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

March 25, 1963

Re: DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Combined Metals Reduction Company
P. O. Box 190
Salt Lake City, Utah

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

If you will be kind enough to bring us up to date on this we shall be able to release the Government lien against production from the property in question.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

DMEA-2600
IGo-E401

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. From August 2, 1962, to January 27, 1963, ~~Since~~ ~~was~~ ~~there~~ there ~~been~~ a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐

2. From August 2, 1962, to January 27, 1963, ~~Since~~ ~~was~~ ~~there~~ there ~~been~~ any production from the land subject to the contract? Yes ☐ No ☐

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value
_____	_____	_____
_____	_____	_____

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore	_____	Tons	_____	_____
Concentrates	_____	Tons	_____	_____
Other	_____	Tons	_____	_____

3. Since _____, has any production been transported through workings (see _____ of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value
_____	_____	_____

Submitted by:

Name _____ Title _____

Address _____ Date _____

4511

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

July 27, 1962

Re: DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Jan. 1, 1961

OFFICIAL FILE COPY
O. M. E.
RECEIVED AUG 6 1962

DATE	INITIALS	CODE
8/6	auj	800
		100
8/6		110
8/9		500
		500
		220

M. I. A. Mines Company
210 Felt Building
Salt Lake City, Utah

Gentlemen:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since December 7, 1961, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☑

2. Since December 7, 1961, has there been any production from the land subject to the contract? Yes ☐ No ☑

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity		Estimated Grade	Location
Ore		Tons		
Concentrates		Tons		
Other		Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by: [signature]

Name COMBINED METALS REDUCTION CO. P. O. Box 150 Title [illegible]

Address SALT LAKE CITY, UTAH Date AUG 2 - 1962

4511

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period 7/1/57-12/31/57 Date of Examination 12/31/57

Operator M. I. A. Mines Company

Mine Name Minerva Tungsten Mine, Silver Bell and Scheelite Chief

County and State White Pine County, Nevada

Docket Number and Commodity DMEA-2628 (Tungsten)

Contract Number Idm-E 481

Date of Contract

Date of Certification

Expiration Date of Royalty Payments

NO CHANGE

RECEIVED FEB 3 1958

DATE	INITIALS	CODE
2/4	C	220

Total Amount of Contract

Total Expenditures under Contract

Amount of Government Participation at %

Royalty Payments this Period

Previous Royalty Payments

Total Royalty Payments to Date

Percent Government Participation Repaid

NO CHANGE

Royalty Due on Production to Date

Royalty Remarks:

DMEA-2688 Idm-E 4

	Tons	Analysi
Original Estimate of DMEA Reserves (Field Team Final Report) Mines ☐ Survey ☐ Joint ☐		
Revised Estimate of DMEA Reserves (Field Team) Mines ☐ Survey ☐ Joint ☐		
Increase of Reserves by work performed subsequent to DMEA project work		
Production DMEA ore (This Period)		
(Previous)		
(To date)		
Operator's ore found subsequent to DMEA work (This period)		
(Previous)		
(To date)		

NO CHANGE

NO CHANGE

Percent Revised Reserves mined _____

Investment Data

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

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

NO CHANGE

Facilities

Mine Plant		Mill		Roads	
Description	Cost	Description	Cost	Description	Cost

Remarks

NO CHANGE

Signed: Glenn C. Gentry (Engineer)

DMEA Form 18
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

ANALYSIS OF SEMIANNUAL REPORT OF CERTIFIED PROJECT

Prepare in duplicate. File original in Official Docket. Send copy

To: Statistics Branch (Code 210)

From: Division of **Iron and Ferro-Alloys**

Report Period	DMEA No.	Operator	Contract No.
1.1-6.30.57	2688	M. I. A. Mines Company	Idm-E481

ORE ESTIMATES

	Tons	Analysis
DMEA	13,000 *	0.75 % WO_3 *
Operator to date	13,333 **	0.75 " " **
Total	26,333 **	0.75 " " **
Production to date	10,723 **	0.75 " " **
Ore in ground	15,610 **	0.75 " " **

INVESTMENT

Type	Size		Feet	Cost
Shafts			None	
Winzes	6' x 8'		50	$ 3,750.
Drifts and Crosscuts	6' x 7'		500	20,000.
Raises	6' x 8'		400	16,000.
Drilling	Type Diamond	EX	1,000	4,000.
Rehabilitation	Description 1,000 feet			20,000.

FACILITIES

Mine Plant	Buildings and Equipment	50,000.
Mill	Sorting Plant	15,000.
Roads	None	

REMARKS

* "Official" reserve tonnage and grade

** Operator reserve and production tonnages adjusted to "Official" grade.

"The mine has remained idle due to the market price for concentrate and the lack of milling facilities."

Carbon copy To W. Thoorlichtbeg.

Prepared by Stephen P. Holt Date 3.3.58
(Revised 4.4.58)

31398

ACTION ON INTERIM
OR FINAL FIELD REPORT

Date 8/7

Referred to:

1. ~~Mr. Mitchell~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chamberlin~~
4. Docket Control Mails and Files
5. _____ Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Investment data $130,000 X/
2. Revised reserves
3.
4.

and take appropriate action.

- - - - - - - - -

Action taken by Division:

Robert P. Adams

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period 1/1/57 - 6/30/57 Date of Examination 6/30/57

Operator M.I.A. Mines Company

Mine Name Minerva Tungsten Mine, Silver Bell and Scheelite Chief

County and State White Pine County, Nevada

Docket Number and Commodity DMEA-2688 (Tungsten)

Contract Number Idm-E 481

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 5 1957

DATE	INITIALS	CODE
8/8	[illegible]	100

Date of Contract 1/27/53

Date of Certification 7/18/55

Expiration Date of Royalty Payments 1/27/63

Total Amount of Contract $171,400.00

Total Expenditures under Contract $165,512.67

Amount of Government Participation at 75% $124,134.50

Royalty Payments this Period -0-

Previous Royalty Payments $18,431.45

Total Royalty Payments to Date $18,431.45

Percent Government Participation Repaid 14.8%

Royalty Due on Production to Date -0-

Royalty Remarks: Production has not been resumed. ✓

M.I.A. Mining Co. DMEA-2688 Idm-E 481

	Tons	Analysis
Original Estimate of DMEA Reserves (Field Team Final Report)	600	0.4% WO_3
	250	0.8% WO_3
	5,060	0.75% WO_3
Mines [ ] Survey [ ] Joint [X]	7,380	0.75% WO_3
	13,290	
Revised Estimate of DMEA Reserves (Field Team) Mines [ ] Survey [ ] Joint [X]	33,290	0.51
Increase of Reserves by work performed subsequent to DMEA project work	20,000	0.5
Production DMEA ore (This period)	None	
(Previous)	5056.5 S.D.T.	5222.7 S.T.U. WO_3
(To date)	5056.5 S.D.T.	5222.7 S.T.U. WO_3
Operator's ore found subsequent to DMEA work (This period)	None	
(Previous)	None	
(To date)	None	

Percent Revised Reserves mined 17.9%

Investment Data

Shafts Size	Shafts Feet	Shafts Cost	Winzes Size	Winzes Feet	Winzes Cost	Drifts & Crosscuts Size	Drifts & Crosscuts Feet	Drifts & Crosscuts Cost
	None		6'x8'	50	$3,750.	6'x7'	500	$20,000.

Raises Size	Raises Feet	Raises Cost	Diamond Drilling Type & Size	Diamond Drilling Feet	Diamond Drilling Cost	Rehabilitation Description	Rehabilitation Cost
6'x8'	400	$16,000.	Ex	1,000	$4,000.	1,000 ft.	$20,000.

Facilities

Mine Plant Description	Mine Plant Cost	Mill Description	Mill Cost	Roads Description	Roads Cost
Bldgs. and Equipment	$50,000.	Sorting plant	$15,000.	None	

Remarks

The mine has remained idle due to the market price for concentrate and the lack of milling facilities.

Signed Glenn G. Gentry (Engineer)

ACTION ON INTERIM
OR FINAL FIELD TE[illegible] REPORT
Date 29 JAN 1957

Referred to:

1. ~~Mr. Mittendorf~~
2. Mr. Johnson
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. ~~[illegible]~~ Divisio
6. Docket Control Mails and Files

Note comments in report regarding:

1. Reserves up.
2. Sizable investments
3. Additional Reserves — [illegible]
4. [illegible] formed by operation?

and take appropriate action.

- - - - - - - -

Action taken by Division:

Discussed with FEJ
[illegible]

Robert E. Adams

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period 7/1/56 - 12/31/56 Date of Examination 12/31/56

Operator M.I.A, Mines Co.

Mine Name Minerva Tungsten Mine, Silver Bell and Scheelite Chief

County and State White Pine County, Nevada

Docket Number and Commodity DMEA-2688 (Tungsten)

Contract Number Idm-E481

RECEIVED JAN 28 1957 D.M.E.A.

Date of Contract 1/27/53

Date of Certification 7/18/55

Expiration Date of Royalty Payments 1/27/63

Total Amount of Contract $171,400.00

Total Expenditures under Contract $165,512.67

Amount of Government Participation at 75 % $124,134.50

Royalty Payments this Period $ 1,539.81

Previous Royalty Payments $ 16,891.64

Total Royalty Payments to Date $ 18,431.45

Percent Government Participation Repaid 14.8%

Royalty Due on Production to Date -0-

Royalty Remarks: Production has not been resumed.

DMEA-2688 Minerva (Contract No. Idm-E481)

	Tons	Analysis
Original Estimate of DMEA Reserves (Field Team Final Report)	5,060	0.75% WO_3
Mines / ___ / Survey / ___ / Joint / X /	250	0.8% WO_3
	600	0.4% WO_3
	7,380	0.75% WO_3
Revised Estimate of DMEA Reserves (Field Team)	13,290	
Mines / ___ / Survey / ___ / Joint / X /	33,290	0.51% WO_3
Increase of Reserves by work performed subsequent to DMEA project work	20,000	0.5% WO_3
Production DMEA ore (This period)	-0-	
(Previous)	5,956.5 S.D.T.	5222.7 S.T.U. WO_3
(To date)	5,956.5 S.D.T.	5222.7 S.T.U. WO_3
Operator's ore found subsequent to DMEA work (This period)	-0-	
(Previous)	-0-	
(To date)	-0-	

Percent Revised Reserves mined 17.9%

Investment Data

Shafts			Winzes			Drifts & Crosscuts		
Size	Feet	Cost	Size	Feet	Cost	Size	Feet	Cost
None			6x8	50	$3,750.00	6x7	500	$20,000

Raises			Diamond Drilling			Rehabilitation	
Size	Feet	Cost	Type & Size	Feet	Cost	Description	Cost
6x8	400	$16,000	EX	1000	$4,000	1000 ft.	$20,000

Facilities

Mine Plant		Mill		Roads	
Description	Cost	Description	Cost	Description	Cost
Bldgs. & equipment	$50,000	Sorting plant	$15,000	None	

Remarks

The mine is idle as the operators have no market for tungsten ore or concentrates. Plans for the resumption of operations are uncertain. Increase in reserves due to work by Operator subsequent to DMEA project.

Signed _____ (Engineer)
Glenn G. Gentry

481

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

Reporting Period 1/1/56 - 6/30/56 Date of Examination 6/30/56

Operator M.I.A. Mines Co.

Mine Name Minerva Tungsten Mine, Silver Bell and Scheelite Chief

County and State White Pine County, Nevada

Docket Number and Commodity DMEA-2688 (Tungsten)

Contract Number Idm-E481

Date of Contract 1/27/53

Date of Certification 7/18/55

Expiration Date of Royalty Payments 1/27/63

Total Amount of Contract $171,400.00

Total Expenditures under Contract $165,512.67

Amount of Government Participation at 75 % $124,134.50

Royalty Payments this Period $2,921.77

Previous Royalty Payments $13,969.87

Total Royalty Payments to Date $16,891.64

Percent Government Participation Repaid 13.67

RECEIVED JUL 26 1956

Royalty Due on Production to Date -0-

Royalty Remarks: Production will not be resumed until an adequate market is available or favorable Government action taken on proposed extension of GSA tungsten purchase program.

2688

[illegible] IN RETURN
FINAL FIELD TEAM BY [illegible] 27 Jul 1956
Date

Referred to:

1. ~~Mr. [illegible]~~
2. ~~Mr. Johnson~~
3. ~~Mr. Shambos~~
4. ~~Docket Control Mails and Files~~
5. ~~[illegible] Division~~
6. Docket Control Mails and Files

Note comments in report regarding:

1. Reserves tonnage increased substantially
2.
3.
4.

and take appropriate action.

Action taken by Division:

Will watch
WSM

Robert E. Adams

Original Estimate of Reserves
DMEA Final Report

	Tons	Grade
Measured:	600	0.4
	250	0.8
Indicated:	5,060	0.75
Inferred:	7,380	0.75
	13,290	0.7

Increase (or Decrease) of Reserves
Work performed subsequent to original and last Field Team estimate:

	Tons	Grade
Measured:		
Indicated:		
Inferred:	23,376.5	0.51
Revised Estimate of Reserves	30,710	0.51
Production this Period	4,358.214	
Amount of Previous Production	1,598.286 S.D.T.	
Total DMEA Production to Date	5,956.5 S.D.T. = 5,222.7 S.T.U. WO_3	

Production Remarks: Production discontinued on 5/12/56

Other Remarks: The mine was closed down on 5/12/56 because the operator was unable to obtain a market for tungsten concentrate. One watchman was retained to guard the property and the mine will be kept on a standby basis. Definite plans to resume operations will depend upon future market conditions.

Signed Glenn G. Gentry
Glenn G. Gentry

R m Ea

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

RECEIVED

1605 Evans Avenue
Reno, Nevada

June 5, 1956

Memorandum

WSay

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

For your information I am attaching four copies of a memorandum from Glenn G. Gentry on current status of subject property.

Your letter of May 18, 1956 on subject will be given our attention as soon as possible. I believe this would be an ideal time for a royalty audit and I will discuss it with Mr. Mavor.

R M Smith

for S. Ricker

Attach.

2688

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 6-7

Referred to:

1. ~~Mr. Hirtenhurst~~
2. ~~Mr. Johnson~~
3. ~~Mr. Jacobson~~
4. ~~Docket Control Mails and File.~~
5. ~~Mr. Jones, Mr. Adams, Mr. Dixon~~
6. Docket Control Mails and File.

Note comments in report regarding:

1. Contains ore reserve estimates
2. by operator
3.
4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Noted WSM

Robert E. Adams

JUN 7 8 59 AM '56
WASHINGTON, D.C.

S. Ricker, Executive Officer, DMEA Field Team, Region II 6/5/56

Glenn G. Gentry, Mining Engineer, DMEA

Docket No. DMEA-2688
M.I.A. Mines Co.
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

The following information was obtained from Mr. R. L. Brittain, manager of the Minerva mine, on May 22, 1956.

Mining operations were discontinued on May 12, 1956, and the crew laid off for an indefinite period. One watchman (Leo Nordquist) has been retained at the property. The mine equipment and camp will be held on a stand-by basis pending Government decision as to the extension of the Tungsten Purchase program.

Reason for discontinuing operations - The operator was unable to market WO_3 concentrates. The last shipment of concentrates, amounting to 7 tons, was made to the GSA in San Francisco, California on May 15. Recent metallurgical tests on crude ore by the Galigher Company, Salt Lake City, Utah, indicated that the sink-float process would be successful in treatment of low grade ores. Additional tests on a 2-1/2 tons representative sample, are to be made on June 4 in Warrentown, Pennsylvania. Mr. Brittain and Robert Stopper, owner of Stopper concentrating mill, expect to attend this test.

Mr. Brittain estimates on the date of closing that indicated ore reserves at the east end of the Silver Bell 300 level amounted to 3,000 to 4,000 tons of 1.25 percent WO_3 ore, and also that the mine contained 30,000 to 50,000 tons of 0.5 percent WO_3 ore.

Mr. Brittain hopes to resume mining operations on a limited scale at some future date, depending upon the market price and sale of concentrates.

Glenn G. Gentry
Mining Engineer

RECEIVED
APR 9 - 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date 4/6/56

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Wash., D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are four copies of Interim Report on

Docket No. DMEA-2688

Contract No. Idm-E481

Commodity Tungsten

Operator M.I.A. Mines Co.

Property Minerva Tungsten Mine, White Pine Co., Nev.

By Glenn G. Gentry

Dated 4/6/56

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith, USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

RECEIVED
APR 9 - 1956

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) April 6, 1956

Name and address of operator: M.I.A. Mines Co.
218 Felt Bldg.
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

Accompanied by Mr. James Hulse, representing the operator, the Minerva Tungsten mine was visited on March 30, 1956. A conference was also held with Mr. Richard Brittain, engineer in charge, on March 31.

Steady production of about 25 tons of crude ore per day has been maintained, and milling continues at the Robert Stopper concentrating plant. Scheelite concentrates are now consigned to the Minerals Engineering Company in Salt Lake City, Utah. Royalties due the Government from a shipment of concentrates made to the above firm on or about March 15 should be received in the near future. Concentrates on hand at the Robert Stopper mill amount to approximately 2800 pounds. The crude ore shipped to the mill is reported to average from 0.6% WO_3 to 0.75% WO_3. Eighteen men are employed for the mining operations.

Future plans include some additional improvements in the Stopper mill and various metallurgical tests by means of the use of sink-float equipment.

Crude ore stockpiled adjacent to the mine is estimated at 1500 tons averaging 0.4% WO_3 per ton.

During the inspection on December 13, 1955, one sample of the tailings from the Stopper mill was obtained and analyzed as follows:

Product	%, Wt.	%, WO_3	Distribution %
+20 mesh	11.9	0.24	11.0
-20 +35 mesh	35.0	0.25	33.8
-35 +48 mesh	15.8	0.30	18.3
-48 +65 mesh	10.2	0.17	6.7
-65 +100 mesh	10.9	0.14	5.9
-100 +150 mesh	7.0	0.08	2.2
-150 mesh	9.2	0.62	22.1
	100.0		

Glenn G. Gentry
Mining Engineer

REGION II
SEMI-ANNUAL REPORT
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Docket No.: DMEA-2688 (Tungsten) **Date:** 12/31/55

Contract No.: Idm-E481

Operator: M.I.A. Mines Co.
Minerva Tungsten Mine, Silver Bell & Scheelite Chief
White Pine County, Nevada

Date of Contract: 1/27/53 **Completion Date:** 1/31/55

	Total	Expenditures	Gov't Participation
Amount of Contract:	$171,400	$165,512.67	$124,134.50

Date Certified: July 18, 1955

Estimated Reserves

DMEA Project	Tons	Grade	Gross Value
	600	0.4	$ 15,120.00
Measured:	250	0.8	12,600.00
Indicated:	5,060	0.75	226,485.00
Inferred:	7,380	0.75	348,705.00
			602,910
January 1, 1956			
Measured:	1,500	0.4	$ 37,800.00
Indicated:	1,000	1.1	69,300.00
Inferred:	2,000	0.8	100,800.00
	20,000	0.4	504,000.00
			711,900

	This Period	Todate	Gross Value
		Tons	
Production:	37.9115 tons conct.	55.3650	$242,363.65
		1,598.286 crude	35,455.45

	This Period	Todate	Percent Payment
Royalty:	$3,536.33	$13,969.87	11.25

Status: The mine is operated by the American Zinc Co.; a steady, moderate daily production has been maintained. The crude ore is sorted at the mine in order to eliminate waste rock. Milling is conducted at a table concentrating plant near the mine and the resultant concentrates are shipped to Bishop, California for marketing.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date 12/27/55

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington, 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -
Docket DMEA 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M.I.A. Mines Co.

Property - Minerva Tungsten Mine, White Pine County, Nev.

By Glenn G. Gentry

Dated 12/21/55

RECEIVED
DEC 30 1955

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: R. M. Smith--USGS (w/copy of report)
Finance Officer, Region II (w/copy of report)
File

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) December 21, 1955

Name and address of operator: M.I.A. Mines Co.
218 Felt Bldg.
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

Accompanied by Messrs. Richard Brittain and James Hulse, representing the operator and Walter Bank of the DMEA staff, the Minerva Tungsten mine was inspected on December 13.

The operator employs an average of twenty men, working two shifts per day and a 6-day week. Selective mining methods are followed and the daily production is approximately 30 tons of approximately 1.0 percent WO_3 ore. This ore is hauled by truck to the Robert Stopper concentration plant which is about three miles north of the mine. On the day of the inspection, Mr. Stopper had about 6 tons of tungsten concentrates sacked and ready for shipment, and Mr. Brittain expected to ship 6-1/2 tons of the concentrates on or about December 20. The mine production is obtained from both the Silver Bell and Scheelite Chief mines on about a 50-50 basis.

The operators expect to continue driving the 300 level off the Silver Bell in an easterly direction and expect to encounter another block of ore which has been offset to the south by a fault.

RECEIVED
DEC 30 1955

A recent fire in the building housing the sorting plant destroyed the small frame building together with the sorting belt, mineralight and seven electric switches. Repair and replacement work is in progress and should be completed within a short time. Mr. Brittain estimated the fire damage in excess of $2,000.

Glenn G. Gentry
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

Date November 4, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are the original and three copies of an Interim Report on:

Docket No. DMEA-2688

Contract No. Idm-E481

Commodity Tungsten

Operator M.I.A. Mines Co.

Property Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry

Dated 11/3/55

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments 4

Copy to: Finance Officer, Region II (w/copy of report)
R. M. Smith-USGS (w/copy of report)

BUREAU OF MINES
WASHINGTON, D. C.
Nov 7 9 34 AM '55

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) November 3, 1955

Name and address of operator: M.I.A. Mines Co.,
218 Felt Bldg.,
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

The Minerva Tungsten mine was visited on October 28 and an inspection was also made of the Robert Stopper concentrating plant which is milling ores produced from the Minerva mine.

The mine is in steady operation and employing about 20 men on two shifts per day. Present daily production is from 30 to 35 tons of ore from the sorting plant. The grade of the ore will vary to some extent; however, the operator endeavors to maintain a 1.0 percent WO_3 average. The principal production from the mine is from an area near the east end of the 300 East level off the Silver Bell shaft, and the operator intends to extend this level in an easterly direction. Additional prospecting by means of diamond drilling in the Scheelite Chief part of the mine is being continued and further prospecting below the main Scheelite Chief adit is under consideration. Approximately 800 tons of low grade ore has been stockpiled near the sorting plant for treatment at a later date.

The Robert Stopper mill resumed operations on a three shift basis after being shut down for two weeks for necessary building repairs prior to winter storms. The mill is treating about 33 tons of crude ore per 24 hours and is presently supplied by the Minerva Mine only. Mill tailings are pumped to an old settling pond which is alongside the county road and 300 feet east of the mill. Thirty-five sacks of tungsten concentrates are stockpiled in the mill building for shipment in the near future. Continued royalties are expected to be paid to the Government.

Glenn G. Gentry
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
SEP 26 1955

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

9/23/55

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are the original and three copies of an Interim Report on:

Docket No. DMEA- 2688

Contract No. Idm-E 481

Commodity Tungsten

Operator M.I.A. Mines Co.

Property Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry

Dated 9/22/55

S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments 4

Copy to: Finance Officer, Region II(w/copy of report)
R. M. Smith-USGS(w/copy of report)

BUREAU OF MINES
WASHINGTON, D. C.

SEP 26 9 31 AM '55

INTERIM REPORT

RECEIVED
SEP 26 1955

Docket No.: DMEA-2688 (Tungsten) Sept. 22, 1955

Name and address of operator: M. I. A. Mines Co.
218 Felt Bldg.,
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

In company with Messrs. Richard Brittain and James Hulse, inspection of the Minerva tungsten mine was made on September 13. Production of scheelite ore averages from 30 to 35 tons per day, two shifts working; grade of ore averages 1.25 percent WO_3.

The operator has recently entered into a contract with Howard H. Kinghten for 2,000 feet of diamond drilling; this work has been started on the 650 level and west of the main Scheelite Chief raise.

East of the Silver Bell shaft and 50 feet below the 300 level, considerable ore has been mined and the principal production from the mine is obtained from this stope. Some of the ore exposed in the west end of the stope is estimated to average 20 percent WO_3 across a width of 2 feet. Mr. Brittain expects to continue advancing the 300 level in an easterly direction, and it is believed that additional occurrences of ore will be disclosed within a relatively short distance.

On the date of inspection, approximately 750 tons of crude ore had been accumulated and stockpiled near the portal of the Scheelite Chief mine. The grade of this ore is estimated to vary from 0.25 per-

cent WO_3 to 0.5 percent WO_3. When time permits, this ore will be processed through the sorting plant in an effort to secure some tonnage of economic grade for treatment in the mill. The crude ore is being shipped to the Stopper concentrating mill and the resultant concentrate to C. W. Jones in Bishop, Calif.

Mr. Robert Stopper, owner and operator of the mill, has installed a new Kennedy No. 9-1/2 gearless crusher together with a small vibrating screen and a small trommel screen. There is some dust loss around this equipment and panning of the dust indicated about 20 to 25 percent WO_3. This matter was called to the attention of both the millman and Mr. Brittain in order that the dust loss be reduced to a minimum amount. The Stopper mill treats both their own ores and the Minerva mine ores, at different periods, and the tailings from both operations are co-mingled. After crushing, the crude ore is hand sampled as it is conveyed to the coarse screen, and the table tails are also hand sampled.

The M. I. A. Mines Co. have continued to make royalty payments to the Government and it is expected that additional regular payments will be received.

Tungsten concentrate shipments are consigned to C. W. Jones and payment made according to the attached schedule. As each lot is somewhat different and the penalties for lead and zinc vary to a considerable extent, the price details of each lot can only be detailed after analyses of the concentrate.

Glenn G. Gentry
Mining Engineer

CONSIGNMENT OF TUNGSTEN ORE CONCENTRATES, to

C. W. Jones, Bishop, California; by

M.I.A. MINES Co.

MINERVA TUNGSTEN MINE Seller

Lot No. _____ Lbs. Gross Wt. _____ Approx. Net Wt. _____

RECEIVED

Mine (producing material) _____

SEP 26 1955

_____

Material delivered by _____

Received in Warehouse by _____

The undersigned Consignor, consigns this material to C. W. Jones and authorizes said Consignee to sell and deduct from sales receipts any Transportation, Up-Grading, Sampling, Assaying, Mixing, Packaging, and other necessary charges to prepare and establish the material an acceptable market product.

Consignor (Owner or duly authorized Agent) affirms: (1) undisputed ownership of the Concentrate, and, in the event of claims arising against said Consignment, will pay the same promptly and defend Consigned against all liability connected with Consignor's onwership and/or authority to consign and sell; (2) that the material is Domestic Production; and (3) that the materila was produced in compliance with the Minimum Wage and Over-Time provisions of the Fair Labor Standards Act of 1938.

Should Consignment not prove economically marketable, due to quality or market conditions, Consignee will release the material upon the Consignor's paying accrued costs in the effort to prepare and establish the material a marketable product, and upon refund of any advance payments made by Consignee to Consignor.

Advance and final Payments to Consignor will be determined by Assay and Base Pay per Unit on date of final settlement, less any penalties and/or deductions. For any part of the Tungsten content sold from the Consignment, Consignee will pay:

(1) $_____ per Unit WO_3, or (2) _____ per posted Schedule applying to Lots of less than 5 Tons of approximately 60% WO_3, each (1) or (2) less above-mentioned Deductions, and Penalties per Government Schedule and Specifications.

Orders to pay other persons will be limited to net balance due Seller.

