - 195	Vienna lime
195 - 210	Shaly sandstone
210 - 225	Salvage
225 - 250	White and gray sand - shale seams
250 - 265	Gray sand - shale. Base of Tar Springs 265 ft.
265 - 310	White and gray lime
310 - 330	Gray and dark colored shaly lime
330 - 345	Sandy shale - some sand and dark colored shaly lime. Base of Glen Dean 345 f
345 - 395	Hardinsburg S.S. Some shale near base
395 - 440	Gray and dark colored shaly lime
440 - 460	Black shaly lime
460 - 465	Shale - some lime
465 - 475	Chocolate colored shale
475 - 535	Shale
535 - 545	Shale - some dark colored lime and sand. Base of Golconda 545 or possibly 575 ft.
545 - 575	Mostly sandy shale
575 - 585	Gray sand - shale
585 - 685	Hard white sand
685 - 763	White sand. B. S. 763'
763 - 790	Gray lime
790 - 810	Gray lime - salvage
810 - 838	Dark colored lime - very little shale
838 - 860	Reddish sand - Greenish & reddish looking
860 - 875	Gray lime
875 - 885	do do, trace of salvage
885 - 895	do do
895 - 923	Gray to brown lime
923 - 935	White lime

DMEA
Field Inspection Report
by
W. T. Millar

DMEA Docket No. 2248 (Fluorspar-Lead-Zinc)
Contract No. Idm-5255 (Amended)
Operator: Ozark-Mahoning Co.
Address: Rosiclare, Ill.
Property: Hill-Ledford Tract
Location: Hardin County, Ill.

This operation was visited on November 30.

Two churn drill holes, Nos. 47 and 49, were completed at depths of 935 and 923 feet respectively. Holes Nos. 50 & 51 are in progress and expected to be completed during the first week in December. No mineralization has been encountered and there are no indications of fracturing.

Upon completion of holes Nos. 50 & 51 drilling will be continued in the 500-foot strip approved for exploration by amendment and lying southeast of the area originally specified in Stage II of this contract. Only one churn drill will be used after completion of holes 50 & 51 in order to take advantage of the knowledge gained from current drilling and to use the remaining footage to the best advantage.

W. T. Millar

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

Memorandum December 11,1953

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Docket DMEA No. 2248 (Fluorspar-Lead-Zing)
Contract No. Idm-E255 (Amended)
Operator: Ozark-Mahoning Co.
Address: Rosiclare, Ill.
Property: Hill-Ledford Tract
Location: Hardin County, Ill.

Transmitted herewith in quadruplicate is field inspection report of November 30, 1953, for subject contract.

W. T. Millar

W. T. Millar

Enclosures - 4

DMEA
Field Inspection Report
by
W. T. Millar

DMEA Docket No. 2248 (Fluorspar-Lead-Zinc)
Contract No. Idm-E255 (Amended)
Operator: Ozark-Mahoning Co.
Address: Rosiclare, Ill.
Property: Hill-Ledford Tract
Location: Hardin County, Ill.

This operation was visited on November 30.

Two churn drill holes, Nos. 47 and 49, were completed at depths of 935 and 923 feet respectively. Holes Nos. 50 & 51 are in progress and expected to be completed during the first week in December. No mineralization has been encountered and there are no indications of fracturing.

Upon completion of holes Nos. 50 & 51 drilling will be continued in the 500-foot strip approved for exploration by amendment and lying southeast of the area originally specified in Stage II of this contract. Only one churn drill will be used after completion of holes 50 & 51 in order to take advantage of the knowledge gained from current drilling and to use the remaining footage to the best advantage.

W. T. Millar

Form MF-104 (Rev. April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1953 Docket No. DMEA 224 Contract No. IM-P255-Stage II
Operator's Name Ozark-Laboring Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 60,750.00 Government Participation: 50 % Amount, $ 30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Churn	6062.85	8310.60	14373.45			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6062.85	8310.60	14373.45			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 6, 1953 *Payee OZARK-LABORING COMPANY

Per J. L. Gaddis Title Ass't. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3,031.43

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 11/25/53 Vou. No. DMEA-54
(See other side)

mos

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm 6255 in accordance with the terms of the contract.

Signature [illegible] Title Min Eng. Date 11-9-53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Mullar Title Executive Officer Date 11/9/53

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 30 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Amended Stage II

Month of October 1953 Docket No. DMEA 2248 Contract No. IDE-8255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	6062.85	2495	14373.45	5915		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		6062.85	2495	14373.45				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Nov. 6, 1953 Operator OZARK-MAHONING COMPANY

Per J. L. Baldwin Title Ass't. Sec. - Treas.

Remarks:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

November 6, 1953

SUPPLEMENTAL SHEET

HILL-LEXFORD TRACT

Status of Holes - Completed and Drilling

M-46	Completed 940 ft. (Previously reported 800')	Bal.	140'
M-47	Drilling - Depth 10-31-53		790'
M-48	Completed 815 ft. (Previously reported None)	Bal.	815'
M-49	Drilling - Depth 10-31-53		750'
	Total		2495'

Remarks:

Attached hereto are copies of logs of churn drill holes No. 46-M and 48-M. Both holes are blank. Results continue discouraging. There is little or no fracturing on open ground which would result in dropping the water level of the holes. On the west side of the highway pumping has now dewatered the orebody so that the pump is idle about sixteen hours per day.

A 400 ft. scale map of the property is also attached showing the up-to-date location of the holes.

CLARK-MARCHING COMPANY

Hill-Lanford Tract
Hole No. 45-5

Started: 8-28-53
Completed: 10-8-53

Elevation: 439.00

Water: 70 - 75 ft.
280 - 285 ft.
stands 50 ft.

Location: 1782 ft. N. 100 ft. E. of S.W. Corner of S.E. ¼ of N.W. ¼ of Sec. 24, Twp. 11 S., Range 9 E., Hardin County, Illinois
or
196 ft. N. 24 ft. W. of 45-4

Drilled by - B. W. Sales
Examined by: A. G. Johnson
Casing: 44 ft. - 6½"

0 - 25	Soil, clay and lime boulders
25 - 60	Dark colored shaly lime
60 - 75	Shale and salvage - lime streaks
75 - 120	Dark colored lime - shaly streaks - Base of Menard 120 ft.
120 - 175	Shaly sand - shale
175 - 190	Light gray lime - some shale. Vienna Ls.
190 - 200	Sandy shale
200 - 250	Gray sand - few shale partings
250 - 265	do , more shale
265 - 270	Gray sand - lt. white lime. Base Tar Springs 270 ft.
270 - 285	White lime
285 - 327	Gray to dark gray lime, shale and gauge streaks. Base of Glenn Dean 327 ft.
327 - 345	Shaly gray sand
345 - 360	Shale, salvage and sand, gray sand
360 - 395	Gray sand. Base of Hardinsburg 395 ft.
395 - 430	Light gray and some dark colored shaly lime.
430 - 445	Dark colored shaly lime
445 - 465	Light gray and dark colored shaly lime
465 - 480	Chocolate colored shale
480 - 500	Sandy shale
500 - 520	Shale salvage and sand, some dark colored shaly lime
520 - 565	Dark colored shaly lime, some shale and salvage
565 - 570	Sandy shale, heavy pyrite. Base of Caseyville 570 ft.
570 - 610	Gray sand - shale seams
610 - 695	White sand
695 - 710	Shaly white and gray sand
710 - 759	White sand. Base of Bethel 759 ft.
759 - 785	Gray lime
785 - 820	do , some salvage
820 - 850	Dark colored shaly lime
850 - 860	Light gray lime
860 - 868	Mandalara sand
868 - 875	Light gray lime
875 - 905	Gray lime
905 - 925	Brown oolitic lime
925 - 948	Light colored lime

OZARK-MONTAN COMPANY

Hill-Ledford Tract
Hole No. 44-M
Elevation 381.8
Location: 835' N., 102' W., of S.W. Cor., of N.E. ¼ of N.W. ¼ of Sec. 24, Twp. 11, R. 9, Martin County, Illinois
or
302' E. 5' S. of 44-M

Started 10-1-53
Completed 11-2-53
Water 55' light
75
195
345 Settled outgo.
410
445
550
665

Drilled by: Moreland and Kohler
Examined by A. D. Johnson
Casing - 40'- 6-1/4"

Stands 50 feet

0 - 20	Soil, clay and boulders
20 - 45	Salvage, shale and sandstone
45 - 55	Sandy shale, some dark colored lime
55 - 65	Hard gray and brown lime. Vienna
65 - 100	Gray sand - sandy shale
100 - 125	White sand
125 - 140	Sandy shale. Base of Tar Spgs. @ 140 ft.
140 - 175	White and light gray lime
175 - 200	Gray lime - shale seams. Base Glenn Dean 200 ft.
200 - 205	Sandy shale
205 - 270	Hardinsburg s.s.
270 - 305	Gray to light gray lime
305 - 320	Black sandy and shaly lime
320 - 345	Gray to shaly looking lime
345 - 355	Chocolate colored shale
355 - 395	Black sandy shale
395 - 450	Shale - some gray and dark colored lime - Base of Coleman
450 - 470	Gray sand - shale seams
470 - 525	Hard white sand
525 - 595	Shaly gray sand
595 - 642	White sand. Few Zn shs. Base of Bethel 642
642 - 660	Gray and brown lime
660 - 695	Gray lime - salvage
695 - 720	Gray and dark colored lime
720 - 735	Rosiclare sand - lime inclusions
735 - 760	Rosiclare sand - oily
760 - 745	do do
745 - 755	Light gray lime
755 - 765	Gray lime, trace of salvage
765 - 770	Gray lime. Con calcite
770 - 790	Gray lime
790 - 800	Brown lime
800 - 815	White lime. Few Zn shs.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 23 1953

October 22, 1953

Memorandum

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Docket No. DMEA-2248 - (Fluorspar)
Hill-Ledford Tract amended contract
Ozark-Mahoning Company
Hardin County, Illinois
Contract No. Idm-E255

Transmitted herewith in quadruplicate is G. L. Neumann's field inspection report of October 14, 1953, for subject contract.

W. T. Millar

W. T. Millar

Enclosures - 4

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 3 1953

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer
October 14, 1953

DMEA Docket No. 2248 - (Fluorspar-Lead-Zinc)
Operator: Ozark-Mahoning Co., Rosiclare, Illinois
Property: Hill-Ledford Tract, Cave in Rock District,
Hardin County, Illinois - Contract Idm-E255 (Amended)

Four churn drill holes have been completed in the northeast trend zone. No mineralization or break in the formation has been cut. Three rigs are now drilling: two in the northeast trend zone and one in the northwest cross fault zone.

Stage II of this contract has so far been disappointing . I believe that the fault has swung to the east in this area instead of holding the northeast trend. The operator is requesting an amendment to test this area, which is in the southeast corner of the tract, and is outside of the area specified in the contract.

Drill holes M-43, M-44, M-45 and M-46 were completed. M-43 and M-44 were in the northeast trend zone. M-46 is in the northwest cross fault zone and M-45 is at the junction of the two zones. None of these holes have cut any mineralization or break in the formation. Holes M-47 and M-48 are now being drilled along the southern limit of the northeast trend zone. Hole M-49 is being drilled in the northwest cross fault zone. None of these holes are close to the ore horizon but the drilling is tighter than holes in a fault zone usually are. All holes have encountered water.

The progress on Stage II, especially since the operator closed contract Idm-E449 and moved the two drills onto Idm-E255, has been up to the usual highly efficient standards set in Stage I. The results to date have been somewhat discouraging. There is an indication of a swing in the fault toward the east from the northeast trend, which was very strong near the center of the Hill-Ledford tract. The operator is planning to request an amendment to the contract to permit exploration in the area covering this possible swing in the fault. It is also highly probable that the drilling may have to go beyond the 950 foot depth limit of the contract to reach the base of the Sub-Rosiclare formation.

Hole M-45 bottomed at 900 feet and the collar of the other holes will be considerable higher than M-45.

No check sampling or assaying was done as no mineralization was in evidence.

The company has been running a pumping test on the area which has been certified as a discovery. The results were very satisfactory. The water table was lowered approximately 650 feet to the 700 foot level. Plans are underway to start on the sinking of a shaft to develop this discovery.

G. L. Neumann

Mr. Robertson

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Budget Bureau No. 42-R1036.4
Approval Expires 6-30-55
Defense Minerals Exploration Administration
RECEIVED
OCT 29 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1953 Docket No. DMEA 2248 Amended Contract No. IDM-E255 Stage II
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 60,750.00 Government Participation: 50 % Amount, $ 30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Churn	1993.65	3316.95	8310.60			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1993.65	3316.95	8310.60			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date October 5, '53 Payee OZARK-MAHONING COMPANY

Per [signature] Title Ass't. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,496.83

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 10/28/53 Vou. No. DMEA-53
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. IDM-E255 Stge II in accordance with the terms of the contract.

Signature [illegible] Title Mining Engineer Date Oct 12, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Miller Title Executive Officer Date 10/12/53

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 29 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Stage II

Month of September 1953 Docket No. DMEA 2248 Amended Contract No. IIM-E255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	4993.65	2055	8310.60	3420		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		4993.65	2055	8310.60				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date October 5, 1953 Operator OZARK-MAHONING COMPANY

Per [signature] Title Ass't. Sec.-Treas.

Remarks:

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
OCT 20 1953

October 6, 1953

SUPPLEMENTAL SHEET

HILL-LEDFORD TRACT

Status of Holes - Completed and Drilling.

M-44	Completed 815 ft. (Previously reported 220')	595 ft.
M-45	Completed 900 ft. (Previously reported 240')	660 ft.
M-46	Drilling - Depth 9-30-53	800 ft.
	Total Footage	2055 ft.

REMARKS

Attached are copies of logs of churn drill holes M-44 and M-45. Both holes are blank, tight and practically full of water, indicating little or no open ground or communion with the mineralized area to the southwest. The pumping which we are doing west of the highway from drill hole No. 2-M has drained the water on the blocked out orebody to an approximate depth of 700 ft. In drill hole No. 6-M the water is drained to a depth of 720 feet, 19-M to a depth of 679 feet and 28-M to a depth of 710 feet. The drop averages from one to two feet per twenty-four hours.

A four hundred foot scale map of the property is also attached showing the location of the holes which have been drilled and are drilling east of the highway. The map also shows the location of 2-M where the pump is located as well as the location of Holes No. 6-M, 19-M and 28-M which are being gauged daily to show the drop in the water table.

OZARK-MAHONING COMP

Hill-Ledford Tract
Hole No. 4b-M
Elev. 384.3
Location: 840' N. 100' W., of S.W. Cor. of S.E.¼ N.W.¼ of Sec. 24, Twp., 11, R. 9, Martin County, Illinois
or
148' East of 29-M
Drilled by: Maryland and Mehler
Examined by A. G. Johnson
Casing 38 ft. 6¼"

Started 8-24-53
Completed 10-1-53
Water: 30 ft.
90 ft.
215 ft.
310 ft.
345 ft.
415 ft.
425 ft.
455 ft.
560 ft.
720 ft.
Hole full - no open ground

0 - 7	Soil and clay
7 - 25	Quick sand
25 - 35	Shale - sand - creek gravel
35 - 60	Mostly shale
60 - 70	Dark colored lime - shale - con. pyrite
70 - 105	Shaly sandstone
105 - 125	Gray sand
125 - 135	Shaly gray sand
135 - 155	White lime
155 - 210	Dark colored shaly lime, shale streaks. Base of Glenn Dean 210 ft.
210 - 275	Hardinburg sandstone - shaly streaks.
275 - 305	Dark colored shaly lime
305 - 320	Brown sandy shale - some dark colored lime
320 - 340	Dark colored shaly lime - shale streaks
340 - 355	Chocolate colored shale
355 - 390	Mostly sandy shale
390 - 405	Dark colored shaly lime - some shale
405 - 455	Sandy shale - lt. lime
455 - 530	Hard white sand
530 - 605	Shally gray sand
605 - 638	Hard white sand. Few Zn shs. B. 3.638 ft.
638 - 650	Gray lime
650 - 670	Gray lime, some calcite
670 - 685	Dark colored lime, some salvage
685 - 705	Dark colored shaly lime
705 - 720	Lighter colored lime
720 - 740	Residuare sand
740 - 750	Light gray lime
750 - 765	do do., Salvage seams
765 - 795	Gray to brown lime
795 - 800	Brown lime
800 - 815	White lime. Few Zn shs.

OZARK MANUFING CO.

Hill-Ledford Tract
Hole No. 45-M
Elev. 413.9
Location: 1546' N. 204' E. of S.W. Cor., of S.E. ¼ of NW ¼ of Sec. 24, Twp., 11 S., R. 9 E., Marion County, Illinois
or
396' N. 184' W. of 43-M

Started 8-24-53
Completed 9-30-53
Water 50 - 55 ft.
765 - 790 ft. weak
Stopped at 23 ft.

Drilled by: Moreland and Sohler
Examined by A. G. Johnson
Casing - 11 ft. 8" size

0 - 15	Soil, clay & lime boulders.
15 - 65	Dark colored shaly lime - shale and selvage seams
65 - 85	Shale - some dark colored lime. Base of Menard 85 ft.
85 - 95	Sandy shale
95 - 135	Shaly gray sand - sandy shale
135 - 150	Sandy shale - gray lime. Vienna Ls.
150 - 170	Shaly sand
170 - 225	White and gray sand
225 - 240	Gray sand - shale seams. Base of Tar Spgs., 240 ft.
240 - 300	White and gray lime - few shale seams
300 - 310	Dark colored sandy lime, some shale. Base Glen Dean 310 ft.
310 - 330	Gray sand - shaly
330 - 360	Gray sand. Base of Hardinsburg 360 ft.
360 - 395	Gray sand dark colored shaly lime
395 - 405	Mostly sandy shale
405 - 430	Gray sand dark colored shaly lime
430 - 445	Dark colored shaly lime
445 - 485	Mostly sandy shale and selvage
485 - 510	Dark colored shaly lime - shale
510 - 535	Sandy shale
535 - 560	White sand, some shale
560 - 560	White sand
560 - 570	Gray sand - shaly
570 - 660	White sand
660 - 700	Shally gray sand
700 - 725	Hard white sand. B. B. 725 ft.
725 - 745	Gray lime
745 - 775	Gray lime, lt. selvage. Tight.
775 - 790	Dark colored shaly lime
790 - 805	Gray to tan colored lime
805 - 828	Green and reddish looking Mississippian sand
828 - 840	Light gray lime
840 - 865	Gray lime - few selvage seams
865 - 895	Gray to brown lime
895 - 900	White lime

SEP 16 1953

DMEA
Field Inspection Report
by
Kenneth M. Earl, Engineer
September 5, 1953

DMEA Docket No. 2248 - (Fluorspar)
Ozark-Mahoning Co., Rosiclare, Illinois
Property: Hill-Ledford Tract, Hardin County, Illinois
Contract No. Idm-E255 (Amended)

The drilling program on the Hill-Ledford Tract, under the terms of the amended contract, was started during the month of August. One hole was completed and three holes are now in progress.

Churn drill hole M-43 was completed at a depth of 905 feet. This first hole was blank. Holes M-44, M-45, and M-46 are in progress at shallow depths.

The usual cooperation and high standard of work experienced under the original contract has been maintained and progress should be speeded up as three drills are now being operated.

Kenneth M. Earl,
Engineer.

College Park, Md.
September 16, 1953

C
O
P
Y

OZARK-MAHONING COMPANY
Mahoning Mining Division
Rosiclare, Illinois

September 2, 1953

Mr. W. T. Millar
Executive Officer
Bureau-Survey Field Team
Defense Minerals Exploration Administration
Region VIII
U. S. Department of the Interior
Defense Minerals Administration
College Park, Maryland

Dear Mr. Millar:

Enclosed herewith you will find five copies of Form MF-104, Operator's Monthly Report and Voucher, as well as five copies of Form MF-104A, Operator's Unit Cost and Progress Report.

These forms are in connection with Stage II, Amended Exploration Project Contract, Docket #DMEA 2248, Contract #IDM-2255, dated June 2, 1953 and covers the prospecting which we have now started on the Hill-Ledford Tract in Hardin County, Illinois.

Very truly yours,

OZARK-MAHONING COMPANY
Mahoning Mining Division

/s/ A. G. Johnson
A. G. Johnson

AGJ/bls

Enclosures

SEP 18 1953

College Park, Maryland

September 18, 1953

Memorandum

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Docket No. DMEA-2248 - (Fluorspar)
Ozark-Mahoning Co., Hill-Ledford Tract (Stage II)
Hardin County, Illinois
Contract No. Idm-E255

Attached are two copies of the August progress report, for subject contract, which has been certified for payment by the Finance Officer, Region VIII.

W. T. Millar

Attachments - 2
(With MEEarl's Field Inspection Report for August, in quadruplicate)

rwa

copy for GeoCSelfridge
DMEA Files 2

September 8, 1953

SUPPLEMENTAL SHEET
HILL-LEDFORD TRACT

August 1953

Status of Holes - Completed & Drilling

M-43 - Completed at 905 ft. (Previously reported - Hole)	905 Ft.
M-44 - Drilling - Depth 8-31-53	220 "
M-45 - Drilling - Depth 8-31-53	240 "
Total Footage	1365 "

Remarks:

This is the start of drilling operations under Stage II, Amended Contract, Denied DMEA, Contract No. XDM-E-255 dated June 2, 1953. Attached is copy of log of churn drill hole M-43. This hole was blank. It is located fairly close to the intersection of the NE trend as well as the northwest trending series of sinkholes.

One hundred foot scale map is attached of a portion of the Hill-Ledford property showing the location of M-43, as well as the holes now drilling, M-44, 45 and 46.

We are now operating three drills.

First hole drilled in Amended Contract 6/75 Item E 255

OZARK-MAHONING COMPANY

Hill-Ledford Trust
Hole No. 43-H
Elevation 435.00

Started 5-1-53
Completed 5-28-53
Water 55 - 60 ft.
115 - 120 ft.
675 ft.
Stands at 75 ft.
No strong water

Location: 1350' N. 300' E. of S.W. Cor., of S.E.¼ of N.W.¼ of Sec. 24, Twp., 11 S., Range 9 E., Hardin County, Ill., or

522' N. - 659' E. of 29 N.

Measured by: A. G. Johnson
Casing 30 ft.

0 - 30	Soil, clay and boulders
30 - 40	Shale
40 - 90	Dark colored shaly lime - shaly partings. Menard
90 - 141	White sand - shaly layers
141 - 155	Red light gray and brownish-looking lime. Vienna.
155 - 185	Coarse gray and white sand - shaly streaks.
185 - 215	Coarse white sand - few shale seams.
215 - 235	White sand - shaly sand streaks. Base of Tar Springs.
235 - 300	Light gray to gray lime
300 - 310	Dark colored shaly lime. Base of Glen Dean.
310 - 360	Hardshelling sandstone.
360 - 395	Light gray lime - some gouge and salvage.
395 - 430	Light gray to dark gray shaly lime - sand streaks.
430 - 445	Chocolate colored shale.
445 - 540	Dark colored shaly lime - sand pockets, sandy shale - base of Bailey at 540 ft.
540 - 565	Gray sand - shale seams.
565 - 650	White and gray sand.
650 - 690	Shelly white and gray sand. Break at 675 ft. Trace of galena.
690 - 730	White sand. Few lm. sha., Trace pyrite. Formation hard. B. Bethel

at 730 ft.