Advance Payments _____

_____

By: _____

Owner-Seller and/or Agent, Consignor

_____

C. W. Jones, Consignee-Buyer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 29 1955

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

8/26/55

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are the original and three copies of an Interim Report on:

Docket No. DMEA- 2688

Contract No. Idm-E 481

Commodity Tungsten

Operator M.I.A. Mines Co.

Property Minerva Tungsten Mine
White Pine Co., Nev.

By Glenn G. Gentry

Dated 8/24/55

S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments 4

Copy to: Finance Officer, Region II(w/copy of report)
R. M. Smith-USGS(w/copy of report)

BUREAU OF MINES
WASHINGTON, D. C.

AUG 29 9 09 AM '55

RECEIVED
AUG 29 1955

INTERIM REPORT

Docket No.: DMEA-2688 - Tungsten August 24, 1955

Name and address of operator: M. I. A. Mines Co.,
218 Felt Building
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

The Minerva tungsten mine was visited on the afternoon of August 11 and a conference held with Mr. James Hulse, mine foreman.

An average of about 20 men are employed on a 2 shift basis; steady production of about 30 to 35 tons of ore per day is being maintained. The principal production is currently obtained from about 50 feet below the 300 level and east of the Silver Bell shaft. Additional ore is being mined from the 650 level, west, in the Scheelite Chief portion of the mine. Further prospecting, by means of diamond drilling, is being conducted.

Some of the ore from the 300 level area of the Silver Bell is reported to assay from 1.0 to 3.0 percent WO_3, and probably is mixed with lower grade ores produced from the Scheelite Chief area.

The crude ore is shipped by truck to the Robert Stopper concentrating plant which is presently operating 24 hours per day. Mr. Stopper has provided space for additional crushing capacity and expects to install a new crusher immediately. He considers that finer crushing will

result in a somewhat increased recovery. All tungsten concentrates produced had been shipped to Bishop, California and marketed.

Approximately 200 tons of low grade ore is stockpiled near the portal of the Scheelite Chief adit and will be processed through the sorting plant at a later date.

This project appears to be an efficiently operated mine, and the milling procedures are considered to be satisfactory. Therefore, continued production and royalty payments are expected.

Glenn G. Gentry
Mining Engineer

REGION II
SEMI-ANNUAL REPORT
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Docket No.: DMEA-2688 (Tungsten) **Date:** June 30, 1955

Contract No.: Idm-E481

Operator: M.I.A. Mines Company
(Minerva Tungsten Mine, White Pine Co., Nev.)
c/o Combined Metals Reduction Co.
P. O. Box 150
Salt Lake City 10, Utah

Date of Contract: January 27, 1953 **Completion Date:** January 31, 1955

	Total	Gov't Participation	Operator
Amount of Contract:	$171,400.00	$128,550.00	$42,850.00
Expenditures:	$165,512.67	$124,134.50	$51,378.17

Date Certified: The final report recommends certification.

Status: Exploration contract has been completed and mine is in operation.

Production DMEA:

	Tons	Grade	Gross Value	Deductions	Net Value
Total	17.4535 Concts.	65.43%	$ 69,484.25	$ 357.05	$69,127.20
	1598.286 Crude	0.77%	$ 35,455.45	$9574.32	$25,881.13
			$104,939.70	$9931.37	$95,008.33

	This Period	Todate	Percent Payment
Royalty:	$4,725.45	$10,433.54	8.45

Remarks:

Since the completion of the exploration contract, the mine has been operated by the American Zinc Company and a steady, moderate tonnage of scheelite ore has been maintained. The crude ore is presently being milled in the immediate area, and the resultant concentrate is shipped to Bishop, California and marketed there. Additional milling capacity is being installed, which should increase tonnage and recovery.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 12 1955

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

July 8, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are the original and three copies of an Interim Report on:

Docket No. DMEA- 2688

Contract No. Idm-E 481

Commodity Tungsten

Operator M. I. A. Mines Co.

Property Minerva Tungsten Mine, White Pine Co., Nev.

By Glenn G. Gentry

Dated 7/8/55

S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments 4

Copy to: Finance Officer, Region II(w/copy of report)
R. M. Smith-USGS(w/copy of report)

BUREAU OF MINES
WASHINGTON, D. C.
JUL 11 1 24 PM '55

INTERIM REPORT

RECEIVED
JUL 12 1955

Docket No.: DMEA-2688 - Tungsten July 8, 1955

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.
218 Felt Building
Salt Lake City, Utah

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on June 30, 1955 for the purpose of ascertaining the scope of operations and production since the completion of the exploration contract on January 31, 1955.

The Stopper concentrating mill was also visited inasmuch as tungsten ore from the Minerva mine is presently being concentrated in that mill by Mr. Robert Stopper under an agreement with the American Zinc Company who are operating the Minerva Tungsten mine.

The mine is producing from approximately 20 to 25 tons of ore per day having an estimated grade of 1.0 percent WO_3. The company enploys from 18 to 20 workmen and are operating on a 2-shift per day basis.

The principal source of ore is presently from a stope below the 300 level and east of the Silver Bell shaft. The stope is a downward continuation of one of the ore shoots disclosed by the DMEA exploration drift on the 300 level.

The mining company have stockpiled approximately 500 tons of ore adjacent to the sorting plant. This ore will be upgraded through the sorting plant prior to shipment to the Stopper Mill.

The Stopper mill has a capacity of from 1 to 1-1/4 tons of crude ore per hour and is presently operating 16 hours per day. Mr. Stopper expects to install additional crushing capacity which he believes will increase the mill capacity and also the recovery. This new installation, at Mr. Stopper's expense, should be completed on or about August 1, 1955.

On the date of the inspection, the M.I.A. Mines Co. had approximately 3-1/2 tons of sacked tungsten concentrates stored at the Stopper mill awaiting shipment to Bishop, Calif.

By means of careful mining methods, the mine superintendent reports that the mining operation is presently showing a modest profit.

Glenn G. Gentry
Mining Engineer

Mn Ea

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 6 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Interim Inspection Report

Attached are the original and three copies of an Interim Report on:

Docket No. DMEA- 2688

Contract No. Idm-E 481

Commodity Tungsten

Operator MIA Mines Co.

Property Minerva Tungsten Mine, White Pine County, Nev.

By R. W. Osterstock, USGS

Dated April 1, 1955

S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments 4

Copy to: Finance Officer, Region II(w/copy of report)
R. M. Smith-USGS(w/copy of report)

BUREAU OF MINES
WASHINGTON, D.C.

APR 8 3 50 AM '55

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Mineral Deposits Branch
4 Homewood Place
Menlo Park, California

DEPARTMENT OF THE INTERIOR
Defense Minerals
RECEIVED
APR 6 1955

April 1, 1955

Memorandum

To: DMEA Field Team, Region II

From: R. W. Osterstock

Subject: Docket No. DMEA 2688 (Tungsten), MIA Mines Co.
Minerva Tungsten Mine, White Pine County, Nevada
Contract Idm-E481

A progress examination of the subject property was conducted January 31, 1955 by R. W. Osterstock (USGS) and G. G. Gentry (USBM). The examiners were accompanied by Reginald Lee, mine superintendent, and James Hulse, mine foreman.

The operators estimate that the January bills will total over $6,000 and as only $5,000 of the DMEA contract is unexpended the DMEA project will probably be brought to a close providing that the work which was accomplished during January is approved for payment. An amendment request affecting some of the work was still pending at the time of the examination.

Officials of the MIA Mines Co. report that the supervision of the mine is to be taken over by the American Zinc Co. (co-holders with Combined Metals interests of the property lease). The exact reason for this transfer of authority is not known, it is possible the C.M. no longer has sufficient funds to carry on the work at the Minerva mine.

Of the various DMEA work headings visited, by far the best ore exposure is at the east face of the drift from the 300 level of the Silver Bell. At the time of the examination there was 1-2 feet of 4-5 percent WO_3 exposed at the face in a wedge of quartz and calcite which extended westerly in the back of the drift for a distance of about 20 feet.

Although all other DMEA headings have exposed some ore grade material, especially the east drift on the 650 level of the Scheelite Chief mine and the 600 level near the main shaft of the Scheelite Chief mine, none has been so spectacular as the Silver Bell 300 level east.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
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'82 APR 4 AM 8:44

RENO, NEVADA

A general statement of the local geologic features of the area may be in order although more detail in this, an interim report, does not appear to be warranted as the property is about due for a final examination.

All of the ore in the Minerva mine is confined to the St. Lawrence limestone (local name), a member of an incompletely known section of upper Middle Cambrian limes in the district. Briefly, the section in the district is composed of four rather distinct lithologic units, which in ascending order are as follows: The lower white limestone, the lower black limestone (ore horizon at the nearby Everett mine), the upper white limestone (the St. Lawrence, ore horizon at the Minerva mine), and the upper black limestone. The regional strike varies northeast to southeast and maintains a relatively uniform 10-20° southerly dip.

The major faults in the district strike nearly north and dip 30-60° east with the hanging (east) wall always offset relatively to the south. Subordinate nearly vertical north-striking faults always offset the vein zone to the north on the east wall.

The receptive lenses are gray-blue colored and are interbedded with 1/2"-2" iron stained partings. The vein zones are generally east trending, thus generally paralleling the strike of the beds. It has been noted that the best grade of scheelite ore develops in the gray green vein quartz and salmon colored calcite occurring in a vein zone on which there has been some slippage.

Distribution:
Field Team, Reg. II (5)
Osterstock
File

2688

1-26

[illegible]

2. [illegible]

3. [illegible]

4. [illegible]

5. ~~Joint Board Meetings~~

6. Docket General Mails and Files

Note comments in report regarding:

1. Did we ever go in to the "Transportation, sampling
2. & royalty deduction

3.

4.

and take appropriate action.

- - - - -

Action taken by Division:

do not remove

ROBERT E. ADAMS

Initials

noted
com
JEF

Note:

Docket No. DMEA 2688

M.I.A. Mines Co.

Government's percentage royalty calculated on a net from which no royalty deductions have been made.

Settlement sheets now show that all transportation and sampling charges are paid by the buyer. A royalty audit, which will substantiate if these deductions are valid, will be made at the same time as the project audit. These audits are expected to be made as soon as convenient after the amended contract is amended.

FAR

SEMI-ANNUAL DMEA REPORT

Docket No.: DMEA-2688 (Tungsten) December 31, 1954

Contract No.: Idm-E481 and Idm-E481 - amended

Period: (Second) July 1, 1954 to December 31, 1954

Date of contract: January 27, 1953

Exploration work completed: Project active

Amendment No. 1 - approved drilling water well

Amendment No. 2 - further amended contract effective 11/21/53

Amendment No. 3 - further amended contract effective 1/27/54 and cancels amendment No. 2.

Name and address of operator: M.I.A. Mines Co.
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine, White Pine County, Nevada, 76.4 miles north of Pioche, Nev.

Date certified:

Exploration contract not completed; no certificate of discovery has been issued; but will be recommended by examining engineers. A considerable tonnage of tungsten ore has been produced and shipped with royalty payments being made on this production.

Expenditures:

Operator	Government	Total
$39,858.41	$119,575.22	$159,433.63

Statement of operations:

Exploration completed to date under the DMEA contract comprised 1,339.3 feet of churn drilling and 1,358.3 feet of diamond drilling. Work

in the Scheelite Chief area included tunnel rehabilitation, 992.5 feet of drifting, and 289.5 feet of raising; and in the Silver Bell area, shaft and level rehabilitation, and drifting.

Production since September 1954 amounted to 4,507 tons of tungsten ore averaging 0.786 percent WO_3. Total value of the ore was $104,426.82, transportation, sampling and royalty charges were $35,106.76, leaving a net value of $69,320.06. DMEA royalty payments were $3,556.40.

Settlement sheets were furnished the Mining Section, Region II, by the Regional Office.

Remarks:

The operator is continuing to mine and ship tungsten ore with regular shipments being made to the reduction works. A crushing, screening, and sorting plant has been constructed in an effort to upgrade the scheelite ores and to increase revenue from subsequent sales.

A. C. Johnson
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 5 - 1954

Office of
Executive Officer
DMEA Field Team
Region III

420 Custom House
555 Battery Street
San Francisco 11, California

Date: November 1, 1954

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -
Docket DMEA -2688

Contract Idm-E 481

Commodity Tungsten

Operator - M.I.A. Mines Company

Property - Minerva Tungsten Mine
White Pine County, Nevada

By Glenn G. Gentry, Mining Engineer

Dated October 22, 1954

Executive Officer,
DMEA Field Team, Region III

Attachments

Copy to: R. M. Smith--USGS (with copy of report)
Finance Officer, Region III (with copy of report)

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
Spokane

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) October 22, 1954

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on October 7, 1954 for the purpose of inspecting work performed under the exploration contract. During the inspection, the examining engineer was accompanied by Mr. A. C. Johnson, Chief, Mining Division, Region III; Mr. Reginald G. Lee, Mine Superintendent; and Mr. James Hulse, Mine Foreman.

Exploration on the 300 level, east of the Silver Bell shaft and approved by the contract, was suspended in July 1954 and has not been resumed. This delay has been caused by the operators desire to raise from the 600 level, east of the 43-24-D-3 compartment raise, to the 550 level and to install mine track in the 550 level west of the Silver Bell shaft.

The operators consider this work, developing ore and conducted at the expense of the mining company, will expedite operations and decrease the mining costs when production of ore is again started from the 300 level east of the Silver Bell shaft.

The daily production of scheelite ore will vary from 40 to 50 tons per day of 16 hours and is accomplished by approximately 22 men. This ore passes through the sorting plant, which is operated by two ore sorters working day shift only. Two ultraviolet lamps are suspended over the sorting belt and a night inspection of the waste dump showed only a very nominal quantity of scheelite in that material. However, the waste rock from the sorting plant is being stockpiled for future milling if advisable or necessary.

The principal production of ore has been obtained from raises above the sublevel extended with the aid of DMEA funds and approximately 70 feet above the Scheelite Chief adit. Additional production is obtained from the 650 level and 600 level, east of the 43-24-D raise.

SORTING PLANT

After passing over the vibrating screen, which removes material up to 1½-inch in size, the plus 1½-inch material flows to the sorting belt. Mr. R. G. Lee, considers the two ore sorters will probably sort about 5 tons per day per man at a sorting cost of from $4.00 to $5.00 per ton of sorted ore. Sorting cost was estimated at from $1.00 to $1.25 per ton of crude ore.

The ore is continued to be shipped via truck from the mine to Delta, Utah and thence by Union Pacific Railroad to the Combined Metals Reduction Company at Bauer, Utah. The trucking contractor usually completes two trips per day between the mine and Delta, Utah.

PRODUCTION

Reported by operator:

Month	Dry, short tons	%, WO_3	Units WO_3
May 1954	193.460	0.59	114.1414
" "	114.504	0.33	37.7863
" "	616.255	1.68	1,035.3084
June "	None		
July "	813.196	Not reported	
August "	1,358.904	*0.74	1,005.5889
September "	754.096	*0.78	588.1948
	3,850.415		2,781.0198

*Estimated

Due to the long truck and freight haul, it appears uneconomical to ship ore which is under 1.0% WO_3; and for that reason, the operators are confining the majority of their mining operations in areas which produce that grade of ore. Then when the stope grade decreases, that stope or raise is abandoned and mining started again in another section on the various levels.

By following this same character of mining operations, all of the exposed higher grades of ore will soon be mined out and only the lower milling grades will remain. Without a mill at the property, the low grade ore will, therefore, have little value and the possibility of repayment of the DMEA loan appears doubtful.

Settlement sheets of the Combined Metals Reduction Co., Bauer, Utah (agent for the American Zinc Co. of Tennessee) state the following milling of tungsten ores and royalty payment to the Defense Minerals Exploration Administration:

Date	Lot No.	Dry tons	%, WO_3	Net Proceeds	Units WO_3	DMEA %	Royalty Amount
8/14/54	1	193.460	0.59	$2,506.01	114.1414	1.5	$ 23.30
8/14/54	2	114.504	0.33	476.80	37.7863		Nil
8/14/54	4	587.805	0.67	9,210.26	393.8293	4.5	297.22
8/14/54	5	224.439	0.53	2,486.38	118.9526	1.5	20.24
8/14/54	6	223.305	1.13	6,767.49	252.3346	5.0	311.51
8/30/54	7	310.029	0.69	5,306.19	213.9200	5.0	185.45
9/8/54	8	365.295	0.86	7,898.28	314.1537	5.0	326.19
		2,018.837		$34,651.41	1,445.1179		$1,163.91

Note: From the foregoing data, the gross value of 1,445.1179 units WO_3 @ $63.00 per unit, would amount to $91,042.43 and the weighted average would be 0.715817% WO_3. The difference between the gross value of the ore and the net proceeds amounts to $56,391.02.

APPLICATION FOR WATER APPROPRIATION

Under date of September 3, 1954, by letter from Mr. Hugh A. Shamberger, State Engineer for the State of Nevada, and under Permit No. 15381, the M.I.A. Mines Company have been granted 0.7 feet per second of water for domestic and mining use. (This permit refers to the water well drilled by the operator with the aid of DMEA funds). The M.I.A. Mines Company have not yet recorded the above permit in the White Pine County recorders office at Ely, Nev.

STATEMENT OF WORK COMPLETED

Easterly extension of the 300 level, Silver Bell shaft, as approved under amendment No. 3:

Total approved	150.0 feet
Previously reported as completed	114.0 "
To be completed	36.0 "
Progress 6/23-10/7/54	-
To be completed	36.0 "

Under amendment No. 3, item 6, Step 1 and Step 2 (page 3), the operators would be allowed to extend the 5th level drift of the Silver Bell shaft a distance of 384.8 feet in a westerly direction. Under date of June 24, 1954, the operator requested that this exploration work be transferred to the 650 level; however, this office has not received copy of an amendment approving such a change of location. Assuming that approval would be granted, the operators have continued to advance the drift westerly on the 650 level and the present status

is as follows:

Exploration approved on the 5th level	384.8 feet
Advance to date on the 650 level	283.53 "
Uncompleted (if approved)	101.27 "

Under date of August 3, 1954, the operator requested that the remaining funds be expended on a unit basis for further exploration of the mineralized fissures in areas specified in the contract. This office has not received a copy of any amendment approving the request, however, the operator has conducted the following exploration:

650-level, east of raise 43-24-D	
Advance to date	203.84 feet
600-level, west of raise 43-24-D	
Advance to date	29.00 feet
600-level, east of raise 43-24-D	
Advance to date	109.60 feet
Drifting above the Intermediate or sub-level	
Advance westerly from top of raise 44-16-B	19.00 feet
Advance southeasterly from south-end of Intermediate level	53.80 feet

All of the mining work in the above drifts has been well done and is considered as satisfactory to Government.

OPERATORS MONTHLY REPORTS

Contract amount..... $171,400.00

Government participation @ 75% $128,550.00

Expenditures reported:

March 1953	$ 9,133.03
April "	471.50
May "	1,936.52
June "	2,333.18
July "	8,235.84
August "	9,317.34
Sept. "	14,513.08
October "	12,873.86
November "	12,210.36
December "	12,625.01
January 1954	12,883.68
February "	4,142.59
March "	11,850.39
April "	7,102.76
May "	6,762.49
June "	4,620.00
July "	8,050.00
August "	7,182.00
Sept. "	Not reported
	$146,243.63

	$146,243.63
Unexpended	$ 25,156.37*

*Subject to Mr. Mavor's audit of May 31, 1954.

Contract period:

Contract dated January 27, 1953
Expiration date April 27, 1954
Amendment No. 3, dated April 23, 1954 extends the expiration date to October 27, 1954

If the operators requests for amendments Nos. 4 and 5 are approved, it is evident that a further extension of time will be required.

GEOLOGY

Easterly extension of the 300-level, Silver Bell shaft:

No additional exploration work has been done in this drift since July 1954. Therefore, there are no geological changes to report. Considerable scheelite ore of varying grades has been exposed in this drift and three raises had been started in areas which indicated that shipping ore could be expected. Light, scattered scheelite was observed

in the face of the drift which shows a narrow vein of quartz about 1 foot in width and dipping 45° N. Quartz is also exposed at the face on the north side of the drift and it is considered that a split in the vein may have occurred there.

When mining operations are resumed on this level, the operators expect to continue extending the drift in an easterly direction toward churn drill holes 7 and 8 and continue extending the raises.

No levels have been extended east of the Silver Bell shaft above or below the 300 level and no information is available as to the depths of the two ore shoots exposed on the 300 level.

650-level, west of raise 43-24-D:

Very little scheelite mineralization was observed in this drift during the advance of the past two months. The fissure has been well defined and in some places is partly filled with calcite which is associated with a small amount of quartz. Numerous small north-south fractures were noted and on the date of the examination, the strike of the fissure appeared to have an increased trend to the north.

650-level, east of raise 43-24-D:

Considerable scheelite has been exposed in this drift and a part of the daily production is being obtained from raises where the best ore was found. Discontinuous quartz stringers were observed in the face of the drift which show scattered scheelite in moderate amounts.

600-level, west of raise 43-24-D:

A small amount of scheelite has been exposed in this drift. However, due to the scattered occurrences, only a small amount of work has been done.

600-level, east of raise 43-24-D:

This drift has exposed a good width of scheelite of commercial grade and raises have been started from the 650-level and active mining is presently being conducted.

Above the Intermediate Level, westerly from the top of raise 44-16-B:

This drift has been extended a distance of 19 feet, all in quartz, which under the lamp indicates some high grade scheelite. One raise has been started with indications of good ore across the back. The full width of the quartz has not been disclosed.

In the face of the drift, the quartz occupies the upper quarter, overlying the black St. Lawrence limestone. North-south faulting, dipping east, is noted near the bottom of the drift. Part of the daily production of ore is obtained from this area.

Southeast drift from the south end of the Intermediate Level:

The operators have extended this drift for a distance of 53.8 feet for the purpose of exploring for a possible hanging wall vein projected north of the sublevel above where good ore is being mined. However, the drift has been extended entirely through St. Lawrence limestone and no scheelite mineralization was noted. Near

the end of this drift, the operator intends to diamond drill at about plus 45° on a south bearing in order to prospect for a possible block of ore which may have been faulted to the south.

SAMPLING

Screening and sorting plant:

Sample No.	Width	%, WO_3	Oz. Au/T	Oz. Ag/T.	Location
BM-1376		0.19			Grab sample of crude ore to screen
BM-1377		1.44			Grab sample of sorted ore to fine ore bin
BM-1378		0.65			Shovel sample of undersize from screen
BM-1379		1.44			Selected sample of ore from sorting belt.
BM-1380		0.20			Grab sample from east side of low grade stockpile (600 tons) opposite sorting plant.
BM-1381		*0.01			Grab sample from waste dump from sorting plant.

Mine samples:

BM-1382	2.2'	0.19	Tr.	3.60	550-level; 24.5 feet west of station 502. Quartz on south wall of drift.
BM-1383	4.0'	0.13			600-level, west Quartz and calcite in face of drift.
BM-1384	1.6'	0.14			650-level, east Quartz on south wall at back of drift.
BM-1385	2.0'	0.84			West drift at top of raise 44-16-B; south wall at face of drift. High grade quartz on sides and across back.
BM-1386		0.16			Grab sample of muck pile in face of drift at sample 1385.

*Less than.

The amount of future mine development may depend upon the quantity of ore found that will be profitable to sort and ship to the Bauer, Utah milling plant of the Combined Metals Reduction Co.

The examining engineers consider that some of the raises should be extended to the top of the ore shoots, and raises connected with sub levels, in order to aid in determining the possible pattern of deposition and grade. These matters were discussed with the operators' representatives, who stated they would be advisable and would be considered as development of the mine progresses.

Glenn G. Gentry

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Date: August 30, 1954

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA - 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Company

Property - Minerva Tungsten Mine
White Pine County, Nevada

By Glenn G. Gentry, Mining Engineer

Dated August 24, 1954

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

Roscoe Smith, USGS (With one copy of report)

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) August 24, 1954

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine,
White Pine County, Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine office was visited on August 6, 1954 and the mine was visited on August 7, 1954 for the purpose of inspecting work performed under the exploration contract. During the inspection, the examining engineer was accompanied by Mr. Reginald Lee, mine superintendent and engineer, and Mr. James Hulse, mine foreman.

No exploration work has been accomplished under the approved DMEA contract. The easterly extension of the 300 level off the Silver Bell shaft was temporarily suspended due to the necessity of repairing the air compressor. This phase of the exploration is expected to be resumed as soon as the compressor is ready for operation.

The operators have been engaged in extending drifts in an easterly and westerly direction from the 6500 level of the main 3-compartment raise, designated as raise No. 43-24-D. The East drift has been extended a distance of 164.7 feet from the raise and the West drift has been extended a distance of 236.3 feet.

Approval for the work in this location, instead of extending the 5th level of the Silver Bell shaft in a westerly direction, has been requested by the applicant.

Under date of August 3, 1954, the M.I.A. Mines Co. also requested that they be permitted to expend the remaining funds of approximately $45,716 (on May 31, 1954) on a unit basis for additional exploration of the various objective areas outlined in the contract.

The East drift off the Scheelite Chief Raise on the 6500 level has partially explored an important exposure of tungsten ore. Raising on this ore has been started and daily production of ore has been obtained. Steady production of ore has also been maintained from the sublevel driven easterly and above the Intermediate level extended under the contract. Additional production of ore is obtained from one of the old raises west of the Intermediate level.

The last Operators Financial Report covered expenditures for the month of May 1954. The Financial Reports for the months of June and July 1954 have not been submitted as the operator is awaiting a decision on his request to transfer all remaining funds on a unit basis.

Outside operations:

The operators have completed the installation of the screening and sorting plant. The crude ore is dumped into a coarse ore bin having a capacity of approximately 18 tons. From this bin the ore is conveyed to

single deck Allis Chalmers vibrating screen which is 4 feet wide by 6 feet long. Material under 1-1/2 inch is dropped directly into an ore bin for shipment and the plus 1-1/2 inch material is passed to a sorting belt which is 24 inches wide by 6 feet long. One large (flood-type) mineralight is suspended above the sorting belt and one man is employed as an ore sorter and to operate the vibrating screen and conveyor system.

The operators are considering the installation of a jaw-type crusher under the primary ore bin in order to break up the larger pieces prior to screening and sorting.

The examining engineer considers that it will be possible to further exclude light from the building housing the sorting belt, which would be helpful to the ore sorter , and that reducing the speed of the sorting belt and the addition of a second mineralight over the sorting belt would be helpful in upgrading the ore.

The sorted ore is dropped directly into a storage bin, under the sorting belt, and is then ready for shipment via truck. The waste rock is passed to a belt conveyor and thence to a nearby stockpile. All of the waste rock is kept in a separate pile as it may be milled at some future date.

PRODUCTION

Mine production is reported to be averaging from 50 to 60 tons per day. Twenty-two to 24 men are employed on two shifts per day. The operators are continuing to ship the sorted ore to Bauer, Utah for treat-

ment in the milling plant of the Combined Metals Reduction Co. Production of crude tungsten ore shipped to the Combined Metals Reduction Company during the months of May, June and July 1954 are reported by the applicant as follows:

May, 1954

Mine Lot No. 1	
UP 65845	130,820
UP 65318	121,420
UP 65859	139,220
Wet Weight	391,460
Dry Tons	193,460
Settlement Assay - WO_3	.59%

Mine Lot No. 2	
UP 64709	118,740
UP 65675	112,580
Wet Weight	231,320
Dry Tons	114,504
Settlement Assay - WO_3	.33%

Mine Lot No. 2A	
UP 64921	121,360
UP 62754	132,380
UP 62707	121,640
UP 62203	130,960
UP 64798	130,780
UP 64932	128,680
UP 62124	121,800
UP 66288	118,640
UP 63952	129,140
UP 66066	108,580
Wet Weight	1,244,960
Dry Tons	616.255

Note: This lot was reported on an estimated assay of WO_3 1.68%.

Total Dry Tons - May - 924.219

June, 1954

None

July, 1954

UP 66484	128,160
UP 66451	122,240
UP 63502	127,000
UP 62055	133,520
UP 63245	127,720
UP 66741	134,400
UP 65276	134,500
UP 65179	144,200
UP 62088	142,500
UP 66080	154,480
UP 65406	159,700
UP 65582	142,740
Wet Weight	1,651,160

Estimated Moisture	1.5%
Estimated Dry Tons	813.196

APPLICATION FOR WATER APPROPRIATION

Under date of November 9, 1953, the M.I.A. Mines Co. filed in the Nevada State Engineers office an application, Serial No. 15381, for permission to appropriate 0.7 second feet of water for mining and domestic use.

Under date of June 26, 1954, Mr. A. L. Scott, Attorney at Law, Pioche, Nev., for the M.I.A. Mines Co., supplied the M.I.A. Mines Company the following additional information relative to the application for the use of water at the Minerva Tungsten mine:

"The State Engineer of Nevada has now advised me that your Water Application No. 15381 has been officially filed under date of November 9,

1953, that the supporting map has been filed (by F. W. Millard & Son of Ely), and that notice of the application is now being published in the Ely Daily Times. (The said publication is paid for by the State Engineer, out of the $25.00 filing fee which was paid by your check to the State Engineer about November 7, 1953, from the Caselton office). The Salt Lake office paid me $2.00 on June 1 account for that amount which I sent to the State Engineer for a certified copy of the application. I assume that F. W. Millard & Son have billed you for the cost of the survey."

"Assuming that no protest will be filed, a Permit will be issued to you in about two or three months, and upon filing proofs of commencement and of completion of work, and proof of beneficial use, within the times to be stated in the Permit, a Certificate will be issued giving you the right to continued use of the amount shown on proof to have been beneficially used (not exceeding the amount stated in the Permit), unless you should fail to make beneficial use of the water for five successive years. The proofs of commencement and of completion of work should be filed soon after receipt of Permit, but the proof of beneficial use should be deferred so that you may show use of maximum volume of water. There will be no objection to using water pending receipt of Permit."

OPERATORS MONTHLY REPORTS

Contract amount $171,400.00

Government participation @ 75% = $128,550.00

Expenditures reported:

March	1953	$9,133.03
April	"	471.50
May	"	1,936.52
June	"	2,333.18
July	"	8,235.84
August	"	9,317.34
September	1953	14,513.08
October	"	12,873.86
November	"	12,210.36
December	"	12,625.01
January	1954	12,883.68
February	"	4,142.59
March	"	11,850.39
April	"	7,102.76
May	"	6,762.49
June	"	Not reported
July	"	" "
		$126,391.63
	Unexpended	$ 45,008.37*

*Subject to Mr. Mavor's audit of May 31, 1954.

Contract Period:

Contract dated: January 27, 1953

Expiration date: April 27, 1954

Amendment No. 3, dated April 23, 1954, extends the expiration date to October 27, 1954. If the operators requests for amendments Nos. 4 and 5 are approved, it is evident that a further extension of time will be required.

The examining engineer recommends the extension of the contract to December 31, 1954.

GEOLOGY

The exploration work has continued to follow the quartz-calcite filled fissure. The grade of scheelite mineralization is usually better on

or close to the footwall, though in some places, faulting has split the vein and the higher grade ore is found on the hanging wall. At this writing, the exploration work has not been sufficient to establish the general average strike lengths of an ore shoot.

SAMPLING

Screening and sorting plant:

Sample No.	%, WO_3 *	Remarks
BM-1342		Grab sample of sorted ore from discharge end of sorting belt.
BM-1343		Grab sample of mine run ore as discharged from conveyor belt to vibrating screen.
BM-1344		Shovel sample of screen undersize. (This ore does not pass over sorting belt)
BM-1345		Width 1 foot - face of East drift off 650 level of raise 43-24-D.
BM-1346		Width 3 feet - north wall of 650 level, east 23 feet west of station 809. Raise and stope started here.

*Analyses will be forwarded when they are available.

Note: The operators report that considerable difference between their car samples and the buyers automatic sample, has occurred. This may be caused by too high a percentage of fines in the mine car sample, as the mine analysis have usually been above the buyer.

Unless the crude ore is crushed to a uniform size at the mine, prior to sampling, it will probably be impossible to accurately check the various lot shipments.

Resume:

The exploration work has continued steadily and has been conducted in a satisfactory manner. The cost of sorting the ore and the grade of ore shipments after sorting are as yet unknown though additional information may be obtained during the next inspection of the property.

Glenn G. Gentry,
Mining Engineer

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
JUL 19 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Date: **July 15, 1954**

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA-**2688**

Contract Idm-E **481**

Commodity **Tungsten**

Operator - **M.I.A. Mines Co.**

Property - **Minerva Tungsten Mine**
White Pine County, Nevada

By **Glenn G. Gentry**

Dated **July 13, 1954**

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

Roscoe Smith, USGS (With one copy of report)

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) July 13, 1954

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.
Pioche, Nev.

Name and location of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm-E481

With reference to: Bauer, Utah milling plant of the Combined Metals Reduction Co.

SUMMARY

During the past several months, the applicant has been mining and stockpiling tungsten ores in the Minerva Tungsten mine. This production has been made as a result of the exploration conducted under contract No. Idm-E481. Therefore, royalties are due the Government from the sale of the ores.

The M.I.A. Mines Company have begun shipping crude tungsten ores, via truck and rail, from the Minerva Tungsten mine to the Combined Metals Reduction Co., Bauer Plant, Bauer, Utah, where the ores will be purchased, milled, and the resultant concentrate sold by the milling company to either the Salt Lake Tungsten Company or other purchasers of that type of concentrate.

Pursuant to Section B of Annex 1, attached to amendment No. 2, and which refers to royalty payments payable to the Government, it was

considered advisable to inspect the sampling and milling procedure presently being followed in the Bauer plant of the Combined Metals Reduction Co.

The plant was inspected on June 14 and 15, 1954, and the examining engineer was accompanied by Mr. S. E. Craig, mill superintendent for the Bauer plant.

The plant is situated in Tooele County, Utah, approximately 39.8 miles southwest of Salt Lake City, Utah. It is reached by traveling west on U.S. Highway 40 to Mills Junction, a distance of 28 miles, thence south on Utah State Highway No. 36, a distance of 9.8 miles. Thence, west on the Bauer Road (No. 179) for a distance of two miles.

The crude ore produced from the Minerva Tungsten mine is stockpiled on the ground adjacent to the portal of the Scheelite Chief Adit and when sufficient tonnage has been accumulated, the ore is picked up by a shovel loader, loaded into 20-ton capacity trucks and hauled to Delta, Utah, a distance of about 142 miles by Young and Sons Trucking Co., Salt Lake City, Utah.

Does mine contract?

At Delta, Utah, the ore is transferred to dump bottom Gondola cars on the Union Pacific Railroad and then hauled to the Bauer plant where the cars are weighed on Union Pacific Railroad Company certified scales and transferred to a stockpile location adjacent to the mill.

Does Bauer purchase? yes - see pgs. 5-6

Depending upon the tonnage received, and the rate of the mill operation, the crude ore may be unloaded and stockpiled on the ground or

upon a moderate sized concrete slab.

Unloading is accomplished by means of a clam shell type power shovel, and loading from the stockpile to the mill is accomplished by the same means into trucks for the short haul to the ore bins. From the ore bins, the ore is conveyed to a primary, jaw type, crusher and thence to two secondary, gyratory crushers. The final crushed product ranges in size from 1/4- to 3/8-inch and is sampled by automatic samplers, rack and gear type operated by electric motors. Three sample cutters, each cutting the full stream of ore and each making a cut every 5 seconds, are used in order to provide an accurate sample. In this manner, the sample cut from a 50-ton shipment will amount to approximately 200 lbs. Samples are handled in the usual standard manner and three sample pulps are prepared. One sample pulp is retained by the milling company for analyses, one for umpire purposes, and one sample pulp is sent to the seller.

After the ores pass the automatic samplers, they are conveyed to mill storage bins and are intermingled with other like ores. From the mill storage bins, the ores pass through a Merrick Weightometer and thence to a 7-by 8-foot Hardinge ball mill, operating in closed circuit with a spiral type classifier. The classifier overflow is approximately 60% minus 200 mesh which is piped to a conditioner tank and thence to the flotation circuit. Cleaner flotation concentrates are retreated over an Overstrom table and the final concentrate shipped to the Salt Lake Tung-

sten Company at Salt Lake City, Utah.

The milling company is preparing to install additional equipment in order to treat the flotation and/or table concentrates by an acid leach, and thereby upgrade the concentrates to acceptable specifications.

Tailings are conveyed to any one of several disposal ponds and impounded. However, as part of the mill is devoted to the milling of lead-zinc ores, all tailings are intermingled and no attempt has been made to keep them separated.

Railroad Weights:

Three weight certificates are furnished by the weighmaster: 1 certificate for the Union Pacific Railroad Co., 1 for the M.I.A. Mines Co., and 1 for the Combined Metals Reduction Co.

Umpire analyses:

When the analyses of the seller and buyer cannot be agreed upon, the third sample pulp is sent to umpire.

MILLING OPERATION

Data submitted by Mr. S. E. Craig, relative to the initial milling of tungsten ores from the Minerva Tungsten Mine, are as follows:

Lot No.	No. cars	Net wet weight	%, H_2O	Concentrates produced	%, WO_3 in concentrates
1	3	391,460 lbs.	1.16)	14.88 tons	6.79
2	2	231,320 "	1.0)		

Analysis:

	Percent WO_3			
	Combined Metals Reduction Co.		Crissman & Nichols	
	Original	Repeat	Original	Repeat
Lot No. 1	0.508	0.69	0.81	0.56
Lot No. 2	0.64	0.33	0.53	0.36

Samples of these lots will go to umpire.

Milling of tungsten ore, including lots Nos. 1 and 2, amounted to:

Midstate development mine	47 tons @ 0.22% WO_3
Vera King mine	150 tons @ 0.24% WO_3

The daily mill record showed:

	Tons	Assay	%, WO_3
Heads	504	0.43% WO_3	100.0
In circuit	196	0.43% "	38.9
Concentrates	14.9	6.78% "	46.6
Tails	293.1	0.043% "	14.5

Recovery estimated by daily mill records = 85.5%
Recovery by actual weights = 46.6%
Grade of Table Concentrates = less than 41.0% WO_3

Reagents used in flotation circuit:

	Amount per ton	Cost per ton of ore
Soda ash	4.76 lbs.	$0.10
Silicate	4.03 "	0.15
Quebracho	1.54 "	0.40
A-44E	0.40 "	0.058
D-140	0.05 "	0.007

Overall milling cost estimated @ $4.71 per ton. This cost may be increased.

Rate of payment:

Mr. Craig reported that no definite schedule had been prepared. However, tentative plans indicated the rate of payment at about $37.00 per unit WO_3.

CONCLUSIONS

The examining engineer considers the weighing, sampling, and method of preparing moisture samples, to be following the accepted standard practice and that these methods will be satisfactory to the Government.

Milling of the first lots of tungsten ores purchased has been to a considerable extent, on a trial basis as both the recovery and grade of tungsten concentrate has been low. However, after filling the mill circuit with pulp, the operators expect to increase recovery and upgrade the concentrate.

The milling plant appears to be well designed and the operators are all men of long experience. Mr. S. E. Craig, mill superintendent, has been employed at the Bauer plant for a period of 27 years.

RECOMMENDATIONS

During the dates of this inspection, the tungsten circuit of the mill was not in operation as the Combined Metals Reduction Co. were waiting for a shipment of tungsten ore from the Mt. Wheeler Mines Co., Inc. An additional inspection of the Bauer plant would be advisable at some future date when the tungsten circuit is in operation.

The crude tungsten ore is dumped into railroad cars at Delta, Utah, and these cars are reported to have overlapping dump doors in the bottom. The truck operator should check these dump bottoms and calk any openings through which a leak might occur. This is important to the Government as well as the shipper as much of the values are contained in fine grained crystals of scheelite and therefore considerable loss could occur by shipments in cars with faulty dump bottoms or in which these doors are not properly closed. The possible loss in this manner has been called to the attention of Mr. Paul Gemmill, general superintendent and R. G. Lee, mine superintendent of the M. I. A. Mines Co., who, in turn, are to instruct the drivers for the trucking contractors.

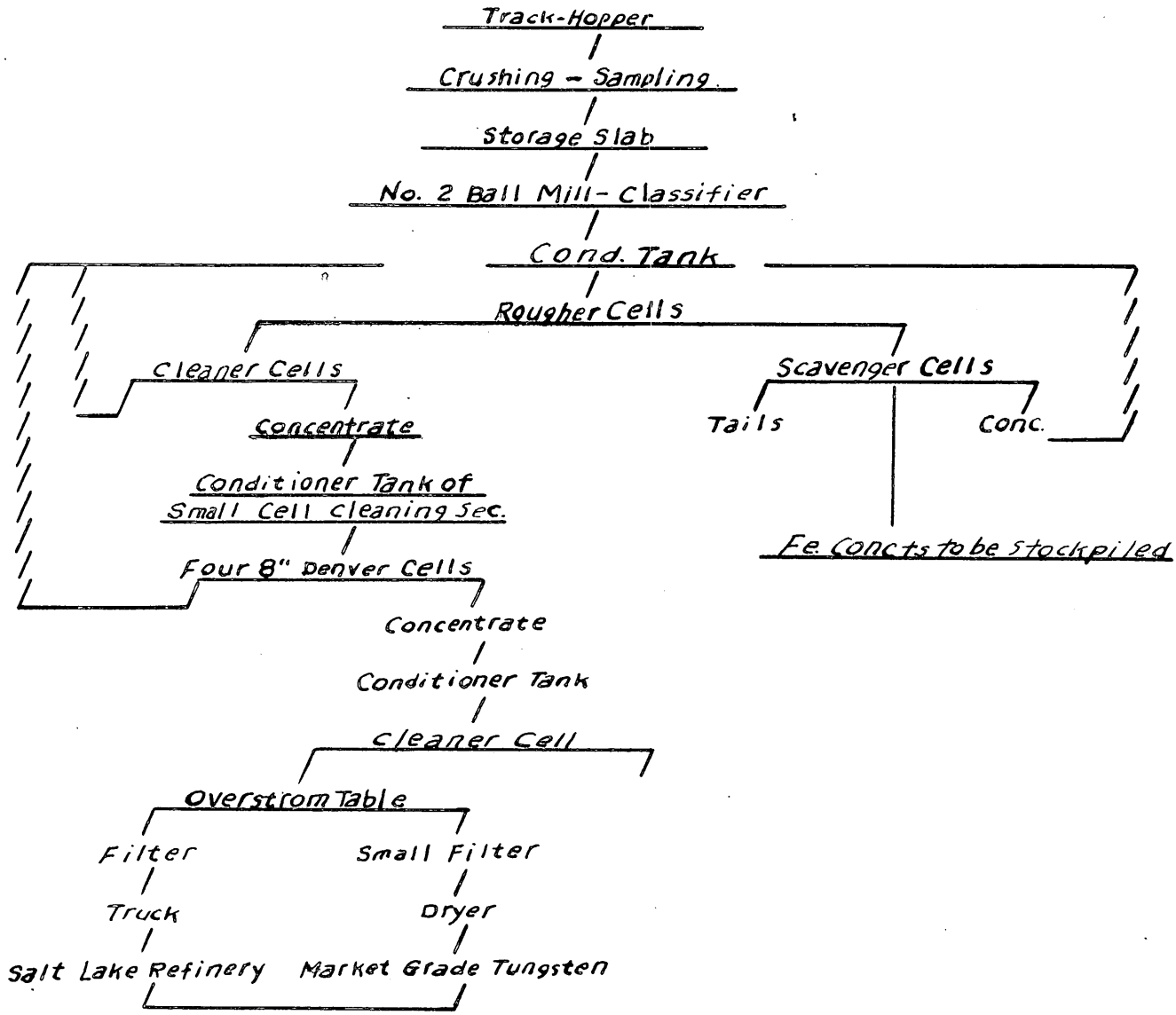
Glenn G. Gentry
Mining Engineer

COMBINED METALS REDUCTION COMPANY

BAUER PLANT – BAUER, UTAH

FLOTATION

Tungsten Circuit



JUNE 15, 1954

MILLING TUNGSTEN ORES FROM MINERVA TUNGSTEN MINE, DMEA CONTRACT-Idm-E 481.
AND FROM MT. WHEELER MINE, DMEA CONTRACT-Idm-E 248.
BOTH MINES ARE IN WHITE PINE COUNTY, NEVADA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Date: July 14, 1954

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA -2688

Contract Idm-E 481

Commodity Tungsten

Operator - M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.

Property - Minerva Tungsten Mine
White Pine County, Nevada

By Glenn G. Gentry

Dated July 13, 1954

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

Roscoe Smith, USGS (With one copy of report)

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) July 13, 1954

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.,
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on June 12 and 23, 1954 for the purpose of inspecting work performed under the exploration contract. During the inspection on June 12, 1954, the examining engineer was accompanied by Mr. James Hulse, mine foreman and during the inspection on June 23, 1954 was accompanied by Mr. Paul Gemmill, general superintendent of mines and chief geologist, Mr. R. G. Lee, mine superintendent and engineer, and Mr. James Hulse, mine foreman.

Exploration work under the DMEA contract has consisted in completing the 3-compartment raise above the Scheelite Chief level, and in extending the 300 level of the Silver Bell shaft in an easterly direction. Additional exploration has been in extending the drift from the 6500 level of the Scheelite Chief raise in a westerly direction. This drift had originally been approved under amendment No. 3, as extending the 5th level drift of the Silver Bell shaft in a westerly direction a distance of 384.8 feet. The 6500 level of the raise, or the 650 level of the Silver Bell shaft,

is less than 100 feet below the 500 level and the reasons for the applicants request for approval of the change in location are principally geological conclusions reached by Mr. Paul Gemmill and contained in his letter dated June 24, 1954, as follows:

> "Information gained since the project was approved makes it appear desirable to drive at the lower elevation to assure the level being under the ore shoot. This letter is, therefore, our formal application for transfer of the footage as above explained."

The 3-compartment, Scheelite Chief raise, has been extended a total distance of 289.5 feet and was completed on May 2, 1954. The intersection of the raise excavation with the 500-level of the Silver Bell shaft was exact and represents careful and precise engineering as well as careful work by the mining crews. A total of 47 sets of timbers were installed during the extension of the raise, in addition to the necessary compressed air and water lines.

Excellent ventilation of the Scheelite Chief main adit was obtained immediately upon the connection of the raise and the 500 level of the Silver Bell shaft.

Due to necessary repairs on the air compressor at the collar of the Silver Bell shaft, the extension of the 300 level in an easterly direction has been delayed. However, the operators hope to resume this work at an early date. Additional development and exploration work conducted at the operators expense has consisted of:

Sub-level above Scheelite Chief Adit:

From this level, Raise 44-16-B was extended to intersect the ore shoot and from this raise the operators have drifted on the vein a distance of 117 feet in an easterly direction. This drift has been almost entirely in good scheelite ore with maximum values estimated at about 1.0% WO_3. Raising and production of ore are continuing and the extension of the drift will also be continued. Additional ventilation will be required and the operators expect to provide all necessary facilities.

650-level off Scheelite Chief 3-compartment raise:

This level has been extended in both an easterly and westerly direction. The easterly drift has been extended a distance of 113 feet and has exposed a considerable amount of ore, some of which is estimated to assay from 2.0% to 3.0% WO_3. Production of ore has continued from this drift and raising has been started.

The westerly drift has been extended for a distance of 68.8 feet and has been only partially successful in exposing ore. However, a diamond drill hole, drilled in a southwesterly direction off this drift, has intersected the quartz vein and the operators expect to turn the drift in order to follow the vein which shows some scheelite mineralization.

Silver Bell shaft:

The easterly extension of the 300-level had been approved under amendment No. 3 for an additional distance of 150 feet. The face of this drift has been advanced a distance of 114 feet on June 23, 1954 and the

remaining footage of 36 feet should be completed by July 15, 1954 provided necessary repairs on the air compressor were completed within the period estimated.

This drift has been successful in exposing some additional scheelite bearing quartz and the operators plan on starting another raise. Mining and production will be continued as soon as operations are resumed.

Outside operations:

Near the portal of the Scheelite Chief Adit, the operators have erected an ore bin of approximately 57 tons capacity. Over this ore bin, and presently under construction, will be installed a vibrating screen and sorting belt. In this manner it is hoped to discard some of the waste material and to aid in upgrading the ore.

Stockpiling:

Four stockpiles of ore have been accumulated from mine production and are located adjacent to the portal of the Silver Chief adit, as follows:

	Wet tons	%, WO_3 from car samples	Units WO_3	Source
(1)	111	0.55	61.05	Stope 44-16-B Chief Adit Stope 45-14-B " "
(2)	419	0.60	251.04	Stope 43-24-D 180-level and 230-level of Chief Raise
(3)	60	0.50	30.00	Stope 40-32-B) Stope 40-34-A) Silver Bell Stope 40-34-C)
(4)	147	1.00	147.00	Stope 44-16-B Chief
	737		489.09	

Weighted average = 0.66352% WO_3

The operators expect to ship this ore to the Bauer, Utah plant of the Combined Metals Reduction Company in the near future.

Previous shipments to the Bauer plant have been reported as follows:

Carloads	Wet tons	Est. Grade	Source
10	700	1.40% WO_3 //	Chief - 44-16-B Stope
5	300	0.70% "	Silver Bell - 40-34-A Stope
			40-34-C Stope
15	1000 //		

Estimated total units = 1,190
Estimated weighted average = 1.19% WO_3

As this ore was stockpiled on the ground prior to shipment and loaded into trucks by means of a shovel loader, some dilution may be expected. This matter was called to the attention of the mine superintendent with the suggestion that careful handling was indicated.

Handling costs:

	Per ton
Truck haulage to Delta, Utah	$5.00
Railroad rate, Delta, Utah to Bauer, Utah	2.70
	$7.70

Rate of payment to the operator: $37.00 per unit

Future plans considered by the applicant:

Preliminary plans and considerations are under discussion for the installation of a small concentration plant having a capacity of from 50-75 tons of crude ore per 24 hours. This would be a table plant and the tailings would be impounded and probably be retreated by flotation at a later date. The tonnage of ore exposed in the mines are sufficient to justify the installation of such a mill and the additional haulage costs now

being charged would be saved. The mill site and water are adequate for the installation. No transmitted electric power is available and it would be necessary to provide a Diesel unit. At some future date an electric power transmission line may be brought into the Atlanta Mining District, in which case, an additional 25-mile line could provide power at the Minerva Mine.

HOUSING LABOR COMMUNICATIONS

The operators are employing 20 men and additional housing is presently being installed.

Plans have been made for the installation of a short wave radio transmitter installation at the mine in order that daily and direct communication may be maintained with the headquarters office at the Caselton plant of the Combined Metals Reduction Co. Permission for the installation and use of this type of equipment has been requested from the Federal Communication Commission.

APPLICATION FOR WATER APPROPRIATION

Under date of Nov. 9, 1953, Serial No. 15381, the M.I.A. Co. filed in the Nevada State Engineers office an application for permission to appropriate 0.7 second feet of water for mining and domestic use. This filing refers to the use of water from the water well drilled near the portal of the Scheelite Chief Adit, with the assistance of DMEA funds.

At the time of this inspection, no information could be obtained

from the applicant relative to the decision of the State Engineer. This matter was called to the attention of the applicant with the request that a copy of the State Engineer's decision be furnished to the Government. Attached to this report is a copy of the Application No. 15381.

STATEMENT OF WORK COMPLETED

Main Raise, Scheelite Chief Adit:

Operators No.: 43-24-D
Bearing: S. 15° E.
Inclination: +60°
3-compartment - timbered
Date started: January 1954
Date completed: May 2, 1954

Advance previously reported	192.9 feet
Advance this period	96.6 "
Total advance	289.5 "
Raising allowed by amendment No. 3	290.0 feet
Total raise advance	289.5 "
Difference after completion	0.5 "

Extension of 3rd level drift off Silver Bell Shaft:

Drifting allowed 450 feet	
Completed on Jan. 16, 1954	300.0 feet
Advance this period	114.0 "
Total advance	414.0 "
Uncompleted	36.0 "

Extension of the 650-level off Main, Scheelite Chief Raise:

Drifting allowed by contract, item (6) step 1 and 2, amounted to 384.8 feet on the 5th level. Operator changed the location for geological reasons.

Advance previously reported	None
Advance this period	68.8 feet
Total advance	68.8 " *
Uncompleted	316.0 "

*Due to the operators change in location, an amendment authorizing such change is considered necessary before reimbursement can be made.

OPERATORS MONTHLY REPORTS

Contact amount: $171,400.00

Government participation @ 75% = $128,550.00

Expenditures reported:

March 1953	$9,133.03	
April "	471.50	
May "	1,936.52	
June "	2,333.18	
July "	8,235.84	
August "	9,317.34	
September "	14,513.08	
October "	12,873.86	
November "	12,210.36	
December "	12,625.01	
January 1954	12,883.68	
February "	4,142.59	
March "	11,850.39	
April "	7,102.76	
May "	6,762.49	
		$126,391.63
	Unexpended	$ 45,008.37

Contract Period:

Contract dated: January 27, 1953
Expiration date: April 27, 1954
Amendment No. 3, dated April 23, 1954 extends expiration date to October 27, 1954.

The applicant in his letter dated Jan. 21, 1954 requested an additional period of time. The examining engineer recommended an extension of six months be allowed.

GEOLOGY

There are no particular changes in geology to report. Drifting,

raising and mining of ore from the various levels of the mine are following the quartz vein and in the near future the character and continuity of an ore shoot should be known.

SAMPLING

No channel samples were taken by the examining engineer, as it appeared the car samples taken by the operator and the automatic sample of ore shipped to the Bauer plant, would be more accurate in determining the average grade of the ore exposed and mined.

Resume:

The exploration work is proceeding steadily and has been conducted in a satisfactory manner. The shipments of low grade ore to Bauer, Utah for milling would appear to be uneconomical due to the approximate $8.00 per ton transportation charge, together with an increased handling charge at the mine.

Glenn G. Gentry
Mining Engineer

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) April 27, 1954

Name and address of operator: M.I.A. Mines Co.
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten Mine was visited on April 13, 1954 for the purpose of inspecting work performed under the exploration project. During the inspection, the examining engineer was accompanied by Mr. Harry Godbe, mine superintendent and Mr. James Hulse, mine foreman.

Since the last inspection on March 6, 1954, the exploration under the DMEA program has been confined to extending the three compartment raise above the Scheelite Chief Adit. This raise has now been extended a distance of 192.9 feet and was successful in encountering the quartz filled fissure at 176.2 feet.

This quartz exposure contained varying amounts of scheelite and the operators expect to continue development of the mineralized fissure by extending drifts both southwest and northeast from the raise station.