730 - 755	Gray lime.
755 - 760	Green and reddish-looking shale and selvage, some lime.
760 - 775	Gray lime, some selvage.
775 - 795	Dark colored shaly lime.
795 - 810	Gray lime - lower O'Hara.
810 - 830	Green and reddish-looking Rosiclare sand.
830 - 832½	Gray and pink-grained lime - some sand. Base of Rosiclare 832 ft.
832½ - 865	Gray lime.
865 - 895	Gray to brown lime.
895 - 900	Light colored lime, trace of reddish-looking sand - Sub Rosiclare Harrison.
900 - 905	Light gray lime.

Form ME-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

SEP 18 1953

Month of August, 1953 Docket No. DMEA 22L0 Amended Contract No. DMEA-255 Serial II
Operator's Name Clark-Aboniro Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $60,750.00 Government Participation: 50 % Amount, $30,375.00

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Cham	3316.75	-	3316.95			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	3316.75	-	3316.95			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Sept. 2, 1953 Payee Continental Oil Co.

Per F. L. Bradley Title Ass't. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$1,658.48

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 9/17/53 Vou. No. DMEA-51

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. IdmE255 in accordance with the terms of the contract.

Signature R. Neumann Title Mining Eng Date 9-4-53

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature R. W. Burmeister Title Actg Exec. Officer Date 9/4/53

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1953 Docket No. DMEA 22.0 Amended Contract No. [redacted] - 255 Stage
Operator's Name Clark-Boring Company Minerals Fluorspar II
Address Pocolaro, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	2.43	3316.95	1365	3316.95	1365		25000	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		3316.95	1365	3316.95				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date September 2, 1953 Operator Clark-Boring Company

Per J. L. Sadden Title Asst. Sec.-Treas.

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

Remarks:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

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

August 5, 1953

Memorandum

To: George C. Selfridge, Chairman, DMEA Operating Committee

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Interim Reports on Contracts Nos. Idm-E255, Idm-E449 and Idm-E549.

Transmitted herewith in quadruplicate are Interim Reports by G. L. Neumann on the following contracts:

Contract Idm-E255, Docket DMEA-2248 - (Fluorspar)
Ozark-Mahoning Co., Hill-Ledford Tract,
Hardin County, Illinois

Contract Idm-E449, Docket DMEA-2757 - (Fluorspar)
Ozark-Mahoning Co., C. & P. Austin Tract,
Hardin County, Illinois

Contract Idm-E549, Docket DMEA-2838 - (Fluorspar)
Minerva Oil Company, Fairbairn Tract,
Pope and Hardin Counties, Illinois

H. L. Burmeister for
W. T. Millar

Attachments

Interim Report

by: G. L. Neumann, Engineer

1. DMEA Docket No. 2248 - Fluorspar-Zinc-Lead

2. Operator: Ozark-Mahoning Co.
   Rosiclare, Illinois.
   Property - Hill-Ledford Tract, North of Cave in Rock, Hardin County, Ill.

3. Contract No. Idm E255, Amended

4. Summary - Conclusions and Recommendations

This is an addendum to the original contract, which has been certified as a discovery. Work under this amendment will explore the tract to the northeast of the discovery.

5. No work on this section of the contract has as yet been accomplished. A churn drill outfit has been moved to site of the first proposed hole and is being set up.

Holes M-39, M-40, M-41 and M-42 were drilled on company account in addition to the original contract drilling to fill out the structural pattern. A test is now being made with a Redda pump on hole 2-M to check the water flow. If this water can be handled, a shaft will be sunk in this vicinity to develop the discovery deposit.

July 25, 1953

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 18 1953

D.M.E.A
2248

August 17, 1953

Memorandum

To: W. S. Martin, Acting Chairman, DMEA Operating Committee

From: H. L. Burmeister, Acting for W. T. Millar, Executive Officer, DMEA Field Team, Region VIII

Subject: Semi-Annual Report on Certified Projects

In reference to your letter of August 14 to Mr. W. T. Millar, Executive Officer, DMEA Field Team, Region VIII, relative to the above subject, there is enclosed the Semi-Annual Report on Certified Projects, Region VIII, for the period January through June 30, 1953.

H. L. Burmeister

Enclosure

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 18 1953

Semi-Annual Report on DMEA Certified Projects, Region VIII

(January 1 to June 30, 1953, Inclusive)

One DMEA Project has been certified during the above period. Data on this project follows:

Docket No.:	DMEA-2248 - (Fluorspar)
Contract No.:	Idm-E255
Operator:	Ozark-Mahoning Company, Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin Co., Ill.
Date of Certification:	May 29, 1953
Production:	None
Royalties due the Government:	None
Royalties paid " "	None

Operator's Interest in the property has not been transferred.

If the water situation can be handled as now appears probable, it is planned to start sinking a working shaft in the near future.

H. L. Burmeister

H. L. Burmeister

DMEA
Summary Report
June 30, 1953

Operator:	Ozark-Mahoning Co., Rosiclare, Illinois
Mine & Location:	Hill-Ledford Tract, Hardin County, Illinois
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc
Total Cost:	$122,715.00 (Amended)
Government Participation:	50% - $61,357.50
Duration of Contract:	February 18, 1952 to February 18, 1954

Exploration under this contract started on February 18, 1952, and was completed on January 15, 1953. During this period, 33 churn drill holes were drilled, totaling 25,500 feet of drilling at a unit cost of $2.43 per foot. The total cost of this project is $61,965.00 in which the Government's participation through the Defense Minerals Exploration Administration, is 50 percent or $30,982.50. The ore reserves indicated by this exploration are estimated at 463,600 tons averaging 35.5 percent fluorite, 2.58 percent zinc and 0.12 percent lead. The final report by the operator was prepared and a subsequent report on this project by the Field Team recommended a Certificate of Discovery or Development, which was issued on May 20, 1953.

The favorable results of this exploration encouraged the operator to apply for Government assistance in exploring for the extension of this deposit to the northeast. The application was considered favorably and the contract was amended to include the additional exploratory work as Stage II to consist of 25,000 feet of churn drilling at a unit cost of $2.43 per foot. The total cost of Stage II will be $60,750.00, in which the Government's participation is 50 percent or $30,375.00. The total cost of $61,965.00 as authorized by the original contract was increased to $122,715.00 by this amendment.

Provided the results of the additional exploratory work continue to be favorable, the nation's reserves of these critical minerals will be substantially increased thereby contributing to our national security.

Good one!

College Park, Maryland

February 25, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region VIII

Subject: Field Inspection Reports for DMEA Contracts

Transmitted herewith in quadruplicate are C. L. Neumann's Field Inspection Reports on the following contracts:

Idn-E255 — Ozark-Mahoning Co., Rosiclare, Illinois
Hill-Ledford Tract, Hardin County, Illinois
Docket DMEA-2248 - (Fluorspar-Lead-Zinc)

Idn-E429 — Melville Gold Mines Ltd., Montreal, P.Q., Canada
London-Virginia & Buckingham Mines
Buckingham County, Virginia
Docket DMEA-2707 - (Zinc-Lead)

Idn-E449 — Ozark-Mahoning Co., Rosiclare, Illinois
C. & F. Austin Tract, Hardin County, Illinois
Docket DMEA-2757 - (Fluorspar-Lead-Zinc)

W. T. Millar

Attachments

WTM:rwa

copy for GeoCSelfridge - Orig. & 2
DMEA Files 2

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer
February 12, 1953

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin Co., Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc
Total Cost:	$61,965.
Government Participation:	$30,982.50 - 50%
Duration of Contract:	February 18, 1952 to February 18, 1953

Project completed - 25,500 feet of churn drilling finished about January 15, 1953. Certification of Discovery is recommended. Final report is being prepared.

The contract was entirely fulfilled when hole M-38 reached a depth of 448 feet. The hole was finished on company account.

This has been a model project since inception. The layout, planning, application, drilling progress, reports and cooperation with the Field Team were all of the highest caliber. Added to this, a substantial tonnage of suitable grade bedded fluorspar, carrying zinc was indicated by drilling to warrant a Certificate of Discovery.

G. L. Naumann
Mining Engineer

College Park, Md.
February 25, 1953

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 20 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1953 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Co. Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61,965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	882.09	61082.91	61,965.00			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	882.09	61082.91	61965.00			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Feb. 5, 1953 *Payee OZARK-MAHONING COMPANY

Per [signature] Title Ass't. Sec'y-Treasurer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 441.05

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 2/24/53 Vou. No. DMEA-28
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E-255 in accordance with the terms of the contract.

Signature [illegible] Title Mining Engineer Date Feb. 13, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. O. Miller Title Acting Exec. Officer Date Feb. 13, 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF–104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF–104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF–104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF–104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF–200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF–200; and delete word "Independent" if the contract reported is on Form MF–200 (A). Also, report work paid for on a unit basis under contract Form MF–200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF–104 when submitted for reimbursable expenses incurred under contract Form MF–200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF–200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF–104 is required to be documented. The four copies of Form MF–104 are not to be thus supported.

Form MF–104 submitted for reimbursement under fixed price contracts on Form MF–200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF–104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 26 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 3 Docket No. DMEA 2248 Contract E-255

Operator's Name Ozark-Mahoning Co. Minerals Fluorspar

Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	$2.43	882.09	363	61965.00	25500		25500	$ 2.43
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		882.09	363	61965.00				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Feb. 5, 1953 Operator OZARK-MAHONING COMPANY

Per J. L. Cadden Title Ass't. Sec'y-Treas.

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

(Instructions on reverse)

REMARKS: Includes following:

Drilling	$2.25	per foot
Geologist	0.15	" "
Assaying	0.01	" "
Clerical	0.02	" "
	$ 2.43	

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

SUPPLEMENTAL SHEET

January 1953

Geologist	363 ft. @ 0.15 per foot	=	$ 54.45
Assaying	363 ft. @ 0.01 per foot	=	3.63
Clerical	363 ft. @ 0.02 per foot	=	7.26
			$ 65.34

Status of Holes Drilled for month - Project Completed

M-37	Completed (Previously reported 610')	Balance	155 ft.
M-38	Completed (Previously reported 240')	Balance	208 ft.
	Total		363 ft.

Remarks:

Copies of logs of 37-M and 38-M are attached to this report. There is also included a report addressed to Mr. Millar covering the entire project to which is attached a "Summary of the Drill Hole Data" as well as a 100 foot scale map of the property. There is also included a set of cross sections which have been mailed under separate cover.

CLARK-MAHONING COUNTIES

C. N. Hill Tract
Drill Hole No. 37 N
Elevation: 430.5

Started 12-10-52
Finished 1-7-53

Location: 712' north and 694' east of the S.W. corner of the N.E. ¼ of N.E. ¼ of Sec. 23 or 9' south and 890' east of ¼-M.

Water:
115 - 116 light
Lost - 165
680 - 685 strong
Stands at 660'

Drilled by: Moreland and Kohler

Examined by: E. A. Brooks
Casing: 20 feet

0 - 19 Surface

19 - 30 Gray sand, shaly partings, some red sand

30 - 55 " " " "

55 - 65 Gray sand

65 - 90 Gray shale, sand streaks

90 - 135 Gray and brown lime, shale streaks Clem Team

135 - 200 Gray sand

200 - 230 Gray shale, few sand streaks

230 - 235 White sand, shale streaks

235 - 300 Gray and brown lime, shaly

300 - 305 Gray and maroon shale

305 - 380 Gray shale, lime streaks

380 - 405 Black shale, little pyrite at base

405 - 470 White sand, com. caved shale.

470 - 540 Gray shally sand

540 - 555 White shally sand

555 - 585 White sand

585 - 590 White sand, some gray shaly sand

590 - 595 " " , some gray lime. Base of Berea 592

595 - 615 Gray and brown lime

615 - 625 Gray lime and green salvage

625 - 645 Shale and salvage, lime streaks

645 - 650	Dark brown lime, chaly
650 - 665	Brown lime
665 - 670	Lower O'Hara lime
670 - 698	Rockslare sand
698 - 700	Light grey oolitic lime
700 - 730	Grey and brown lime
730 - 735	Brown lime
735 - 739	Dark brown lime
739 - 785	Light grey lime

C. E. Hill Trust
Drill Hole No. 38 R
Elevation: 384.7
Location: 398' north and 448' east of the SW Corner of SW¼ of NW¼ of Sec. 34, T 11 S, R 9 E or 5½' south and 4' west of No. 18-H

Drilled by: Moreland and Kohler
Examined by: E. A. Hinkle
Casing: 20½-30' 8¼" Casing
30'- 6¼" Casing

Started: 12-8-52
Finished: 2-11-53

Water: 31-35 Light
105 "
185 "
500 "
665 Fairly Strong
665-675 Fairly Strong
700 Strong
720½ "
815-820 Strong
Water last = 542
Stands 665-670 feet

0-30	Surface gravel and boulders
30-35	Brown lime boulders and mud
35-65	Black shale and streaks
65-75	Gray sand, little shale
75-105	Gray sandy shale
105-115	Brown lime, shaly
115-125	Light gray crinoidal lime
125-155	Gray and brown lime, shale streaks
155-205	Gray sand
205-240	Gray shaly sand
240-320	Gray and brown lime shale streaks
320-335	Gray sand, shaly
335-415	Gray calcareous shale
415-435	Gray shale
435-465	Gray sand, shaly Sample = 465
465-485	White sand
485-535	Gray shaly sand
535-540	Lost cuttings
540-547½	White quartzitic sand very rich acid spar
547½-555	White sand, some spar
555-565	White sand, crystals, some spar
565-570	Lost cuttings
570-595	Gray to white sand, little spar, few cuttings
595-600	Lost cuttings
600-605	White sand, little spar
605-610	Lost cuttings
610-620	Gray sand, little spar
620-625	Lost cuttings
625-645	Gray sand some gray quartzite and some spar, few cuttings
645-647½	Lost cuttings
647½-667½	White sand and quartzite, little acid spar, few cuttings
667½-670	Gray sand, some spar and Zn, trace Pb, few cuttings
670-682½	Gray sand, spar shines
682½-685	White sand " " , little Zn, trace Pb
685-687½	No cuttings
687½ - 692½	Gray shaly sand quartzitic sand, brown spar, Zn and Pb
692½-695	Dark brown quartzitic sand, spar, Zn and Pb shines
695-700	" " " " , little leached buff lime and gray sandy gouge, little low grade spar and Zn
700-725	Gen. brown quartzitic sand, some leached buff lime, little spar & Zn
725-735	Shale and selvage, some shaly lime and tarred sand, trace of low grade spar, few Zn shines

755-765	Shale and salvage, some shaly lime, spar shines, trace barite
765-775	Shale and salvage, white calcite lime, spar shines
775-780	Shale and salvage, some lime and sand, Probably Fossilers, spar shines
780-785	No cuttings
785-795	Shale and salvage, some lime and sand, Probably Fossilers spar shines
795-810	Light colored lime, some salvage, fos. and spar
810-815	Gray lime, bladder formation, brown salvage, trace spar
815-820	No cuttings, Crested drilled solid but soft
820-833	Gray lime, trace of salvage, spar shines

Note: This hole either cut a large slump zone or a fault zone as shown by the wide spread mineralization and displacement of formations. The assay results may not be representative and are difficult to correlate with ore zones in adjacent holes.

Ore zone from 510-675 ft. averages 29.03 CaF2
" " " 695-765 ft. averages 28.10 CaF2
8.17 BS
" " " 775-810 ft. averages 32.42 CaF2

HOLE - NO. 36

Assays	CaCO3	CaF2
510-515	11.40	56.86
515-520	13.48	55.12
520-525	3.88	86.22
525-530	2.98	25.18
530-535	5.72	35.70
535-540	1.99	39.48
540-545	2.55	29.32
545-550	2.72	25.71
550-555	3.88	25.17
555-560	No cuttings	
560-565	2.55	34.96
565-570	1.24	27.51
570-575	2.33	20.30
575-580	1.84	4.55
580-585	0.49	15.79
585-590	No cuttings	
590-595	1.77	21.34
595-600	No cuttings	
600-605	1.79	35.57
605-610	2.70	49.15
610-615	No cuttings	
615-620	1.06	29.48
620-625	1.04	31.89
625-630	1.40	36.34
630-635	1.18	26.66
635-640	1.21	23.22
640-645	1.25	41.78
645-650	1.44	26.37
650-655	No cuttings	
655-660	3.25	34.03
660-665	2.33	29.48
665-670	1.79	24.38
670-675	1.97	23.79

	CaCO3	CaF2		
657½-660	1.46	26.49		
660-665	1.12	28.48		
665-667½	1.49	22.79		
667½-670	2.73	17.27	[illegible]	[illegible]
670-675	[illegible]	[illegible]	2.21	0.28
675-677½	[illegible]	[illegible]		
677½-680	1.93	6.27		
680-682½	1.86	6.13		
682½-685	1.89	4.97	2.00	
685-687½	No samples			
687½-690	" "			
690-692½	" "			
692½-695	8.33	2.68		
695-697½	13.18	18.81		
697½-700				
700-702½	7.57	24.64	2.03	
702½-705	10.38	25.49	1.89	
705-707½	20.75	18.66	2.71	
707½-710	10.16	31.75	2.71	
710-712½	18.90	21.08	3.49	
712½-715	22.85	23.64	3.79	
715-717½	23.91	39.15	2.32	
717½-720	21.12	19.94	2.92	
720-725	12.18	13.12	2.08	
725-775	Not assayed			
775-800	7.36	41.28		
800-805	2.45	54.09		
805-810	7.08	61.91		

DMEA
Summary Report
January 28, 1953

Operator:	Ozark-Mahoning Co., Rosiclare, Illinois
Mine & Location:	Hill-Ledford Tract, Hardin Co., Illinois
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc
Total Cost:	$61,965.00
Government Participation:	50% - $30,982.50
Duration of Contract:	From - February 18, 1952 to February 18, 1953

Exploration under this contract entailed 25,500 feet of churn drilling at unit cost of $2.43 per foot, for a total cost of $61,965.00. Government participation is 50 percent or $30,982.50. Status as of January 1, 1953 is 98.5 percent complete.

Good ore has been indicated by drilling and a rough estimate of reserves may reach 400,000 tons of 40 percent fluorite and 2 to 3 percent zinc.

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

January 12, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 13 1953

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region VIII

Subject: Ozark-Mahoning Company, Hill-Ledford Tract, Hardin County, Illinois, Contract Idm-E255 Docket DMEA-2248 - (Fluorspar)

Attached in quadruplicate is the December Field Inspection Report by G. L. Neumann, on Contract Idm-E255.

W. T. Millar

W. T. Millar

Attachments - 4

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer
January 8, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 13 1953

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Mine & Location:	Hill-Ledford Tract, Hardin Co., Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zind

This project was inspected on January 8 and all work was found to be conducted in accordance with the contract.

Holes M-33, M-34 and M-35 started in November, were completed in December. Hole M-36 was started and completed in December and holes M-37 and M-38 were started but not completed. A total of 2,195 feet of drilling was accomplished in December.

Bad weather somewhat impeded the work in December. There remains 363 feet of drilling in the contract. This will be completed in January 1953 and the final report will be prepared February 1, 1953.

The drilling for December was more spot drilling to clarify certain sections. Holes M-35 and M-36 were blanks so far as mineralization was concerned. This indicates a pinch in the ore body to the northeast. Hole M-33 had a fair showing of ore and M-34 showed fringe ore.

The performance on this contract is again very outstanding in efficiency and cooperation. The project is expected to qualify for a Certificate of Discovery or Development.

G. L. Neumann
Mining Engineer

College Park, Md.
January 12, 1953

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1952 Docket No. DMEA 2248 Contract No. E 255
Operator's Name Ozark-Mahoning Co. Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn *	2.43	5333.85	2195	61082.91	25137		25500	2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		5333.85	2195	61082.91				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date 1-1-53 Operator OZARK-MAHONING COMPANY

Per J. L. Cadden Title Ass't. Sec'y-Treas.

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

(Instructions on reverse)

Remarks:

*Includes following:

Drilling	$2.25	per foot
Geologist	0.15	" "
Assaying	0.01	" "
Clerical	0.02	" "
Total	$2.43	per foot

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December 1952 Docket No. DMEA 2248 Contract No. E 255
Operator's Name Ozark-Mahoning Co. Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61,965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts: Drilling - Churn	5333.85	55749.06	61082.91			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	5333.85	55749.06	61082.91			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 1-1-53 *Payee OZARK-MAHONING COMPANY

Per [signature] Title Ass't. Secy-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,666.93

Signature F. R. Kantner, Adm. Asst.
(Authorized Certifying Officer)

Date 1/23/53 Vou. No. DMEA-20
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm E-255 in accordance with the terms of the contract.

Signature J. H. Eckstrom Title Mining Engineer Date Jan. 8, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. P. Miller Title Acting Exec. Officer Date Jan 8, 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

SUPPLEMENTAL SHEET

December, 1952

Geologist	2195 ft. @ $0.15 per foot	$ 329.25
Assaying	2195 ft. @ $0.01 per foot	21.95
Clerical	2195 ft. @ $0.02 per foot	43.90
		$ 395.10

Status of Holes Drilling and Completed.

M-33	Completed (Previously reported 680 ft.)	Bal.	155 ft.
M-34	Completed (Previously reported 555')	Bal.	220 ft.
M-35	Completed (Previously reported 610')	Bal.	185 ft.
M-36	Completed	Depth	785 ft.
M-37	Drilling (Depth 12-31-52)		610 ft.
M-38	Drilling (Depth 12-31-52)		240 ft.
		Total	2195 ft.

Remarks:

Copies of logs of Holes Nos. 33, 34, 35 and 36-M are attached to this report. There is also attached a 100 foot scale map showing the location of completed and drilling holes. The total footage under the contract will be used up when Hole No. 37-M is completed and 38-M is partially completed. The balance of 38-M will be Ozark-Mahoning expense. We hope to have 37-M and 38-M completed during the month so that final report on this project can be made February 1, 1953.

Holes Nos. 35 and 36-M, located along the east side of the highway were blank. This was disappointing and indicates the possibility of the ore body pinching out to the northeast. There is, of course, the possibility that we are simply in a lean area and that the ore body will widen out and become richer some further distance to the northeast. Hole No. 33-M cut low grade ore, the best of which appeared to be at the Pub-Residore horizon from 777½ - 800 ft. Throughout this section we recovered very few cuttings. Consequently there is a good possibility the ore is better than the assay would indicate. Hole No. 34-M, drilled in about the center of the tract appears to be close to the north edge of the ore body.