Additional development and exploration work done at the operators expense has consisted of:

Sub-level above Chief Adit: Drifting in a southwesterly direction

from stope No. 44-16-B. Scheelite ore produced from this stope and drift is removed through the Scheelite Chief Adit and stockpiled near the portal of the adit.

Silver Bell Mine (300 level, East): Since completing the original 500 feet of exploration drift, the operators have continued to extend the level a distance of 77.7 feet, following the fissure and have been successful in exposing considerable quartz containing scheelite in varying amounts. A new stope will soon be started in the most favorable location and the main drift will be extended to a point under churn drill hole No. 7.

Other stopes, namely, 40-32-B, 40-33-D and 40-34-A, will be extended. The scheelite ore produced from the entire 300 level drifting and stoping will be passed through an old stope west of the Silver Bell shaft, to the 400 level and then hoisted to surface and stockpiled.

On or about April 16, 1954, the operators expect to begin shipments of scheelite ore to the mill of the Combined Metals Reduction Company located at Bauer, Utah, which is reported to be a flotation plant. The ore will be hauled by trucks from the Minerva Mine to Delta, Utah, a distance of approximately 142 miles. At Delta, Utah, the ore will be transferred to railroad cars on the Union Pacific Railroad and hauled to the mill at Bauer, Utah. Shipments will be weighed on Union Pacific Railroad scales and an automatic sample will be taken as the ore passes through the mill. Full details of each lot of ore are to be reported at the end of each month in the narrative submitted by the M.I.A. Mines Co.

CONCLUSIONS

The exploration, so far conducted, has been successful in exposing important quantities of scheelite ore and it seems reasonable to expect that additional ore will be encountered as future exploration progresses.

The operators are considering the installation of a mill near the portal of the Scheelite Chief Adit and this would appear advisable in order to treat lower grades of ore at a profit.

RECOMMENDATIONS

Silver Bell Shaft: Under date of March 8, 1954, in a letter to Mr. Sam S. Arentz, Western Manager of Operations for the applicant, Mr. A. C. Johnson, Chief, Mining Division, Region III, called attention to the danger in the shaft caused by too small clearances in several places between the skip and the back. Under date of April 5, 1954, this office was advised by Mr. Paul Gemmill, General Superintendent for the applicant, that greater clearance has been provided in two places in the Silver Bell Shaft.

During the inspection on April 13, 1954, the examining engineer noted two other places in the shaft where the clearance should be increased and in several places where loose rocks should be barred down. These matters were called to the attention of Mr. Harry Godbe, Mine Engineer and Superintendent for the applicant, who stated that these hazards would be corrected.

Scheelite Chief Adit: Previous interim reports have called attention to loose timbers and rock in some of the old stopes above the adit and the

operators method of storing dynamite in the adit. These matters were again called to the attention of the mine superintendent and mine foreman and the danger of an accident resulting from these conditions was pointed out.

Mr. Godbe, reported that during the latter part of March 1954, the Scheelite Chief mine and the Silver Bell mine were visited by the Nevada State Mine Inspector. Mr. Godbe also reported that the said State Mine Inspector considered the mine conditions to be satisfactory.

PRODUCTION

Reported by applicant in Narrative Report dated March 9, 1954:

Scheelite Chief, sub-level:

Location	Number of cars	%, WO_3
Stope 44-16-B	41 (16 cu. ft. cars)	0.565

Silver Bell Mine (to March 1, 1954:

Stope 41-27-D; Class 1	189 (20 cu. ft. cars)	0.767
Stope 40-29-B; Class II	134 "	0.170
Surface stockpile	236 "	0.074
	600	

The operator is continuing active mining and the production of ore.

STATEMENT OF WORK COMPLETED

Main raise, Scheelite Chief Adit
Operators No.: 43-24-D
Bearing: S. 15° E.
Inclination: +60°

Advance previously reported	66.7 feet
" this period	126.2 "
Total, this period	192.9 "

Raise allowed by contract	200.0 feet
Raise advance	192.9 "
Not completed	7.1 "

OPERATORS MONTHLY REPORTS

Contract amount:		$171,400.00
Government participation @ 75% = $128,550.00		
Expenditures reported:		
March 1953	$ 9,133.03	
April "	471.50	
May "	1,936.52	
June "	2,333.18	
July "	8,235.84	
August "	9,317.34	
September "	14,513.08	
October "	12,873.86	
November "	12,210.36	
December "	12,625.01	
January 1954	12,883.68	
February "	4,142.59	
		$100,675.99
Unexpended		$ 70,724.01

Contract period:

Contract dated:	January 27, 1953
Expiration date:	April 27, 1954
Unexpended time:	None (as of this report)

The applicant, in his letter dated January 21, 1954, requested approval for additional exploration and also for an additional three months time. In the interim report dated March 22, 1954, the examining engineer recommended an extension of six months time from the expiration date of the present contract, which expired on April 27, 1954.

GEOLOGY

There has been only slight changes in geology to report. The continued extension of the 300 level in an easterly direction from the Silver Bell

Shaft has followed the fissure and the quartz vein. The quartz pinches and swells and the scheelite values decrease where the quartz has been intruded by heavy calcite. Heavy calcite and spotty scheelite was observed in the fissure as contacted by the main raise above the Scheelite Chief Adit.

SAMPLING

Raise station, Scheelite Chief Raise:

Sample No.	Width/feet	%, WO_3	Location
BM-1195	3.0	*0.01	South wall of northwest drift off raise station; quartz carrying scheelite.
BM-1196	3.5	*0.01	North wall of raise station; mixed limestone and quartz.
BM-1197		*0.01	Grab sample of broken ore in northeast drift off raise station.
BM-1198	3.5	*0.01	Across back and at east side of raise station. Quartz carrying scheelite.
BM-1199	3.0	0.05	Quartz at northeast side of raise station.
Sub-level above Scheelite Chief Adit:			
BM-1200	4.0	3.01	South side of east drift off top of stope. Lamp indicated good ore; 17 feet east of center line of stope, No. 44-16-B.
BM-1201	3.0	2.61	Across face of east drift off top of stope No. 44-16-B at 28 feet; east of center line of stope. Quartz carrying considerable scheelite.
Silver Bell Shaft, 300 level, East:			
BM-1202	4.5	2.38	North wall 38 feet east of DMEA 500 feet exploration. Mixed quartz and limestone. Lamp indicates good ore.
BM-1203	3.3	0.66	South wall and 9 feet east of BM-1202. Mostly high grade quartz.
BM-1204	2.4	0.61	North wall and 21 feet east of BM-1202. Mixed quartz, limestone and gouge.
BM-1205		0.79	Grab sample of broken ore in chute of stope 40-34-A. Lamp indicates good ore. (Unable to get up in stope for further examination).

Sample No.	Width/feet	%, WO_3	Location
BM-1206		1.22	General grab and chip sample of about 125 tons of ore stockpiled near portal of Scheelite Chief Adit. Produced from the sublevel and for shipment to Bauer, Utah. Lamp indicates good ore.

Churn drill hole No. 8, drilled at company expense, has reached a depth of 185 feet. So far the drilling has only encountered limestone and no scheelite has been noted. Drilling progress has been slow with extensive wear on the bits.

Resume:

Scheelite Chief Main Raise: On the day of the inspection, the operator had installed 30 sets of timber and had timbered the intermediate raise station which was 16.7 feet below the back of the raise. Work is conducted on a 2-shift basis.

Silver Bell Shaft: One crew has been employed working on the day shift in extending the 300 level in an easterly direction.

OTHER DATA

At present the operator employs 21 men and expects to add new employees as soon as additional housing can be provided. Five new trailer houses have been purchased and installed and are occupied by some of the workmen and their families.

Glenn G. Gentry
Mining Engineer

T OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 29 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: March 23, 1954

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA- 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Company

Property - Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry, Mining Engineer

Dated March 22, 1954

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

~~XXXXXXXXXXXX~~, USGS (With one copy of report)
Roscoe Smith

OF THE INTERIOR
Information
RECEIVED
2 9 1954

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) March 22, 1954

Name and address of operator: M.I.A. Mines Co.
% Combined Metals Reduction Co.
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on March 3 and 6, 1954, for the purpose of inspecting work performed under the exploration contract. On March 3, the examining engineer was accompanied by Mr. James Hulse, mine foreman and on March 6 by Mr. Harry Godbe, mine superintendent, Mr. James Hulse, mine foreman; and Mr. A. C. Johnson, chief, Mining Division, Region III.

The Centennial Development Co., who had been acting as subcontractors, completed laying rail in the Silver Bell shaft from the 300-level to the 400-level, at the operator's expense, and then by mutual agreement the subcontract was terminated. The diamond drilling conducted under a contract with Mr. Howard J. Knighten was completed on February 7, with the drilling of hole No. 9, and additional drilling was discontinued.

At his own expense, the operator is drilling churn drill hole No. 8, located about midway between churn drill hole No. 3 and No. 4,

in a further effort to establish a more exact location of the quartz vein and assist in further development from underground workings. At the time of the inspection, this churn drill hole had reached a depth of 135 feet, without disclosing any scheelite mineralization.

Work is continuing on the extension of the main raise in the Scheelite Chief mine for the purpose of connecting with the 500-level of the Silver Bell mine and to provide access to additional areas the operator proposes to explore.

Under date of November 21, 1953, the operator had requested changes of targets in the exploration in order to more adequately explore the areas outlined in the contract. Pursuant to this request and under date of February 1, 1954, this amendment was prepared and mailed to the applicant for signature.

The examining engineer was informed that the applicant did not expect to sign amendment No. 2 as plans had been again changed due to additional information secured by drifting and diamond drilling. The new proposal dated January 21, 1954 submitted by the applicant is as follows: (See letter from R. H. Godbe to A. C. Johnson, dated January 21, 1954)

The operator has provided additional power facilities at the water well and now both the mine camp and the Scheelite Chief adit are supplied by gravity flow from the water storage tank.

CONCLUSIONS

Progress of the exploration contract has been steady and the work has been well done.

DEPARTMENT OF THE INTERIOR
Defense Materials Administration
RECEIVED
JAN 29 1954

January 28, 1954

Mr. A. C. Johnson
Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Docket No. DMEA 2683 (Tungsten N.I.M. Mines Co. - Joint Venture Combined Metals Reduction Co. and American Zinc Co. of Tennessee, Minerva Tungsten Property, White Pine County, Nevada. Contract No. IMC-S 481).

Dear Mr. Johnson:

The following tabulation gives the status of subject exploration project as of January 14, 1954 exclusive of completed "rehabilitation" and "new building, improvements, etc." items:

STAGE I

	Obj. Area 1			Obj. Area 2 & 3			Obj. Area 4			Cumulative
	All.	Compl.	Diff.	All.	Compl.	Diff.	All.	Compl.	Diff.	Diff. All
Drifting	100	147	(47)	275	275	0	575	570.5	4.5	(42.5)
Raising	50	0	50	200	0	200	200	0	200	450
Churn Drilling	800	739.7	60.3							60.3
Diamond Drilling							1,300	950*	350	350
Crosscutting				250	0	250				250

STAGE II

	Obj. Area 5			Obj. Area 6			Cumulative Diff.
	All.	Compl.	Diff.	All.	Compl.	Diff.	All.
Drifting	200	200	0	300	300	0	0
Raising	50	0	50	75	0	75	125
Churn Drilling				1,500	600.3	899.7	899.7

* Total Diamond Drill Footage - Minerva DDH #1 Through #7 Incl.

Proposed amendment No. 1, dated December 21, 1962, requested that 1[illegible] feet of the 990 feet allocated for crosscutting in Step 2 of Item (4) Objective Area 2 and 3 of Stage I be changed to Item (3) Objective Area 1 of Stage I.

Proposed Amendment No. 2, dated December 21, 1963, requested that equivalent diamond drill footage be substituted for the "unused" churn drill footage totaling 960 feet.

Confirmation of acceptance of Proposed Amendments No. 2 and 3 has not been received as of this writing.

Results of exploration work completed to date, has defined a program for completion of the exploration project with the following proposed items of work established on an equivalent work ratio in accordance with rates as established in the project. Reference is made to accompanying map C-1112 (1" = 100'), delineating these proposals.

The contract agreement allowed a 200 foot two compartment raise entry to Objective Area 4, and a 250 foot crosscut with a 200 foot two compartment raise entry to Objective Areas 2 and 3. The location of Objective Area 4, below the bottom workings of the Silver Bell mine, does not permit favorable diamond drill intersections at permissable angles. Very favorable scheelite mineralization was encountered in the fissure zone in Minerva DDH #2 at a position approximately 100 ft. in elevation below the bottom of the Silver Bell workings but undoubtedly below the favorable ore horizon. It now appears probable that Minerva DDH #3 intersected the fissure at shallow depth as indicated by the narrow quartz zone with scheelite mineralization encountered between 26.9 and 29.4 feet. Inspection of the fissure on the fifth level of the Silver Bell mine near transit station 504 shows a minimum vein width of 7 to 8 feet with excellent scheelite values. The last work by the former operator was done at this location just prior to closing down, and excellent ore showings remain here and in the entire stope area above.

Minerva C.D.H. #3 showed scheelite mineralization in a quartz fissure zone from about 80 feet to a bottom depth of 127 feet. The drill was stopped after unsuccessful efforts to penetrate deeper in the quartz zone. Favorable assays were obtained between 85 and 95 feet (85'-90' 0.76% WO_3 and 90'-95' 0.29% WO_3), or at an elevation of 6637 to 6627. The rail elevation at transit station 504 is 6590.

—Proposal A—

It is proposed to drive a 235 foot raise (S15°E alignment and + 39° inclination) to connect with the 5th level of the Silver Bell mine as shown. Present information shows that this raise will be driven just under the footwall of the fissure, and will be located in a favorable position to provide both an entry to Objective Area 1 and for exploration of the fissure at horizons below this area.

—Proposal B—

On completion of this raise it is proposed to drive a 500 foot drift westerly as shown to Objective Areas 2 and 3 at a position in elevation below the favorable mineralization located in Minerva C.D.H. #3. (Possibly below fifth level).

—Proposal C—

Completion of the allocated 500 feet of drifts footage allocated for the 3rd. level drive to the east from the incline has fallen short of providing a drift entry to the ore defined by Minerva C.D.H. #7.

It is proposed to drive an additional 167 feet here to place the heading at a position below Minerva C.D.H. #7.

It is requested that consideration be given to modification of remaining items of drifting, crosscutting, raising and churn drill footage to carry out proposals A, B, and C above described. The following table is carried forward on a basis of changing remaining footage in these categories to equivalent drift footage at the Stage II (Silver Bell) contract rate.

	Stage	Cumulative Diff. ft.	Required for Proposal A	Difference	Contract rate factor	Equivalent drift footage-Silver Bell
Drifting & Crosscutting	I	207.5*		207.5	125/130	172.9
Raising	I	450.0	288.0	162.0	131/130	167.4
Churn Drilling	I	60.3		60.3	85/130	10.0
Raising	II	125.0		125.0	140/130	166.7
Churn Drilling	II	899.7		899.7	85/130	150.0
Total (To be used in Proposals B and C)						667.0

* 250' crosscutting less 42' average Obj. area 1.

Required raise entries to the ore horizon as now clearly defined above the sub-level drift, Objective Area 1; and raise entries in Silver Bell mine ore blocks will be carried forward entirely on M. I. A. Mines Co. account.

These proposals with resultant amendments to the contract shall not be construed to increase the estimated total cost of the project, or the aggregate total amount which the government may be required to contribute.

The Exploration Project Contract as approved was dated effective January 27, 1953 and was to be completed within a period of 15 months. It is estimated that the 288 foot raise can be completed on or about April 1, 1954; and the required 500 foot drift on or about July 15, 1954. The additional work on the 3rd. level of the Silver Bell mine will be carried out concurrently with the raise work. It is therefore requested that a minimum time extension of three months be allowed to complete the project.

Very truly yours,

R. W. Godbe, Engineer and Metallurgist
of Anaconda Operations

APPROVED:

Paul Gemmill, General Supt. of Mines
for Nevada

cc: Mr. H. G. Johnson (5)
MEB
MSA
PG
File

RECOMMENDATIONS

The operator has installed small pieces of luminous paper on the shaft timbers which are inside the Scheelite Chief adit and near the portal and on various stope chutes in the old section of the mine. These installations are for the purpose of protection and warning to train crews entering and leaving the adit. These warning devices are very helpful, but are considered to be inadequate in size. Therefore, much larger sections of the luminous paper are recommended.

In the interim report dated January 23, 1954, it was recommended that loose timbers in the old stopes above the Scheelite Chief adit should be securely blocked or the stopes bulkheaded for the safety of the workmen passing through the adit. The operator agreed these safety precautions were advisable, but at this inspection the recommendations had not been followed. Also, in several of the old open stopes above the Scheelite Chief adit there appears to be a considerable amount of rock, both in the back and floor of the stopes, that should be barred down in order to eliminate or at least reduce the hazard to workmen passing to and from the location of the DMEA project.

The operator keeps sufficient blasting powder on hand in the mines to meet the estimated requirements of the mine during a 24-hour period. The examining engineer recommends the blasting powder should be stored in one of the old crosscuts and that a locked door be installed in said crosscut. Dynamite storage in this manner would comply with section 14,

page 10 of Nevada Mine Safety Laws, 1947 Edition.

During the recent inspection of the Silver Bell shaft, the small amount of clearance between the skip and the rock section was considered to be a hazardous condition and was called to the attention of the operator on March 8, 1954. (See copy of letter from A. C. Johnson to Sam S. Arentz, dated March 8, 1954).

PRODUCTION

Estimated production of tungsten ore is as follows:

Scheelite Chief adit

Location	Tons
Main adit at approximately 140 feet east of start of DMEA exploration	20
Intermediate level, raise No. 44-16-B	125
Stockplied near portal of Chief Adit	145

Silver Bell shaft

East drift on 300-level	64
Raise No. 40-32-B	75
Raise No. 40-33-D	75
Raise No. 40-34-A	75
Stored in old stope west of shaft on 300-level	289

STATEMENT OF WORK COMPLETED

Churn drilling

	Allowed	Completed	Not completed
Stage 1, item 4, step 1 Area 2 and 3	800 feet	739.7 feet	60.3 feet
Stage 2, item 5, step 1 Objective Area 6	1,500 "	600.3 "	899.7 "
	2,300 "	1,340.0 "	960.0 "

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
MAR 29 1954

March 5, 1954

Mr. Sam S. Arents,
Western Manager of Operations
Combined Metals Reduction Co.
Felt Building
Salt Lake City, Utah

Re: DM EA-2688 (Tungsten)
M. L. A. Mines Co.,
Minerva Tungsten Mine
White Pine County, Nev.
Mon-7481

Dear Mr. Arents:

During an inspection of the Silver Bell inclined shaft on March 6, 1954, it was noted that in several places there is very little clearance overhead between the skip and the rock section. Any sudden starting and stopping usually has the effect of raising the bail of the skip. Should this condition occur when men are riding the skip, a serious or fatal accident could occur.

This hazard can be eliminated by lowering the track to give more headroom and can be done at a minimum of expense and labor.

This matter is called to your attention for corrective measures as funds were allotted for rehabilitation of the Silver Bell shaft under Stage II, item 2 of the exploration contract.

It is recommended that you take immediate action to eliminate a hazardous condition and it will be appreciated if you will advise my office when this work has been done.

Very truly yours,

A. C. Johnson, Chief
Mining Division
Region III

cc: Paul Gemmill, Pioche, Nev.
H. C. Miller
Files

Diamond drilling

Previously reported: (Diamond Drill Holes 1 to 7, incl.) 950.1 feet

Hole No.	Date Started	Date Completed	Depth Feet	Angle	Bearing	Collar Elevation	Location
8	1/21/54	1/26/54	87.7	--	N 55° E	6341.3	Scheelite Chief adit
9	1/27/54	2/7/54	222.5	-45°	N 5° E	6337.3	" " "
			310.2				

Total diamond drilling	1,260.3 feet
Total diamond drilling allowed	1,300.0 "
Not completed	39.7 "

Coordinates:
Hole 8: 4452.0N; 11,968.0 E.
Hole 9: 4452.0 N; 11,967.0 E.

All diamond drill cores have been retained in "Marked core boxes" and stored in the basement of the assay laboratory at the Caselton Plant of the Combined Metals Reduction Co., Pioche, Nev.

Stage 1, item 3
Objective Area 1

Intermediate level drift (previously reported)	147.0 feet
No further advance	--
Total	147.0 "
Excess over drift allowance	47.0 "
Extension of Scheelite Chief adit (previously report)	845.5 "
Not completed	4.5 "

Stage 2, item 4
Objective Area 5 and Step 2, Objective Area 6

Extension of 300 level Silver Bell shaft (previously reported)	500.0 "
No further advance	--
Total allowed and completed	500.0 "

Main raise, Scheelite Chief adit
Operator's No. 43-24-D (36 feet west of face of adit to center line of raise.

Bearing: S. 15° E.	
Inclination: +60°	
Advance previously reported	0.0 feet
Advance this period	66.7 "
Total this period	66.7 "
Raise allowed by contract	200.0 "
Raise advance	66.7 "
Not completed	133.3 "

Stoping

Intermediate level above Silver Chief adit:

The intermediate level was advanced with DMEA financial assistance and at a point 61.5 feet east of the main raise, the operator at his own expense, has begun stoping operations. The back of this stope is 24.5 feet above the intermediate level and production from the vein has started. The stope values are partially represented by Samples 1156, 1157, and 1158. The operator expects to continue stoping and the production of ore will be stockpiled outside of and adjacent to the Scheelite Chief adit.

Silver Bell shaft - 300 level, East:

This level was extended from the Silver Bell shaft with DMEA financial assistance and two important exposures of scheelite mineralization was encountered.

At his own expense, the operator has started three stopes:

Stope No.	Length/ft.	Height/ft.	Width of vein	U.S.B.M. Sample No.	%, WO_3
40-32-B	12	10	4 feet	BM-1173	0.76
40-32-D	12	15	3 "	BM-1174	0.38
				BM-1175	0.11
40-34-A	12	15	5 "	BM-1176	1.96

The operator expects to continue stoping and the production of ore. This ore is presently stockpiled in one of the old stopes west of the Silver Bell shaft, but will soon be hoisted to the surface and transferred to a new location near the Scheelite Chief adit portal for storage. The operator is endeavoring to maintain two grades of ore, namely:

Grade No. 1: Ore that will assay 1.0% WO_3 or more and which could be shipped via truck to Bauer, Utah for milling.

Grade No. 2: Ore that will assay less than 1.0% WO_3 and which would be milled at the mine site to produce a profit. These stopes should give considerable valuable information as to the extent of the ore shoots above the level and the strike length of the minable ore.

OPERATOR'S MONTHLY REPORTS

Contract amount:		$171,400.00
Government participation		128,550.00
Expenditures reported:		
March 1953	$9,133.03	
April "	471.50	
May "	1,936.52	
June "	2,333.18	
July "	8,235.84	
August "	9,317.34	
September "	14,513.08	
October "	12,873.86	
November "	12,210.36	
December "	12,625.01	
January 1954	12,883.68	
	$96,533.40	
Unexpended		$ 74,866.60

Contract period

Contract dated: January 27, 1953
Contract expiration: April 27, 1954
Unexpended time: 2 months

It is evident that if approval is granted, according to the changes in exploration as requested by the operator in his letter dated January 21, 1954, that an extension of time will be required. The operator has requested an additional 3 months time, however, the examining engineer recommends the extension of 6 months time beginning with the expiration date of the present contract.

GEOLOGY

There has been no important changes in geology to report. An examination of the 4th and 5th levels of the Silver Bell shaft indicate a strong vein of quartz carrying scheelite with the stopes having approximately the same size as those on the 300 level. This condition is encouraging as it shows the downward continuity of the ore shoots and the occurrence of scheelite.

SAMPLING

Scheelite Chief adit
Intermediate level:

Sample No.	%, WO_3	Co	Remarks
BM-1156	0.35		Strike length 6 feet; quartz vein in back of raise and 32 feet above floor of level.
BM-1157	0.10		Width 4.3 feet; quartz vein on east side of raise and 24 feet above level.
BM-1158	0.57		Stockpile of ore near portal of Scheelite Chief adit - shovel sample.

Diamond drill hole No. 8

Sample No.	%, WO_3	%, Co	Remarks
BM-1163	0.10	0.04	0.0 feet to 2.2 feet
1164	0.63	0.44	2.2 feet to 2.8 feet
1165	*0.01	0.04	2.8 feet to 5.5 feet
1166	0.18	0.18	5.5 feet to 6.1 feet
1167	*0.01	0.04	6.1 feet to 9.2 feet
1168	0.55	0.08	9.2 feet to 9.8 feet

Diamond drill hole No. 7

BM-1169	0.03	0.08	173.1 feet to 174.8 feet
1170	*0.01	0.02	174.8 feet to 176.8 feet
1171	*0.01	0.12	176.8 feet to 177.9 feet
1172	*0.01	0.02	177.9 feet to 180.5 feet

Silver Bell shaft - 300 East level

BM-1173	0.76	Width 4.0 feet; stope 40-32-B; east wall and 8 feet up in stope.
1174	0.38	Width 3.0 feet; stope 40-33-D; back of stope - 15 feet above level.
1175	0.11	Width 4.0 feet; stope 40-34-A; back of stope - 15.6 feet above level.
1176	1.96	Width 5.0 feet; stope 40-34-A; east wall of stope - 2 feet under back.

Silver Bell shaft - 500 level

BM-1177	11.99	Width 1.6 feet; 50 feet west of winze in hanging wall and under an old stope. Quartz vein shows scheelite under lamp.

Silver Bell shaft - 400 level

BM-1178	0.69	Width 3.8 feet; 50 feet west of crosscut off shaft. Quartz on hanging wall and under an old stope; quartz shows scheelite under lamp.

DRILL LOG

Diamond drill hole No. 7 — Core recovery estimated at 95%

Feet From	Feet To	Description
0	69	Black limestone mottled with calcite. Small specks of scheelite noted at 57 feet.
69	155	Do; small specs of scheelite note at 108.2 feet and 144.5 feet.
155	173.1	Do; small specs of scheelite at 161.6 feet, 162.6 feet and 167.4 feet.
173.1	180.5	Quartz filled fissure showing small amounts of scheelite. Some siliceous limestone.
180.5	190.6	Black limestone mottled with calcite.

Diamond drill hole No. 8 — Core recovery estimated at 95%

0	9.8	Brecciated limestone and siliceous limestone, recemented with calcite. Shows some scheelite.
9.8	27.9	Do; shows no scheelite.
27.9	38.0	Black limestone heavily mottled with calcite.
38.0	53.2	Black limestone mottled with calcite.
53.2	81.1	Possible fissure zone. Siliceous limestone much calcite and iron staining. No showings of scheelite.
81.1	87.7	Black limestone mottled with calcite.

Diamond drill hole No. 9

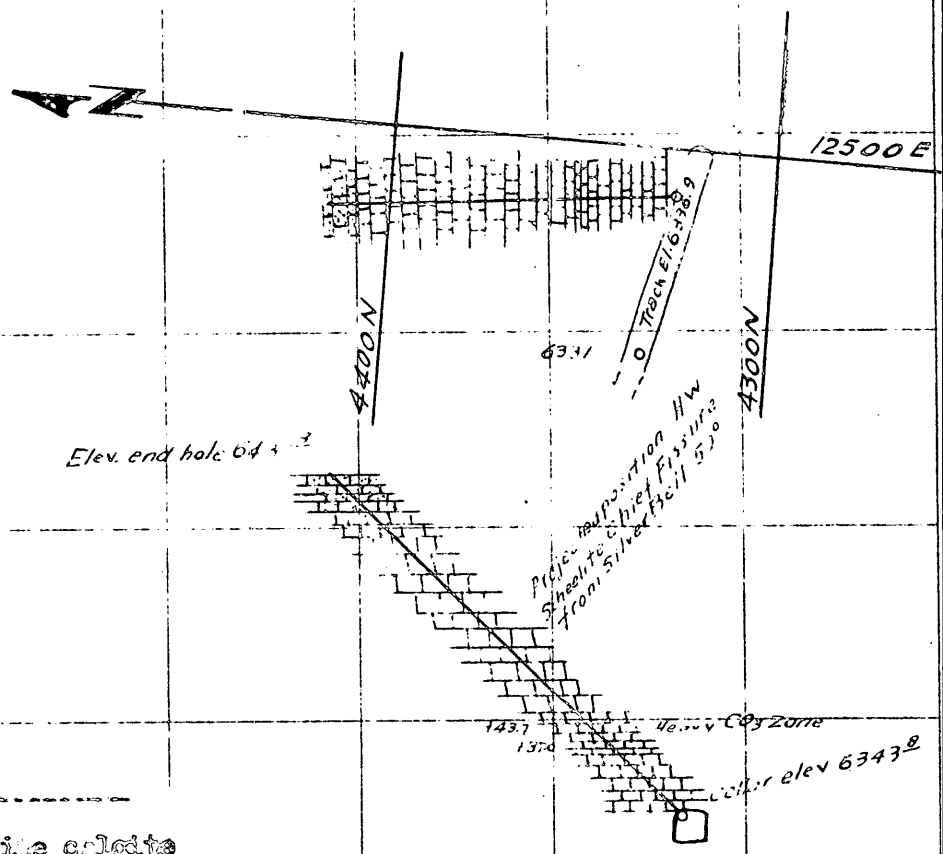
0	51	Black limestone mottled with calcite; no scheelite observed.
51	101	Black limestone mottled with green and blue calcite; no scheelite observed.
101	147	Black limestone mottled with calcite; not scheelite observed.
147	153.2	Mostly black limestone very coarse grained mixed calcite with iron oxide stains; no scheelite.
153.2	170.9	Black limestone, coarse grained, mottled with calcite and iron oxide streaks. No scheelite.
170.9	175.5	Black limestone heavily mottled with calcite, iron oxide stains. Could be a fissure. No scheelite.
175.5	180.0	Gradual change from black limestone to fine grained gray limestone; no scheelite.
180.0	192.5	Fine grained light gray limestone. No scheelite.

Resume: A letter just received from the Executive Officer, DMEA Field Team, Region III, informs that the applicant has signed amendment No. 2.

Glenn G. Gentry
Mining Engineer

[illegible] Mine Company, Inc.
Contract No. [illegible] A 267, Contract No. [illegible] M1
Diamond Drill Log

Coordinates: N 4,326.3
E 12,436.5
Collar Elev. 6,343.8
Bearing: N 5°E
Inclination: + 45°
Depth: 125.7 ft.
Core Recovery: 100 %
Size of hole: N
Started: 11-1-53
Finished: 11-1-53
Driller: [illegible] Brighton
Helper: J. Schuh



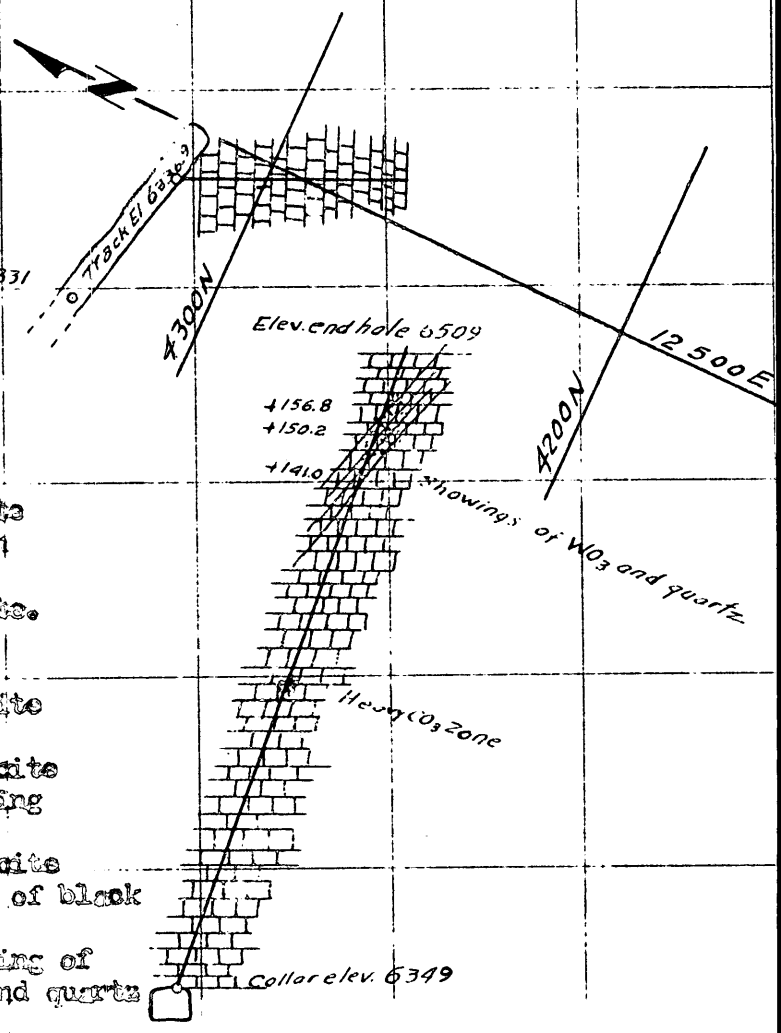
Log of Hole

0.0 - 33.7 Black lrs. not led with white calcite
33.7 - 37.0 Black lrs. with heavier calcite mottling
37.0 - 43.7 Heavy calcite zone
43.7 - 112.3 Black lrs. not led with white calcite
112.3 - 116.0 Very silicified lrs. zone with heavy calcite
116.0 - 125.7 Siliceous black lrs. with calcite

Scale: 1" = 50'

[illegible] Tungsten Mine
Pocket No. [illegible] 2436, entry No. [illegible] 141
Diamond drill hole No.2

Coordinates: N 4,323
E 12,485
Collar Elev.: 6,344
Course: S 25E
Inclination: + 75°
Depth: 175.3 ft.
Core recovery: 99%
Size of hole: AX
Started: 11-15-53
Finished: 11-25-53
Driller: [illegible]
Helper: [illegible]



Log of Hole

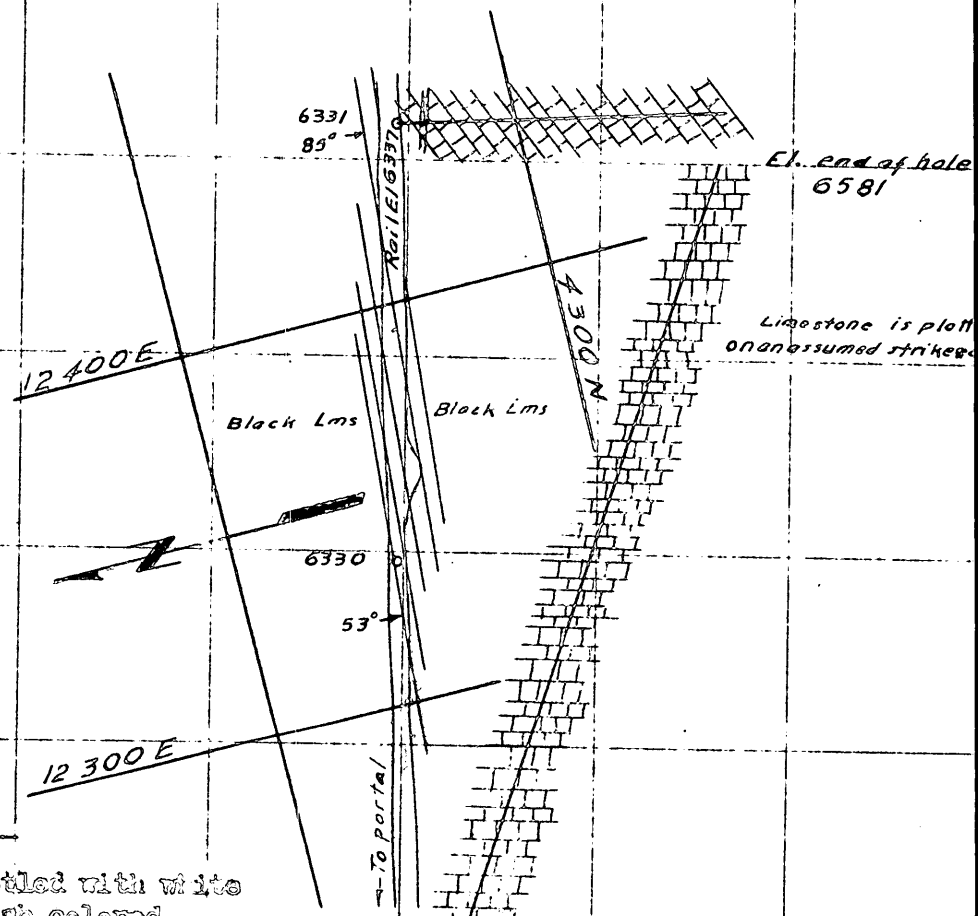
0.0 - 53.0 Black lms. mottled with white calcite
Brown to reddish iron colored stain on fractures.
53.0 - 83.5 Black lms. mottled with white calcite. small bunches of calcite noted.
83.5 - 90.2 Solid white calcite
90.2 - 125.0 Black lms. mottled with white calcite
125.0 - 131.9 Solid white calcite
131.9 - 141.0 Black lms. mottled with white calcite
141.0 - 142.5 Quartz filled fissure. Small showing WO3 at 141.7 - 141.9
142.5 - 145.0 Black lms. mottled with white calcite
145.0 - 150.2 White calcite with small amounts of black lms.
150.2 - 150.7 Black lms. and calcite with showing of small stringers containing WO3 and quartz
150.7 - 155.7 Black mottled lms.
155.7 - 156.4 Quartz with good showing WO3
156.4 - 156.8 Siliceous lms.
156.8 - 157.3 Black lms. and calcite with showing of small stringers containing WO3 and quartz
157.3 - 165.4 Siliceous lms. with small amounts of black lms. and calcite.
165.4 - 175.8 Gray lms. mottled with calcite

Assay of split core

Depth	% WO3
141.7 - 141.9	0.23
150.2 - 150.7	0.52
155.7 - 156.4	1.36
156.8 - 157.3	0.41

[illegible] Tungsten; [illegible] in Sec. [illegible]
Pocket No. [illegible], Contract No. [illegible] 41
Dia and Drill Hole No. 3

Coordinates: E 4,311.0
S 12,414.0
Collar elev. 6344.35
Inclination: + 70°
Depth: 249.3 ft.
Core recovery: 95%
Size of hole: AX
Started: 11-21-53
Finished: 12-10-53
Driller: J. Brighton
Helper: J. Smith
Course: S 13° W



Log of Hole

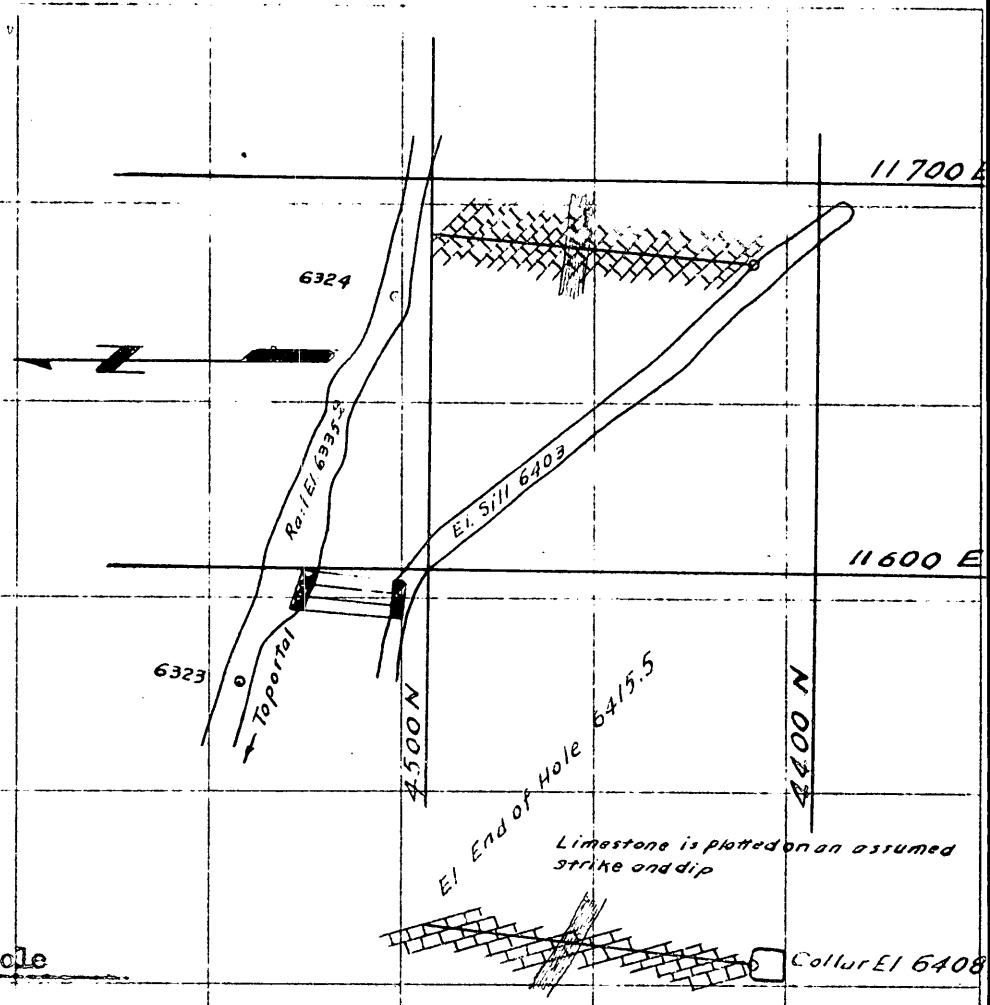
0.0 - 25.0	Black lms. slightly mottled with white calcite. Brown to reddish colored iron stains on fractures
25.0 - 26.9	Silicified dark lms. mottled with white calcite
26.9 - 27.[illegible]	Small quartz-calcite fissure with a little scheelite
27.5 - 29.4	Silicified lms. mottled with calcite and some quartz. A little scheelite noted
29.4 - 44.2	Black lms. mottled with calcite. Iron stained fractures
44.2 - 52.0	Altered lms. heavily mottled with calcite. Iron stained fractures
52.0 - 75.0	Black lms. with some calcite
75.0 - 78.0	Heavy calcite zone
78.0 - 91.2	Silicified lms. with much calcite
91.2 - 103.0	Dark lms. mottled with calcite
103.0 - 104.3	Silicified dark lms. with much calcite
104.3 - 107.5	Heavy calcite zone
107.5 - 113.5	Silicified dark lms. with calcite
113.5 - 119.7	Heavy calcite zone. Iron stains predominant
119.7 - 249.3	Black lms. mottled with calcite

Assays of split cores

Depth	% WO3
26.9 - 27.5	0.06
27.5 - 29.4	0.16

N. A. Mines Company; Nevada Tungsten Mine
Project No. [illegible]; Contract No. [illegible] 441
Diamond Drill Hole No. 4

Coordinates: N 4,416.0
E 11,677.5
Collar elev.: 6,408.0
Course: N 5° E
Inclination: + 5°
Depth: 86.1 ft.
Core recovery: 95%
Size of hole: AX
Started: 12-12-53
Finished: 12-17-53
Driller: A. Knighten
Helper: J. Schuh



Section Looking S 85° E

Scale: 1" = 50'

Log Of Hole

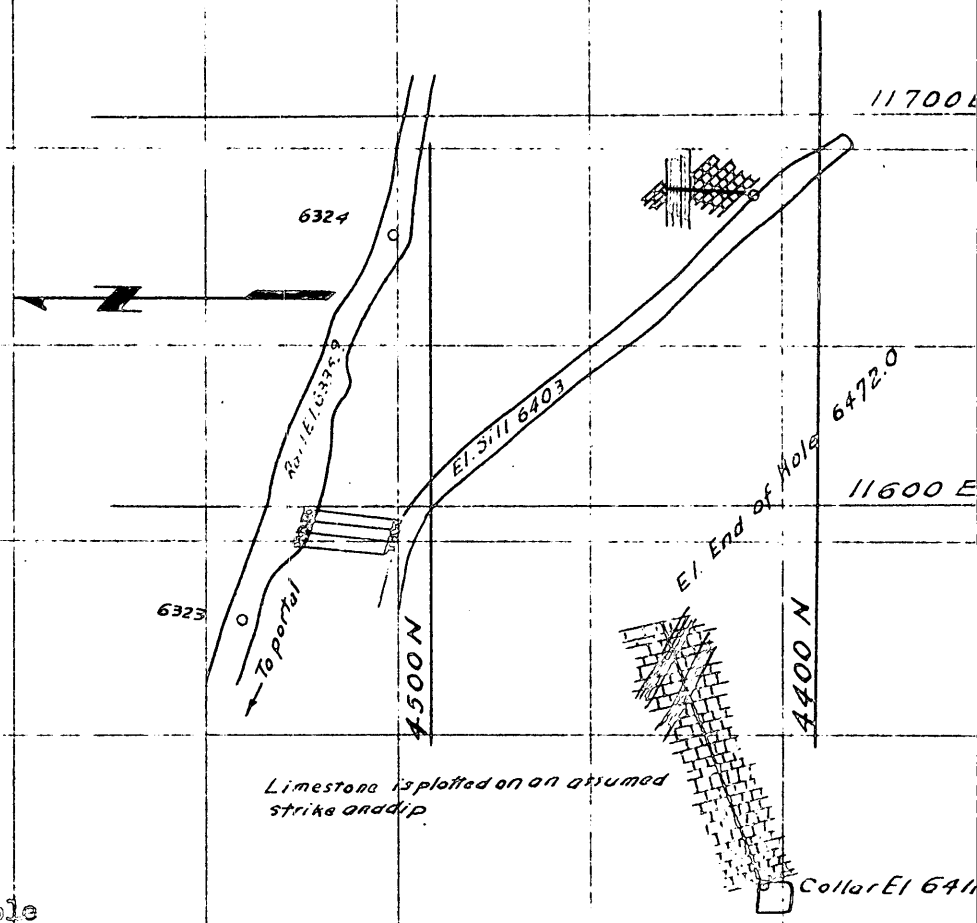
0.0 - 44.4 Black lms. mottled with calcite
44.4 - 45.3 Quartz fissure, small showing scheelite
45.3 - 46.1 Quartz fissure with scheelite
46.1 - 50.6 Black lms. mottled with calcite and quartz. very little scheelite
50.6 - 51.1 Small seam of mixed quartz and calcite. Small showing scheelite
51.1 - 68.0 Black lms. mottled with calcite
68.0 - 71.0 Black lms. Calcite and iron stained fractures
71.0 - 86.1 Black lms. mottled with calcite. few bunches of calcite noted

Assays of split cores

Depth	% WO3
44.4 - 45.3	0.08
45.3 - 46.1	0.12
46.1 - 50.6	0.08
50.6 - 51.1	0.06

[illegible] Company, Tinsley Run Mine
Pocket No. [illegible] 2d, [illegible] Co. [illegible] 1
Diamond drill hole No. 5

Coordinates: N 4,[illegible]1.0
E 11,[illegible]76.5
Collar elev. 6,411.5
Course: N 5°E
Inclination: + 70°
Depth: 74.0 ft.
Core recovery: 100%
Size of hole: AX
Started : 12-17-53
Finished: 12-[illegible]-53
Driller: [illegible] Keighton
Helper: J. Schuh



Section Looking S85°E

Scale: 1" = 50'

Log of hole

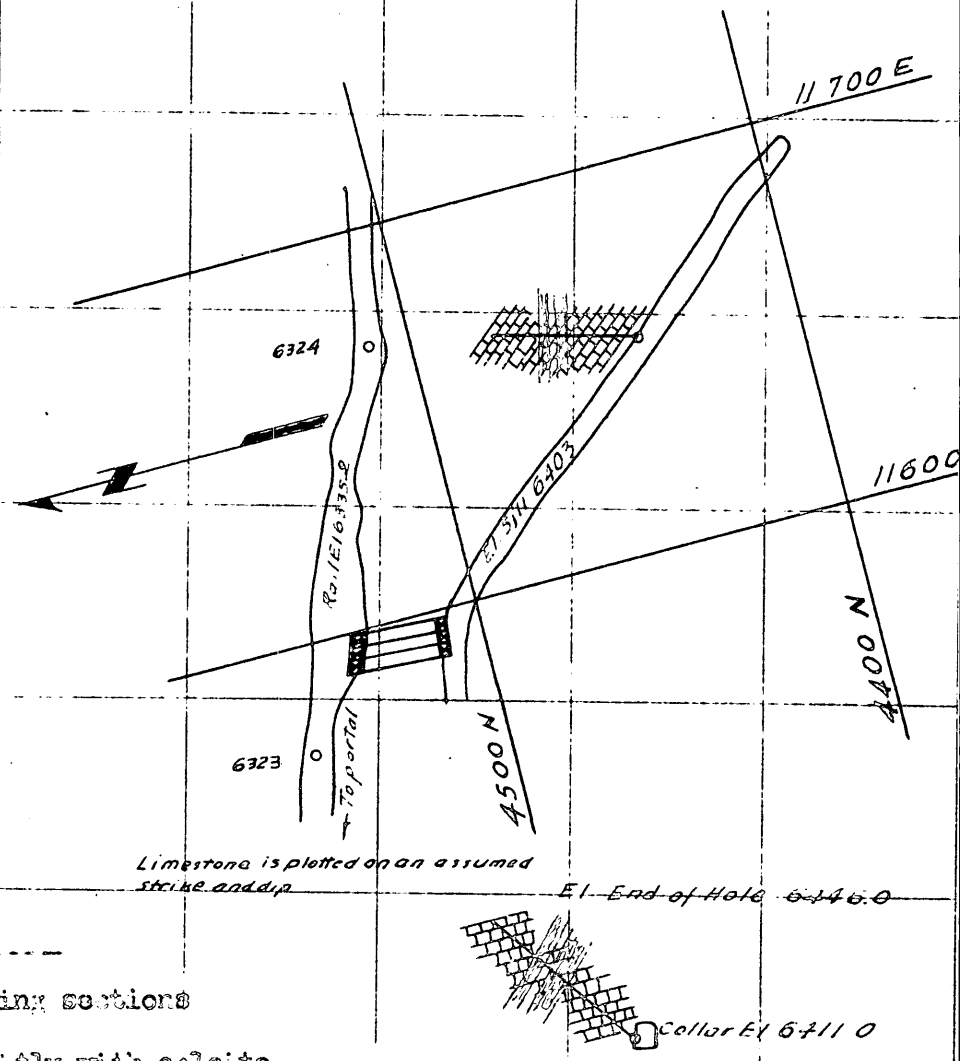
0.0 - 52.7	Black lms. mottled with calcite
52.7 - 53.2	Small section of black lms. with some small quartz filled fractures containing a very small showing of scheelite
53.2 - 56.1	Black lms. mottled with calcite. Small bunches of calcite noted
56.1 - 57.1	Black lms. mottled with calcite Small amount of scheelite
57.1 - 58.0	Black lms. mottled with calcite
58.0 - 63.4	Quartz filled fissure containing showing of scheelite
63.4 - 65.0	Buff colored quartz. and showing scheelite
65.0 - 67.9	Mixed black lms. and calcite containing a very small showing of scheelite
67.9 - 74.0	Black lms. mottled with small seams of calcite

Assays of split cores

Depth	% WO_3
52.7 - 53.2	0.04
56.1 - 57.1	0.20
58.0 - 60.0	0.57
60.0 - 63.4	0.26
63.4 - 65.0	1.10
65.0 - 67.9	0.04

Mole Mines, Inc. [illegible], Known Tungsten Zone
Docket No. [illegible], Contract [illegible] - 1.1
Diamond Drill Hole NO. [illegible]

Coordinates: N 4,442.0
E 11,612.5
Collar elev. 6,411.0
Course: N 15° E
Inclination: +40°
Depth: 44.6 ft.
Core recovery: 100 %
Size of hole : AX
Started: 12-22-53
Finished: 12-24-53
Driller: F. Knighton
Helper: Kirlin



Log of hole

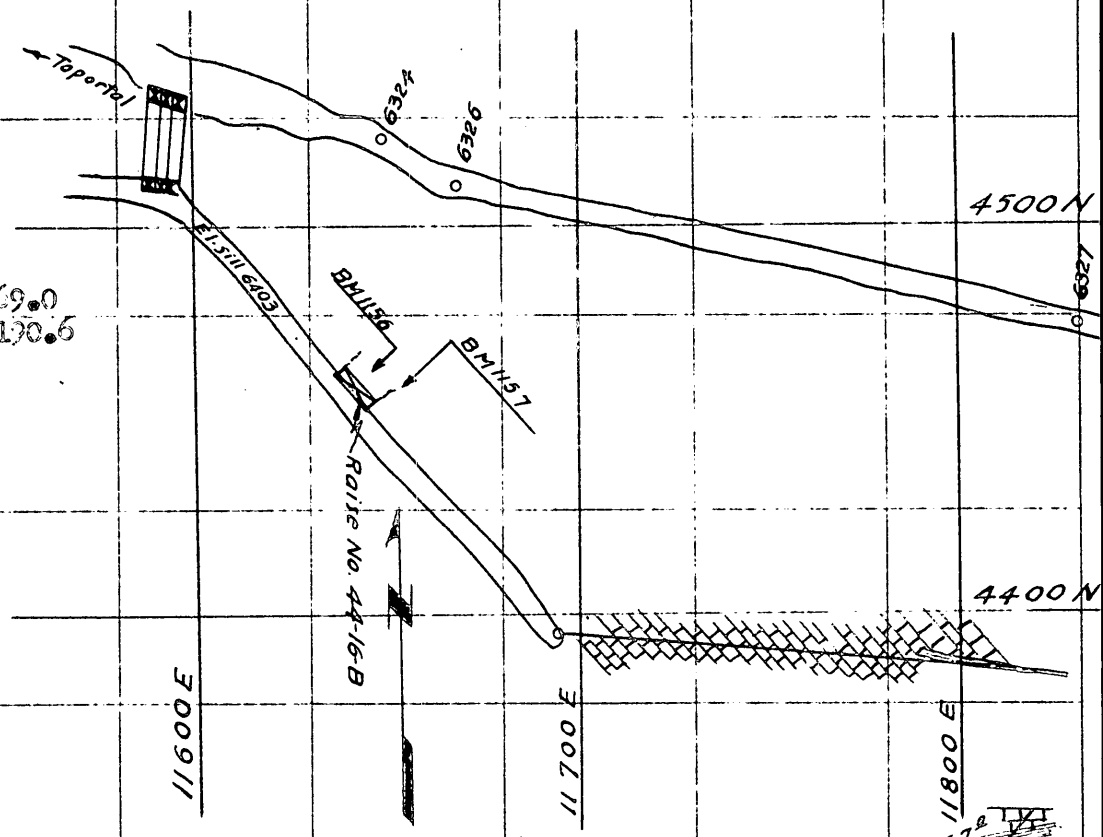
0.0 - 13.0 Black lms. with alternating sections of solid calcite
13.0 - 23.4 Black lms. mottled slightly with calcite
23.4 - 24.1 Salmon colored quartz with good showing of scheelite
24.1 - 27.4 Light colored quartz with very good showing of scheelite
27.4 - 28.5 Salmon colored quartz with small showing of scheelite
28.5 - 32.2 Black lms. with small quartz and calcite filled fractures with poor showing of scheelite
32.2 - 33.3 White quartz with good showing of scheelite
33.3 - 44.6 Black lms. with calcite filled fracture