OZARK-MAHONING COMPANY

C. N. Hill Trust
Drill Hole No. 33-M
Elevation: 378.3
Location: 360' north and 183' east of SW Corner of NW¼ of Sec. 24 or 155' south and 233' west of 9-M
Drilled by: Moreland and Kohler
Examined by: E. A. Brown
Casing: 31 feet

Started: 11-8-52
Finished: 13-8-52

Water: 60 Light
300 "
315 "
360 "
550 "
685 Lessened water
715 Strong
777½ "
815 "
Stands @ 700

0-30	Surface
30-40	Oxidized calcareous shale
40-45	Black " "
45-50	Grey sand, shale streaks
50-55	Grey shale
55-100	Grey sand, shale streaks
100-110	Dark brown shaly lime
110-120	Light grey crinoidal lime
120-160	Grey and brown lime, shale streaks
160-205	Grey sand
205-235	Dark grey shaly sand
235-320	Grey and brown lime, shale streaks
320-325	Gray and brown shale
325-400	Grey shale, lime streaks
400-425	Grey shale
425-450	Grey sand, some. shale
450-520	White sand
520-565	Grey shaly sand, slide @ 565'
565-610	White sand
610-615	Grey shaly sand
615-620	Dark lime, some sand. Base of Bethel 617
620-630	Grey and brown lime
630-650	" " " " , little salvage
650-660	Shale and salvage, lime streaks
660-670	Dark brown shaly lime
670-675	" " " " , Zn shines, trace calcite and spar
675-680	" " " " , Lit. Zn, spar shines
680-690	" " " " , Some spar, traces of Zn
690-694½	Lower O'Hara lime, little brown lime, spar shines, trace Zn
694½-695	" " " , some Rosiclare sand, traces spar and Zn
695-715	Rosiclare sand
715-717	" " and grey lime spar shines
717-730	Grey oolitic lime, spar shines, fair Zn
730-732½	" " " " " , trace Zn
732½-750	Light brown lime
750-775	Dark brown lime
775-777½	Grey lime, little spar, trace Zn
777½-782½	Some acid spar and brown lime, Zn trace
782½-785	Con. shale, probably caved, some spar, some brown silica with free & chatty Zn
785-790	Some spar & brown silica with chatty Zn. Some gray sandy oolite and con. gray shale
790-791½	Drilled firm
791½-795	Open
795-805	Chatty Zn on gray oolitic lime & brown silica. Little spar, some shale
805-807½	Brown silica on gray lime, spar and Zn shines
807½-820	Grey and brown lime
820-835	Brown lime

Note: Very few cuttings 777½ to 805.

Page two -

Ore Shoot 680 - 690 Averages 32.42 OzPT
.53 Zn

Ore Shoot 777½ - 800 Averages 27.80 OzPT
3.70 Zn

Assays	%SiO2	OzPT	Zn	Pb
675-677½	65.74	5.33	3.38	
677½-680	72.04	6.78	1.66	
680-682½	68.32	22.38)	1.36	
682½-685	60.87	23.38)	.74	
685-687½	36.98	52.35)		
687½-690	53.30	38.57)		
690-692½	35.64	16.72		
715-717	50.96	9.16		
717-720	68.80	9.73	3.43	
720-722½	43.57	9.59	2.27	
775-777½	72.14	3.96	None	
777½-780	65.37	32.79)	.35	
780-782½	43.21	33.82)	.25	
782½-785	35.46	21.60)	1.82	
785-787½	39.41	8.32)	3.27	
787½-790	37.45	7.90)	1.66	
795-797½	62.69	13.81)	7.30	.14
797½-800	34.08	7.34)	4.68	
800-802½	39.07	5.79	3.83	
802½-805	61.77	5.51	1.66	
805-807½	58.17	4.81	.96	

CHANE-MACHINING COMPANY

C. H. Hill Tract

Started 11-13-52
Finished 12-10-52

Drill Hole No. 34 N
Elevation: 423.1
Location: 952 ft. north and 500 ft. east of the S.W. Corner of the N.E. ¼ of Sec. 21 or 3 ft. north and 50 ft. west of 25-N

Water 40 - 45 Light
Stands at 95 ft.
Bails to 200 feet, during shift.

Drilled by: Maryland and Hahler.

Examined By E. A. Brooks

Casing: 20 feet.

0 - 25 Surface.

25 - 35 Gray calcareous shale.

35 - 70 Gray sand, shaly partings.

70 - 75 White sand.

75 - 95 Gray sand shaly.

95 - 105 Gray lime, shale streaks.

105 - 140 Gray and brown lime, shale streaks.

140 - 205 Gray sand, little shale.

205 - 235 Gray shale sandy.

235 - 310 Gray and brown lime, shale streaks.

310 - 380 Gray and maroon shale.

380 - 395 Gray shale, lime streaks.

395 - 420 Gray shale, sandy streaks.

420 - 475 Gray sand, com. sawed shale.

475 - 550 Gray sand, slightly shally.

550 - 595 White sand.

595 - 605 Gray sand, shaly partings.

605 - 610 Gray sand, some gray lime. Base of Sphinx 607.

610 - 630 Gray lime.

630 - 640 Gray lime and green salvage.

630 - 640 Grey lime and green selvage.

640 - 655 Shale and selvage, lime streaks.

655 - 675 Dark brown shaly lime.

675 - 690 Lower O'Hara, sandy, barite, calcite and spar shines.

690 - 705 Rosiclare sand.

705 - 707½ Dead acid and replacement spar, some Rosiclare sand, chatty Zn shines.
R. R. 706.

707½ - 710 Grey lime and shale, little spar, Zn shines.

710 - 730 Grey oolitic lime.

730 - 740 Brown lime

740 - 745 " " , barite, spar and Zn shines.

745 - 750 Brown lime.

750 - 760 Dark brown lime.

760 - 765 " " " , little sub Rosiclare sand.

765 - 775 Grey oolitic lime.

Ore face 705 - 710 averages 11.10 CaF_2
.40 Zn

Assays	$CaCO_3$	CaF_2	Zn
705 - 707½	4.29	49.66	0.45
707½ - 710	38.17	12.54	0.35

GRAHE-HARDING COMPANY

G. H. Hill Tract
Drill Hole No. 35-H
Elevation: 381.1
Location: 642' north & 697' east of the SW Corner of NW¼ of Sec. 24 or 83' north & 59' west of 32-H

Started: 11-13-52
Finished: 12- 8-52

Water 60-65 light
110-115 "
260-265 "
Stands 300

Drilled by: E. W. Dalen
Examined by: R. A. Brooks
Casing: 21'-6" 8"

0-45	Surface
45-60	Gray & brown shaly lime
60-75	Shale lime streaks
75-85	" sandy streaks
85-120	Gray sand, shaly partings
120-125	Gray shale, sand streaks
125-135	Brown lime, shaly
135-150	Gray Crinoidal lime
150-205	Dark brown shaly lime
205-225	Gray sand, shaly partings
225-265	Gray sand, shale streaks
265-335	Gray and brown lime, shale streaks
335-360	Gray and maroon shale
360-420	Gray shale, lime streaks
420-440	" " , sandy
440-465	Black shale, some pyrite
465-475	Gray sand, shaly
475-595	Gray shaly sand
595-625	White sand
625-630	Gray lime, little sand. Base of Bethel 627
630-650	Gray lime
650-675	Gray lime, some green salvage
675-690	Brown lime, sqz. shale
690-705	Lower O'Hara lime
705-730	Bastaleare sand
730-760	Light gray lime
760-770	Brown lime
770-785	Dark brown lime
785-790	" " " , little gray sandy oolite
790-795	Gray oily oolitic lime

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole No. 36-M
Elevation: 381.8

Started 12-8-52
Finished 12-29-52
Water: 70 - 75 Light
490 - 495 Strong
Stands 210 ft.

Location: 523' north & 830' east of the S. W. Corner S.W. ¼ of Sec. 24 or 55' south and 52' east of No. 38-M.

Drilled by: S. W. Sales.

Examined by: E. A. Brooks

Casing: 35½' 8" Pipe

0 - 35	Surface
35 - 55	Gray shale, lime streaks
55 - 65	" "
65 - 90	" " , gray sand streaks
90 - 100	Gray sand, shaly
100 - 115	Gray sand, shale streaks
115 - 120	Brown shaly lime
120 - 130	Light gray oriscoidal lime
130 - 185	Gray and brown lime, shale streaks
185 - 225	Dark gray sand, shale streaks
225 - 250	" " "
250 - 320	Gray and brown lime, shale streaks
320 - 335	Brown sand, shale streaks, (marsen?)
335 - 410	Gray shale, lime streaks
410 - 435	Black shale
435 - 470	Gray sand, com. caved shale
470 - 490	Gray shelly sand
490 - 530	White sand
530 - 560	Gray shelly sand
560 - 610	White sand

610 - 615 White sand, little gray lime. Base of Bethel 612

615 - 635 Gray lime

635 - 640 " " , little green selvage

640 - 660 Shale and selvage, lime streaks

660 - 680 Dark brown shaly lime

680 - 690 Lower O'Hara lime

690 - 712 Bradford sand

712 - 740 Light gray oolitic lime

740 - 755 Light brown lime, little selvage

755 - 775 Dark brown lime

775 - 785 Gray oolitic lime

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 18 1952

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1952 Docket No. DMEA 2248 Contract No. E-255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	* $2.43	6675.21	2747	55749.06	22942		25500	$2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs								Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date Dec. 2, 1952 Operator Ozark-Mahoning Company

Per J. L. Cadden Title Ass't. Secy.-Treas.

J. L. Cadden

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

(Instructions on reverse)

Remarks:

*Includes following:

Drilling	2.25
Geologist	0.15
Assaying	0.01
Clerical	0.02
Total	$2.43

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Form MF-104 (Rev.)
(April 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 18 1952

Budget Bureau No. 42-R1036.3
Approval Expires

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 195 2 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61,965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Churn	6675.21	49073.85	55749.06			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6675.21	49073.85	55749.06			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 12-2-52 *Payee Ozark-Mahoning Company

Per J. L. Cadden Title Ass't. Secy.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3337.61

Signature
(Authorized Certifying Officer)

Date 12/17/52 Vou. No. DMEA-17

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Tdm E-255 in accordance with the terms of the contract.

Signature L. Baumann Title Mining Eng. Date 12-4-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Miller Title Acting Exec. Officer Date 12/4/52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

SUPPLEMENTAL SHEET
November 1952

Geologist	2747 ft. @ $0.15 per foot	412.05
Assaying	2747 ft. @ $0.01 " "	27.47
Clerical	2747 ft. @ $0.02 " "	54.94
		494.46

Status of Holes Drilling and Completed

M-30	Completed	(Previously Reported 550)	Bal.	182	feet
M-31	"	(" " 400)	"	320	feet
M-32	"	(" " 400)	"	400	feet
M-33	Drilling	(Depth 11-30-52)		680	feet
M-34	"	(" 10-30-52)		555	feet
M-35	"	(" 10-30-52)		610	feet
			Total	2747	

Remarks:

Copies of logs of drill holes No. 30-M and 31-M and 32-M are attached to this report. Also a map on a one hundred feet to the inch scale is attached showing the locations of completed and drilling holes.

Drill hole No. 30-M showed ore at the base of the Rosiclare sand; however, we were forced to abandon before the Sub-Rosiclare zone was cut by caving grounds. Drill Hole 31-M showed good ore at both the Rosiclare sand and Sub-Rosiclare horizons. M-32 cut some ore at the Sub-Rosiclare horizon but it was not comparable to the material cut in holes to the west which ore we are trying to extend to the east.

OZARK-MAHONING COMPANY

C. N. Hill Trust

Drill Hole No. 30-M

Elevation: 412.3

Location: 378' south and 534' west of the N. E. corner of N. E. 1/4 of S. E. 1/4 of Sec. 23 or 93' east of 28-M.

Drilled by: Moreland and Hehler

Examined by: E. A. Brecke

Casing: 20 feet.

Started 10-16-52

Finished 11-8-52

Water: 85 Light
310 Fair
600 Light
700 Fairly strong sulfur
717-720 Strong
Stands at 670'

0 - 17	Surface
17 - 25	Sandy shale, little lime
25 - 50	Gray shaly sand
50 - 60	Gray sand
60 - 80	Gray shaly sand
80 - 110	Gray lime, shale streaks Glen Dean
110 - 165	Gray shale, lime streaks.
165 - 215	White sand
215 - 300	Gray and brown lime, shale streaks
300 - 305	Gray and maroon shale
305 - 375	Gray shale, lime streaks
375 - 405	Gray shale, sandy
405 - 465	White sand
465 - 485	" " , shaly partings
485 - 565	Gray shally sand
565 - 590	White sand
590 - 600	Dark gray sandy shale
600 - 602½	" " " " , some gray lime, Base of Bethel 602.
602½ - 625	Gray and brown lime

625 - 655 Gray lime and green selvage

655 - 675 Brown shaly lime

675 - 680 Lower O'Hara

680 - 695 Residlare sand, some gray lime, trace calcite

695 - 710 " " " " " , broken and loose cased from 668 - 713

710 - 714 Residlare sand, some good acid spar, traces Pb and Zn

714 - 717 Residlare sand, some brown siliceous material, little spar, Pb and Zn.

717 - 725 Gray leached lime, little calcite, little brown siliceous material, some spar, Pb and Zn.

725 - 727½ Opening, few nuggets of spar and sand recovered.

727½ - 732 Brown siliceous material, spar, Pb and Zn shines.

Note: This hole was abandoned at 732 feet because of caving from the section from 725 - 727½. We were unable to drive the sleeve set from 668 to 713 to include the section from 725 - 727½.

Hole No. 30-M
Hill-Ledford

	$CaCO_3$	CaF_2	Zn	Pb
710 - 711	12.40	13.81	1.35	0.59
711 - 714	6.27	30.68	2.27	1.80
714 - 717	6.50	24.21	2.27	1.14
717 - 720	42.67	13.24	1.26	0.52
720 - 722½	41.23	14.96	1.36	0.14
722½ - 725	34.56	21.40	1.36	1.24
725 - 727½	No cuttings			
727½ - 730	14.74	8.04	2.37	0.07
730 - 732	10.78	14.23	3.38	0.31

Ore face from 710 - 717 ft. averages 25.50 CaF_2

2.10 Zn

1.40 Pb

OZARK-MAHONING COMPANY

G. N. Hill Tract
Drill Hole No. 31
Elevation: 401.9
Location: 126' north and 177' east of the S.W. Corner of NE-1/4 of SE-1/4 of Sec. 23 or 200' south and 6' west of No. 27
Drilled by: Moreland & Hobler
Examined by: R. A. Brooks
Casing: 20 feet

Started 10-18-52
Finished 11-13-52

Water: 280 - 305
Lost @ 608-1/2
Stood @ 590
612 strong stands @ 612'

0 - 3	Surface
3 - 18	Oxidized sand gravel
18 - 60	Gray and brown lime shale streaks
60 - 125	Gray sand, shaly partings
125 - 160	Gray shale, sandy
160 - 235	Gray and brown lime, shale streaks
235 - 240	Gray and maroon shale
240 - 310	Gray shale, calcareous
310 - 335	Black shale sandy streaks
335 - 385	White sand
385 - 495	Gray shally sand, some hard streaks
495 - 520	White sand
520 - 530	Gray shaly sand
530 - 535	Gray lime, little shaly sand Base of Bethel 533
535 - 550	Gray and brown lime
550 - 560	Gray and brown lime, little green salvage
560 - 580	Brown lime and green salvage
580 - 600	Brown shaly lime
600 - 610	Lower O'Hara lime
610 - 627-1/2	Rosiclare sand
627-1/2 - 630	Rosiclare sand, Gen. acid and replacement spar
630 - 635	Gray lime some spar
635 - 645	Gray lime spar shiney

645 - 650 Gray lime, little spar, little Pb and Zn

650 - 655 Gray lime, some acid spar, little Pb and Zn

655 - 665 Gray lime, few cuttings traces spar Pb and Zn

665 - 670 Gray lime

670 - 680 Brown lime

680 - 685 Very rich acid spar, little Pb and Zn

685 - 690 Mostly brown quartz, good Zn, trace Pb little spar.

690 - 695 Light gray and brown quartz, trace Zn Pb and spar

695 - 700 Mostly light brown quartz, good shatty Zn, Pb shines, trace spar

700 - 705 Mostly light brown quartz, Con. Zn, spar and Pb shines

705 - 710 Light gray sandy lime, trace Zn,spar & Pb shines

710 - 720 Light gray sandy lime, spar,Zn and Pb shines

Base of Sub Rocielare Indef. 690 or 705 feet

Hill Ledford

Hole No. 31-N

	$CaCO_3$	CaF_2	Zn	Pb
627-1/2 - 630	9.51	29.84		
630 - 635	17.86	38.97		
645 - 650	47.34	14.23	1.86	2.83
650 - 652-1/2	39.87	24.63	2.77	0.77
652-1/2 - 655	36.00	28.29	2.97	1.24
680 - 682-1/2	16.72	70.05	3.17	0.80
682-1/2 - 685	20.69	57.25	4.38	0.46
685 - 690	5.01	63.02	8.11	1.29
690 - 692-1/2	38.35	14.51	2.32	0.34
692-1/2 - 695	37.27	14.79	2.02	0.28
695 - 697-1/2	23.82	80.98	7.60	1.81
697-1/2 - 700	25.55	8.04	9.27	1.90
700 - 702-1/2	18.52	15.98	5.04	0.73
702-1/2 - 705	25.28	13.10	6.23	0.58
705 - 710	59.43	8.38	6.14	0.88

Ore face from 627-1/2 - 635 ft. averages 35.90 CaF_2

Ore face from 645 - 655 ft. averages 20.35 CaF_2
2.06 Zn
1.90 Pb

Ore face from 680 - 700 ft. average 39.00 CaF_2
5.60 Zn
1.00 Pb

Ore face from 700 - 710 ft. average 11.10 CaF_2
4.90 Zn
0.75 Pb

OZARK-MAHONING COMPANY

C. N. Hill Tract
Hole No. 32-M
Elev. 381.3
Loc. 580' N 777' East of SW Cor.
of NW¼ of Sec. 24 or 100' N.
80' E. of 21-M
Drilled by: B. W. Bales
Examined by: A. G. Johnson & E. A. Brooks
Casing: 31 ft. - 8"

St. 10-22-52
Comp. 11-13-52

Water: 85-90 Light
205-210 Strong
Lost @ 731
Water stood at 160'
until opening at 731
was cut
Stands @ 600'

0-19	Soil and clay
19-28	Mud and gravel
28-42	Shale
42-59	Gray shaly lime. Base of Vienna 59'
59-85	Gray and shaly sand
85-110	Gray sand
110-121	Shaly grey sand. B. of Tar Spgs. 121 ft.
121-150	Grey and dark colored shaly lime - shale streaks
150-178	Dark grey lime - few shale seams. B. of Glen Dean 178'
178-215	Grey sand
215-230	Shaly sand
230-253	Grey sand. B. of Hardinsburg 253 ft.
253-265	Grey and shaly looking lime
265-280	Grey lime - shale seams
280-290	Grey lime
290-315	Shale - lime streaks
315-325	Gray lime
325-330	Sandy shale
330-340	Chocolate colored shale
340-431	Shale - lime and sand streaks. B. of Golconda 431 ft.
431-575	White and gray sand
575-621	White sand. B.B. 621 ft.
621-640	Gray lime
640-680	do , selvage seams
680-690	Dark colored shaly lime
690-703	Lighter colored lime. Lower O'Hara
703-725	Rosiclare sand - some lime, selvage and mud streaks
725-730	Few cutgs. Rosiclare sand, some green selvage. Some soft leached lime and brown secondary calcite. Lt. Lav grade purple and acid spar. Tr. Zn. Pb shs.
730-732½	V. F. cutgs. Mud pocket from 731-732 ft. Light grey sandy lime - spar-Zn-Pb shs. Lost water @ 731 ft. Dropped from 160 ft. to 600 ft. Base of Rosiclare 732 ft.
732½-735	Light grey sandy lime - V. F. cutgs. Few spar shs.
735-737½	Light grey sandy lime. Few spar shs.
737½-755	Light grey sandy lime, Sem. green selvage traces spar
755-760	Grey lime and green selvage
760-765	Dark brown lime
765-775	Brown lime, little brown silica, some spar and Zn
775-777½	Gray oolitic lime, some spar and Zn
777½-800	Light grey oolitic lime traces spar and Zn

Ore fase from 765-777½ Averages: 23.68 CaF2
2.75 Zn

Depth	CaCO3	CaF2	Zn	Pb
725-730 ft.	27.17	20.42	0.56	0.15
730-732½ ft.	24.11	7.42	0.35	0.10
765-770	43.03	25.20	1.56	
770-772½	70.06	9.59	1.01	
772½-775	44.47	14.65	3.58	
775-777½	18.34	43.75	6.04	

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

December 8, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region VIII

Subject: Ozark-Mahoning Company, Hill-Ledford Tract, Hardin County, Illinois, Contract Idm-E255 Docket DMEA-2248 - (Fluorspar)

Attached in quadruplicate is the November Field Inspection Report by G. L. Neumann, on subject contract.

W. T. Millar

W. T. Millar

Attachments - 4

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer

Operator:	Ozark-Mahoning Co., Rosiclare, Illinois Hill-Ledford Tract, Hardin County, Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc

The Operator's Monthly Progress Report for November 1952 is hereby approved.

Holes M-30, M-31 and M-32 were completed during this period. Hole M-30 showed good structural features and encountered good fluorspar, but this was a difficult hole and had to be abandoned on account of caving ground. Plans are to deepen this hole very soon with a core drill at company expense. Hole M-31 showed the best mineralized zone of any holes on this project. It cut good fluorspar, zinc and lead. This is the first ore containing lead in quantity to be cut during this project. Hole M-32 cut 12.5 feet of fair fluorspar with a good zinc content.

Holes M-33, M-34 and M-35 are now being drilled. Another three holes are contemplated to complete the contract probably in the month of December, if the prevailing good weather continues.

The operation at this contract continues satisfactory and if the favorable results continue, a Certificate of Discovery or Development may be justified.

G. L. Neumann
Mining Engineer

College Park, Maryland
December 8, 1952

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

F.E. Johnson

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 14 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 195 2 Docket No. DMEA 2218 Contract No. E-255

Operator's Name Ozark-Mahoning Company Minerals Fluorspar

Address Rosiclare, Illinois

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting	Cost							
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger	* $2.43	7406.64	3048	49073.85	20195		25500	$2.43
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		7406.64	3048	49073.85				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS								

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

Date 10-1-52 Operator Ozark-Mahoning Company

Per J. L. Cadden Title Ass't. Secy-Treas.