Assays of split cores

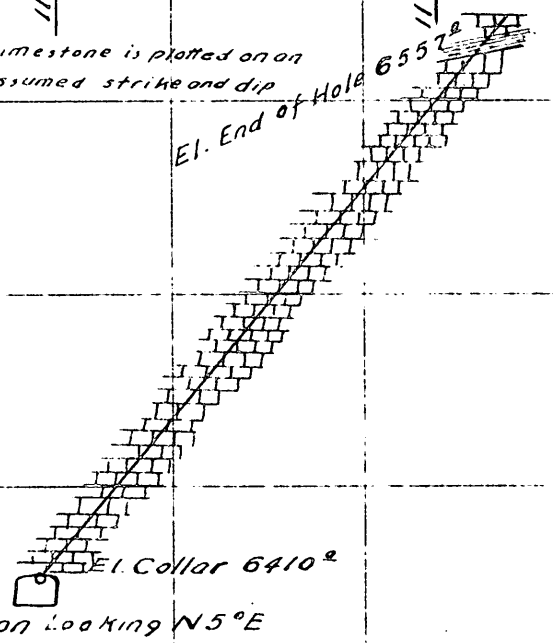
Depth	% WO3
23.4 - 24.1	1.08
24.1 - 27.4	2.44
27.4 - 28.5	0.19
28.5 - 32.2	0.02
32.2 - 33.3	1.35

K.F.A. Mines Company, Limited Portland Canal
Pocket No. [illegible] A [illegible] contract [illegible] 41
Diamond Drill Hole No. 7

Coordinates: N 4,395.0
E 11,694.0
Collar elev. 6,410.0
Course: S 65° E
Inclination: + 50°
Depth: 190.6 ft.
Core recovery: 100 %
Size of hole: AX 0.00 to 69.0
EX 69.0 to 190.6
Started: 12-26-53
Finished: 1-1-54
Driller: [illegible]
Helper: F. Kirlin



Limestone is plotted on an assumed strike and dip



Section Looking N 5° E

Scale: 1" = 50'

Log Of Hole

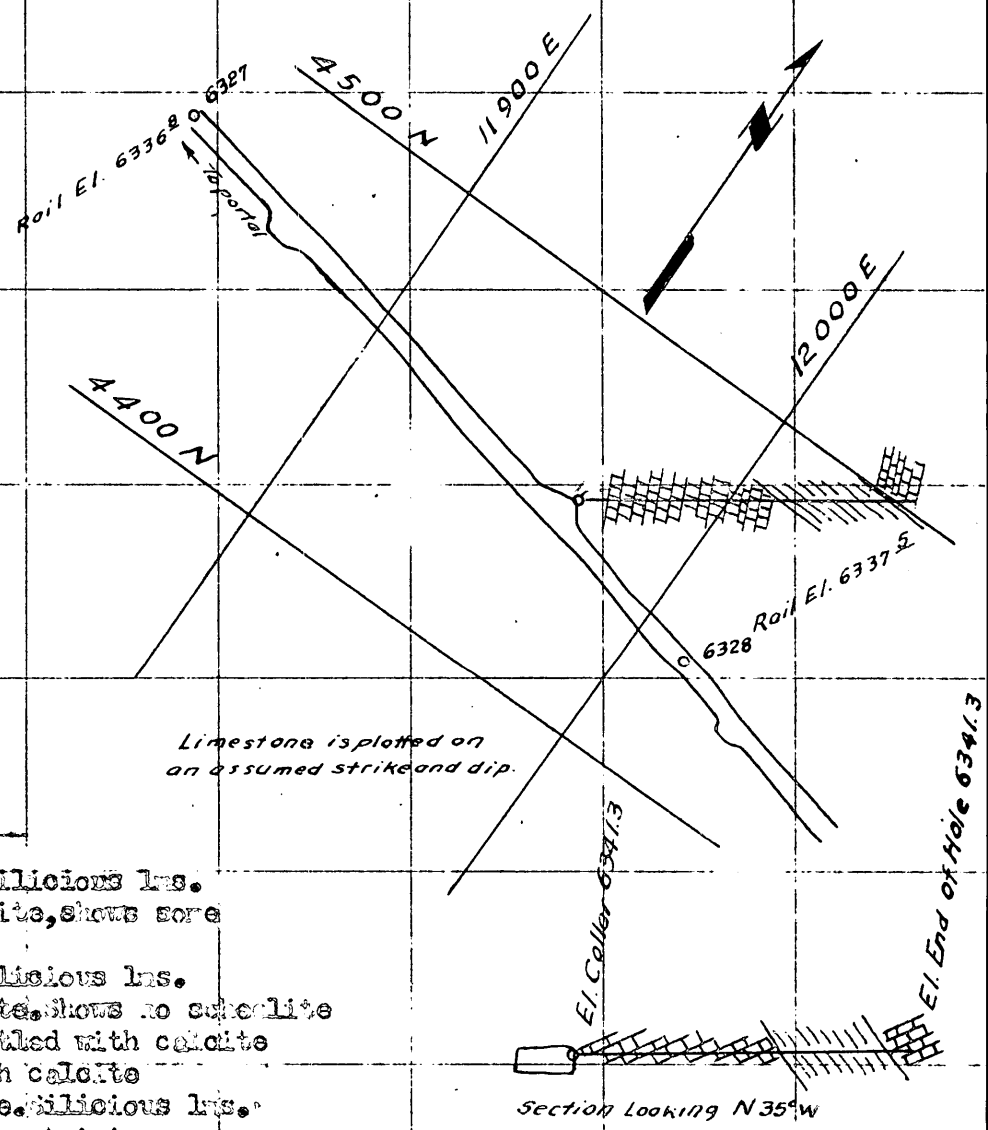
0.0 - 69.0 Black lms. mottled with calcite
Small speck of scheelite noted at 57.0
69.0 - 155.0 Black lms. slightly mottled with calcite.
Small specks scheelite noted at
108.2 and 144.5
155.0 - 173.1 Black lms. mottled with calcite. Small specks
scheelite at 161.6, 162.6 and 167.4
173.1 - 180.5 Quartz filled fissure showing small amounts
of scheelite. Some silicious lms.
180.5 - 190.6 Black lms. mottled with calcite

Assays of split cores

Depth	% WO3
173.1 - 174.8	0.08
174.8 - 175.[illegible]	0.02
175.[illegible] - 177.9	0.12
177.9 - 180.5	0.02

U.S. Mines Company, Minerva Tungsten Mine
Docket No. [illegible], Contract No. [illegible]
Diamond Drill Hole No. 6

Coordinates: N 4,452.0
E 11,966.0
Collar elev. 6,341.3
Course: N 55° E
Inclination: 0° Flat
Depth: 87.7 ft.
Core recovery: 95 %
Size of hole: AX 0.0 - 48.0
EX 48.0 - 87.7
Started: 1-21-54
Finished: 1-26-54
Driller: J. Knighton
Helper : F. Kirlin



Section Looking N 35° W

Scale: 1" = 5'

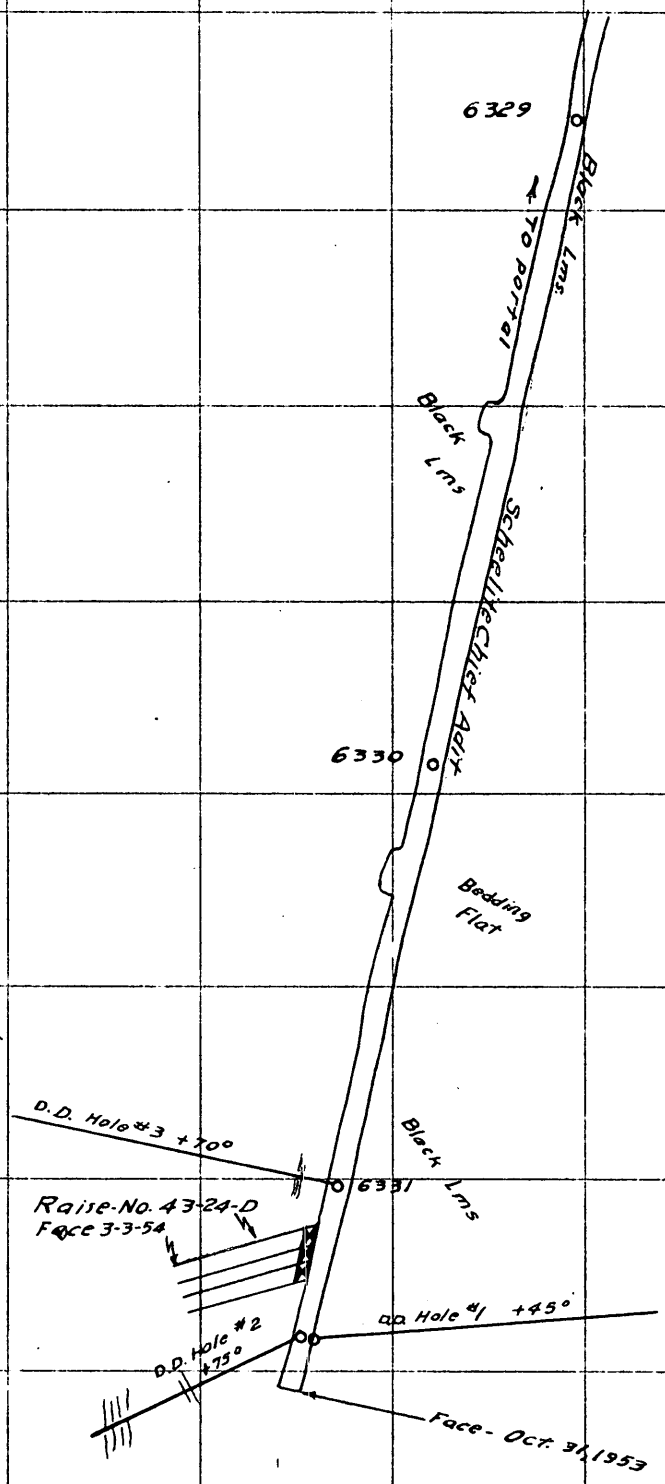
Log of Hole

0.0 - 9.8 Brecciated lms. and silicious lms. recemented with calcite, shows some scheelite
9.8 - 27.9 Brecciated lms. and silicious lms. recemented with calcite. Shows no scheelite
27.9 - 38.0 Black lms. heavily mottled with calcite
38.0 - 53.2 Black lms. mottled with calcite
53.2 - 61.1 Possible fissure zone. Silicious lms. much calcite and iron staining. No showings of scheelite
61.1 - 87.7 Black lms. mottled with calcite

Assays of split cores

Depth	% WO3
0.0 - 2.2	0.04
2.2 - 2.8	0.44
2.8 - 5.5	0.04
5.5 - 6.1	0.13
6.1 - 9.2	0.04
9.2 - 9.8	0.08

M.I.A. Mines Company
Minerva Tungsten Mine
Docket No. TFA 2688
Contract No. TF-I 461



PLAN
Scheelite Chief Adit
Showing new Main Raise
Scale: 1" = 50'

"ALBANENE" No. 1950 K&E CO., N.Y.
REG. U.S. PAT. OFF.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 5 - 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: March 1, 1954

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA -2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Company

Property - Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry, Mining Engineer

Dated February 23, 1954

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

~~XXXXXXXXXX~~, USGS (With one copy of report)
Roscoe Smith

INTERIM REPORT

OF THE INTERIOR
Minerals Rehabilitation
RECEIVED
JAN 25 1954

Docket No.: DMEA-2688 (Tungsten) February 23, 1954

Name and address of operator: M.I.A. Mines Co.
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and address of property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on January 15 and 17, 1954 for the purpose of inspecting work performed by the applicant under the exploration contract. The examining engineer was accompanied by the following operators' representatives:

On January 15 by Mr. Harry Godbe, geologist in charge of exploration.

On January 17 by Mr. James Hulse, mine foreman.

At the collar of the Silver Bell shaft, and at his own expense, the operator has installed:

1 Small frame building, housing the mine hoist.
1 Single drum hoist powered by a gasoline engine.
1 Timber headframe and sheave wheel.
1 Joy, portable, air compressor, 315 c.f.m.
1 1-ton mine skip.

The Centennial Development Company, acting as subcontractors, have completed the rehabilitation of the Silver Bell shaft to the 300 level and 500 feet of drifting in an easterly direction on the 300 level.

Additional work by the subcontractor, at the operators' expense,

will consist of rehabilitating the Silver Bell shaft from the 300 level to the 400 level and the rehabilitation of the 400 level west drifts and winze for the purpose of connecting with the 288-foot raise which is being extended from the east end of the Scheelite Chief Adit. Ore production from the Silver Bell shaft area will eventually be passed down through this raise and to outside ore bins, via the Scheelite Chief Adit. Near the east end of the Scheelite Chief Adit the operator has started a 3-compartment raise which is to connect with the West drift off the 400-level of the Silver Bell shaft.

The raise is inclined plus 58° and the survey indicates an inclined distance of 288 feet. Under date of November 21, 1953, the applicant requested an amendment to the contract in order to cover the raise project. As soon as the subcontractor completes the aforementioned rehabilitation work in the Silver Bell shaft, the work of extending the raise will be turned over to him and the operators' crew will return to the production of ore.

Churn drill hole No. 7 was completed on November 17, 1954, and this phase of the project was terminated on that date.

Diamond drilling has progressed steadily with Howard H. Knighten as the contractor and operator. He has completed three drill holes near the east end of the Scheelite Chief Adit and four drill holes on the intermediate level approximately 70 feet above the Scheelite Chief main adit.

The East drift off the 300 level of the Silver Bell shaft has been successful in exposing two separate lenses of quartz carrying scheelite

of varying grades.

Outside work:

In order to facilitate hauling supplies from the warehouse of the Combined Metals Reduction Company Caselton Plant, the operator has graded and improved the desert road from U.S. Highway 93 to the mine for a distance of 11 miles.

Water:

At the time of this inspection, the operator was continuing to haul water from the Stopper mill location to the mine camp and both of the mines. The water well had been successful in developing an adequate water supply, but due to inadequate pumping facilities, the well had not been in use. This situation was to be corrected immediately by the installation of a new motor for the pump.

CONCLUSIONS

Progress of the exploration contract has been steady and satisfactory and the work has been well done.

RECOMMENDATIONS

On November 7, 1953, the examining engineer recommended that red reflector buttons or discs be installed on shaft timbers near the portal of the Scheelite Chief Adit for the purpose of protection and warning to train crews entering and leaving the adit. It was also recommended that loose timbers in old stopes above the adit should be securely blocked for safety.

While the operator had agreed to the advisability of these recom-

mendations, the inspection on January 15 and 17 disclosed that the recommendations had not been followed.

These safety measures were again called to the attention of Mr. Godbe and it is believed the safety recommendations will be carried out.

STATEMENT OF WORK COMPLETED

Stage 1, item 4, step 1:

Area 2 and 3

Churn drill hole	Date Started	Date Completed	Depth Feet	Collar Elevation	Coordinates North	Coordinates East	Size of Hole
No. 1	4/20/53	5/22/53	277.7	6714.4	4253.8	11856.7	4-3/4"
No. 2	5/26/53	6/2/53	90.0	6709.5	4178.3	11888.0	"
No. 3	6/4/53	7/8/53	127.0	6722.1	4228.4	11977.0	"
No. 4	7/11/53	8/15/53	245.0	6736.0	4313.1	12122.0	"
			739.7				
	Not completed		60.3				

Stage 2, item 5, step 1:

Objective Area 6

No. 5	8/20/53	9/16/53	166.0	6920.6	3993.3	13350.3	"
No. 6	9/19/53	10/13/53	191.0	6932.6	4009.7	13441.4	"
No. 7	10/16/53	11/17/53	243.3	6956.5	4039.3	13594.8	"
			600.3				

Stage 2:	Churn drilling allowed under contract	1,500 feet
	Drilling completed	600.3 feet
	Drilling not completed	899.7 "
Stage 1:	Drilling not completed	60.3 "
	Total drilling not completed	960.0 "

The operators consider that sufficient geological information has been secured from the seven drill holes and that further churn drilling will not be necessary.

Diamond drilling:

Hole No.	Date Started	Date Completed	Depth Feet	Angle	Bearing	Collar Elevation	Location
1	11/8/53	11/16/53	125.7	+45°	N 5° W	6343.8	Scheelite Chief Adit
2	11/16/53	11/25/53	175.8	+75°	S 25° E	6344.0	Do
3	11/28/53	12/10/53	249.3	+70°	S 13° W	6344.35	Do
4	12/12/53	12/17/53	86.1	+ 5°	N 5° E	6408.0	Scheelite Chief -
5	12/17/53	12/22/53	74.0	+70°	N 5° E	6411.5	sublevel
6	12/22/53	12/24/53	48.6	+40°	N 15° E	6411.0	Do
7	12/28/53	1/15/54	190.6	+50°	S 85° E	6410.0	Do

Total diamond drilling allowed	1,300.0 feet	
Completed	950.1 "	= 73.08%
Not completed	349.9 "	= 26.92%

All diamond drill cores have been retained in marked core boxes and stored in the basement of the assay alboratory at the Caselton Plant of the Combined Metals Reduction Co.

Stage 1, item 3:

Objective Area 1

Intermediate level drift:	Previously reported	147.0 feet
	No further advance	
	Total	147.0 feet
	Total drifting allowed	100.0 feet
	Excess drifting	47.0 feet
Extension of Scheelite Chief Adit:	Previously reported	845.5 feet
	No further advance	
	Total	845.5 feet
	Total allowed under contract	850.0 feet
	Total advance	845.5 feet
	Not completed	4.5 feet

Stage 2, item 4:

Objective Area 5 and step 2, Objective Area 6

Extension of 300 level Silver Bell shaft: Advance previously reported None
Advance 11/8/53-1/17/54 500.0 feet

Total allowed under contract	500.0 feet
Drifting completed	500.0 feet
Drifting not completed	None

Date started: Nov. 10, 1953
Date completed: Jan. 17, 1954

Timbering required: Starting at station 305 + 11.3 feet
Ending at station 305 + 30.0 feet
Installed: 5 (8x8) drift sets; lagged across back

OPERATOR'S MONTHLY REPORTS

Contract amount	$171,400.00
Government participation @ 75%	$128,550.00

Expenditures reported:

March	1953	$9,133.03
April	"	471.50
May	"	1,936.52
June	"	2,333.18
July	"	8,235.84
August	"	9,317.34
Sept.	"	14,513.08
Oct.	"	12,873.86
Nov.	"	12,210.36
Dec.	"	12,625.01
		$83,649.72

Contract Period:

Contract dated: Jan. 27, 1953
Contract expiration date: April 27, 1954
Unexpended time: 3 months

GEOLOGY

Silver Bell Shaft:- Extension of the 300 level in an easterly direction.

This drift has in general followed the fissure. Two important

exposures of quartz containing considerable scheelite have been encountered. The first lens of quartz occurred from station 306 to station 306 + 50 feet. The second lens of quartz occurred at approximately 56 feet west of the face and continued to the face of the drift. In the face of the drift the mineralized quartz had narrowed to a width of one foot.

The examining engineer considered that raises are justified in both of the quartz exposures and that further extension of the drift, following the fissure, is warranted.

SAMPLING

Silver Bell Shaft 1/15/54

300-level - East drift:

Sample No.	Width Feet	%, WO_3	Remarks
BM-1059	4	2.96	27 feet west of face and on north side of drift. High grade quartz.
BM-1060	6	0.04	North wall of drift and 14.6 feet west of BM-1059. High grade quartz.
BM-1061	6	0.29	Across back of drift and 5 feet west of BM-1059. High grade quartz.
BM-1062	5	0.88	Across back of drift at station 306 + 22 feet.
1/17/54			
BM-1068	1.0	0.21	In face of drift. Quartz on footwall of fissure.
BM-1069	1.5	0.59	Five feet west of face of drift; footwall of fissure; southwest side of drift.
BM-1070		0.04	Trench sample from muck pile of last round blasted on 1/15/54 (about 25 cars in pile). Considerable small crystals of scheelite in the fines.
BM-1071	6.2	0.33	Across back of drift; 17.8 feet west of face of drift; quartz showing some high grade ore.
BM-1072	5.8	0.48	North wall of drift and under BM-1071; quartz shows scheelite.
BM-1073	5.2	0.85	Across back and 7 feet on north wall of drift; 26 feet west of face; quartz shows high grade scheelite.

Sample No.	Width Feet	U.S.BM %, WO_3	M.I.A.Co. %, WO_3	Remarks
BM-1074	2.3	0.11		Across back of drift and 2.7 feet on north wall of drift. Taken at 56 feet west of face of drift. Quartz exposed in the fissure at approximately the western edge of the ore shoot.
BM-1075	3.8	0.14		Quartz and heavy calcite on north wall of drift - station 306 + 34 feet. Probably low grade ore.
BM-1076	4.2	0.09		Quartz and calcite on northeast wall of short crosscut; 5.3 feet northeast of BM-1075. Probably low grade ore.
BM-1077	3.1	0.41		Across back of main drift at station 306 + 27.3 feet. Quartz showing considerable scheelite.
BM-1078	2.4	0.54		Quartz on south wall at back of drift - station 306 + 9.6 feet. This is at the west end of the ore shoot and shows considerable scheelite.

Muck pile samples by operator:

BM-1079	1.00	1.0	28 feet west of face - to check operator's sample No. 112610
BM-1080	0.87	0.9	21 feet west of face - to check operator's sample No. 112611
BM-1081	0.16	0.11	14 feet west of face - to check operator's sample

The drill cores were examined and lamped in company with Mr. O. E. Schrader, the engineer for the applicant.

Diamond drill hole No. 1:

Box No. 1: Core from 0 to 39.7 feet. Mottled gray limestone; May have a small amount of powellite; no scheelite observed - core recovery estimated at 95%

Box No. 2: Core from 39.7 to 85.3 feet. 37 to 43.7 feet heavy calcite; one small crystal of scheelite observed at 70.6 feet. Core recovery estimated at 95%

Box No. 3: Core from 85.3 to 123.6 feet. Limestone with calcite stringers; no scheelite observed. Estimated core recovery 95%

Box No. 4: Core from 123.6 to 125.7 feet. Mottled gray limestone; no scheelite observed. Core recovery estimated at 95%

No scheelite mineralization was observed in the drill cores inspected and no samples were taken by either the operator or the engineer of the Bureau of Mines.

Diamond drill hole No. 2

		%, WO_3
Box No. 1:	Core from 0.0 to 38.4 feet. Mostly light colored and gray limestone - iron stained.	
	Sample BM-1082 from 26.1 to 27.2 feet	*0.01
	Core recovery estimated at 95%	
Box No. 2:	Core from 38.4 to 84.2 feet. Mostly gray mottled limestone at 38.8 feet. Noted a few small crystals of scheelite in quartz; at 51.0 feet noted a few small crystals of scheelite in quartz. Not sufficient for sampling.	
	Core recovery estimated at 95%	
Box No. 3:	Core from 84.2 to 127.6 feet. Mostly gray limestone with calcite stringers.	
	83.3 to 90.8 feet - heavy calcite	
	92.2 to 94.4 feet - heavy calcite	
	126.1 to 131.0 feet - heavy calcife	
	Core recovery estimated at 95%	
Box No. 4:	Core from 127.6 to 175.8 feet.	
	131.0 to 137.0 feet - heavy calcite	
	140.95 to 141.4 feet - few specks of scheelite	
	143.2 to 143.3 feet - light scattered scheelite	
	146.0 to 146.5 feet - very light scattered scheelite	
	150.6 to 150.8 feet - quartz - scheelite	
	Sample BM-1083 from 150.2 to 150.7 feet	0.94
	156.4 to 156.7 feet - Quartz-scheelite	
	BM-1084 from 155.7 to 156.4 feet	1.83

Box No. 4 (Cont'd.) | %, WO_3

156.8 to 157.3 feet - Quartz-scheelite
Sample BM-1085 from 156.8 to 157.3 feet 0.35
Core recovery estimated at 95%

Diamond drill hole No. 3

Box No. 1: Core from 0.0 to 42.8 feet
Samples BM-1086 from 26.9 to 28.5 feet
Low grade *0.01
BM-1087 from 28.5 to 29.4 feet - quartz fissure 0.38
Other than quartz noted in the samples, the cores appeared to be mostly mottled, gray limestone containing only two or three specks of scheelite. Core recovery estimated at 90%

Box No. 2: Core from 42.8 to 88.2 feet. Gray limestone, no scheelite observed. Core recovery estimated at 95%

Box No. 3: Core from 88.2 to 132.7 feet. Gray limestone with some iron stains; no scheelite observed. Core recovery estimated at 95%

Box No. 4: Core from 132.7 to 177.3 feet. Mottled limestone with calcite stringers; no scheelite observed. Core recovery estimated at 95%

Box No. 5: Core from 177.3 to 222.9 feet. Light and dark colored limestone with calcite stringers; no scheelite observed. Core recovery estimated at 95%

Box No. 6: Core from 222.9 to 249.3 feet. Mottled, gray limestone; no scheelite observed. Core recovery estimated at 95%

Diamond drill hole No. 4

Box No. 1: Core from 0.0 to 51.5 feet. Mostly gray limestone with small amount of quartz carrying light scattered shheelite. Core recovery estimated at 90%

		%, WO_3
Samples	BM-1088 from 44.4 to 45.3 feet	0.04
	BM-1089 from 45.3 to 46.1 feet	0.17
	BM-1090 from 46.1 to 50.6 feet	*0.01
	BM-1091 from 50.6 to 51.1 feet	0.12

Box No. 2: Core from 51.5 feet to 86.1 feet.
Mottled, gray limestone, very few specks of scheelite. Core recovery estimated at 95%

Diamond drill hole No. 5

	0 to 52.7 feet	- mottled gray and black limestone, calcite stringers	
BM-1092	52.7 to 53.2 feet	- some black limestone, small quartz filled fractures containing light, scattered scheelite	*0.01
	53.2 to 56.1 feet	- black limestone with calcite stringers	
BM-1093	56.1 to 57.1 feet	- black limestone with calcite stringers; light, scattered scheelite	0.02
	57.1 to 58.0 feet	- black limestone with calcite stringers	
BM-1094	58.0 to 60.0 feet	- quartz carrying scheelite	0.50
BM-1095	60.0 to 63.4 feet	- quartz carrying scheelite	0.35
BM-1096	63.4 to 65.0 feet	- quartz carrying scheelite	0.51
BM-1097	65.0 to 67.9 feet	- mixed limestone and calcite, very light scheelite	0.03
	67.9 to 74.0 feet	- mottled black limestone with calcite stringers	

Core recovery estimated at 95%

Diamond drill hole No. 6

	0.0 to 13.0 feet	- mixed black limestone and calcite	
	13.0 to 23.4 feet	- black limestone with light calcite stringers	
BM-1098	23.4 to 24.1 feet	- pink quartz showing scheelite	2.08
BM-1099	24.1 to 27.4 feet	- light colored quartz showing scheelite	2.18
BM-1100	27.4 to 28.5 feet	- pink quartz showing light, scattered scheelite	0.03
BM-1101	28.5 to 32.2 feet	- black limestone with quartz filled fractures, very few specks of scheelite	0.01

Sample No.		%, WO_3
BM-1102	32.2 to 33.3 feet - white quartz showing scheelite	0.70
	33.3 to 48.6 feet - black limestone with calcite stringers	

Core recovery estimated at 95%

Churn drill hole No. 7 (washed sludge)

Sample No.	Location From	Location To	%, WO_3
BM-1103	0 -	5	*0.01
1104	5 -	10	*0.01
1105	10 -	15	*0.01
1106	15 -	20	*0.01
1107	20 -	25	*0.01
1108	25 -	30	*0.01
1109	30 -	35	*0.01
1110	35 -	40	*0.01
1111	40 -	45	*0.01
1112	45 -	50	*0.01
1113	50 -	55	*0.01
1114	55 -	60	*0.01
1115	60 -	65	*0.01
1116	65 -	70	*0.01
1117	70 -	75	*0.01
1118	75 -	80	*0.01
1119	80 -	85	*0.01
1120	85 -	90	*0.01
1121	90 -	95	*0.01
1122	95 -	100	*0.01
1123	100 -	105	*0.01
1124	105 -	110	*0.01
1125	110 -	115	*0.01
1126	115 -	120	*0.01
1127	120 -	125	*0.01
1128	125 -	130	*0.01
1129	130 -	135	*0.01
1130	135 -	140	*0.01
1131	140 -	145	*0.01
1132	145 -	150	*0.01
1133	150 -	155	*0.01
1134	155 -	160	*0.01
1135	160 -	165	*0.01

	Sample No.	Location From	To	%, WO_3
	BM-1136	165 -	170	*0.01
	1137	170 -	175	*0.01
	1138	175 -	180	*0.01
	1139	180 -	185	*0.01
	1140	185 -	190	*0.01
	1141	190 -	195	*0.01
	1142	195 -	200	1.59
	1143	200 -	205	0.49
	1144	205 -	210	*0.01
	1145	210 -	215	*0.01
	1146	215 -	220	*0.01
	1147	220 -	225	*0.01
	1148	225 -	230	*0.01
	1149	230 -	235	*0.01
	1150	235 -	240	*0.01
Bottom	1151	240 -	243.3	*0.01

OTHER INFORMATION

Water:

The operator has applied to the State of Nevada for a permit for the water and its use for mining, milling and domestic purposes, and expected to advise the U.S. Bureau of Mines as to the decision of the Nevada State Engineer. At this writing, this office has received no further information relative to the status of the water permit application.