J. L. Cadden

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

REMARKS:

*Includes following:

Drilling @	2.25	per foot
Geologist @	0.15	" "
Assaying @	0.01	" "
Clerical @	0.02	" "
Total	$2.43	" "

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 1 4 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1952 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61,965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling - Churn	7406.64	42667.21	49073.85			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	7406.64	42667.21	49073.85			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 10-1-52 *Payee Ozark-Mahoning Company

Per [signature] Title Ass't. Secy-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3703.32

Signature B/W.F. OWEN Jr
(Authorized Certifying Officer)

Date 11/10/52 Vou. No. DMEA-13

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration ~~Administration~~ project under Contract No. Idm E-255 in accordance with the terms of the contract.

Signature [illegible] Title Mining Engineer Date Nov. 5, 1952

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. T. Miller Title Acting Exec. Officer Date Nov. 5, 1952

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Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

OZARK-MAHONING COMPANY
ROSICLARE, ILLINOIS

SUPPLEMENTAL SHEET

OCTOBER 1952

Geologist	3048 ft. @ $0.15 per foot	457.20
Assaying	ft. @ $0.01 " "	30.48
Clerical	ft. @ $0.02 " "	60.96
		$548.64

Status of Holes Drilling & Completed

M-27	Completed	10-18-52	(Previously reported 385')	Bal.	355 ft.
M-28	"	10-16-52	(" " 250')	"	538 ft.
M-29	"	10-22-52	(" " None)	"	805 ft.
M-30	Drilling	(Depth 10-31-52)			550 ft.
M-31	"	(" 10-31-52)			400 ft.
M-32	"	(" 10-31-52)			400 ft.
				Total	3048 ft.

Remarks:

Copies of logs of Drill Holes No. 27, 28 and 29-M are attached to this report. One hundred foot scale map is also attached showing location of all holes which have been completed as well as those now drilling.

You will note that 29-M is blank. This is disappointing. In order to determine whether the ore continues to the northeast, we decided to back-up and drill close to known ore. Hence the location of 32-M.

OZARK-MARKHAM COMPANY

Hill-Ledford Tract

Hole No. 27-M

Elevation: 400.3

Location: 225' N. - 172' East of S.W. Corner of N.E. ¼ of S.E. ¼ of Sec. 23
or
100' South of 24-M

Started 9-18-52

Completed 10-18-52

Water 50'
110'
330'
653'
Stands at 609'

Drilled by: Moreland and Mehler

Examined by: A. O. Johnson

Casing - 20 ft.

0 - 4 Soil and clay

4 - 10 Creek gravel

10 - 25 Mud - oxidized sand

25 - 70 Gray lime - shale and mud seams

70 - 135 Gray sand

135 - 175 Gray sand - shale streaks

175 - 205 Gray and dark-colored shaly lime

205 - 240 Dark colored shaly lime - shale streaks

240 - 255 Chocolate colored shale

255 - 320 Shale - lime and sand streaks. Base of Coleenda 320 ft.

320 - 360 Gray sand - shale streaks.

360 - 547½ White and gray sand. B. B. 547.5

547½ - 550 Hard gray lime

550 - 560 Gray lime

560 - 575 Light gray lime

575 - 605 Dark colored lime - shale and selvage.

605 - 615 Dark colored shaly lime

615 - 630 Light gray oolitic lime.

630 - 647½ Rosiclare sand

647½ - 650	Rosiclare sand, spar shs.
650 - 652½	" " Trace spar.
652½ - 655	V.F. Cuttings, Rosiclare sand, Trace spar - Zn shs. Crevice at 653 ft. Lost water. Stands at 609 ft.
655 - 660	V. F. cuttings, Rosiclare sand, trace spar and Zn.
660 - 665	Rosiclare sand, few cuttings, trace calcite. Lt. acid spar. B. H. 665 ft.
665 - 667½	Light gray sandy ls. - some sand.
667½ - 670	Light gray sandy lime, com. gouge. Lt. spar Zn shs.
670 - 672½	Light gray oolitic lime. Trace spar.
672½ - 675	" " " " , some calcite. Lt. purple spar.
675 - 677½	Gray lime. Tr. Zn - spar shs.
677½ - 680	Gray lime. Zn shs.
680 - 690	Buff leached lime, little replacement spar.
690 - 692½	Leached brown lime, little acid spar, trace Zn.
692½ - 695	Some brown siliceous lime and black salvage, some purple acid spar.
695 - 697½	Good acid spar; some brown silica, Zn shines, chatty.
697½ - 700	Good spar, com. brown silica, Zn shines, little gray lime.
700 - 705	Gray and brown lime, little spar, Zn shines.
705 - 715	Con white calcite, little brown lime, little Zn, spar shines.
715 - 725	Brown lime, little white calcite, spar and Zn shines.
725 - 730	Brown lime, little calcite, fair Zn, spar shines, trace Pb.
730 - 740	Gray sandy lime, traces spar and Zn.

Ore face from	652½ - 665 ft.	averages	28.30 CaF_2
" " "	665 - 692½ ft.	"	18.90 CaF_2
" " "	692½ - 700 ft.	"	51.90 CaF_2
			0.90 Zn
" " "	700 - 730 ft.	"	14.00 CaF_2
			2.28 Zn

Assays:

	$CaCO_3$	CaF_2	Zn
650 - 652½	9.82	27.08	
652½ - 655	9.50	32.86	
655 - 660	12.31	24.84	
660 - 662½	8.19	29.21	
662½ - 665	8.30	30.09	
665 - 667½	38.31	14.62	
667½ - 670	38.31	15.64	
670 - 672½	38.68	24.11	
672½ - 675	36.25	26.88	
675 - 677½	40.36	13.09	1.84
680 - 685	27.46	18.27	
685 - 690	20.25	27.75	
690 - 692½	11.18	28.78	
692½ - 695	5.95	47.09	
695 - 697½	2.02	67.74	0.80
697½ - 700	13.43	48.16	1.95
700 - 702½	44.67	29.80	1.10
702½ - 705	39.05	15.79	0.48
705 - 710	65.80	10.68	2.89
710 - 715	72.53	9.81	2.05
715 - 720	65.99	13.75	2.58
720 - 725	43.54	10.54	0.80
725 - 730	46.54	36.23	4.57

OZARK-MARONING COMPANY

Hill-Ledford Tract
Hole No. 28-M
Elev. 413.1
Loc: 945' N - 774' E of SW Cor.
of NE¼ of SE¼ of Sec. 23 or
104' E - 5' S of 25-M
Drilled by: Moreland & Hahler
Examined by: A. G. Johnson
Casing: 20 ft.

Started: 9-20-52
Completed: 10-16-52

Water: 26 ft.)
60 ")
160 ")
300 ") Light
420 ")
490 ")
665 ")
775 ")
Lost water @ 740'
Stands @ 700 ft.

0-18	Soil & clay
18-25	Shale - lime boulders
25-90	Grey sand - shale streaks
90-130	Grey and dark colored shaly lime. Glen Dean
130-190	Grey sand
190-220	Sandy shale
220-260	Light grey to dark grey shaly lime
260-300	Shale - lime & sand streaks
300-310	Chocolate colored shale
310-380	Shale - lime & sand streaks - Base of Galconda
380-410	Grey sand - shale streaks
410-510	Grey sand
510-595	White sand
595-602	Grey sand. B. B. 602 ft.
602-685	Grey lime
685-660	Dark colored shaly lime - shale & selvage
660-680	Light grey oolitic lime. Lower O'Hara
680-702½	Rosiclare sand
702½-705	Good acid spar - Rosiclare sand. Base of Rosiclare 703 ft.
705-707½	Light gr. ls. Lt. acid spar
707½-710	Grey lime - Spar and Zn she.
710-715	Grey lime, calcite, some barite. Lt. spar, Zn she.
715-720	Grey lime, some. calcite, some barite. Lt. spar. Pb & Zn she.
720-725	Dark grey lime, trace of calcite. Spar & Zn she.
725-730	Dark grey lime
730-745	Grey to brown lime - spar - Zn - Pb she.
745-750	Light grey oolitic lime. Zn she.
750-775	do Spar - Zn - Pb she.
775-788	Darker colored lime

Ore face from 702½ - 715 ft. averages 42.60 CaF_2

Assays	$CaCO_3$	CaF_2	SiO_2	$BaSO_4$
702½-705	7.82	67.88	20.76)	
705-707½	36.62	46.14	13.35)	
707½-710	60.75	24.11	9.95)	
710-712½	42.98	35.93	14.57)	> 3.61
712½-715	41.30	36.99	13.51)	
715-717½	54.39	22.21	11.34)	
717½-720	52.71	21.92	10.97)	

OZARK-MAHONING COMPANY

Hill-Ledford Tract
Hole No. 89-N
Elev. 383.9
Loc: 1060' E - 790' N of SW Cor.
of NW¼ of Sec. 24 or 150' E
of 26-N
Drilled by: B. W. Bales
Examined by: A. G. Johnson
Casing: Pulled

Started: 9-30-52
Completed: 10-22-52

Water: 90'
125' Strong
230' "
530' "
Stands 150 ft.

0-20	Soil and clay
20-40	Mud & gravel
40-55	Sandy shale
55-73	Grey and dark col. shaly lime
73-105	Sandy shale
105-138	Grey sand - shale streaks
138-197	Light grey to dark col. shaly lime. Glen Dean
197-261	Grey sand - shale seams. Hardinburg
261-290	Grey lime - shale seams
290-340	Dark colored shaly lime, many shale streaks
340-355	Chocolate colored shale
355-440	Shale - lime and sand streaks. Base of Caseyville
440-465	Grey sand - shale streaks
465-540	White sand
540-600	Shelly wh. & grey sand
600-636	Hard white sand. B. B. 636'
636-655	Grey lime, trace of calcite
655-685	Grey lime, salvage seams
685-695	Dark colored shaly lime
695-710	Dark colored shaly lime, shale & mud slips
710-715	Grey lime
715-737	Hanislaye sand
737-775	Grey lime
775-800	Gr. to brown lime. Base Sub-Hanislaye 800 ft.
800-802½	Light gr. col. ls., trace sals. Contact at 800' shaly. Few in shs.
802½-805	Light grey oolitic lime

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 2 1952

Mr. Robertson

December 2, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region VIII

Subject: Ozark-Mahoning Company, Hardin County, Illinois
Contract Idm-E255, Docket DMEA-2248 - (Fluorspar)

Attached in quadruplicate is the October Field Inspection Report, by G. L. Neumann, on Contract Idm-E255.

W. T. Millar

W. T. Millar

Attachments - 4

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 2 1952

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-Lead-Zinc

Progress for the month of October 1952 is favorable.

Holes M-27, M-28 and M-29 were completed during the period. Hole M-27 cut three zones of mineralization 12½', 27½' and 37½' thick between 652½' and 730' below the surface. Assays showed 18.9 to 51.90 percent CaF_2 and 0.48 to 4.57 percent zinc. This is the southermost hole of the project. The operator has filed another application for Government aid in extending this exploration to the southwest on a probable extension of this deposit.

Hole M-28 cut a bed of fluorite from 702½' to 715'. The average assay was 42.60 CaF . Hole M-29 on the northeastern limit of the project was disappointingly a blank hole. Holes M-30, M-31 and M-32 were started during the month. These holes are located to determine the extent of the mineralized zone and to obtain additional data for estimating ore reserves indicated by this project.

The operation of this project continues to be highly satisfactory. The results are encouraging for a discovery certification.

After the three holes started in this period are completed, another six drill holes are contemplated, the completion of which will finish the contract.

G. L. Neumann
Mining Engineer

College Park, Md.
November 28, 1952

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 29 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1952 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $61,965.00 Government Participation: 50 % Amount, $30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	6658.20	35009.01	41667.21			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6658.20	35009.01	41667.21	6,658.20	35,009.01	41,667.21

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 10/1/52 *Payee Ozark-Mahoning Company

Per J. L. Cadden Title Ass't. Secy-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3,329.10

Signature [illegible]
(~~Authorized Certifying Officer~~)

Date 10-23-52 Vou. No. DMEA-11

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-5255 in accordance with the terms of the contract.

Signature G. L. Neumann Title Mining Eng. Date 10-9-52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature McHenry Mosier Title Executive Officer Date October 10, 1952

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

OPERATOR'S UNIT COST AND PROGRESS REPORT

OCT 29 1952

Month of September 1952 Docket No. DMEA 2248 Contract No. D-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month	Costs to Date	Units to Date Feet	Unit Costs to Date	Authorized by Contract Units	Authorized by Contract Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn *	2.43	6650.20	2740	42667.21	17247		25500	@2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		6650.20	2740	42667.21				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								$61,965.00

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

Date 10/1/52 Operator Ozark-Mahoning Company

Per J. L. Cadden Title Asst. Secy-Treasurer
J. L. Cadden

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

Remarks:
*Includes following:

Drilling	2.25	per foot
Geologist	0.15	" "
Assaying	0.01	" "
Clerical	0.02	" "
Total	2.43	" "

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

OZARK-MAHONING COMPANY
ROSICLARE, ILLINOIS

SUPPLEMENTAL SHEET

September 1952

Geologist	2740 ft. @ $0.15 per foot	$ 411.00
Assaying	2740 ft. @ 0.01 per foot	27.40
Clerical	2740 ft. @ 0.02 per foot	54.80
		$ 493.20

Status of Holes - Completed and Drilling

M-23	Completed 9-9-52	(Previously reported 525')	Bal.	252'
M-24	" 9-18-52	(" " 360')	"	370'
M-25	" 9-20-52	(" " 115')	"	675'
M-26	" 9-30-52	(" " None)	"	808'
M-27	Drilling	(Depth 9-30-52)	"	385'
M-28	"	(" " " ")	"	250'
		Total Footage for Month		2740'

Remarks:

Copies of churn drill holes No. 23, 24, 25 and 26-M are attached to this report. One hundred foot scale map is also attached showing location of all holes completed and drilling. Attached hereto is set of cross sections.

Please note the location of 24-M along the N-S crosscut. This hole cut 7½ ft. of good ore from 655-662½ ft. which assayed 43.13 CaF_2 and 2.94 Zn. We are now drilling 27-M which is 100 ft. south and represents the 5th hole along the North-South crosscut. If 27-M cuts good ore we may wish to drill another location 100 feet farther south. Kindly advise whether contract can be amended to cover this situation.

Hole No. 25-M was encouraging inasmuch as we cut good ore from 710-750 ft. which averaged 52.00 CaF_2.

We were surprised when 26-M along the northeast extension failed to cut any ore. Apparently there is a change of strike and the orebody can be picked up farther east. We are now drilling 29-M 150 ft. east of 26-M. This hole takes us out of the block designated by the contract. We assume, therefore, that the contract can be modified so that we can continue with the crosscut to the east until the structure has been crossed.

A. G. JOHNSON

blo

OZARK-MAHONING COMPANY

Hill-Ledford Tract
Hole No. 23-H
Elevation: 380.3
Location: 434' N. 754' E. of S.W. Corner
of N.W. ¼ of Sec. 24
or
44' S. 58' E. of 21-H.
Drilled by: E. W. Boles
Examined by: A. G. Johnson
Casing - None

Started 8-16-52
Completed 9-9-52

Water: 95 - 100 ft.
200 - 205 ft.
215 - 220 ft.
581 ft.
Stands 250 ft.

0 - 20	Soil, clay and gravel
20 - 29	Shale
29 - 47	Dark gray shaly lime
47 - 113	Gray sand - shale seams
113 - 167	White & gray lime - shale seams. Glen Dean
167 - 239	Gray sand - shale seams. Hardinsburg
239 - 410	Shale - lime and sand streaks. Golconda
410 - 445	Gray sand - shale
445 - 480	Gray sand
480 - 580	White and gray sand
580 - 585	No cuttings - crevice from 581 to 582½ ft. Difficult to drill through.
585 - 607	White sand. Few Zn shs.
607 - 615	Gray lime. Zn shs.
615 - 625	Gray lime.
625 - 660	Gray to dark gray lime - salvage
660 - 680	Shally gray and dark colored lime
680 - 690	Rosiclare sand, lime streaks
690 - 700	Rosiclare sand
700 - 705	Light gray oily oolitic lime - some sand. Base of Rosiclare 703 ft.
705 - 720	Light gray oolitic lime
720 - 740	Gray lime
740 - 755	Gray to brown lime
755 - 765	Brown, slightly sandy ls. Sub Rosiclare
765 - 777	Light gray oily oolitic lime

OZARK-MAHONING COMPANY

Hill-Ledford Tract
Hole No. 24-M
Elev. 396.5
Loc. 178' east, 326' north of SW Cor. of NW¼ of SE¼ of Sec. 23 or 100' S - 10' E of 22-M
Drilled by Moreland and Mohler
Examined by: A. G. Johnson

Started: 8-19-52
Completed: 9-18-52

Water: 60'
190'
655
68%
Stands at 610 ft.

0-4	Soil & clay
4-10	Oxidized sand
10-40	Sandy shale
40-85	Gray and dark colored shaly lime
85-150	Gray sand - shaly near base. Hardinsburg
150-185	Gray shale - lime and sand streaks
185-220	Light gray to gray lime - very few shale seams
220-255	Gray lime - shale streaks
255-270	Mostly chocolate colored shale
270-330	Shale - lime streaks
330-340	Gray lime - shale - Base of Golconda
340-345	Shale - sand streaks
345-400	Sand - shale streaks
400-460	Hard white sand
460-515	Shelly white and gray sand
515-555	White sand
555-560	Shelly gray sand. B. B. - 560 ft.
560-580	Gray lime
580-595	" " some selvage
595-620	Dark colored shaly lime, trace of selvage
620-638	Lower O'Hara - Light gray oolitic lime
638-650	Rosiclare sand
650-655	Rosiclare sand, spar sha.
655-657½	do Lt. spar
657½-660	Rosiclare sand, trace of lime
	Few selvge. Con. acid spar. Lt. Zn. Base of Rosiclare 659.5
660-662½	Purple acid and replacement spar, some light colored lime, trace of selvage G. Zn.
662½-665	Light gray oolitic lime. Tr. Zn and spar
665-670	do Spar & Zn sha.
670-685	Tan colored lime. Spar & Zn. sha.
685-705	Mostly brown quartz, some lime - spar - Zn - Pb sha. Base of Sub-Rosiclare 705 ft.
705-730	Light gray oolitic lime. Few Pb & Zn sha.

Ore face from 655-662½ ft. averages 43.13 CaF2 - 2.94 Zn

Assays	CaCO3	CaF2	Zn	Pb
650-655	5.85	8.88		
655-657½	6.20	38.93		
657½-660	10.17	37.92	3.52	
660-662½	10.73	62.54	5.30	
662½-665	39.46	17.87	1.53	
685-705	34.55	11.23	2.05	0.18

OZARK - MAHONING COMPANY

Bill Ledford Trust
Hole No. 25-M
Elevation: 417.1
Location: 950' N 670' W of SW Corner of NE-1/4 of SW-1/4 of Sec. 23
Drilled by: Moreland & Kahler
Examined by: A. G. Johnson
Casing: 202'.

Started 8-23-52
Completed 9-20-52

Water: 50 ft.
170 ft.
295 ft.
500 ft.
560 ft.
712 ft.
Stands 650 ft.

0 - 20 Soil & clay

20 - 28 Weathered gray lime

28 - 60 Gray sand - shale seams

60 - 75 White sand

75 - 95 Gray sand - shale streaks

95 - 135 Light gray lime - shale seams

135 - 195 Gray sand

195 - 235 Shale - sand

235 - 305 Light & dark colored lime - shale seams

305 - 315 Chocolate colored shale

315 - 370 Shale - lime streaks

370 - 405 Dark colored shaly lime

405 - 420 Mostly shale

420 - 470 Sand - shale seams

470 - 495 White sand

495 - 500 Shally white and gray sand

500 - 600 White sand

600 - 608 White sand - shale streaks B. B. 606'

608 - 630 Gray lime

630 - 695 Gray lime - green selvage - Lower O'Hara - Shaly

695 - 710 Residuare sand - spar sha.

710 - 712-1/2 Residuare sand - trace lime. Con. acid spar

712-1/2 - 715 Residuare sand - trace lime. G. spar - Fe & Zn sha.

715 - 717-1/2 Rosiclare sand, trace of gray & black silicified lime. G. spar, Pb & Zn sho. Base of Rosiclare 717 ft.

717-1/2 - 720 Light gray lime, some sand, Lt. spar

720 - 722-1/2 Light gray lime, trace of shale and salvage
Light purple low grade spar, some acid

722-1/2 - 735 Light gray oolitic lime, some purple low grade spar - Con. acid spar

735 - 737-1/2 Gray sandy lime. Con. acid spar

737-1/2 - 747-1/2 Gray sandy lm., some calcite. G. spar, Pb sho.
Trace of Barite

747-1/2 - 750 Gray sandy lime, trace of salvage Con. spar

750 - 755 Gray sandy lime - Lt. spar. Few cuttings Base of Sub Rosiclare

755 - 765 Light gray oolitic lime

765 - 790 Gray lime

Ore face from 710 - 750 ft. averages 52.00 CaF_2

Hole No. 25-N
Hill Ledford

	$CaCO_3$	CaF_2	Zinc	$MnSO_4$
710 - 712-1/2	9.22	55.17		
712-1/2 - 715	7.71	70.42	0.69	
715 - 717-1/2	9.22	68.29	0.59	
717-1/2 - 720	19.62	38.07		
720 - 722-1/2	14.55	41.61		
722-1/2 - 725	13.05	37.63		
725 - 727-1/2	23.40	54.29		
727-1/2 - 730	25.10	52.22		
730 - 732-1/2	19.62	56.06		
732-1/2 - 735	23.58	49.13		
735 - 737-1/2	19.05	47.65		
737-1/2 - 740	19.81	42.34		
740 - 742-1/2	16.78	62.69		0.93
742-1/2 - 745	17.16	65.05		
745 - 747-1/2	25.47	43.03		

	$CaCO_3$	CaF_2	Zinc	$BaSO_4$
7h.7-1/2 - 750	21.69	h1.61		
750 - 755	3h.73	33.35		

OXANE-MARNING COMPANY

Hill-Ledford Trust
Hole No. 26-H
Elev. 363.2
Loc. 790' N 908' E of SW Corner
of NW¼ of Sec. 24 or
312' N 213' E of 23-H
Drilled by: B. W. Bales
Examined by: A. G. Johnson
Casing: 29 ft.

Started 9-9-52
Completed 9-30-52

Water: 75-80 ft.
220-225 ft.
480-485 ft.
No lower water noticeable
Steam @ 220 ft.

0-14	Soil and clay
14-27	Creek gravel - water
27-57	Shale - sand streaks
57-75	Dark colored shaly lime - shale streaks
75-95	Sandy shale
95-145	Tar springs sand - shale seams
145-198	Glen Dean - Light gray and dark colored shaly lime
198-268	Hardinsburg sandstone, shale streaks
268-335	Light gray to dark gray shaly lime shale streaks
335-350	Chocolate colored shale
350-400	Mostly shale
400-440	Mostly dark colored shaly lime. Base of Saleesia 440 ft.
440-480	Gray sand - shale seams
480-530	White sand. Dead oil 520-525'
530-605	Shelly white and gray sand
605-634	White sand. B. Bethel 634'
634-655	Gray lime
655-690	Dark colored shaly lime - some shale and selvage
690-730	Gray to light gray ls. Lower O'Hara
730-736	Resistance sand
736-755	Light gray to gray lime
755-775	Gray lime
775-790	Gray to brown lime, trace of selvage
	Lt. sand water base. Base of Sub-Resistance 790'
790-800	Light gray oolitic lime

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

October 17, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Docket DMEA-2248, Contract Idm-E255
Ozark-Mahoning Company, Hill-Ledford Tract
Hardin County, Illinois - (Fluorspar)

Attached are four copies of the Field Inspection Report by G. L. Neumann, Engineer, on subject contract.

McHenry Mosier

Attachments - 4

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 20 1952

DMEA
Field Inspection Report
by
G. L. Neumann, Engineer
October 15, 1952

Operator:	Ozark-Mahoning Co., Rosiclare, Ill.
Docket No.:	DMEA-2248
Contract No.:	Idm-E255
Commodity:	Fluorspar-lead-zinc

The Operator's Monthly Progress Report for September 1952 is hereby approved.

Splendid progress has been made again. Also further encouragement for the discovery of a sizeable ore body of good grade still continues to build up.

To date 17,147 feet of the 25,500 feet of the original contract have been drilled. The contract is approximately 68 percent completed. 2,740 feet were drilled in September, 4 holes were completed. This contract should be nearing completion by January 1, 1953 if the weather continues favorable to the drilling.

The set of sections included with the September report are most informative and give a complete picture of structure from the data at hand.

All through, this contract has been handled in a most expeditious manner. It is certainly a pleasure to work with the people responsible for such satisfactory execution of a well planned program.

G. L. Neumann
Engineer

College Park, Md.
October 17, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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OCT 20 1952

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Defense Minerals Administration
RECEIVED
SEP 16 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 1952 Docket No. DMEA 2248 Contract No. R-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $61,965.00 Government Participation: 50% Amount, $30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	7,163.64	27,845.37	35,009.01	7,163.64 ~~3,581.82~~	27,845.37 ~~13,922.69~~	35,009.01 ~~17,504.51~~
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	7,163.64	27,845.37	35,009.01	$7,163.64 ~~3,581.82~~	$27,845.37 ~~13,922.69~~	$35,009.01 ~~17,504.51~~

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Sept. 2, 1952 *Payee Ozark-Mahoning Company

Per J. L. Cadden Title Ass't. Sec-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 7,163.64 - ?

Signature
(Authorized Certifying Officer)

Date Vou. No.
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-255 in accordance with the terms of the contract.

Signature W. D. Millar Title Mun. Engr. Date 9/4/52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature McHenry Ulosier Title Executive Officer Date 9-4-52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
DE [illegible]
SEP 16 1952

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195 2 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month Feet	Costs to Date	Units to Date Feet	Unit Costs to Date	Authorized by Contract Units	Authorized by Contract Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	* 2.43	7163.64	2948	35,009.01	14407		25500	$2.43
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		7163.64	2948	35,009.01				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								$61,965.00

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

Date August 2, 1952 Operator Ozark-Mahoning Company

Per J. L. Cadden Title Asst. Sec-Treas.
J. L. Cadden

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

(Instructions on reverse)

Remarks:
*Includes the following:

Drilling @	2.25	per	foot
Geologist @	0.15	"	"
Assaying @	0.01	"	"
Clerical @	0.02	"	"
	$2.43	"	"

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

OZARK-MAHONING COMPANY
ROSICLARE, ILLINOIS

SUPPLEMENTAL SHEET

AUGUST 1952

Geologist - 294.8 ft. @ $0.15 per foot		$ 442.20
Assaying - 294.8 ft. @ $0.01 " "		29.48
Clerical - 294.8 ft. @ $0.02 " "		58.96
		$ 530.64

Status of holes drilling and completed:

M-18	Completed 8-1-52 (Previously reported 750') Bal.	35 ft.
M-20	Completed 8-19-52 (Previously reported 240') Bal.	535 ft.
M-21	Completed 8-16-52 (Previously reported 225') Bal.	618 ft.
M-22	Completed 8-23-52 (Previously reported - None) Bal.	760 ft.
M-23	Drilling (Depth 8-31-52)	525 ft.
M-24	Drilling (Depth 8-31-52)	360 ft.
M-25	Drilling (Depth 8-31-52)	115 ft.
	Total Footage for Month	294.8 ft.

Remarks:

Copies of churn drill holes No. 18-M, 20-M, 21-M and 22-M are attached to this report. Copy of Diamond Drill Hole No. 5 (core) is also attached. This represents the deepening of churn drill hole 5-M which was previously lost at a depth of 720 feet. The cost of this hole was the sole expense of Ozark-Mahoning Company. One hundred foot scale map is also attached showing the location of completed holes as well as holes drilling.

Hole No. 21-M showed 45 ft. of ore from a depth of 735-780 feet which assayed 30.80 CaF2 and 3.95 Zn. You will note that we are continuing with this crosscut to the southeast.

Hole No. 22-M drilling along a M-S crosscut as represented by Holes No. 17,20 and 22 cut 8 ft. of good ore at the base of the Rosiclare from 662 ft. - 670 ft. which assayed 69.70 CaF2. Holes No. 17-M and 20-M were blank suggesting the possibility that the ore may be restricted to a narrow width as we continue to the southwest along the principal NE-SW fault structure.

You will note the location of 25-M new drilling. Upon the completion of this hole we expect to drill a hole approximately 100 ft. west of 25-M as well as a hole approximately 100 ft. east of 25-M. Upon the completion of these holes we should be in a much better position to evaluate the orebody as represented by Holes No. 2-M, 3-M, #13, 5-M, 6-M, 7-M and 22-M.

As reported in the June report we expect to drill a crosscut east of the highway, commencing at a point 150 ft. east of Minerva #2. We have decided to change this location to a point 250 ft. east of #2.

A. G. Johnson

A. G. Johnson

bls

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole No. 18 M
Elevation: 408.7
Location: 108' south and 127' west of the NE corner NE¼ of SE¼ of Sec. 23 or 73' south and 15' east of 15-M
Drilled by: Moreland and Mohler
Examined by: E. A. Brooks
Casing: 20 feet

Started 7-2-52
Finished 8-1-52

Water 100' light
180 fair
365 "
525 "
640 "
780 "

0-28	Surface
28-45	Grey calcareous shale
45-75	Grey sand, shaly partings
75-95	Grey sandy shale
95-140	Grey and brown lime, shaly streaks
140-200	Grey sand
200-220	Grey sandy shale
220-275	Grey sand, shaly partings
275-310	Grey and brown lime, shale streaks
310-315	Grey and stream shale
315-380	Grey shale, lime streaks
380-415	" " , sandy
415-495	White sand
495-565	Grey slightly shally sand
565-600	White sand
600-607½	Grey shaly sand. Base of Bethel 609
607½-620	" " " , some grey lime
620-635	Grey lime
635-645	Brown lime, little green selvage
645-655	Brown lime, gen. selvage
655-675	Dark brown lime, slightly shaly
675-690	Lower O'Bryan lime
690-707	Rockslare sand
707-730	Light grey oolitic lime
730-750	Light brown lime
750-775	Dark brown lime
775-785	Light grey oolitic lime

OZARK-MAHONING COMPANY

C. W. Hill Tract
Drill Hole No. 20-H
Elevation: 416.4
Location: 525' north and 183' east of the SW Corner of the NW-1/4 of the SE-1/4 of Sec. 23 or 99' south and 3' west of No. 17-H
Drilled by: Moreland and Hobler
Examined by: A. G. Johnson
Casings - 20 ft.

Started 7-21-52
Finished 8-19-52

Water 465 ft.
500 - 505 ft.

0 - 15	Surface
15 - 40	Gray shaly sand
40 - 50	Gray sand
50 - 65	Gray sandy shale
65 - 110	Gray and brown lime, shaly O.D.
110 - 175	Gray sand
175 - 195	Gray shale, sand streaks
195 - 210	Gray shale
210 - 280	Gray and brown lime, shale streaks
280 - 290	Gray and maroon shale
290 - 305	Gray shale, lime streaks
305 - 425	Gray shale, sandy
425 - 495	White sand
495 - 545	Gray shally sand
545 - 580	White sand
580 - 585	Gray sand, little gray lime Base of Bethel 584
585 - 600	Gray and brown lime
600 - 620	Light gray lime, trace of selvage
620 - 650	Dark colored lime mud & selvage streaks
650 - 659	Lower O'Hara - Light gray oolitic lime Tr Zn & low grade spar
659 - 685	Bacialare sand Spar sha. Near base
685 - 690	Light gray oolitic lime Few spar & Zn sha

690 - 710	Gray lime
710 - 737	Gray to dark gray lime
737 - 741	Sub - Rosiclare sand
741 - 750	Light gray oolitic lime, com. calcite
750 - 760	Light gray oolitic lime, fn sha.
760 - 775	Darker colored lime

There was no water of any kind in this hole to a depth of 465 ft. Stands at 375 ft. The hole was tight but drilled fairly soft.

OZARK-MAHONING COMPANY

G. H. Hill Ranch

Drill Hole No. 21-H

Elevation: 361.0

Location: 478' north and 697' east of the S.W. Corner of N.W. ¼ of Sec. 24 or 13' south and 68' east of 19-H.

Drilled by: S. H. Bales

Examined by: A. L. Johnson

Casing - 30 ft. 8"

Started 7-26-52
Finished 8-16-52

Water: 50 - 55 ft. weak
180 - 185 ft. strong
470 - 475 ft.
580 - 585 ft.
680 - 690 ft.
767 - 770' - black sulphur

0 - 35	Surface
35 - 95	Gray calcareous shale
95 - 105	Gray sand, shale streaks
105 - 115	Gray shale sandy
115 - 175	Gray and brown lime, shaly
175 - 210	Gray sand, shaly partings
210 - 225	" " , shaly
225 - 245	Gray sand, shaly partings
245 - 285	Gray and brown lime, shaly
285 - 335	Gray shale, sand streaks
335 - 405	Gray shale, lime streaks
405 - 430	" " , sandy
430 - 470	Brown sand, con. shale
470 - 585	White sand, slightly shaly
585 - 555	" " ,
555 - 580	" " , slightly shaly
580 - 680	" " ,
680 - 685	" " and gray lime. Base of Bethel sd.
685 - 690	Gray and brown lime
690 - 660	Light gray lime, green selvage
660 - 695	Dark colored lime, s ale and selvage.

695 - 708 Gray and tan colored lime. Lower O'Hara

708 - 720 Rosiclare sand. V. F. spar shines

720 - 735 Light gray oolitic lime. V. F. spar shs.

735 - 737-1/2 Light gray oolitic lime. Good acid spar

737-1/2 - 740 Light gray oolitic lime. Lt. spar

740 - 745 Light gray & silicified lime. G. Zn. Pb shs. Lt. spar
opening @ 744 ft. Few cuings.

745 - 750 Light gray and acid silicified ls, some sweet sand, G. Zn, Lt. spar,
few Pb shs.

750 - 765 Light gray and sandy looking ls, some gouge. 6" opening @ 757 ft.
G. Zn. Lt. spar

765 - 770 Mostly gray sandy ls. Tr. Zn & spar. Few cuings.

770 - 775 Dull colored gray sandy ls. some brown and black siliceous material.
Lt. Zn, Tr. spar

775 - 780 Brown & black quartzite, some lime, Sub-Rosiclare horizon. R - chatty Zn
Lt. spar

780 - 800 Light gray oolitic lime. Tight ground, Spar & Zn shs.

800 - 830 Gray lime, Tight formation. Few Spar & Zn shs.

830 - 840 Brown lime

840 - 843 Gray lime

Ore face from 735 - 780 ft. average 30.80 CaF2

3.95 Zn

Hole No. 21-M

	CaCO3	CaF2	SiO2	Zn
735 - 737-1/2	28.07	59.27		None
737-1/2 - 740	41.16	38.29		0.17
740 - 745	20.37	29.93		2.77
745 - 747-1/2	24.53	25.36		5.06
747-1/2 - 750	15.65	38.19		2.04
750 - 752-1/2	12.23	45.71	23.98	2.87
752-1/2 - 755	9.21	40.55	29.02	8.39
755 - 757-1/2	13.74	35.98	31.25	4.43

757-1/2 - 760	15.84	31.70	[illegible]	5.37
760 - 762-1/2	9.41	37.45	33.72	4.33
762-1/2 - 765	19.41	36.12	25.85	1.00
765 - 767-1/2	26.01	25.80	36.47	1.21
767-1/2 - 770	65.09	8.55	19.55	0.69
770 - 775	10.91	18.87	56.83	2.77
775 - 777-1/2	3.17	16.22	43.82	11.51
777-1/2 - 780	2.79	23.89	44.57	12.97

Ore face from 735 - 780 ft. averages 30.80 cu/ft

3.95 lbs

OZARK-MAHONING COMPANY

Hill Ledford Tract
Hole No. 23-M
Elev. 399.2
Loc. 420' N. 168' E. of SW Cor. of NW¼ of SE¼ of Sec. 23 or 102' S. 10' W. of 20-M
Drilled by: Moreland and Mohler
Examined by: A. O. Johnson
Casing: 10 ft.

Started: 8-1-52
Completed: 8-23-52

Water: 170' Trace
265' Light
365'
405-410
665 ft.
Stands 250 ft.

0-3	Soil & clay
3-20	Oxidized sand
20-40	Grey sand - shale streaks
40-85	Light grey & brown lime - shale seams. Olen Dean
85-155	White and grey sand
155-180	Grey shale - sand & lime streaks
180-225	Light grey shaly lime
225-260	Grey & brown lime - shale seams
260-265	Chocolate colored shale
265-355	Grey shale - lime streaks
355-410	Grey shale - sand streaks
410-470	White sand
470-530	Shally white & grey sand
530-555	White sand
555-560	Shally grey sand
560-566	White sand. B. B. 566 ft.
566-580	Grey lime
580-610	" " , selvage seams
610-625	Dark colored shaly lime
625-640	Light grey to grey oolitic limestone. Impregnated with tar.
640-662	Bituminous sand
662-665	Good acid, some replacement spar. Zn shines. Trace of lime, some siliceous materi
665-667½	Acid, some replacement spar. Very light lime.
667½-670	Acid, some replacement spar. Con. lime
670-672½	Light grey oolitic ls. Lt. spar
672½-675	" " " " Dr. spar
675-710	Grey lime, fairly soft & loose. Spar & zinc she.
710-720	Light grey somewhat siliceous lime. Lt. Zn.
720-760	Light grey lime, scattered spar & Zn she.

Ore face from 662-670 ft. averages 69.70 CaF_2

Assays	$CaCO_3$	CaF_2	SiO_2	Zn
662-665	3.74	61.34	28.80	0.58
665-667½	5.44	81.09	9.03	
667½-670	11.30	68.56	6.93	
670-672½	48.15	27.89	11.88	

O[illegible]-MAHONING COMPANY

C. H. Hill Tract
Drill Hole No. 5 (Core)
Elevation: 425.0
Location: 723' north and 405' east of the SW Corner of NE-1/4 of SE-1/4 of Sec. 23 or 5' north and 60' west of Minerva No. 13
Drilled by: Baldwin
Examined by: E. A. Brooks

Started 7-17-52
Finished 8-18-52
Cable tool work completed 8-5-52

672 - 675	Lower O'Hara lime
675 - 682	Rosiclare sand
682 - 683	Rosiclare sand, lime streaks
683 - 686	Rosiclare sand Dark
686 - 697	Dark brown Rosiclare sand brown spar stringers
697 - 705	Good sand and replacement spar, little lime
705 - 712	Grey oolitic lime
712 - 733	Grey and brown lime
733 - 768	Brown lime, streaks of black shale, spar stringers at 733 and 736 feet. Scattered traces of spar, Pb and Zn
768 - 750	Green Sub-Rosiclare sand
750 - 755	Rich spar Zn and Pb ore - Brown siliceous lime
755 - 759	Good Zn little spar some grey silicified lime
759 - 763	Leached grey oolitic lime scattered streaks of low grade spar Zn mineralizati
763 - 776	Light brown oolitic lime

Ore face 697 - 705 averages 54.21% CaF2
Ore face 750 - 759 averages 37.00 CaF2
13.20 Zn
0.24 Pb

Average	CaCO3	CaF2	Zn	Pb	SiO2
697 - 705	9.63	54.21			26.06
750 - 755	3.61	47.12	13.28	.43	25.62
755 - 759	14.38	24.40	13.07		33.31

Remarks: This hole was deflected out of the cable tool hole to drill past a bit which was lost at 720 feet. The old hole was back filled to 667 feet with crushed lime and cement and a string of 8 inch pipe was set at this point. Deflection was accomplished

by springing the bottom joint about 1/4 in. in ten feet. The cores from 672 - 675 indicate a deflection of about 1/4 inch per foot or a total of ten feet per 100 feet.

The core recovery in the section from 697 to 705 was good and showed good replacement type of ore.

The core recovery from 750 to 755 was only 50%, however the section drilled firm without evidence of open ground. In all probability the last core was spar in ore which would if recovered improve the assay.

The core recovery from 755 - 759 was 60% and a similar conclusion to the section above it can be drawn, however the cores recovered showed considerable limonite and silicified lime.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D. C.~~
College Park, Md. Septe,ber 11, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region VIII

Subject: DMEA Docket No. 2248 (Fluorite) - Ozark-Mahoning Co., Rosiclare, Hardin County, Ill., Contract Idm-E255

Attached in quadruplicate is G. L. Neumann's Field Inspection Report for August, on subject contract.

McHenry Mosier

McHenry Mosier

Attachments (4)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 12 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
College Park, Md. September 11, 1952

Field Inspection Report for August
by
G. L. Neumann

DMEA Docket No. 2248 (Fluorite)
Ozark-Mahoning Co., Rosiclare, Hardin Co., Ill.
Contract Idm-E255

Churn drilling is progressing in a very workmanlike manner. Results while not all positive are on the whole encouraging for a discovery.

With the recently approved amendments, the contract should continue to show good progress.

For the month of August the progress was as follows:

M-18 was advanced from 750 to 785 feet and was a blank. That makes the entire corss section M-13, M-10, M-8, M-15 and M-18 blank and shows a break in the ore zone. Hole M-20 on the southern cross section was advanced from 240 to 775 feet and was blank; Hole M-22 to the south of M-20 in this same cross section was completed to 760 feet and cut 8 feet of good spar. Hole M-24 is now being drilled to the south of M-22, it is down to 360 feet. It should intersect the ore about 640 feet. Hole M-21 on the northern most cross section was advanced from 225 to 843 feet and cut 45 feet ore good fluorspar and zinc. This indicates that the ore has swung to the east or that an easterly spar of the zone is carrying the mineralization. Hole M-23 is being drilled along the highway to the southeast of M-21. It is now down to 525 feet. The favorable horizon is about 700 feet. Hole M-25 was started as the first hole of a new E-W cross section to cut the area just south of the center of the zone being explored. It is now down to a depth of 115 feet.

Future plans call for another cross section to the north of that good cross section composed of holes M-9, M-12, M-16, M-19, M-21 and M-23. Also the continuation of the southern cross section to the south beyond M-24 if M-24 is favorable.

Sections of all drilling are being prepared and will be included in the September Report.

G. L. Neumann
Mining Engineer

DMEA Field Team Inspection Report for July 1952
(Inspection made August 8)

Docket No. DMEA-2248, Contract Idm-E255
Ozark-Mahoning Company, Rosiclare, Hardin County, Illinois

(Fluorspar)

Work is progressing very satisfactorily. The results, while not all positive, are very encouraging. The contract is now nearly one-half completed. No changes are recommended at this time.

Hole 15-M, the fourth hole in a northwesterly-southwesterly cross section near the center of the area being prospected was bottomed at 860 feet. It was a blank hole. Hole 18-M the fifth and final hole in this cross section bottomed at 750 feet and was also a blank. The results from this cross section were discouraging but demonstrate how blank zones can be found in high potential areas.

Hole 16-M was the third hole in an east-west cross section at the present northern end of the project. It bottomed at 855 feet. One hundred forty feet of ore was cut starting just above the Rosiclare hole 19-M, the fourth hole in this strong cross section bottomed at 835 feet. It cut 105 feet of spar averaging 57 percent. Considerable accessory zinc was also present in both holes 16-M and 19-M. Hole 21-M, the fifth hole in this cross section, is now drilling. This hole is now down to 545 feet, the favorable horizon is about 715 feet.

Hole 17-M the first hole in a north-south cross section near the southern end of the zone being explored bottomed at 780 feet. The hole showed no mineralization. Hole 20-M the second hole and hole 22-M the third hole in this cross section are now drilling. Neither hole has yet cut the favorable horizon.

Hole 5-M drilled previous to the DMEA contract was wedged off above the ore horizon and is being cored with a diamond drill. An 8-foot section showed good spar. This work is on company account.

This work is showing fine progress. Three churn drill machines are now working steadily on the contract.

It is contemplated to start another cross section N from the strong cross section, composed of holes 9-M, 12-M, 16-M, 19-M and 21-M in the near future.

G. L. Neumann
Mining Engineer

College Park, Md.
August 14, 1952

Yes

August 2, 1952

Mr. McHenry Mosier,
Executive Officer
Bureau-Survey Field Team
Defense Minerals Exploration
Administration, Region VIII
U. S. Department of the Interior
Defense Minerals Administration
College Park, Maryland

Dear Mr. Mosier:

Please find enclosed five copies of Operator's Unit Cost and Progress Report, Form No. MF-104 A and five copies of Operator's Monthly Report and Voucher Form No. MF-104. These reports cover the period ending July 31, 1952.

Attached to the reports are a supplemental sheet, logs of holes completed during the period and five copies of the 100 foot scale map showing all locations to date.

Very truly yours,

OZARK-MAHONING COMPANY
Mahoning Mining Division

E. A. Brecke

E. A. Brecke

EAB:fhb

Encls.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 16 1952

Month of July 1952 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month Feet	Costs to Date	Units to Date Feet	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core *	2.43	6901.20	2840	27845.37	11,459	2.43	25,500	$ 2.43
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		6901.20	2840	27845.37				Total Costs Authorized by Contract
Operating Equipment Purchased								$61,965.00
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

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

Date August 2, 1952 Operator OZARK-MAHONING COMPANY

Per J. R. Cadden Title Ass't. Secretary-Treas.