Housing conditions at the mine camp:

At his own expense, the operator has completed necessary repairs and furnished two bunk houses and mess hall and employed a cook. Personnel: Mr. James Hulse (formerly mine foreman at the Comet Mine) has been transferred to the Minerva Tungsten Mine as resident mine foreman. The crew now consists of: James Hulse, 1 topman-mechanic, and 6 miners.

Other operations:

Mr. Robert Stopper has begun active mining operations below the Scheelite Chief Adit and on ground which had been reserved by him from the lease to the M.I.A. Mines Co. Mr. Stopper has also continued to sink a shaft on one of his mining claims a short distance northwest of the portal of the Scheelite Chief Adit.

Glenn G. Gentry
Mining Engineer

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

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

December 16, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

The attached report on Sampling is to be made a part of Glenn G. Gentry's Interim Inspection Report of November 24, 1953, which was transmitted to you with our memorandum of December 2, 1953, concerning Contract Idm-E481, DMEA-2688 (Tungsten), M. I. A. Mines Company.

S. Ricker for H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)
E. H. Bailey, USGS (With one copy of report)

Docket No.: DMEA-2688 (Tungsten) December 2, 1953

Name and address of operator: M.I.A. Mines Co., Minerva Tungsten Mine, % Combined Metals Reduction Co., Pioche, Nev.

Name and address of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm: E481

SAMPLING

Scheelite Chief adit extension:

Sample No.	%, WO_3	Description
BM-918	0.51	Width 4.3 feet. Quartz on the north wall at 300 feet southwest of start of project.
BM-919	*0.01	Width 5.9 feet. Quartz on the south wall of adit 31.6 feet west of BM-918.
BM-920	*0.01	Width 6.0 feet. Quartz on north wall of adit 13.0 feet west of BM-918.

*=less than.

Received
DEC 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: December 2, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA - 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Co.

Property - Minerva Tungsten Mine, White Pine County, Nevada

By Mr. Glenn G. Gentry

Dated November 24, 1953

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

E. H. Bailey, USGS (With one copy of report)

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) Nov. 24, 1953

Name and address of operator: M.I.A. Mines Co.,
c/o Combined Metals Reduction Co.,
Pioche, Nev.

Name and address of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on Nov. 7 and 8, 1953 for the purpose of inspecting work performed under the exploration contract. On Nov. 7, the examining engineer was accompanied by Mr. Harry Godbe, geologist in charge of operations for the applicant. During the inspection on Nov. 8, none of the mining company's representatives were available.

The Centennial Development Company, acting as subcontractors, have completed the extension of the main level of the Scheelite Chief adit and the intermediate level above the Chief adit.

After completing this phase of the work, the subcontractor's crews were moved to the Silver Bell shaft and necessary rehabilitation work was started.

The churn drilling program continued without interruption. Hole 6 was completed and hole 7 was nearing completion on Nov. 8.

Diamond drilling in the Scheelite Chief adit was started at 2 PM on Nov. 8 from a point 14 feet west of the face of the adit. This drill hole

was started on a bearing of N. 5° W., inclined plus 45 degrees and was expected to reach the quartz fissure at approximately 60 feet. The first 7 feet drilled showed all black limestone with very good core recovery. The mining company have let a contract for 1200 feet of AX diamond drilling to Mr. Howard H. Knighten, whose home address is 615 California Street, Boulder City, Nev., at a rate of $3.15 per foot. Mr. Knighten stated that he had been employed many years by the Bureau of Reclamation. The drilling contractor furnishes a C.P. No. A55 drill, together with necessary equipment,and employs a helper at his expense. The mining company furnish compressed air, water, necessary underground transportation and probably some miscellaneous supplies and/or services as required.

At their own expense and in preparation for future mining operations, the mining company have constructed a change house, approximately 12- by 20-feet in size, and have moved a building from the Caselton camp to the Minerva camp, to be used as an office building.

CONCLUSIONS

Progress of the exploration contract has been steady and satisfactory, and the work has been well done.

RECOMMENDATIONS

Scheelite Chief adit:

1. Installation of red reflector buttons or discs on shaft timbers near the portal of the adit for the purpose of protection of and warning to

train crews entering and leaving the adit.

2. Loose timbers in old stopes above the main adit should be securely blocked for safety.

The above recommendations were discussed with Mr. Harry Godbe, who stated the suggestions for the safety of the workmen would be followed.

STATEMENT OF WORK COMPLETED

Stage 1, item 4, step 1:

Area 2 and 3

Churn Drill Hole	Date Started	Date Completed	Depth, Feet	Collar Elevation	Coordinates North	Coordinates East	Size of Hole
No. 1	4/20/53	5/22/53	277.7	6714.4 ft.	4253.8	11856.7	4-3/4"
No. 2	5/26/53	6/2/53	90.0	6709.5 ft.	4178.3	11888.0	"
No. 3	6/4/53	7/8/53	127.0	6722.1 ft.	4228.4	11977.0	"
No. 4	7/11/53	8/15/53	245.0	6736.0 ft.	4313.1	12122.0	"
			739.7				

Churn drilling allowed under contract	800 feet
Completed	739.7 feet = 92.46%
Not completed	60.3 feet = 7.54%

Stage 2, item 5:

Objective area 6, step 1

No. 5	8/20/53	9/16/53	166.0	6920.6 ft.	3993.3	13350.3	4-3/4"
No. 6	9/19/53	10/13/53	191.0	6932.6 ft.	4009.7	13441.4	"
No. 7	10/16/53		*210.0	6956.5 ft.	4039.3	13594.8	"
			567.0 (estimated)				

*= Not completed

Churn drilling allowed under contract	1,500 feet
Completed	567 feet = 37.8%
Not completed	933 feet = 62.2%

The mining company believe they will have sufficient geological

information with the completion of churn drill hole No. 7 , and that additional drilling in objective area No. 6 may not be necessary.

Churn drill hole No. 5 has shown light scheelite mineralization from a depth of 130 feet to 165 feet.

Churn drill hole No. 6, according to analysis by the mining company, has shown a considerable increase in scheelite mineralization from a depth of 135 to 190 feet, with a maximum of 1.4% WO_3 at 170 to 172.5 feet.

No analyses were available on samples from churn drill hole No. 7, however an examination of samples by mineralight on material from 190 to 205 feet, indicated the presence of considerable scheelite.

Stage 1, item 3:

Objective area 1

Intermediate level drift	Previously reported	6.0 feet
	Advance 9/16-10/31	141.0 "
	Total	147.0 "

Total drifting allowed	100 feet
Excess drifting	47 feet

Explanation:- On this level, the contract has allowed a 50-foot raise (item 3, stage 1) to the mineralized zone. Not having reached the faulted segment of the vein when the 100 feet of drifting had been completed, the operator's continued drifting for a distance of 47 feet and desire now to apply the raise footage as equivalent drift footage.

As the project now stands, the operator can only claim reimbursment for 100 feet of drifting at $25.00 per foot. An amendment will be required to allow the change from raising to drifting.

The intermediate drift has been extended through limestone and is apparently off the main fissure. No scheelite mineralization was observed

in the limestone and the future plans of the applicant, in this area, are indefinite. Some diamond drilling should be done in an effort to further locate the mineralized fissure.

Extension of the main Scheelite Chief adit:

Step 1 and 2:

Advance previously reported	394.0 feet
Advance 9/16 - 11/7/53	451.5 "
Total	845.5 " = 99.47%

Total allowed under contract	850.0 feet
Total advance	845.5 "
Not completed	4.5 "

The operator's had reported the total advance as amounting to 848 feet, as measured by Mr. Godbe and Mr. Duane Milne using a cloth tape. This measurement was apparently in error (due to the condition of the cloth tape) and was not discovered until the measurements were rechecked by the examining engineer and Mr. Godbe during the inspection.

At approximately 250 feet east of the start of the project, the drift encountered quartz, carrying scheelite, and followed this material for approximately 50 feet. Two samples, taken by the operator in the best looking area, assayed 0.65% WO_3 and 1.0% WO_3.

Scheelite mineralization, examined by mineralight, appears to be of varying grades, probably from 0.01% WO_3 to as much as 1.0% WO_3. The higher grade ore seems to be on the north wall of the drift and near the east end of the quartz. From this point to the face of the drift, the

exploration has been through limestone, identified as the St. Lawrence limestone by Mr. Paul Gemmill, and shows no scheelite.

Compressed air and water pipes had been installed to within 50 feet of the face, and mine track is also in place.

Stage 2, item 2:

On November 1, the Centennial Development Co., subcontractors, began the rehabilitation of the Silver Bell shaft to the third level. At the time of the inspection, the following had been completed:

Installation of 30-lb. mine rail
Installation of compressed air line
Installation of water line
Replacement of 4-by 6-inch stulls, where required

For the purpose of conducting this work and at their own expense, the mining company have provided:

Temporary headframe
Ingersoll-Rand, little tugger air hoist
with cable and small skip
Joy air compressor, 210-cu.ft. capacity

Permanent installations will consist of an adequate headframe, Diesel or gasoline operated hoist with standard size skip, fan and ventilation pipe. It will also be necessary to construct housing over the hoist and the air compressor.

The rehabilitation work was proceeding in a satisfactory manner. The contractor's expected to begin work on the skip pocket by Nov. 12 and would then be ready to begin drifting easterly on the fis-

sure for a distance of 200 feet.

Pursuant to amendment No. 1, dated Oct. 8, 1953, the applicant has completed drilling a water well for the purpose of delivering water to the Scheelite Chief adit and the mine camp and to eliminate about 50 percent of the distance in hauling water to the Silver Bell shaft. The following data on this well was secured:

Date started: Oct. 12, 1953
Date completed: Nov. 7, 1953
Depth: 353 feet (cased)
Elevation, collar of hole: 6,035.0 feet
Size of casing: 8-1/4 inches, inside diameter. The last 100 feet of the casing is perforated and the pipe ends at 5 feet above the bottom of the well.
Drilling contractor: J. D. Hill, P. O. Box 694, Ely, Nevada
Rate per foot: $5.00 (The screw type, steel casing was furnished by the mining co.)
Location of well: S. 87° 30' W., 3,400 feet from the portal of the Scheelite Chief adit and on the Gold Brick Placer claim.
Geology of well: Principally alluvium material, Conglomerate and blue limestone

Water was first encountered at 268 feet below the collar and on Nov. 7 was standing at 250 feet. This would mean approximately 100 feet of water in the well and the operator considers that this amount will be adequate for exploration and future mining operations. The operator has completed a trench from the well to camp and the installation of necessary pump and pipe lines should be completed in the near future. The lift from the collar of the well

to the top of the water tank is approximately 315 feet.

The applicant had originally proposed to drill the water well at a location near the water tank and only a few hundred feet northwest of the portal of the Scheelite Chief adit. After considerable further study of the rock formations, the applicant believed that it would be advantageous to drill the well at its present location at the eastern side of the valley.

In order to provide suitable ownership of the well, the M. I. A. Mines Company have located the Gold Brick Placer claim covering the N 1/2 of the NE 1/4 of the NW 1/4 of sec. 29, T. 11 N., R. 68 E., M. D. B. & M., Minerva Mining District, White Pine County, Nev. Date of claim location - October 17, 1953. Recorded on Oct. 27, 1953, book 172, page 163, Office of County Recorder, White Pine County, Ely, Nev. Mr. J. B. Geraghty is the present county recorder.

The applicant has applied to the State of Nevada for a permit for the water and its use and is to advise the Bureau of Mines as to the decision of the Nevada state engineer.

OPERATOR'S MONTHLY REPORT

Contract amount		$171,400.00
Government participation @ 75%		128,550.00
Expenditures reported:		
March 1953		$ 9,133.03
April	"	471.50
May	"	1,936.52
June	"	2,333.18
July	"	8,235.84
August	"	9,317.34
Sept.	"	14,513.08
		$45,940.49
Unexpended		$125,459.51

Contract period:

Contract dated: Jan. 27, 1953
Expiration date: April 27, 1954
Unexpended time: 5 months

COMMENTS

Due to the increased amount of work on this project and to the distance between working faces, it would be advisable for the applicant to employ a full time superintendent who can reside at the mine camp.

Glenn G. Gentry
Mining Engineer

Churn drill hole No. 5

Sample No.	Feet From	Feet To	USBM % WO_3	M.I.A. Co. % WO_3	
BM-840	0	5	*0.01		
841	5	10	*0.01		
842	10	15	*0.01		
843	15	20	*0.01		
844	20	25	*0.01		
845	25	30	*0.01		
846	30	35	*0.01		
847	35	40	*0.01		
848	40	45	*0.01		
849	45	50	*0.01		
850	50	55	*0.01		
851	55	60	*0.01		
852	60	65	*0.01		
853	65	70	*0.01		
854	70	75	*0.01		
855	75	80	*0.01		
856	80	85	*0.01		
857	85	90	*0.01		
858	90	95	*0.01		
859	95	100	*0.01		
860	100	105	*0.01		
861	105	110	*0.01		
862	110	115	*0.01		
863	115	120	*0.01		
864	120	125	*0.01		unwashed
865	125	130	*0.01	0.03	
866	130	135	0.03	0.05	0.03
867	135	137.5	0.26	0.20	0.23
868	137.5	140	0.04	0.03	0.02
869	140	142.5	0.01	0.03	0.04
870	142.5	145	0.02	0.03	0.04
871	145	147.5	*0.01	0.05	0.05
872	147.5	150	*0.01	0.03	0.04
873	150	152.5	*0.01	0.02	0.04
874	152.5	155	*0.01	0.03	0.03
875	155	157.5	*0.01	0.03	0.05
876	157.5	160	*0.01	0.06	0.04
877	160	162.5	*0.01	0.04	0.03
878	162.5	165	*0.01	0.04	0.02

* = less than.

M. I. A. Mines Co.

Churn drill hole No. 6

Feet From	Feet To	% WO_3 Unwashed	% WO_3 Washed
135	140	0.11	0.10
140	145	0.05	0.04
145	147.5	0.04	0.03
147.5	150	0.04	0.04
150	152.5	0.04	0.02
152.5	155	0.04	0.02
155	157.5	0.05	0.04
157.5	160	0.03	0.06
160	162.5	0.03	0.04
162.5	165	0.02	0.10
165	170	0.28	0.12
170	172.5	1.40	1.80
172.5	175	0.61	0.63
175	177.5	0.08	0.04
177.5	180	0.02	0.03
180	182.5	0.02	0.03
182.5	185	0.02	0.03
185	187.5	0.02	0.03
187.5	190		0.03

Analyses from Bureau of Mines will be forwarded as soon as available.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: October 26, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA -2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Co.

Property - Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry

Dated October 9, 1953

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

E. H. Bailey, USGS (With one copy of report)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) October 9, 1953

Name and address of operator: M. I. A. Mines Co.,
c/o Combined Metals Reduction Co.,
Pioche, Nevada

Name and address of property: Minerva Tungsten Mine,
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on Sept. 15 and 16, 1953 for the purpose of inspecting work performed under the exploration contract. During the inspections, the examining engineer was accompanied by Mr. Harry Godbe, superintendent of operations for the applicant.

The Centennial Development Company, acting as subcontractors, have completed the trimming in the Scheelite Chief Adit and have extended the Chief Adit a distance of 394 feet in a southwesterly direction. This same company have also started to extend the intermediate level in a southwesterly direction.

The applicant has continued the churn drilling program east of the Silver Bell shaft. Drill hole 5 was completed on Sept. 15 and the drill rig moved to hole 6 on Sept. 17.

The mining company expect to begin active mining operations in the Scheelite Chief Adit in the near future and also plan to install neces-

sary surface equipment at the collar of the Silver Bell shaft. Tungsten ore produced from company operations will probably be shipped to the Combined Metals Reduction Company metallurgical plant at Bauer, Utah for treatment.

Active mining operations and the production of tungsten ore will require additional facilities, such as, housing for employees, additional mine equipment, power and water. The cost of these facilities are to be at the expense of the applicant. The cost of power, air, water, mine haulage and/or other supplies, will have to be pro-rated between the exploration project and mine production.

RECOMMENDATIONS

Dangerous conditions observed were as follows:

1. One half of the heading round was loaded (with electric primers attached) while the other half was being drilled.

2. Part of a box of dynamite and electric primers had been made ready for loading and were left on the floor of the drift at the face while drilling was in progress.

3. Several loose sticks of dynamite had fallen out of an open box of powder and had been scattered along the track and near the drill carriage.

4. About ten boxes of dynamite (500 lbs.) were stored at the entrance to an old stope and alongside the main haulage way.

5. Loose electric primers were transported on top of the battery locomotive with no safety precautions.

6. Considerable timbering in several locations, in old stopes above the adit, appeared in unsafe condition.

All of the above conditions were called to the attention of Mr. Harry Godbe, superintendent of operations, who advised that corrective instructions would be issued to the Centennial Development Company who are doing the work on a contract basis.

Under Item 6 of exhibit A, new buildings, improvements, installations, Stage 1, the fan house was constructed at the collar of the churn drill hole. This building was constructed of timber frame and covered with corrugated sheets. The size of the building is 6- by 6-feet. Some time between Aug. 1 and 15, 1953, this building was removed by the operator from the original site and erected at the portal of the Scheelite Chief Adit for use as a tool house.

The reason for removal: The applicant had decided that ventilation from the Scheelite Chief Adit was adequate without the use of a fan and the fan house at the collar of the churn drill hole.

The examining engineer considers the ventilation condition may change as mining production on company account will probably increase the amount of powder smoke and dust. Should this condition require the construction of another fan house over the churn drill hole, then any new construction should be at the expense of the applicant.

STATEMENT OF WORK COMPLETED

Stage 1, item 4, step 1

Area 2 and 3:

Churn drill holes	Date Started	Date Completed	Depth /feet
No. 1	April 30, 1953	May 22, 1953	277.7
No. 2	May 26, 1953	June 2, 1953	90.0
No. 3	June 4, 1953	July 8, 1953	127.0
No. 4	July 11, 1953	Aug. 15, 1953	245.0
		Total	739.7

Churn drilling allowed under contract - 800 feet
Completed - 739.7 feet = 92.46%
Uncompleted 60.3 " = 7.54%

Stage 2, item 5

Objective area 6, step 1:

This exploration to consist of bulldozing necessary roads to churn drill sites and to churn drill seven or eight holes aggregating a total of approximately 1,500 feet in length. This area is situated northeast of the Silver Bell shaft and at the time of this inspection the following work had been completed:

1. The necessary road construction to sites of proposed drill holes.

2. Churn drill

Hole	Date started	Date completed	Depth/feet
No. 5	Aug. 20, 1953	Sept. 15, 1953	166

Churn drilling allowed under contract - 1,500 feet
Completed - 166 " = 11.06%
Uncompleted - 1,334 " = 88.94%

Scheelite Chief Adit:

Stage 1, item 2

The trimming required and allowed under the contract was completed on August 3, 1953. It extended from station 6312 + 61 feet to station 6323 + 50 feet, a distance of 1,015 feet of tunnel.

24-inch gauge mine track installed:-

	Linear feet of adit	Lin. feet 30-lb rail
Previously reported	697	1,394
July 16 to September 16, 1953	1,522	3,044
Total	2,219	4,438

Installation of 3-inch iron pipe for air line:

Previously reported	547	linear feet
July 16 to September 16, 1953	410	" "
Total	957	" "

The installation of 3-inch iron pipe for compressed air was stopped at station 6310 + 105 feet and from that point to the face of the adit the operators are using 2 1/2-inch Neoprene rubber hose.

Hose installed, July 16 to Sept. 16, 1953 - 1,011 linear feet.

Installation of 1-inch iron pipe for drilling water:

Previously reported	547	linear feet
July 16 to Sept. 16, 1953	1,011	" "
Total	1,558	" "

Mine track ties installed:

Previously reported	350
July 16 to Sept. 16, 1953	609
Total	959

Stage 1, item 3

Objective Area 1:- Intermediate level drift (starting Sept. 14, 1953)

Previous advance reported	None
Advance July 16 to Sept. 16, 1953	6.0 feet = 6.0%
Total	6.0 feet

Total drifting allowed	100 feet
Uncompleted	94 " = 94.0%

Extension of main Scheelite Chief Adit:- (starting Aug. 4, 1953)

Step 1 and 2

Previously reported - advance	None
Advance July 16 to Sept. 16, 1953	394 feet = 46.35%
Total	394 feet

Allowed under contract	850 feet
Remaining to be completed	456 feet = 53.65%

Installation of 12-inch vent tube:-

Previously reported	None
July 16 - Sept. 16, 1953	500 feet
Total	500 feet

Installation of 220/440 V, armored cable:-

Previously reported	None
Installed from portal to raise at Intermediate level July 16 - Sept. 16, 1953	1,615 feet
Total	1,615 feet

The exploration work is being conducted for the applicant by the Centennial Development Company who are employing five men on a two shift basis under the supervision of Mr. Duane Milne.

The Scheelite Chief Adit has been extended on a bearing line of S. 77° 30' E. The size of the drift will vary somewhat, though from measurements taken, the minimum average will be 5 feet in width by 7 feet in height. The rock has been hard and no timbering has been required.

For drifting the contractors are using a single jib, Joy jumbo with a Sullivan drifter drill with automatic feed. A heading round consists of from 27 to 28 drill holes, using 7' 10" drill steel and a Burn cut. Dynamite used is Ajax No. 3, 35% and the average round requires 2 boxes and 27 sticks of 1" x 8" powder, or approximately 110 lbs. Electric primers are used in blasting. A heading round usually produces about 21 cars of broken rock which is loaded by means of mechanical mucking and transported to the mine dump by means of a battery type locomotive.

The heading crews are endeavoring to drill, blast and muck out on each shift and up to the date of the inspection had averaged 10.37 feet advance per day. The normal time cycle for a heading round is 5 hours drilling and 3 hours mucking.

The exploration work has been well done and is considered to be satisfactory.

The Intermediate level, situated approximately 70 feet above the Scheelite Chief Adit, had been advanced only one round at the time of the inspection.

Additional equipment installed by the applicant:-

2 Coppus vent air blowers; in the Scheelite Chief Adit
1 Water pressure tank, for drilling water, in the Scheelite Chief Adit
1 Caterpillar, D13000, Diesel-electric generator set, in compressor building

GEOLOGY

The Scheelite Chief Adit has been advanced a total of 394 feet through black limestone. No scheelite mineral was observed with a mineralight.

A fault striking S. 28° E. and dipping 45° SW and considered to be the X-Fault was observed in the face of the adit on Sept. 16, 1953. No mineralization was noted along the limited exposure of this fault.

The limited drifting on the Intermediate level has been in the same black limestone encountered in the Scheelite Chief Adit. While some scheelite was noted on the side of the shaft, at the Intermediate level, the mineralization did not continue and the face of the drift was in barren limestone.

The purpose of churn drill holes 5 and 6 is to explore for the quartz filled fissure estimated to continue in a northeasterly direction from the collar of the Silver Bell shaft. Sludge samples from drill hole 5, from 130 to 155 feet, were carefully examined by a mineralight. Varying amounts of scheelite were observed. It is estimated that the grade of sludge will average from 0.01% to 0.5% or a maximum of 0.7% WO_3.

From a depth of 155 feet to 166 feet, no scheelite mineral was observed.

Attached are assay data available for churn drill holes 1, 2, 3, and 4 and also available comparative analysis submitted by the applicant. The applicant reports that his laboratory uses the Colorometric method for tungsten analysis and this may account for the wide difference in the low grade ores.

OPERATOR'S MONTHLY REPORT

Contract amount $171,400.00

Government participation @ 75% 128,550.00

Expenditures reported:

March	1953	$9,133.03
April	"	471.50
May	"	1,936.52
June	"	2,333,18
July	"	8,235.84
August	"	9,317.34
		$31,427.41

Unexpended $139,972.59

Contract period:-
Contract dated: January 27, 1953
Expiration date: April 27, 1954
Unexpended time: 7 months

The applicant is planning a very active program of mining tungsten ore from several locations both above and below the Scheelite Chief Adit level. The mining operations and the exploration project are to be carried on simultaneously with different crews.