Remarks: *Includes the following:
Drilling at $2.25 per foot.
Geologist at 0.15 per foot.
Assaying at 0.01 per foot.
Clerical at 0.02 per foot.
$ 2.43

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

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT
Defense Minerals Administration
RECEIVED
SEP 16 1952

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July 1952 Docket No. DMEA _____ Contract No. 255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	6901.20	20,944.17	27,845.37	$6,901.20	$20,944.17	$27,845.37
				~~3450.60~~	~~10,472.09~~	~~13,922.69~~
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	~~6901.20~~	~~20,944.17~~	~~27,845.37~~	$6901.20	$20,944.17	$27,845.37
				~~3450.60~~	~~10,472.09~~	~~13,922.69~~

I certify that the above bill is correct and just and that payment therefor has not been received.
Date August 2, 1952 *Payee OZARK-MAHONING COMPANY
Per [signature] Title Ass't. Secretary-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 6,901.20 ?

Signature _____
(Authorized Certifying Officer)

Date _____ Vou. No. _____
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-255 in accordance with the terms of the contract.

Signature W. T. Miller Title Min. Engr. Date 9/4/52

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. Henry Glasier Title Exec Officer Date 9-4-52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

OZARK-MAHONING COMPANY
Resiclare, Illinois

Supplemental Sheet

July, 1952

Geologist -	2840 ft. @ $0.15 per foot =	$426.00
Assaying -	2840 ft. @ $0.01 per foot =	28.40
Clerical -	2840 ft. @ $0.02 per foot =	56.80
		$511.20

Status of Holes Drilling and Completed:

M-15	Completed	810 ft.	(Previously Reported 760. Bal.	50 ft.
M-16	Completed	855 ft.	(Previously Reported 750. Bal.	105 ft.
M-17	Completed	780 ft.	(Previously Reported 145. Bal.	635 ft.
M-18	Drilling	7-31-52	"	750 ft.
M-19	Completed		"	835 ft.
M-20	Drilling	7-31-52	"	240 ft.
M-21	Drilling	7-31-52	"	225 ft.
		Total Footage for Month		2840 ft.

Remarks: Copies of logs of Drill Holes 15-M, 16-M, 17-M and 19-M are enclosed with this report; also, maps showing locations of these holes.

Hole No. 15-M was blank but structurally low which is favorable, and indicated the necessity for drilling 18-M. 18-M has reached a depth of 750 feet and is blank to this depth. It also is structurally high. In view of the disappointing results from Holes Nos. 8-M, 10-M, 13-M, 15-M and 18-M, drilling will be discontinued in this area and the rig will be moved to a location 100 feet south of 20-M and designated as Hole No. 22-M. It will be necessary, in order to give enough safe working area, to offset this location about 15 feet west from the north-south line of section formed by Holes Nos. 17-M, 20-M and 22-M.

Hole No. 17-M was blank and showed very little water. The absence of water probably indicates that the hole was drilled on a structural rib. This rig has been moved south 100 feet to Hole No. 20-M.

Hole No. 16-M was completed early in July and the log is included with this report. The hole cut several ore sections. No. 19-M was drilled 70 feet east of 16-M and completed during the month. This hole cut extremely rich spar ore at a depth of 715 to 785 feet and a section of 70 feet shows an assay of 52.77% CaF_2. The deeper zinc sections in this hole were somewhat thinner than is indicated in Holes Nos. 13-M and 16-M. This hole showed few openings and cutting recovery was very satisfactory. Drill Hole No. 21-M is drilling 70 feet east of 19-M. It was necessary to offset to the south on this location to give room for the drill set up near the highway and power lines. The map shows the offset to be slight.

E. A. Brecke

E. A. Brecke

EAB:

HILL-LEIFORD TRACT
SUPPLEMENTAL SHEET - Hole No. 12-M

	$CaCO_3$	CaF_2	Zn
787½ - 790	14.51	16.70	1.48
790 - 795	21.16	11.24	1.81
795 - 800	20.26	10.96	1.01
810 - 815	11.10	11.10	0.91
815 - 820	17.74	20.63	1.43
820 - 825	17.03	19.93	1.75
825 - 830	10.56	21.61	4.49
830 - 835	19.56	18.94	4.91
835 - 840	17.56	22.59	4.81
840 - 845	17.92	10.40	1.75
845 - 850	24.93	11.24	2.59

Ore face from 825-840 ft. averages 21.07 CaF_2
4.70 Zn

OZARK-MAHONING COMPANY

Hill-Ledford Tract

Started 6-7-52

Hole No. 15-M

Completed 7-2-52

Elevation: 407.1

Water: 70' light
175' light
200' medium
280' Settled cutgs. to 475 ft.
760' Medium
Stands at 50 ft.

Location: 35 ft. S. 142' W. of NE Corner of the NE 1/4 of SE 1/4 of Sec. 23, Twp. 11 S., Range 9 E or 60' S. - 27' E. of 8-M.

Drilled by: Moreland and Hohler

Examined by A. G. Johnson

Casing - 20 ft.

0 - 27	Soil and clay
27 - 100	Gray sand - shale streaks
100 - 155	Light gray and dark colored shaly lime, shale streaks
155 - 215	Mostly gray sand
215 - 235	Shale, sand, some lime
235 - 240	Gray sand, some shale
240 - 280	Light gray fossiliferous lime - shale seams
280 - 300	Dark colored shaly lime - shale
300 - 320	Light gray and dark colored lime - shale seams
320 - 325	Chocolate colored shale
325 - 420	Mostly sandy shale
420 - 505	White and gray sand
505 - 520	Gray sand, shale streaks. Point Creek
520 - 545	Hard white sand
545 - 570	Shelly gray sand
570 - 617	Hard white sand. B. B.617 ft.
617 - 640	Light gray lime
640 - 680	" " " , selvage and shale
680 - 698	Lower O'Hara - light gray sandy lime
698 - 719	Rosiclare sand

719 - 740	Light gray to gray lime
740 - 745	Gray lime, selvage streaks
745 - 760	Gray lime - few Zn and spar shines.
760 - 780	Dark colored lime, very few Zn. shs.
780 - 810	Gray lime

OZARK-MAHONING COMPANY

Hill Ledford Tract

Hole No. 16-M

Elevation: 381.00

Location: 492' N. 558' E. of NE Corner of the N.E.¼ of SE ¼ of Sec. 23 Twp., 11 S., Range 9 E or 71' East of 12-M

Started 6-9-52
Completed 7-3-52
Water 30'
85'
230 - 235 ft.
634 ft.
717 ft.
730 ft. Black Sulphur

Drilled by: B. W. Bales

Examined by: A. G. Johnson

Casing 27'-8" pipe

0 - 35	Soil, clay & boulders
35 - 50	Dark colored shaly lime
50 - 75	Shaly sand
75 - 105	Gray & white sand, shale seams
105 - 115	Sandy shale, some white sand
115 - 155	Gray & dark colored lime, shale streaks
155 - 170	Shale & selvage, some lime
170 - 215	Gray sand shale streaks
215 - 230	Mostly sandy shale
230 - 250	White & gray sand, shale streaks
250 - 320	Gray and dark colored lime shale seams
320 - 355	Mostly sandy shale
355 - 430	Shale, some sandy, lime streaks
430 - 465	Gray sand, some shale & mud. Trace pyrite
465 - 500	White and gray sand
500 - 540	White sand
540 - 570	Shelly gray sand
570 - 595	White & gray sand
595 - 600	Shelly white sand, trace of spar
600 - 634	White sand, tight. Base of Bethel 634'

634 - 645 Light gray sandy lime

645 - 665 Light gray to gray sandy lime, trace Zn., shs. of spar

665 - 680 Gray lime, some selvage, Zn. & spar shs., few cut'gs

680 - 700 Shale selvage, gouge and gray lime, few spar and Zn. shs., few cut'gs

700 - 705 Rosiclare sand, some black quartz, trace Zn. - Lt. spar

705 - 707½ Rosiclare sand, some black quartz, tr. Zn, Lt. spar. Very few cut'gs

707½ - 712½ Rosiclare sand, black quartz, good acid spar. Tr. Zn. Few cut'gs.

712½ - 715 Same as above. Pb shs.

715 - 722½ Rosiclare sand, selvage & gouge. V. F. cut'gs. Good acid spar. Tr. Zn.

722½ - 725 Rosiclare sand, black quartz. R. chatty Zn, good spar, V.F. cut'gs.

725 - 727½ Rosiclare sand, tr. ls., some gouge, V.F. cut'gs, Lt. spar & Zn. Probable Rosiclare contact 727 ft.

727½ - 730 Light gr. ls., some quartzite & gouge. Tr. spar & Zn, few cut'gs.

730 - 732½ Light gray sandy ls., brown quartzite, Lt. chatty Zn & spar - gouge. V.F. cut'gs.

732½ - 735 Light gray sandy lime, Con. caved surface sand. Tr. Zn & spar. V.F. cut'gs.

735 - 760 Mostly caved sand lt. ls. Trace Zn & spar. Few cut'gs.

760 - 765 Light gray sandy ls., some caved material. Good purple acid spar. Tr. Zn. Few cut'gs.

765 - 767½ Light gray sandy lime. Tr. spar & Zn. Few cut'gs.

767½ - 770 Light gray sandy ls. Con. purple acid spar. Tr. Zn. Few cut'gs.

770 - 780 Light gray sandy ls. Con. caved material, some gouge. Tr. spar & Zn Few Pb shs. Few cut'gs.

780 - 790 Light gr. sandy ls., some caved material, gouge, few cut'gs. Lt. spar. Tr. Zn.

790 - 800 Light gray sandy ls., gouge, caved material. Lt. spar & Zn. Few cut'gs.

800 - 812½ Gray sandy ls., selvage & gouge. Some caved material. Few cut'gs. Lt. spar. Tr. Zn.

812½ - 820 Gray siliceous ls., some gouge. Few cut'gs, R. Zn. Lt. spar.

820 - 840 Gray lime, some gouge & selvage, caved material. Con. Zn. Lt. spar. Few cut'gs.

840 - 855 Gray ls., some caved material. Lt. Zn & spar - More cut'gs.

Note:

From a depth of 700 feet on down to the bottom of hole, the recovery of cuttings per screw was anything from a small handful up to a quart. The ground drilled fairly firm but appeared to be full of small vugs. The water from 700' on down was string and clear with black sulphur water at 730 ft.; consequently, most of the cuttings were washed away. In addition, there was a good deal of caved material in the ore cuttings which came from formations overlying the Rosiclare on to the surface.

Ore face from:	700 - 727½ ft.	averaged	40.90 CaF_2
			2.20 Zn
	727½ - 760 ft.	"	16.80 CaF_2
			0.90 Zn
	760 - 770 ft.	"	41.85 CaF_2
			1.22 Zn
	770 - 780 ft.	"	25.30 CaF_2
			0.30 Zn
	780 - 790 ft.	"	33.80 CaF_2
			0.80 Zn
	790 - 812½ ft.	"	21.50 CaF_2
			1.70 Zn
	812½ - 820 ft.	"	22.46 CaF_2
			10.00 Zn
	812½ - 840 ft.	"	28.00 CaF_2
			5.40 Zn

Assays - 16-M
Hill Ledford

	$CaCO_3$	CaF_2	SiO_2	Zn
700 - 705	14.69	32.40	44.18	1.33
705 - 707½	12.36	34.08	44.57	0.28
707½ - 710	4.99	74.29	19.04	1.01
710 - 712½	8.05	54.81	29.72	2.80
712½ - 715	5.53	48.37	39.86	1.86
715 - 717½	8.05	47.95	32.17	1.96
717½ - 720	9.84	59.02	23.25	2.70
720 - 722½	8.94	15.02	57.07	1.12
722½ - 725	6.61	24.27	54.72	7.20
725 - 727½	19.54	27.35	43.92	2.80
727½ - 730	31.57	9.98	40.68	1.12
730 - 732½	5.89	24.55	59.71	2.80

	$CaCO_3$	CaF_2	SiO_2	Zn
732½ - 735	3.25	12.69	62.73	1.01
735 - 737½	3.61	22.65	62.06	1.01
737½-740	3.98	22.51	63.34	0.80
740 - 742½	4.34	7.57	70.71	0.38
742½ - 745	3.61	7.28	75.23	0.49
745 - 750	3.43	19.24	65.14	0.49
750 - 752½	5.68	19.52	68.89	0.38
752½ - 755	8.72	13.69	64.04	0.70
755 - 760	3.25	19.81	69.62	0.91
760 - 765	4.16	48.97	46.39	1.23
765 - 767½	14.55	15.96	60.54	1.01
767½ - 770	5.43	53.53	41.10	1.43
770 - 772½	23.85	18.67	41.91	0.49
772½ - 775	6.53	37.87	48.59	0.28
775 - 777½	3.79	23.79	61.60	0.28
777½ - 780	4.16	20.80	59.39	0.17
780 - 782½	4.16	41.15	47.38	0.18
782½ - 785	5.98	36.88	48.13	0.07
785 - 787½	18.58	16.68	45.11	0.38
787½ - 790	10.54	40.58	36.70	2.28
790 - 795	11.63	19.52	55.78	1.43
795 - 797½	10.36	22.65	56.72	1.22
797½ - 800	13.64	27.35	45.17	2.38
800 - 802½	14.37	25.50	45.01	3.54
802½ - 805	28.05	22.79	31.89	1.75
805 - 807½	41.54	21.80	28.52	1.96
807½ - 810	42.45	15.39	25.73	1.12

	$CaCO_3$	CaF_2	SiO_2	Zn
810 - 812½	34.61	19.38	26.02	0.80
812½ - 815	23.31	27.35	22.52	12.81
815 - 817½	28.23	20.37	24.89	9.86
817½ - 820	25.68	19.66	35.54	7.23
820 - 825	26.41	23.22	26.67	3.86
825 - 830	20.75	26.21	27.56	2.70
830 - 835	13.28	39.16	33.33	4.17
835 - 840	12.91	31.76	33.76	3.96

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole 17-M
Elevation: 417.6
Location: 624' north and 186' east of the S.W. Corner of N.E. 1/4 of S.E. 1/4 of Sec. 23 or 87' south and 55' west of 7-M.

Started 6-26-52
Finished 7-24-52

Water: 75' light
375' Fair
585' "
Stands 67'

Drilled by: Moreland and Mohler

Examined by: E. A. Brecke

Casing: 20 feet.

0 - 20 Surface

20 - 35 Oxidized sand and shale

35 - 45 Black shale

45 - 60 Gray sand shaly partings

60 - 75 Dark gray sandy shale

75 - 125 Dark brown lime, shaly

125 - 185 Gray sand

185 - 225 Gray shaly sand

225 - 290 Gray and brown lime, shaly streaks

290 - 295 Gray calcareous shale

295 - 300 Gray and maroon shale

300 - 360 Gray shale, lime streaks

360 - 410 Gray shale sand streaks

410 - 430 Brown sand

430 - 495 White sand

495 - 560 Gray sand, slightly shelly

560 - 585 White sand

585 - 590 Gray and brown lime, little sand. Base of Bethel 585.

590 - 605 Gray and brown lime.

605 - 610 Gray lime, little green selvage

610 - 635 Brown lime, con. selvage

635 - 655 Dark brown shaly lime

655 - 670 Lower O'Hara lime

670 - 690 Rosiclare sand

690 - 720 Light gray oolitic lime

720 - 740 Brown lime

740 - 750 Dark brown lime

750 - 755 " " " , trace sins.

755 - 760 " " " , little Sub Rosiclare sand.

760 - 780 Gray oolitic lime.

Assay	$CaCO_3$	CaF_2
685 - 690	12.55	2.85

OZARK-MAHONING COMPANY

C. N. Hill Tract

Drill Hole No. 19-M

Elevation: 381.6

Location: 491 ft. north and 628 ft. east of the S.W. corner of N. W. 1/4 of Sec. 24 or 71 ft. east of 16-M.

Drilled by: B. W. Hales

Examined by: E. A. Brooks

Casing: 27 ft. 8"

Started 7-3-52
Finished 7-26-52
Water - 40 - 45 light
80 - 85 "
180 - 185 strong
600 Sulfur
638 strong
787 "

0 - 35	Surface
35 - 45	Brown lime and grey shale
45 - 55	Grey shale
55 - 75	Gray sandy shale
75 - 115	White sand, some gray shaly lime
115 - 120	Grey calcareous shale
120 - 170	Gray and brown lime, shale streaks
170 - 185	Gray sand, shaly partings
185 - 210	Gray sand
210 - 230	Grey sandy shale
230 - 245	Grey sand
245 - 325	Grey and brown lime, shale streaks
325 - 330	Grey shale, little maroon shale
330 - 405	Grey shale, lime streaks
405 - 430	Grey shale, sandy streaks
430 - 440	Grey sand
440 - 460	Grey sand, sen. shale
460 - 510	White sand
510 - 595	Grey shelly sand

595 - 600 White sand, little spar and brown siliceous material, trace Zn.

600 - 625 White sand

625 - 635 Gray sand

635 - 640 Gray sand, some gray lime, spar shines. Base of Mathel 638.

640 - 650 Gray and brown lime, traces spar, probably caved

650 - 675 Brown lime, some green shale

675 - 695 Dark brown shaly lime, little calcite

695 - 705 Brown dense lime

705 - 715 Lower O'Hara lime

715 - 732½ Very rich acid spar, some Mosielare sand and little green shale

732½ - 737½ Mosielare sand, some acid spar, little gray lime and green selvage

737½ - 742½ Good acid spar, some brown silicified lime, little green selvage

742½ - 745 Fair acid spar, some leached buff lime, trace Zn.

745 - 752½ Buff leached lime, little green selvage, little spar, trace Zn.

752½ - 757½ Good acid and low grade spar. Zn shines. Some buff leached lime and green selvage.

757½ - 760 Some acid spar and buff lime, con. caved gray and green shale, trace Zn.

760 - 770 Buff lime, some acid and low grade spar. Zn shines, little shale.

770 - 787½ Buff lime, some purple acid and low grade spar, little Zn.

787½ - 792½ Dark brown lime, little black shale, spar and Zn shines.

792½ - 795 Good free and chatty brown Zn, some brown siliceous material and lime, little spar.

795 - 800 Light gray oolitic lime, little Zn, spar shines

800 - 815 Brown oolitic lime, little Zn, spar shines

815 - 820 Gray lime, some red Zn, little spar, drilled soft 816 - 819. Some caved spar.

820 - 835 Light brown lime.

Ore face 715 - 785 averages 52.77% CaF_2
0.72% Zn.

Ore face 792½ - 797½ averages 30.23% CaF_2
4.75% Zn.

Ore face 815 - 820 averages 25.82% CaF_2
3.91% Zn.

or

Ore face 715 - 732½ averages 70.50 CaF_2

Ore face 737½ - 767½ averages 52.00 CaF_2
.71 Zn.

Ore face 767½ - 785 averages 41.80 CaF_2
1.69 Zn.

Ore face 792½ - 797½ averages 30.25 CaF_2
4.75 Zn

Ore face 815 - 820 averages 25.82 CaF_2
3.91 Zn

19-M C. N. Mill Tract

Assay	$CaCO_3$	CaF_2	Zn
635 - 640	23.85	17.64	
640 - 645	27.32	22.76	
645 - 650	42.09	27.89	
650 - 655	45.01	32.30	
715 - 720	10.36	63.60	
720 - 722½	10.36	65.96	
722½ - 725	6.89	78.96	
725 - 727½	2.33	93.34	
727½ - 730	2.70	72.57	
730 - 732½	2.70	83.23	
732½ - 735	6.71	36.42	
735 - 737½	11.45	24.47	
737½ - 740	5.98	67.87	
740 - 742½	6.16	60.04	
742½ - 745	5.43	52.07	.07
745 - 750	3.25	43.82	.70
750 - 752½	3.06	39.84	1.01
752½ - 755	3.43	53.21	1.12
755 - 757½	4.89	51.65	1.22
757½ -760	6.71	59.33	.28
760 - 762½	4.89	50.37	1.43
762½ - 765	5.07	60.47	1.01
765 - 767½	9.63	42.55	1.01
767½ - 770	21.66	31.87	.80
770 - 775	6.89	43.11	2.17
775 - 780	8.90	39.27	1.65

Assay	CaCO3	CaF2	Zn
780 - 782½	5.68	49.51	1.22
782½ - 785	5.07	46.53	2.17
785 - 787½	46.83	21.63	1.12
787½ - 790	53.03	16.93	3.01
790 - 792½	13.88	14.79	2.07
792½ - 795	11.09	34.72	6.59
795 - 797½	16.56	25.75	2.81
797½ - 800	72.36	11.52	1.65
800 - 805	57.95	7.11	3.96
805 - 810	65.98	7.54	1.86
810 - 815	60.51	9.68	2.38
815 - 817½	24.76	25.28	4.71
817½ - 820	28.78	26.46	3.12

July 10, 1952

DMEA Field Examination Report
G. L. Neumann, Engineer

DMEA Docket No. 2248
Contract No. IdaF-255
Ozark-Mahoning Co., Rosiclare, Ill.
Work west of Illinois Highway No. 1 near Lamb, Ill., Hardin Co.
Commodity - Fluorspar, Lead, Zinc
Amount of Contract - $[illegible],[illegible],00
Government Participation - 50 percent - $30,982.50

The property was visited July 10, 1952. Progress Report for June is approved. Holes 15M and 16 M have since been completed. 15M did not show mineralization. 16M cut several bands of good ore very similar to adjacent hole 12M. 19M is drilling 70 feet east of 16M. If 19M has good showing another hole will be drilled next to the highway. 17M is down to 450 feet depth and if showing is cut another line of holes will be drilled to the south in order to determine the position of the east wall. Hole 18M, 70 feet SE of 15M, is now down to a depth of 240 feet, practically at junction of lines 13M - 10M - 8M - 15M - 18M and 4M - 3M - 2M - and Minerva hole 17.

This work is progressing very well and results are very encouraging.

G. L. Neumann

College Park, Md.
July 14, 1952

1952

Hole	Started	Finished	No. feet of Hole	No. feet drilled
① M6	2/5	3/14	790 ft.	550'
② M7	3/14	4/26	780 "	780'
③ M8	3/20	4/19	815 "	815'
④ M9				850'
⑤ M10				790'
⑥ M11				768'
⑦ M12				854
⑧ M13				780
⑨ M14				777

Completed holes 6964' ✓
6/30/52
@ 243 = $16,922.52 ✓

M-15	6-30-52	760
M-16	6-30-52	750
M-17	6-30-52	145
		1655

1655' @ 243 $4021.65
16922.52
7
$20944.1

Ck. Robertson

6964'
1655
8619 ft. total holes to June 30 1952

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1952 Docket No. DMEA 2248 Contract No. E-255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois

OPERATION	Unit Cost	Costs This Month	Units This Month Feet	Costs to Date	Units to Date Feet	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn *	2.43	6721.38	2766	20,944.17	8619	2.43	25,500'	$61,965.00
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		6721.38	2766	20,944.17				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								$61,965.00

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

Date July 3, 1952 Operator Ozark-Mahoning Company

Per [signature] Title Ass't. Sec.-Treas.

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

(Instructions on reverse)

Remarks:
*Includes the following:
Drilling @ 2.25 per foot
Geologist @ 0.15 per foot
Assaying @ 0.01 per foot
Clerical @ 0.02 per foot
@2.43 per foot

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

U. S. GOVERNMENT PRINTING OFFICE 205676

Form MF-104 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1952 Docket No. DMEA _____ Contract No. 255
Operator's Name Ozark-Mahoning Company Minerals Fluorspar
Address Rosiclare, Illinois
Contract Amount, $ 61965.00 Government Participation: 50 % Amount, $ 30,982.50

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling Churn	6721.38	14,222.79	20,944.17	$3,360.69	$ 7,111.40	$ 10,472.09
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6721.38	14,222.79	20,944.17			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date July 3, 1952 *Payee Ozark-Mahoning Company

Per [signature] Title Ass't. Sec.-Treas.

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

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

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$_____

Signature _____
(Authorized Certifying Officer)

Date _____ Vou. No. _____
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E 755 in accordance with the terms of the contract.

Signature W. P. Miller Title Min. Engr. Date July 14, 1952

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. Henry Mosier Title Exec. Officer R-8 Date 7-14-52

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

U. S. GOVERNMENT PRINTING OFFICE 205675

OZARK-MAHONING COMPANY
Rosiclare, Illinois

Supplemental Sheet
June 1952

Geologist	2766' @ $0.15 per foot =	414.90
Assaying	2766' @ $0.01 per foot =	27.66
Clerical	2766' @ $0.02 per foot =	55.32
		$497.88

Status of Holes Drilling and Completed

M - 12	Completed 854' (Previously Reported 670') Bal.	184'
M - 13	Completed 780' (Previously Reported 580') Bal.	200'
M - 14	Completed 777' (Previously Reported 50') Bal.	727'
M - 15	(Drilling 6-30-52)	760'
M - 16	(Drilling 6-30-52)	750'
M - 17	(Drilling 6-30-52)	145'
	Total footage for month	2766'

Remarks

Copies of Holes No. 12-M, 13-M, and 14-M are attached to this report. Map is also attached showing location of completed holes as well as holes now drilling.

Hole No. 12-M showed 10' of good ore at the base of the Rosiclare from 715-725 feet, which assayed 45.92 CaF_2. Scattered ore continued below this showing to a depth of 785 feet. You will note the location of 16-M approximately 70' east of 12-M. This hole has also cut good ore at 700 feet and is still in ore at a depth of 800 feet. As soon as 16-M is completed we expect to move an additional 70' to the east. This location will place us fairly close to the south east boundary of the block delineated by the contract. Consequently we would like to have written approval that the crosscut as outlined by Holes No. 9, 12, & 16 can be continued to the east beyond the line set up by the contract provided we feel same is desireable.

When the above crosscut is completed we may wish to move to the north east about 450' and drill a new cross cut commencing about 150' east of Hole No. 2. Kindly advise whether same is agreeable and will conform to the contract.

Hole No. 13-M is blank. You will note the location of Hole No. 15-M. This also has been completed since the first of July and is blank. The cross cut as represented by 8-M, 10-M, 13-M, and 15-M has been disappointing.

Hole No. 14-M was also blank although there was considerable open ground with a good deal of water. You will note the location of 17-M. From this point we expect to drill a cross section due south spacing the holes at 100' intervals until the mineralized trend has been crossed.

A. E. Johnson

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole No. 12-M
Elevation: 380.7
Location: 495' north & 487' east of the S.W. Corner of N.W. ¼ of Sec. 24 or 70 feet east of No. 9-M.

Started 5-7-52
Finished 6-9-52
Water: 35 light
240 strong
598 "
720 " sulfur
764 } lost cuttings
786 }

Drilled by: B. W. Hales.

Examined by: M. A. Brooks
Casing: 27 ft. of 8" casing.

0 - 30 Surface

30 - 65 Dark brown lime, shale streaks.

65 - 70 Gray sand, shale streaks.

70 - 100 Gray sand, shaly partings.

100 - 110 Gray shale, lime streaks.

110 - 120 Light gray lime, shale streaks.

120 - 130 Light gray crinoidal lime.

130 - 170 Gray and brown lime, shale streaks.

170 - 195 Gray sand, shaly partings.

195 - 210 Gray sand.

210 - 235 Gray shaly sand.

235 - 250 Gray sand.

250 - 320 Gray and brown lime, shale streaks. Geloconda.

320 - 325 Gray shale.

325 - 330 " and maroon shale.

330 - 410 Gray shale, few lime streaks.

410 - 425 " " , sandy.

425 - 455 Brown sand.

455 - 500 White shally sand.

500 - 525 White sand.

525 - 590 White shelly sand.

590 - 625 White sand.

625 - 630 White sand, broken traces of spar.

630 - 635 " " , some flint and lime, spar shines, base of Bethel 632.

635 - 650 Grey lime, spar shines.

650 - 655 Gray lime.

655 - 685 Shale and selvage, lime streaks.

685 - 690 " " " " " , some leached buff,lime showing ZnS. See assay.

690 - 700 Brown shaly lime.

700 - 710 Lower O'Hara lime. Little Zn 705 - 710.

710 - 715 Rosiclare sand.

715 - 720 Rich acid spar and some Rosiclare sand.

720 - 735 Very few cuttings, strong sulfur water. Con. caved sand & shale, little leached lime with spar shines & trace Zn.

735 - 750 Leached buff lime, con. caved shale, some spar, trace Zn.

750 - 755 Buff leached lime.

755 - 762-1/2 Buff leached lime, some brown siliceous material, some acid spar & some free and chatty Zn.

762½ - 770 Very few cuttings, con. caved shale, some buff lime, little spar traces Zn.

770 - 785 Buff lime, little spar, traces Zn, Gen. caved material.

785 - 790 Very few cuttings. Buff lime, spar and Zn shines. Con. caved black shale.

790 - 800 Brown lime, con. caved green shale, spar and Zn shines.

800 - 820 Very few cuttings, con. caved green shale, little buff lime, spar & Zn shines.

820 - 845 Buff lime, spar shines, some red Zn, con. caved green & black shale.

845 - 850 Brown and buff lime, little Zn, very fine. Con. green shale, drilled firm.

850 - 854 Dark brown lime, con. caved green shale.

Ore face from 715 - 725 ft. averages 45.92 CaF_2.

" " " 725 - 750 ft. averages 17.08 CaF_2.

" " " 755 - 762½ ft. " 38.06 CaF2 and 1.70 Zn.

" " " 762½ - 775 ft. " 19.30 "

" " " 775 - 785 ft. " 34.50 " and 0.70 Zn

HOLE No. 12 - ASSAYS

	CaCO3	CaF2	Zn
685 - 690	68.39	28.30	2.17
705 - 710	75.58	3.67	1.22
715 - 720	8.94	46.97	0.07

	$CaCO_3$	CaF_2	Zn
720 - 725	11.46	44.87	-
725 - 730	10.38	19.93	-
730 - 735	12.18	17.96	-
735 - 740	30.86	13.90	-
740 - 742½	20.98	18.10	-
742½ - 745	28.52	19.08	-
745 - 750	31.75	15.02	-
755 - 760	10.74	40.35	1.96
760 - 762½	15.59	33.49	1.22
762½ - 765	18.64	19.48	-
765 - 770	8.58	15.13	-
770 - 772½	12.72	22.98	-
772½ - 775	9.48	23.82	-
775 - 780	8.58	33.81	-
780 - 783	11.46	32.09	1.22
783 - 785	10.02	41.34	1.12
785 - 787½	9.84	18.50	0.70
800 - 805	22.59	7.71	0.38
805 - 810	16.85	7.99	0.40

OZARK-MARKHAM COMPANY

C. H. Hill Trust
Drill Hole No. 138
Elevation: 400.0
Location: 148' north and 224' west of the NE Corner of the NW-1/4 of Sec. 23 or 55' north and 25' west of No. 10-M
Drilled by: Moreland and Bohler
Recorded by: E. A. Brooks
Casing: 8" Bent

Water 45' Light
90' "
165' "
310' Fair
360' "
375' "
380' "
385' "
600' "
645' "
660' "
780' "

0-25	Surface
25-75	Gray shaly sand and shale streaks
75-90	White sand, shaly partings
90-145	Brown lime and black shale
145-160	Gray sand, shale streaks
160-200	Gray sand
200-225	Gray shale, sandy
225-305	Gray and brown lime, shale streaks
305-310	Gray silty shale
310-325	Gray sand
325-400	Gray shale, lime streaks
400-430	White sand
430-500	White sand
500-560	Shaly white sand
560-600	White sand
600-603-1/2	Black shaly sand Base of Bethel 603
603-1/2-605	Black shaly sand, some gray lime
605-625	Gray lime
625-630	Gray lime and green salvage
630-650	Green lime, com. salvage
650-675	Dark brown shaly lime
675-680	Lower O'Kern lime
680-706	Rostclare sand
706-720	Light gray lime

720-735	Light brown lime
735-745	Brown lime, little green salvage
745-770	Brown lime, little grey oolitic lime
770-780	Light grey oolitic lime

OZARK-MAHONING COMPANY

Hill-Ledford Tract
Hole No. 14-M
Elev. 397.6
Location: 693' N. 43' E. of S.W. Cor. of N.E. 1/4 of S.E. 1/4 of Sec. 23, Twp. 11 S., R. 9 E. or 100 ft. N. - 10 ft. E. of 11-M.

Started 5-29-52
Completed 6-26-52
Water: 40 ft.
55 ft.
195 ft.
650 ft.

Drilled by: Moreland & Mahler
Examined by: A. S. Johnson
Casing - 20 ft.

0 - 15	Soil and clay
15 - 35	Gray & oxidized sand - some gravel.
35 - 60	Gray sand - shale seams.
60 - 100	Gray and dark colored lime.
100 - 165	Gray sand
165 - 200	Gray shaly sand.
200 - 265	Gray and dark colored lime, shale streaks.
265 - 415	Gray sandy shale, few lime streaks.
415 - 470	Gray sand - few shale seams.
470 - 566	White sand. S. S. 566 ft.
566 - 585	Light gray to gray lime.
585 - 615	Gray lime, selvage seams.
615 - 640	Dark colored shaly lime.
640 - 650	Light colored oolitic lime.
650 - 672	Rosiclare sand - hard - cuttings very fine.
672 - 710	Hard light gray lime - cuttings very fine.
710 - 715	Gray lime - few spar shs. Softer ground.
715 - 720	No cuttings - crevice at 716 ft. Ground drilled hard & firm. Black sulphur water at 716'.
720 - 735	Gray lime, very few cuttings. Hole drilled hard and firm.
735 - 740	Gray lime, very few cuttings. Formation solid crevice at 739 ft. Few Zn shs.
740 - 750	No cuttings - ground drilled hard and firm.
750 - 755	do do do , crevice at 751 ft.
755 - 765	No cuttings- ground drilled hard and firm, opening at 763 ft.
765 - 775	Very few cuttings - tight & hard formation. 15" opening @ 774'. Light gray oolitic lime.
775 - 777	Very few cuttings - Light gray lime.

OZARK-MAHONING COMPANY

Hill-Ledford Tract
Hole No. 14-M
Elev. 397.6
Location: 693' N. 43' E. of S.W. Cor. or N.E. 1/4 of S.E. 1/4 of Sec. 23, Twp. 11 S., R. 9 E. or 100 ft. W. - 10 ft. S. of 11-M.

Started 5-29-52
Completed 6-26-52
Water: 40 ft.
55 ft.
295 ft.
650 ft.

Drilled by: Moreland & Mohler
Examined by: A. G. Johnson
Casing - 20 ft.

0 - 15	Soil and clay
15 - 35	Gray & oxidized sand - some gravel.
35 - 60	Gray sand - shale seams.
60 - 100	Gray and dark colored lime.
100 - 165	Gray sand
165 - 200	Gray shaly sand.
200 - 265	Gray sand dark colored lime, shale streaks.
265 - 415	Gray sandy shale, few lime streaks.
415 - 470	Gray sand - few shale seams.
470 - 566	White sand. S. S. 586 ft.
566 - 585	Light gray to gray lime.
585 - 615	Gray lime, selvage seams.
615 - 640	Dark colored shaly lime.
640 - 650	Light colored oolitic lime.
650 - 672	Residuary sand - hard - cuttings very fine.
672 - 710	Hard light gray lime - cuttings very fine.
710 - 715	Gray lime - few spar shs. Softer ground.
715 - 720	No cuttings - crevice at 716 ft. Ground drilled hard & firm. Black sulphur water at 716'.
720 - 735	Gray lime, very few cuttings. Hole drilled hard and firm.
735 - 740	Gray lime, very few cuttings. Formation solid crevice at 739 ft. Few Zn shs.
740 - 750	No cuttings - ground drilled hard and firm.
750 - 755	do do do , crevice at 751 ft.
755 - 765	No cuttings- ground drilled hard and firm, opening at 763 ft.
765 - 775	Very few cuttings - tight & hard formation. 15" opening @ 774'. Light gray oolitic lime.
775 - 777	Very few cuttings - Light gray lime.

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole No. 13M
Elevation: 400.0
Location: 142' north and 224' west of the SE Corner of the NE-1/4 of Sec. 23 or 55' north and 25' west of No. 10-M
Drilled by: Moreland and Mohler
Examined by: E. A. Brooks
Casing: 29 feet

Started 5-14-52
Finished 6-7-52

0-25	Surface
25-75	Gray shaly sand and shale streaks
75-90	White sand, shaly partings
90-145	Brown lime and black shale
145-160	Gray sand, shale streaks
160-200	Gray sand
200-225	Gray shale, sandy
225-305	Gray and brown lime, shale streaks
305-310	Gray silty shale
310-325	Gray sand
325-400	Gray shale, lime streaks
400-430	White sand
430-500	White sand
500-560	Shally white sand
560-600	White sand
600-602-1/2	Black shaly sand Base of Bethel 603
602-1/2-605	Black shaly sand, some gray lime
605-625	Gray lime
625-630	Gray lime and green selvage
630-650	Green lime, sem. selvage
650-675	Dark brown shaly lime
675-680	Lower O'Hara lime
680-706	Rosiclare sand
706-720	Light gray lime

Water 15'	Light
90'	"
165'	"
310'	Fair
340'	"
375'	"
505'	"
515'	"
600'	"
645'	"
660'	"
780'	"

730-735	Light brown lime
735-765	Brown lime, little green calcage
765-770	Brown lime, little gray oolitic lime
770-780	Light gray oolitic lime

BMSA
Field Inspection Report
June 4, 5, 1952
H. L. Burmeister, Engineer

Docket No. [illegible], Ozark-Mahoning Company
Mechanicsburg, Illinois

(Fluorspar)

On arrival at Mechanicsburg, it was found that the Monthly Progress Report for May 1952 had been sent to College Park the previous day.

Only the monthly cost, footage drilled in May and total footage drilled was entered on the report. The total to date of cost was shown. This total was added on the Company copy and also penciled on each of the Government copies.

Holes No. 12E, 13E and 14E were now drilling. Hole 14E showed some clay from 600 to 700 feet, samples of which were not available. Five feet of shale 50 percent fluorspar was encountered from 715 to 720 feet and a very heavy flow of water from 720 to 725 feet. From 725 to 735 feet spar averaged in decreasing quantities. Assay results will appear in the next report.

The next hole in the same contract line with hole 12E will be drilled to the east on the trend of the long main spur to be moving in a clockwise direction. Hole 13E is at the bottom of the hollow and at 300 feet and shows no mineralization. This hole will be drilled about 300 feet deeper. The next hole in this contract line will also be located to the east.

No difficulty is being encountered in drilling. The contract is 23 percent complete on a footage and cost basis and 22 percent complete on a time basis.

Statements of fact by the operator in the Monthly Progress Report for May 1952 were corroborated.

H. L. Burmeister

H. L. Burmeister
College Park, Md.
June 11, 1952

MF-104
(August 1951)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No. 255
Idm-E

Name of Operator Ozark-Mahoning Company
Docket No. DMA 2268
Total Contract Amount $ 61,965.00
Government Participation: 50 % Amount, $ 30,982.50
Distribution of Expenditures for Month of May 1952

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 13 1952

CERTIFICATION

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

Ozark-Mahoning Company
(Name of Company)

By [signature]
(Signature of Authorized Official)

June 3, 1952
(Date)

Assistant Secretary-Treasurer
(Title)

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

16—64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

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

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]						
5. Supervision						
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work						
11. Other (specify)						
Total	9,215.44					
Deletions						
Adjusted totals	8,[illegible]					
Totals previously reported						
Totals to date	17,238.24					

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

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

FOR GOVERNMENT USE ONLY

Checked by W. T. Millar
Entered by
Approved by McGeary Ulosier 6-5-52
Amount approved for payment $3107.97
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF May 1952

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes					6215.94	2.43*	2558	3295	5853	
Overburden										
Rehabilitation and preparation										
Geology and geophysics										
Trenching										
Sampling and assaying										
Roads and trails										
Test pits										
Other (specify)										
Totals					6215.94					

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

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

* Includes the following:

Drilling @	$2.25	per	ft.
Geologist @	0.15	"	"
Assaying @	0.01	"	"
Clerical @	0.02	"	"
	$2.43		

OZARK-MAHONING COMPANY
Rosiclare, Illinois

Supplemental Sheet
May 1952

Geologist 2558 ft. @ $0.15 per ft. = 383.70
Assaying 2558 ft. @ $0.01 per ft. = 25.58
Clerical 2558 ft. @ $0.02 per ft. = 51.16
$460.44

Status of Holes Drilling & Completed

M-9	Completed 850'	(Previously reported 710 ft.)	Bal. 140 ft.
M-10	Completed 790'	(Previously reported 330 ft.)	Bal. 460 ft.
M-11	Completed 768'	(Previously reported 110 ft.)	Bal. 658 ft.
M-12	(Drilling 5-31-52)		670 ft.
M-13	(Drilling 5-31-52)		580 ft.
M-14	(Drilling 5-31-52)		50 ft.

Total footage for month 2558 ft.

Remarks:

Copies of Holes No. 9-M, 10-M, & 11-M are attached to this report. Map is also attached showing locations of completed holes as well as holes now drilling.

Hole No. 9-M showed low grade fluorspar mineralization at both the Rosiclare contact and the Sub-Rosiclare horizon. Strong water and open ground was encountered in the mineralized sections.

Hole No. 10-M cut low grade ore at the Rosiclare horizon and shines at the Sub-Rosiclare contact.

Hole No. 11-M was blank.

A. G. Johnson

G. E. Hill Tract
Drill Hole No. 9
Elevation: 360.2
Location: 495' north and 445' east of the SW Corner of NW¼ of Sec. 24 or 93' north and 160' east of No. 8 Minerva
Drilled by: B. W. Hales
Examined by: L. A. Brooks
Casing: 30' of 6-5/8"

Started: 4-7-52
Finished: 5-7-52

Water: Hole full @ 30'
470-430 Strong
724-786 Live water
790-800 Live sulfur water

Note: Minerva Kocia
Pump lowered water 45'

0-30	Surface
30-55	Grey shaly lime
55-95	Grey sand, shaly partings
95-105	Grey sandy shale
105-140	Grey lime, little shale
140-170	Brown lime shale streaks
170-220	Grey sand, shaly partings
220-290	Grey shaly lime
290-315	White sand, shale streaks
315-285	Shaly grey lime
285-320	Grey shale, lime streaks
320-325	Grey shale
325-330	Grey and maroon shale
330-405	Grey shale, few lime streaks
405-420	Sandy grey shale
420-460	Brown sand
460-490	Shaly grey sand
490-510	White sand
510-500	Shaly white sand
500-625	White sand
625-630	" ", little lime, trace spar. Base of Bethel 630
630-650	Grey lime, con. coved sand, trace spar and calcite
650-665	" " some selvage
665-685	Brown lime, con. selvage, little calcite
685-695	Lower Bethel lime
695-725	Boniolors sand
725-727½	" " , fair spar trace Zn. B. F. 726
727½-730	" " , some buff leached lime some spar
730-740	Buff leached lime some selvage, little spar, Zn shines
740-750	Brown lime, traces spar and Zn probably coved
750-775	Brown lime slightly leached
775-780	" " , little buff lime, spar and Zn shines
780-790	Light buff lime, traces Zn and spar
790-800	Buff lime little spar and Zn very few cuttings. Gas assay
800-806	Buff lime, spar and Zn shines
806-850	Brown and buff lime

Ore face 725-732½ averages 27.65 lbs

Page Two -

Assays	CaCO3	CaF2	Zn
725-727½	30.99	31.88	
727½-730	25.74	28.13	
730-732½	28.12	22.99	
732½-735	29.77	16.29	
735-738	36.35	19.14	
775-780	70.92	9.87	1.78
790-792½	66.70	7.45	.97
792½-795	61.30	10.16	1.78
795-797½	39.88	21.12	2.09
797½-800	48.96	16.00	1.58
800-803	57.56	8.87	.67

OZARK-MARKING COMPANY

C. N. Mill Irent
Drill Hole No. 13
Elevation: 402.6
Location: 65' north and 197' west of the N.E. Corner of the N. W. 1/4 of S. W. 1/4 of Sec. 23 or 60' north and 28' west of Hole 8.

Started 4-19-52
Finished 5-14-52

Drilling by Varnum and Mahler.
Examined by C. N. Trecke
Casing: 2" feet.

Water:
50' - 90' - 170'
Light
275' - 345 and 425
Medium
705' Light
760' "
Water does not seem to be strong in this hole.

0 - 25 Surface

25 - 50 Gray lime sand

50 - 85 Gray sand, shale streaks

85 - 95 Gray shale, sandy

95 - 115 Gray lime, black shale

115 - 205 Gray sand, shaly partings

205 - 230 Gray shale, sandy

230 - 305 Gray and brown lime shale streaks Dolomite

305 - 330 Gray sand, few shale streaks

330 - 390 Gray shale, few lime streaks

390 - 410 " " , sandy

410 - 460 Brown sand

460 - 490 White sand

490 - 560 Gray sand, shally

560 - 595 White sand

595 - 608-1/2 Gray sand

608-1/2 - 605 " " and gray lime. Base of Bethel 603

605 - 625 Gray lime

625 - 635 " " and green selvage

635 - 655 Brown lime, con. selvage

655 - 675 Dark brown shaly lime

675 - 685 Lower O'Hara lime

685 - 700 Rosiclare sand

700 - 707-1/2 Rosiclare sand, some purple spar. Base of Rosiclare 708.

707-1/2 - 710 Rosiclare sand shaly, con. gray oolitic lime, spar shines.

710 - 715 Light gray oolitic lime.

715 - 757-1/2 Gray to light brown lime, traces cale. and spar shines, spar probably cored.

757-1/2 - 762-1/2 Gray and brown lime, some quartz and calcite, trace Zn and spar, cuttings fine, some additional water at 762 feet.

762-1/2 - 765 Light gray and some brown lime, some quartz and calcite - trace spar and zn.

765 - 785 White oolitic lime.

785 - 790 Gray lime.

Assays	$CaCO_3$	CaF_2	SiO_2	Zn
700 - 705	16.24	17.86		
705 - 707-1/2	22.82	20.28		
757-1/2 - 762-1/2	56.28	6.15	26.51	1.26
762-1/2 - 765	59.37	4.17	24.58	.36

GRANT-MARKING COMPANY

C. N. Hill Tract
Drill Hole No. 11
Elevation: 412.1
Location: 708' north and 141' east of S.W. Corner of N.E. 1/4 of S.E. 1/4 of Sec. 23 or 7' south and 103' west of No. 7.
Drilled by: Moreland and Hohler.
Examined by: E. A. Wreske
Casing: 20 feet.

Started 4-26-52
Finished 5-29-52

Water: 40 strong
586 "
No lower water noticeable.

0 - 15 Surface

15 - 25 Gray shale, sand streaks.

25 - 30 Red clay.

30 - 45 Gray sand, shaly partings.

45 - 55 White sand.

55 - 70 Gray sand shaly.

70 - 120 Gray and brown lime, shale streaks.

120 - 190 White sand.

190 - 195 Gray shaly sand.

195 - 260 Gray and brown lime, shaly streaks.

260 - 300 Gray shale, lime streaks.

300 - 305 Gray and maroon shale.

305 - 370 Gray shale, few lime streaks.

370 - 395 " " , sandy.

395 - 430 Gray sand

430 - 465 White sand.

465 - 470 " " , shaly partings.

470 - 555 White sand slightly shaly.

555 - 575 White sand.

575 - 585 Gray sand.

585 - 590 " " , con. gray lime. Base of Natal 586.

590 - 610 Gray lime.

610 - 615 Gray lime, little green salvage.

615 - 635 Brown lime, con. salvage.

635 - 660 Dark brown shaly lime.

660 - 670 Lower O'Hara lime.

670 - 675 " " " , some Rosiclare sand.

675 - 686 Rosiclare sand.

686 - 720 Light gray oolitic lime.

720 - 745 Light brown lime.

745 - 755 Dark brown lime.

755 - 760 " " " , little light gray oolitic lime.

760 - 768 Brown lime, some gray oolitic lime.

docket

DMEA-2248

DMEA Docket 2248
Ozark-Mahoning Company
Mahoning Mining Division
Rosiclare, Illinois

Field Inspection Report by G. L. Neumann, Mining Engineer
May 5, 1952

(Fluorspar)

Exploration program consists of churn drilling of tract known as Hill-Ledford Farm located in Hardin County, west of Illinois Highway No. 1 about 6 miles north of the village of Cave in Rock, Ill. The turn-off from Illinois Highway No. 1 is exactly opposite the turn-off to Lamb, Illinois. The spar mine and mill of the Minerva Oil Company are located at Lamb. Three holes have been completed to date. An aggregate footage of 3,295 feet has been drilled in six holes on the DMEA Contract. The drilling is approximately 13 percent completed in two months of operation. Three rigs are now drilling on holes M-9, M-10 and M-11. The work accomplished to date has been encouraging for making a discovery, although indications point to a slight shifting of the assumed trend of the deposit to the northwestward. A check of the monthly progress for April was made. Due to heavy spring rains and Boggy condition of ground, considerable difficulty has been experienced in getting this project underway. The contract driller, Mr. Durrill Bayles, has also had difficulty in obtaining experienced drillers. The attitude of both the company and the contractor is excellent and good progress should ensue on this project.

Statements of fact by the operator in the Monthly Progress Report for April 1952, were corroborated.

G. L. Neumann
College Park, Md.
May 13, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 15 1952

College Park, Maryland

May 6, 1952

Memorandum

To: D. N. Anderson, Finance Officer, Region VIII

From: Executive Officer, DMEA Field Team, Region VIII

Subject: Progress Report, April 1952, Docket DMEA-2248
Contract No. Idm-E-255 - Fluorspar

Attached is a copy of the Progress Report for the month of April 1952, from the Ozark-Mahoning Company, which has been checked by H. L. Burmeister and approved by me. You will note that the amount approved for payment for this month by the Government is $2,563.65.

McHenry Mosier

Attachment

McHM:rwa

copy for COMittendorf
DMEA Files 2

MF-104
(August 1951)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E 255

Name of Operator Ozark-Mahoning Company
Docket No. DMA 2248
Total Contract Amount $61,965.00
Government Participation: 50 % Amount, $30,982.50
Distribution of Expenditures for Month of April, 1952

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 6 1952

CERTIFICATION

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

OZARK-MAHONING COMPANY
(Name of Company)

By [signature]
(Signature of Authorized Official)

May 1, 1952
(Date)

Works Accountant
(Title)

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

16--64068-3

MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

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

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor[3]						
5. Supervision	316.50	177.75	494.25			
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work	4747.50	2666.25	7413.75			
11. Other (specify)						
Assaying	21.10	11.85	32.95			
Clerical	42.20	23.70	65.90			
Total	5127.30	2879.55	8006.85			
Deletions						
Adjusted totals						
Totals previously reported						
Totals to date						

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

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

FOR GOVERNMENT USE ONLY

Checked by W. L. Turnicliffe
Entered by
Approved by McHenry Uloszier
Amount approved for payment $ 2563.65
Remarks

16—64068-3

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF April, 1952

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes					4747.50	2.25*	2110	1185	3295	
Overburden										
Rehabilitation and preparation										
Geology ~~and geophysics~~	316.50				316.50					
Trenching										
Sampling and assaying	21.10				21.10					
Roads and trails										
Test pits										
Other (~~specify~~) Clerical	42.20				42.20					
Totals	379.80				5127.30					

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

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

*As per drilling contract
2110' @ $2.25 = $4747.50

OZARK-MAHONING COMPANY
Rosiclare, Illinois

SUPPLEMENTAL SHEET
April, 1952

Geologist	2110 ft. @ $0.15 per ft. =	$ 316.50
Assaying	2110 ft. @ 0.01 per ft. =	21.10
Clerical	2110 ft. @ 0.02 per ft. =	42.20
	Total	$ 379.80

Status of Holes Drilling and Completed

M-7	Completed	780 ft. (Previously reported 355 ft.)	Bal.	425 ft.
M-8	"	815 ft. (" " 280 ft.)	Bal.	535 ft.
M-9	(Drilling)	Depth 4-30-52		710 ft.
M-10	(Drilling)	Depth 4-30-52		330 ft.
M-11	(Drilling)	Depth 4-30-52		110 ft.
		Total for month		2110 ft.

Remarks:

Copies of Holes Nos. 7 M and 8 M are attached to this report.

Hole No. 7 cut five feet of ore from 690 - 695 feet which assayed 50.81 CaF_2. A two foot opening and strong water was cut from 697 - 699 feet. Consequently, no cuttings were recovered from 695 - 705 feet. The ground, however, drilled firm from 699 - 705 feet. No Sub Rosiclare ore was cut in No. 7 as was the case in No. 6-M. Hole No. 11 M, elevation 412.1, is now drilling, located 102 ft. west, 7 ft. south of 7-M. This location is outside the area delineated by the contract. However, we are proceeding on the theory that the contract has been modified by Mr. Mosier's letter of March 27, 1952, which permits us to drill three holes outside the northwest side line.

Hole No. 8-M was blank. Hole No. 10-M is now drilling. Elevation 402.6. Location 59 ft. north - 28 ft. west of No. 8.

Hole No. 9-M is down to a depth of 710 feet and should be completed within the next week. The location is shown on the map furnished last month.

A. G. Johnson

AGJ:fhb

OZARK-MAHONING COMPANY

C. N. Hill Trust
Drill Hole No. 7

Started 3-14-52
Finished 4-26-52

Elevation: 416.4
Location: 711' north and 241' east of the S.W. Corner of N.E. 1/4 of S.E. 1/4 of Sec. 23 or 3' north and 66' west of No. 6.

Water:		
	30	Light
	60	"
	290	"
	335	Strong
	697	"

Drilled by: Moreland and Mohler.
Examined by: E. A. Brooks

Casing: 20 feet.

0 - 20	Surface
20 - 60	Gray sand
60 - 80	Gray sand shaly
80 - 125	Brown lime, shaly G. D.
125 - 190	Gray sand
190 - 225	Black shale sandy
225 - 260	Gray and brown lime, shale streaks Golconda
260 - 290	Black shale lime streaks
290 - 295	Gray shale
295 - 300	Gray and Maroon shale
300 - 380	Black shale, lime streaks
380 - 400	" " , sandy
400 - 430	Gray sand
430 - 490	White sand
490 - 545	Gray sand, shelly
545 - 585	White sand
585 - 590	" " , some gray lime, Base of Bethel 588
590 - 605	Gray and brown lime
605 - 635	Brown lime, some shale and selvage
635 - 655	Dark brown shaly lime
655 - 665	Lower O'Hara lime

665 - 687-1/2 Resiolare sand

687-1/2 - 690 Resiolare sand, spar shines; cutting very fine.

690 - 692-1/2 " " , some spar; cutting very fine.

692-1/2 - 695 " " , some gray lime and spar; traces Zn and Pb. B. R. 694.

695 - 697 Drilled firm, cuttings lost.

697 - 699 Lost cuttings in cavity.

699 - 705 Lost cuttings, strong water

705 - 715 Gray lime

715 - 740 Light brown lime

740 - 760 Dark brown lime

760 - 780 Light buff lime

Ore face 690 - 695 averages 50.81% CaF_2
.63% Zn
.17% Pb

Assays:	$CaCO_3$	CaF_2	Zn	Pb
687-1/2 - 690	12.76	2.17		
690 - 692-1/2	6.37	58.80		
692-1/2 - 695	22.27	42.82	1.27	.34
705 - 710	81.88	4.59	.87	None

OZARK-MAHONING COMPANY

C. N. Hill Tract
Drill Hole No. 8
Elevation: 405.0
Location: 25' north and 170' west of the NE corner of the NE-1/4 of SE-1/4 Sec. 23 or 87' south and 160' west of No. 7 Minerva O. Co.
Drilled by: Moreland and Hohler
Examined by: E. A. Brecke
Casing: 20'

Started 3-20-52
Finished 4-19-52

Water		
	35'	Light
	95'	
	180'	
	240'	
	280'	Strong
	340'	"
	450'	"
	510-560'	"
	720'	"
	755'	"
	Stands @ 25'	

0-20	Surface
20-35	Gray sand shale streaks oxidized
35-90	Gray sand shale
90-105	Black shale, some dense brown lime
105-150	Black shale, Brown lime streaks G.D.
150-205	Gray sand
205-240	Gray shale, sand streaks
240-275	Gray and brown lime shale streaks
275-315	Black shale, lime streaks
315-320	Gray fine grained sand
320-335	Black shale, some gray sand
335-390	Gray shale, scattered thin lime streaks
390-415	Gray shale sandy
415-460	Gray sand
460-505	White sand
505-570	Gray sand, shelly
570-600	White sand
600-605	Gray sand shaly
615-610	White sand, some gray lime Base of Bethel 607
610-630	Gray and brown lime, some calcite
630-655	Brown lime, con. selvage
655-675	Dark brown shaly lime
675-690	Lower O'Hara lime

690-718 Rosiclare sand

718-720 Gray oolitic lime

720-722-1/2 Light gray oolitic lime, leached, trace spar

722-1/2-725 Light gray oolitic lime, leached

725-740 Brown lime

740-760 Dark brown lime

760-765 Dark brown lime, little oily white oolitic lime

765-775 Light buff oolitic lime

775-815 Light brown oolitic lime

M

OZARK-MAHONING COMPANY

C. N. Hill Tract

Drill Hole No. 6

Elevation: 420.3

Location: 708' north and 311 east of the SW corner, NE 1/4 of SE 1/4 of Sec. 23 or 97' west of No. 5

Started 2-5-52
Finished 3-14-52

Water: 45' light
105 "
305 "
375 "
700 Live strong
750-790 Live and strong, very few cuttings stands 20'.

Drilled by: Moreland and Mehler
Examined by: R. A. Brecke
Casing: 20 feet

0 - 17	Surface
17 - 55	Shaly gray sand
55 - 65	Gray sand
65 - 85	Gray shaly sand
85 - 125	Brown lime shale streaks
125 - 195	Gray sand
195 - 225	Gray sandy shale
225 - 255	Gray lime
255 - 300	Gray shale, lime streaks
300 - 305	Maroon shale
305 - 380	Gray shale, lime streaks
380 - 405	" " , sandy streaks
405 - 445	Gray sand
445 - 530	" " , slightly shelly
530 - 580	White sand
580 - 595	Gray sand
595 - 597-1/2	Gray sand, con. gray lime. Base of Bethel 596
597-1/2 - 610	Gray lime
610 - 620	" " , little green selvage
620 - 650	Brown lime, selvage streaks
650 - 665	Dark Brown shaly lime
665 - 680	Lower O'Hara lime
680 - 695	Rosiclare sand
695 - 700	Rosiclare sand, spar shines
700 - 702-1/2	Rosiclare sand, little calcite, spar shines
702-1/2 - 705	" " , " " " " , little white oolitic lime
705 - 715	White oolitic lime
715 - 745	Light brown lime
745 - 750	Dark brown lime, traces Zn and spar. Little brown silica
750 - 755	Brown lime, little shale, some Zn spar shines
755 - 760	Rich Zn, some chatty Zn on brown silica spar shines. Little black shale and green sand.
760 - 762-1/2	Green sand, quartzitic, some Zn and black shale
762-1/2 - 767-1/2	Brown silica, some white gouge and black shale. Some Zn spar shines
767-1/2 - 780	Brown silica, some green sand and white gouge, little free Zn
780- 782-1/2	Brown silica, little green sand, little oolitic lime, some free Zn
782-1/2 - 785	Good Zn and brown silica, drilled soft 784 - 785
785 - 790	Some brown silica and gray lime, little free Zn

Ore face 750 - 767-1/2 9.23% CaF_2
11.0 % Zn

Ore face 767-1/2 - 785 2.37% CaF_2
4.35% Zn

Assay	$CaCO_3$	CaF_2	Zn
695 - 700	12.54	13.85	
700 - 702-1/2	21.22	10.12	
702-1/2 - 705	44.25	7.35	
750 - 755	35.04	12.47	7.36
755 - 757-1/2	11.66	9.98	18.05
757-1/2 - 760	7.05	9.43	19.17
760 - 762-1/2	7.05	10.39	15.67
762-1/2 - 765	13.07	5.14	5.02
765 - 767-1/2	11.66	4.73	4.31
767-1/2 - 770	46.55	3.34	2.49
770 - 772-1/2	49.03	2.79	3.00
772-1/2 - 775	18.74	1.96	1.68
775 - 777-1/2	24.06	2.24	1.38
777-1/2 - 780	28.13	2.52	1.17
780 - 782-1/2	49.74	1.55	.77
782-1/2 - 785	12.72	1.20	20.04
785 - 790	52.13	4.66	4.12

A. B. Johnson

OZARK-MAHONING COMPANY
ROSICLARE, ILLINOIS

SUPPLEMENTAL SHEET
PERIOD ENDING 3-31-52

Geologist	1185 ft. @ $0.15 per ft. =	177.75
Assaying	1185 ft. @ $0.01 per ft. =	11.85
Clerical	1185 ft. @ $0.02 per ft. =	23.70
		$213.30

Status of Holes Completed and Drilling.

M-6 was drilled to a depth of 240 feet prior to February 18, 1952. Hole was completed 3-14-52. Total depth 790 feet. Consequently, 550 feet was for the joint account.

M-7. Drilling. Depth 3-31-52 355 ft.

M-8. Drilling. Depth 3-31-52 280 ft.

Remarks:

Copies of Hole No. 6-M are attached to this report. Minable ore was cut at the Sub-Rosiclare contact. Therefore, the crosscut was continued to the west.

The location of 7-M as well as 8-M is shown on the one hundred foot scale map of the property which is attached. A third drill rig was moved to the property about April 1st. The location of this hole M-9 is also shown on the map.

EXPLORATION UNIT COST AND PROGRESS REPORT FOR MONTH OF Feb. 18 - Mar. 31, 1952

(Supply Data Below Applicable Only to Your Operations)

Item	Costs					Progress [4]				
	Wages [1] and salaries	Equipment [2]	Supplies	Other [3]	Total	Unit	Units this month	Units previously reported	Units to date	Units authorized by contract (Exhibit A)
Drifting										
Crosscutting										
Raising										
Shafts										
Winzes										
Drill holes				2666.25	2666.25	*$2.25	1185'	0.0	1185	
Overburden										
Rehabilitation and preparation										
Geology ~~[illegible]~~	177.75				177.75					
Trenching										
Sampling and assaying	11.85				11.85					
Roads and trails										
Test pits										
Other (specify) Clerical	23.70				23.70					
Totals					2879.55		1185	0.0	1185	

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

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*is per drilling contract
1185' @ $2.25 $2666.25

MONTHLY SUMMARY COST STATEMENT—Continued

Item	Monthly Total	Totals Previously Reported	Totals to Date	For Government Use Only: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(d) Fixtures						
4. Labor [3]						
5. Supervision	177.75	0.00	177.75			
6. Supplies						
(a) Timber						
(b) Explosives						
(c) Repair Parts						
(d) Other						
7. Power						
8. Transportation						
9. Insurance						
(a) Fire						
(b) Public Liability						
(c) Workmen's Compensation						
10. Contract Work	2666.25	0.00	2666.25			
11. Other (specify)						
Assaying	11.85	0.00	11.85			
Clerical	23.70	0.00	23.70			
Total	2879.55		2879.55			
Deletions						
Adjusted totals						
Totals previously reported						
Totals to date						

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

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

FOR GOVERNMENT USE ONLY

Checked by W. T. Millar
Entered by
Approved by McHenry Mosier
Amount approved for payment ~~$ 1,333.13~~
Remarks $ 1,439.78

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MONTHLY SUMMARY COST STATEMENT

List as Shown on Exhibits Attached to Contract

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

MF-104
(August 1951)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Contract No.
Idm-E 255

Name of Operator Ozark-Mahoning Company
Docket No. DMA 2248
Total Contract Amount $ 61,965.00
Government Participation: 50 % Amount, $ 30,982.50
Distribution of Expenditures for Month of February 18, 1952 - March 31, 1952

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

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

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

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

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

CERTIFICATION

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

OZARK-MAHONING COMPANY
(Name of Company)

By [signature]
(Signature of Authorized Official)

April 7, 1952
(Date)

Works Accountant
(Title)

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

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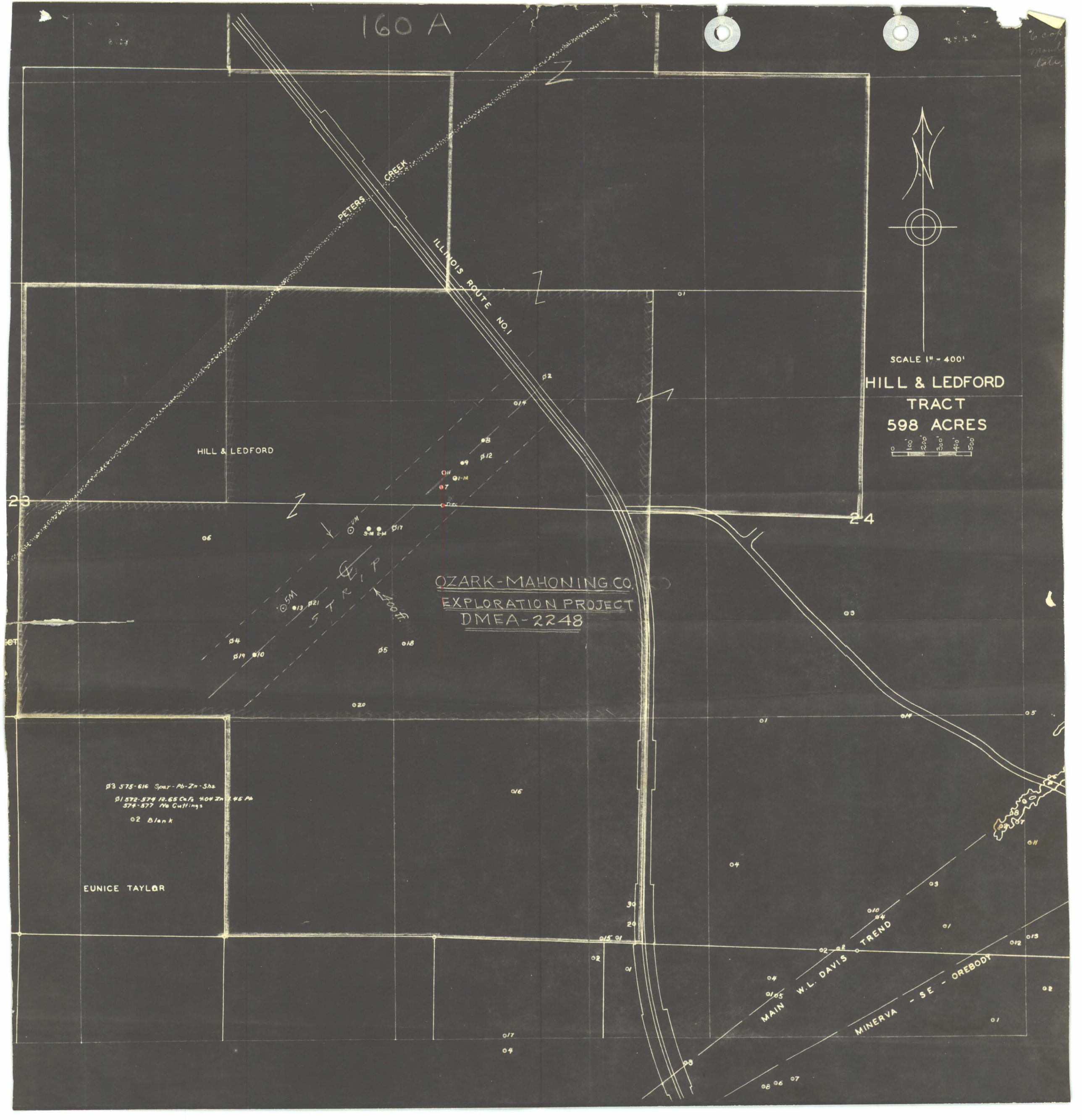
160 A
PETERS CREEK
ILLINOIS ROUTE NO. 1
HILL & LEDFORD
SCALE 1" = 400'
HILL & LEDFORD
TRACT
598 ACRES
0 100' 200' 300' 400' 500'
23
24
OZARK-MAHONING CO.
EXPLORATION PROJECT
DMEA-2248
STRIP
400 ft.
Ø3 575-616 Spar-Pb-Zn-Shs
Ø1 572-574 12.65 CaF2 .404 Zn .45 Pb
574-577 No Cuttings
02 Blank
EUNICE TAYLOR
MAIN W.L. DAVIS TREND
MINERVA - SE - OREBODY