SAMPLING

Churn Drill Hole No. 1 — Vertical

Sample No.	Depth/feet	%, WO_3	Sample No.	Depth/feet	%, WO_3
BM 555	0-5	*0.02	BM 582	135-140	*0.02
556	5-10	*0.02	583	140-145	*0.02
557	10-15	*0.02	584	145-150	0.03
558	15-20	*0.02	585	150-155	*0.02
559	20-25	*0.02	586	155-160	*0.02
560	25-30	0.17	587	160-165	*0.02
561	30-35	*0.02	588	165-170	*0.02
562	35-40	*0.02	589	170-175	*0.02
563	40-45	*0.02	590	175-180	*0.02
564	45-50	*0.02	591	180-185	*0.02
565	50-55	*0.02	592	185-190	*0.02
566	55-60	*0.02	593	190-195	*0.02
567	60-65	*0.02	594	195-200	*0.02
568	65-70	*0.02	625	200-205	*0.01
569	70-75	*0.02	626	205-210	*0.01
570	75-80	*0.02	627	210-215	*0.01
571	80-85	*0.02	628	215-220	*0.01
572	85-90	*0.02	629	220-225	*0.01
573	90-95	*0.02	630	225-230	*0.01
574	95-100	*0.02	631	230-235	*0.01
575	100-105	*0.02	632	235-240	*0.01
576	105-110	*0.02	633	240-245	*0.01
577	110-115	*0.02	634	245-250	*0.01
578	115-120	*0.02	635	250-255	*0.01
579	120-125	*0.02	636	255-260	*0.01
580	125-130	*0.02	637	260-265	*0.01
581	130-135	*0.02	638	265-270	*0.01
			595	270-275	0.02

* = Less than

Date started -- April 30, 1953
Date completed -- May 22, 1953
Depth of hole -- 277 feet
Collar elevation -- 6714.4 feet
Coordinates: North 4253.8
East 11856.7

Churn Drill Hole No. 2

Sample No.	Depth/feet	U.S.B.M. %, WO_3	M.I.A.Co. %, WO_3
BM 639	0-5	*0.01	
640	5-10	*0.01	
641	10-15	*0.01	
642	15-20	*0.01	
643	20-25	*0.01	
644	25-30	*0.01	
645	30-35	*0.01	
646	35-40	*0.01	
647	40-45	*0.01	
648	45-50	*0.01	
649	50-55	*0.01	
650	55-60	*0.01	
651	60-65	*0.01	
652	65-70	*0.01	0.10
653	70-72.5	*0.01	0.10
654	72.5-75.0	*0.01	0.08
655	75.0-77.5	*0.01	0.11
656	77.5-80.0	*0.01	0.06
657	80.0-82.5	*0.01	0.10
658	82.5-85.0	*0.01	0.05
659	85-90	*0.01	

* = Less than

Date started -- May 26, 1953
Date completed -- June 2, 1953
Depth of hole -- 90 feet
Collar elevation -- 6709.5 feet
Coordinates: 4718.3 North
11888.0 East

Churn Drill Hole No. 3

Sample No.	Depth/feet	U.S.B.M. %, WO_3	M.I.A.Co. %, WO_3
BM 660	0-5	*0.01	
661	5-10	*0.01	
662	10-15	*0.01	
663	15-20	*0.01	
664	20-25	*0.01	
665	25-30	*0.01	
666	30-35	*0.01	
667	35-40	*0.01	
668	40-45	*0.01	
669	45-50	*0.01	
670	50-55	*0.01	
671	55-60	*0.01	
672	60-65	*0.01	
673	65-70	*0.01	
674	70-75	*0.01	
675	75-80	*0.01	
676	80-85	*0.01	0.05
677	85-90	0.74 //	0.76 //
678	90-95	0.23 //	0.29 //
679	95-100	*0.01	0.07
680	100-102.5	*0.01	0.06
681	102.5-105.0	*0.01	0.05
682	105.0-110.0	*0.01	0.05
683	110.0-112.5	*0.01	0.05
684	112.5-115.0	*0.01	0.08
685	115.0-117.0	*0.01	0.06
686	117.0-120.0	*0.01	0.05
687	120.0-122.0	*0.01	0.04
688	122.0-125.0	*0.01	0.11
689	125.0-127.0	*0.01	

* = Less than

Date started -- June 4, 1953
Date completed -- July 8, 1953
Depth of hole -- 127 feet
Collar elevation -- 6722.1 feet
Coordinates: 4228.4 North
11977.0 East
Vertical

Churn Drill Hole No. 4

Sample No.		Depth/feet	U.S.B.M. %, WO_3	M.I.A. Co. %, WO_3
BM	782	0-5	*0.01	
	783	5-10	*0.01	
	784	10-15	*0.01	
	785	15-20	*0.01	
	786	20-25	*0.01	
	787	25-30	*0.01	
	788	30-35	*0.01	
	789	35-40	*0.01	
	790	40-45	*0.01	
	791	45-50	*0.01	
	792	50-55	*0.01	
	793	55-60	*0.01	
	794	60-65	*0.01	
	795	65-70	*0.01	
	796	70-75	*0.01	
	797	75-80	*0.01	
	798	80-85	*0.01	
	799	85-90	*0.01	
	800	90-95	*0.01	
	801	95-100	*0.01	
	802	100-105	*0.01	
	803	105-110	*0.01	
	804	110-115	*0.01	
	805	115-120	*0.01	
	806	120-125	*0.01	
	807	125-130	*0.01	
	808	130-135	*0.01	
	809	135-140	*0.01	
	810	140-145	*0.01	
	811	145-150	*0.01	
	812	150-155	*0.01	
	813	155-160	*0.01	
	814	160-165	*0.01	
	815	165-170	*0.01	
	816	170-175	*0.01	
	817	175-180	*0.01	
	818	180-185	*0.01	
	819	185-190	*0.01	
	820	190-195	*0.01	

Sol.

Churn Drill Hole No. 4 (Cont'd.)

Sample No.		Depth/feet	U.S.B.M. %, WO_3	M.I.A. Co. %, WO_3
BM	821	195-200	*0.01	
	822	200-205	*0.01	
	823	205-210	*0.01	
	824	210-215	*0.01	
	825	215-220	*0.01	
	826	220-225	*0.01	
	827	225-230	*0.01	
	828	230-232.5	*0.01	
	829	232.5-235.0	0.01	
	830	235.0-237.5	*0.01	
	831	237.5-240.0	*0.01	
	832	240.0-245.0	*0.01	
Sludge				
	833	220-225	*0.01	Trace
	834	225-230	*0.01	0.07
	835	230-232.5	*0.01	0.05
	836	232.5-235.0	*0.01	0.05
	837	235.0-237.5	*0.01	0.07
	838	237.5-240.0	*0.01	Trace
	839	240-245	*0.01	0.05

* = Less than

Date started -- July 11, 1953
Date completed -- August 15, 1953
Depth of hole -- 245 feet
Collar elevation -- 6736.0 feet
Coordinates: 4313.1 North
12122.0 East

Vertical

This additional work will require the services of a full time superintendent and the applicant proposes to employ Mr. Robert Stopper in that capacity.

Glenn G. Gentry
Mining Engineer

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 18 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: August 14, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA -2688

Contract Idm-E 481

Commodity Tungsten

Operator - M. I. A. Mines Co.

Property - Minerva Tungsten Mine
White Pine County, Nevada

By Glenn G. Gentry

Dated August 5, 1953

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

E. H. Bailey, USGS (With one copy of report)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 18 1953

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) August 5, 1953.

Name and Address of Operator: M.I.A. Mines Co.
c/o Combined Metals Reduction Co.
Pioche, Nevada

Name and Location of Property: Minerva Tungsten Mine
White Pine County, Nevada

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten Mine was visited on July 16, 1953, for the purpose of inspecting work performed under the exploration contract. During the inspection the examining engineer was accompanied by Mr. Harry Godbe, Mining Engineer in charge of Operations, for the applicant.

On June 22, 1953 the applicant entered into an agreement with the Centennial Development Company who have contracted to do the necessary trimming in the Scheelite Chief adit, install required mine rail, air, water and ventilation lines and all other underground exploration under the DMEA contract. Attached hereto is a copy of the agreement between the applicant and the Centennial Development Company.

On June 22, 1953 the Centennial Development Company, represented by Howard McIntyre as Resident Superintendent, started trimming operations in the Scheelite Chief adit. The personnel employed consists of: 1 Superintendent and 4 Miners.

Two shifts per day are worked and are conducted for a 6 day week.

The applicant has continued churn drilling in Area No. 2. Three drill holes have been completed and the drilling of hole No. 4 is now in progress.

CONCLUSIONS

Now that the applicant has begun active operations in the Scheelite

Chief adit, it is expected that the exploration progress will be materially increased.

Statement of work completed:

Stage 1 - item 4 - Step 1
Area No. 2 and 3

Churn Drill Hole	Date Started	Date Completed	Depth
No. 1	April 30, 1953	May 22, 1953	277.7 feet
No. 2	May 26, 1953	June 2, 1953	90.0 feet
No. 3	June 4, 1953	July 8, 1953	127.0 feet
No. 4	July 11, 1953	Now drilling	60.0 feet on 7/16/53
		Total to date:	554.7 feet

Churn drilling allowed	800.0 feet	
Churn drilling completed	554.7 feet	- 69.34 percent
Uncompleted:	245.3 feet	- 30.66 percent

Scheelite Chief Adit
Stage 1 - item 2

Necessary trimming in the adit has progressed from the portal to Station 6312 plus 61 feet. Total footage having amounted to approximately 250 feet of rock sections. Slab muck - 217 cars
Cleanup muck - 42 cars

Remaining linear feet of trimming, approximately - 306
Approximate percent of job completed - 45%

Mine track, 24" ga., installed - approximately 697 linear feet (1394 ft. of rail)
Track ties installed - approximately 350
Remaining mine track to be installed - approx. 1078 linear feet
Approximate percent of job completed - 33.7%

Installation of 3" Air Line - 547 linear feet
Installation of 1" Water Line - 547 linear feet

To widen the Scheelite Chief adit, lay track, etc., the applicant has furnished the following equipment:

*1 - Ingersoll Rand, Model 75, Air Compressor - 360 cu. ft. capacity - V Belt connected to GMC Diesel motor, Model 4031C. Complete with air receiver and 3" air line to the portal of the adit.
1 - Gardner-Denver Co. Mucking Machine, Model No. 9. (24" track ga.)
1 - Sullivan Mfg. Co. Mucking Machine, Model HL-3. (Not in use)
*1 - Mancha, Storage Battery Locomotive, No. 28374 (24" track ga.)
*4 - Mine cars - 20 cu. ft. capacity each, iron body - side

dump - 24" track ga.
1 - Joy, Jumbo drill carriage, single drill carriage with 1 - Sullivan No. 300 drill, chucked for 1 1/8" drill steel (Liddicoat bits)
1 - Jackleg and drill - air and water hoses
*1 - 15 KW Generator - Diesel operated
*Rental basis.

The mining equipment appears to be in good operating condition and the contractor is doing a good job.

GEOLOGY

The purpose of churn drill holes numbers 2, 3 and 4 is to verify the quartz vein on the north side and at the eastern end of the objective Area No. 2 and to supplement data previously obtained in diamond drilling by the U. S. Bureau of Mines.

In general the churn drill holes have encountered a light gray to the black limestone. Where white quartz containing some scheelite minerals have been noted, the applicant has made analyses for tungsten, as follows:

C.D.H. No. 2	Depth	Company Analysis % WO_3
	0 to 5 ft.	No analysis
	5 to 10 "	"
	10 to 15 "	"
	15 to 20 "	"
	20 to 25 "	"
	25 to 30 "	"
	30 to 35 "	"
	35 to 40 "	"
	40 to 45 "	"
	45 to 50 "	"
	50 to 55 "	"
	55 to 60 "	"
	60 to 65 "	"
	65 to 70 "	0.10
	S-70 to 72½ "	0.10
	S-72½ to 75 "	0.08
	S-75 to 77½ "	0.11
	S-77½ to 80 "	0.06
	S-80 to 82½ "	0.10
	S-82½ to 85 "	0.05
	85 to 90 "	No analysis

S - Sludge

C.D.H. No. 3	Depth	Company Analysis % WO_3
	0 to 80 ft.	No analysis
	80 to 85 "	0.05
	85 to 90 "	0.76
	90 to 95 "	0.29
	95 to 100 "	0.07
	100 to 102½ "	0.06
	102½ to 105 "	0.05
	105 to 110 "	0.05
	110 to 112½ "	0.05
	112½ to 115 "	0.08
	115 to 117 "	0.06
	117 to 120 "	0.05
	120 to 122 "	0.04
	122 to 125 "	0.11
	125 to 127 "	No analysis

Churn drill hole No. 4: The mining company have made no analyses on samples covering the first 55 feet of this hole at the date of the inspection.

The log of the churn drill holes, together with the tungsten analysis by the U. S. Bureau of Mines, will be forwarded as soon as available.

Operators Monthly Report

Contract amount	$171,400.00
Government participation @ 75% - $128,550.	
Expenditures to May 30, 1953	11,541.05
Unexpended:	$159,858.95

Contract Period:

Contract dated: January 27, 1953
Expiration date: April 27, 1954
Unexpended time: 9 months

Due to the delay in beginning active operations on this contract, it appears evident now that the applicant may require an extension of time.

Up to this time the applicant has not employed a full time supervising engineer. Mr. Harry Godbe has been acting in this capacity and spending part of his time at the property. As soon as the trimming is

completed in the Scheelite Chief adit and the track and pipe lines in place, the contractor will probably increase the size of his crew in order to expedite the work. At that time the applicant should arrange for an experienced resident superintendent as Mr. Godbe will be unable to spend the necessary time to properly supervise all operations.

Glenn G. Gentry
Mining Engineer.

A G R E E M E N T

THIS AGREEMENT made and entered into as of the 22nd day of June, 1953, by and between the M. I. A. MINES COMPANY, not incorporated, authorized to do business in Nevada, party of the first part, hereinafter referred to as "Company", and the CENTENNIAL DEVELOPMENT COMPANY, a Utah corporation, party of the second part, hereinafter referred to as "Contractor".

WITNESSETH:

The Company holds under agreement and lease certain mining property situated in Minerva Mining District, County of White Pine, State of Nevada, and is desirous to have certain exploration work done in accordance with Exploration Project Contract Docket No. DMEA 2688 and Contractor is qualified and willing to do said work upon the terms hereinafter stated.

NOW THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00) to Contractor paid, receipt of which is hereby acknowledged, and of the agreements of the parties by them respectively to be kept and performed, it is hereby agreed as follows:

1. (a) CONTRACTOR AGREES to rehabilitate the main adit in the Scheelite Chief mine, including straightening and widening as designated, laying track, and installing air and water lines; for which the Company will pay $.50 per cubic foot of rock in place removed to the waste dump and $.75 per lineal foot of completed track, air, and water line installation.

(b) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Scheelite Chief mine on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty Dollars ($20.00) per lineal foot of drift advance and $3.50 per lineal foot for installation of Company furnished 6 x 8 feet sets on 5 foot centers.

(c) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartments (5 1/2 x 13 feet) raises and install timber and chutes as specified in the Scheelite Chief mine at location and inclination designated by the Company; for which the Company will pay Thirty Dollars ($30.00) per lineal foot for 5 1/2 x 11 ft. rock section complete with timber installed, and Thirty-four dollars per lineal foot for 5 1/2 x 13 ft. rock section complete with timber installed.

(d) CONTRACTOR AGREES to rehabilitate the inclined shaft at the Silver Bell mine to the third level at direct labor and supervision costs plus a fixed fee of Fifteen Dollars ($15.00) per shift.

(e) CONTRACTOR AGREES to construct a skip pocket, including timbering, with an effective capacity of 150 cubic feet at the third level of the Silver Bell mine for a flat price of Four Hundred Dollars)$400.00).

(f) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Silver Bell mine to a maximum of 500 feet from the shaft on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty-six Dollars ($26.00) per lineal foot of drift advance and $4.00 per lineal foot for installation of Company furnished 6 x 8 feet sets on 5 foot centers.

(g) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartment (5 1/2 x 13 feet) raises and install timber and chutes as specified in the Silver Bell mine at location and inclination designated by the Company; for which the Company will pay Thirty-eight Dollars ($38.00) per lineal foot for 5 1/2 x 11 ft. rock section complete with timber installed, and Forty-two Dollar ($42.00) per lineal foot for 5 1/2 x 13 feet rock section complete with timber installed.

II (a) COMPANY AGREES to provide for use in the development without cost to the Contractor:

1. One Gardner-Denver mucking machine Model S.
2. One Sullivan mucking machine Model HL-3.
3. Ten mine cars.
4. Coppus fans, 5 HP, as needed for adequate ventilation.
5. One storage battery locomotive complete with charger.
6. One 360 cubic foot compressor (Ingersoll Rand Model 75, GMC Diesel Motor Model 4031C), complete with air receiver and 3 inch air line to portal of Scheelite Chief adit.
7. Diesel Generator Set - 15 KW.
8. One Sullivan Hydrojib.
9. One "motor feed" - Joy LW-6-A.
10. One drifter - Joy T300.
11. One drifter - Joy T350.
12. One stoper - Gardner-Denver R91.
13. One jackleg - Thor Model 63A.
14. One jackhammer - Thor Model 3B.

15. Two jackhammers - Thor Model 75.

16. One jackhammer shell - Thor Model 75.

17. Mechanics and electricians' services and repair parts for repair and maintenance of all above equipment.

18. Rail and fittings, pipe and fittings, vent lines and accessories, timber, wedges, nails, as needed, all delivered at the portal as required by the Contractor.

19. Greases and oils for all equipment.

20. Air and water hoses for the headings.

21. Raise service hoists as required.

22. Power line to electric fans as required.

23. Operation of small tractor for snow removal as required.

24. Gasoline driven hoist (or equivalent) plus fuel for same, surface bin with dumping arrangement and skip at the collar of the Silver Bell incline.

25. Compressed air, drill water, and electric power as required including fuel and maintenance.

26. To sell to the Contractor at cost plus 10% such supplies and shop service as he may require, but entirely at the Company's convenience.

III (a) CONTRACTOR AGREES to supply or provide:

1. All labor and supervision, including insurance and payroll taxes, and housing and boarding of same.

2. Haul and dump waste or ore and maintain waste dump.

3. All explosives and blasting facilities.

4. Installation of fans and vent lines.

5. Operation of all surface plant equipment, including compressors, diesel electric generators, battery chargers, and hoists.

6. Small tools as required in drill headings.

(b) CONTRACTOR AGREES to commence work immediately and to continue at a rate of at least two machine shifts per day for no less than six days per week.

(c) CONTRACTOR AGREES to perform the work in an efficient and minerlike manner, and to conform with applicable rules and regulations governing safety and sanitation in mines.

(d) CONTRACTOR AGREES to provide labor and/or supervision, at Contractor's cost, for additional items of work as may be required in fulfilling the Company's Exploration Project Contract with the government.

(e) CONTRACTOR AGREES to co-ordinate its operations with any concurrent Company mining operations for maximum efficiency of both parties.

(f) CONTRACTOR AGREES to carry, at its expense, workmen's Compensation and Occupational Disease Disability Compensation Insurance covering its employees, and before commencing any work under this Agreement, to furnish Company with a certificate of the insurance carrier that Contractor is covered with Workmen's Compensation and Occupational Disease Disability Compensation Insurance, and an agreement of the insurance carrier that the policy or policies for such insurance will not be cancelled without first giving

Company at least ten days' written notice of intention to cancel the same; to pay any taxes and/or make any deductions under the Federal Insurance Contributions Act, the Federal Unemployment Tax Act, and/or the Nevada Employment Security Act for which Contractor may become obligated, and to comply with the Nevada Act to Regulate Payment of Wages in Private Employment, the Fair Labor Standards Act of 1938 as amended, and all other laws, rules and regulations of any duly constituted governmental authority affecting said work; and on request of Company, to furnish it supporting evidence of compliance with the requirements of this paragraph.

(g) CONTRACTOR AGREES to furnish Company, upon its request, satisfactory proof that all workmen employed by Contractor in the performance of the work covered by this Agreement have been fully paid and that all suppliers of equipment, tools, supplies, and power furnished by Contractor have been fully paid.

(h) CONTRACTOR AGREES to indemnify and save Company harmless against all claims made upon Company for or an account of any debt or expense incurred by Contractor, or claims for personal injury to or death of any person or injury to property of any person by reason of any act or omission of Contractor, its agents, or employees; and to assume and discharge all liability, claims and demands of whatsoever nature arising out of or based upon its operations under this Agreement.

7

IV IT IS MUTUALLY AGREED:

(a) That final payment to Contractor under this Agreement shall be based on plans, sections, and others data prepared by Company's engineers from original measurements and surveys made by Company's representative, in the presence of a representative of Contractor, of the drift and/or excavations, completed in accordance with the provisions of this Agreement; and said representative of Contractor and representative of Company shall approve and sign the original notes of such measurements at the time they are made. Payment for partially completed sections of the drift and/or raise or for sections where any work is improperly done (such as timbering inadequately blocked) or excessive track grade) shall be withheld until the regular payment date next following proper and final completion of the section. In the event of disagreement between the representative of Contractor and representative of Company as to the work completed, Contractor shall furnish Company with a memorandum, in writing, stating the differences and Company shall investigate the facts and attempt to compose such difference, but in any event, the decision of the Company shall be final in determining payments to be made under this Agreement.

(b) That neither party to this Agreement shall be responsible for loss or damage arising from delays caused by strikes, fire, accidents, delays or carriers, suppliers of material,

inability to obtain labor or supplies, cave-ins, or other causes beyond the reasonable control of either party, whether of the same kind or class as the causes specifically enumerated or not; but each party will exercise reasonable effort and diligence to avoid any such delays.

(c) In the event of the Company's failure, or temporary inability to provide agreed upon services or facilities, the Company will make reasonable payments to the Contractor for the direct costs incurred by him as the result of such failure. This does not apply to isolated breakdowns or breakdowns of short duration which can be reasonably expected.

(d) Payment for advance will be made not later than the tenth of the following month with no hold-back, except in the case of work improperly performed.

(e) That Company mine superintendent or engineer may inspect the workings at any time and direct Contractor as to direction of the drive and advise if work fails to meet contract specifications.

(f) That this Agreement is not assignable or transferable by Contractor or by operation of law.

V THE COMPANY reserves the right to terminate this Agreement by thirty (30) days written notice to the Contractor for:

(a) Failure to perform work in minerlike fashion or follow work specifications.

(b) Failure to maintain reasonable progress.

(c) Deterioration of economic conditions or suspension of Government aid.

IV THIS CONTRACT becomes null and void effective immediately should Defence Minerals Administrator fail to approve this sub-contracting of DMA Docket 86, I-DMA-E7, in which case the Company will pay Contractor direct costs plus Twenty-five Dollars ($25.00) per day after drifting commenced until date of cancellation.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective proper officers thereunto duly authorized, as of the day and year first written above.

M. I. A MINES COMPANY

/s/ _____
Manager

CENTENNIAL DEVELOPMENT COMPANY

/s/ _____
Sec-Treas.

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

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

June 19, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Supplementing our form memorandum of June 8, 1953, under the above subject, enclosed herewith are four copies of drill log with assays added in connection with Docket DMEA-2688 (Tungsten), Contract Idm-E481, M.I.A. Mines Co., Minerva Tungsten Mine, White Pine County, Nevada. This information should be added to the report dated May 27, 1953, by Glenn G. Gentry, of the Bureau of Mines, and R. M. Smith, of the U.S.Geological Survey, mailed to you on June 8.

S. Ricker for
H. C. Miller, Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: E. H. Bailey, USGS (With one copy of log)
Finance Officer, Region III (With one copy of log)

DRILL LOG

Mine: Minerva tungsten, White Pine County, Nev.

Hole No.: CD 1
Sheet 1 of 2
Logged by: R.M. Smith
Scale: 1 in. = 30 ft.

Inclination: Vertical
Length: 275 feet
Date started: 4/30/53
Date stopped: 5/22/53

Site: Area 2
Coordinates collar:
bottom:
Elevations collar 6720
bottom: 6445

Size and condition of hole	Interval feet	Geology: Log	Geology: Rock	Geology: Description	Scheelite	Assays %, WO_3
Cased 5-1/2"	0- 5		ls. (wash)	light gray	-	*0.02
"	5-10		ls. "	dark gray	-	*0.02
"	10-15		ls. "	" "	-	*0.02
"	15-20		ls. "	light and dark gray	-	*0.02
Hole 4-3/4"	20-25		ls. "	light and dark gray, little quartz	-	*0.02
"	25-30		ls.	dark gray, little calcite and quartz	est. 0.01	0.17
"	30-35		ls.	dark gray, little quartz	-	*0.02
"	35-40		ls.	" " " " (fault?)	-	*0.02
"	40-45		ls.	light gray, hard	specks, orange	*0.02
"	45-50		ls.	dark gray "	est. 0.01	*0.02
"	50-55		ls.	" " "	est. 0.01	*0.02
"	55-60		ls.	" "	specks	*0.02
"	60-65		ls.	" " little calcite	-	*0.02
"	65-70		ls.	" "	specks	*0.02
"	70-75		ls.	" "	few specks	*0.02
"	75-80		ls.	" "	-	*0.02
"	80-85		ls.	" "	-	*0.02
"	85-90		ls.	" "	specks	*0.02
"	90-95		ls.	" "	specks	*0.02
"	95-100		ls.	" "	-	*0.02
"	100-105		ls.	" "	-	*0.02
"	105-110		ls.	" "	-	*0.02
"	110-115		ls.	" "	-	*0.02
"	115-120		ls.	" "	specks	*0.02
"	120-125		ls.	" "	specks, orange	*0.02
"	125-130		ls.	" "	-	*0.02

Mine: Minerva tungsten, White Pine County, Nev.

Hole No.: CD 1
Sheet 2 of 2
Scale: 1 in. = 30 ft.

Size and condition of hole	Interval feet	Geology: Log	Geology: Rock	Geology: Description	Scheelite	Assays % WO_3
Hole 4-3/4"	130-135		ls.	dark gray	-	*0.02
"	135-140		ls.	" "	specks	*0.02
"	140-145		ls.	" "	-	*0.02
"	145-150		ls.	" "	-	0.03
"	150-155		ls.	" "	specks	*0.02
"	155-160		calcite,	brown stained, little ls., dark gray	est. 0.01	*0.02
"	160-165		calcite,	" "	-	*0.02
"	165-170		ls.	dark gray, little brown stained calcite	-	*0.02
"	170-175		ls.	dark gray	-	*0.02
"	175-180		ls.	" "	-	*0.02
"	180-185		ls.	" "	few specks	*0.02
"	185-190		ls.	" "	specks	*0.02
"	190-195		ls.	" "	few specks	*0.02
"	195-200		ls.	" "	few grains	*0.02

* = less than.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

JUN 13 1953

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: June 8, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M.I.A. Mines Co., % Combined Metals Reduction Co.
Pioche, Nevada

Property - Minerva Tungsten Mine
White Pine County, Nevada

By Glenn G. Gentry, Mining Engineer

Dated May 27, 1953

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

E. H. Bailey, USGS (With one copy of report)
George Mavor

INTERIM REPORT

Docket No.: DMEA-2688 (Tungsten) May 27, 1953

Name and address of operator: M.I.A. Mines Co.,
% Combined Metals Reduction Co.,
Pioche, Nevada

Name and location of property: Minerva Tungsten Mine
White Pine Co., Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on May 8, 1953 by the field team consisting of a geologist[1/] of the U. S. Geological Survey and an engineer[2/] of the U.S. Bureau of Mines, Region III.

During the inspection of the property, the field team was accompanied by Mr. Harry Godbe, mining engineer in charge of the work for the applicant. On May 23, 1953 the property was again visited by an engineer[2/] of the U. S. Bureau of Mines, accompanied by Mr. Harry Godbe.

The purpose of both trips to the property was to inspect the work performed under the exploration contract.

The applicant's Salt Lake City, Utah office have not authorized any of the underground rehabilitation or exploration work and the date of beginning these phases of the project appear to be very indefinite.

CONCLUSIONS

Churn drilling of the area designated No. 2 and No. 3, situated between the Scheelite Chief adit and the Silver Bell shaft, was

1/ R. M. Smith.
2/ Glenn G. Gentry.

started on April 30, 1953.

RECOMMENDATIONS

No recommendations are being made at this time as no underground exploration work has been started.

STATEMENT OF WORK COMPLETED

Churn drill hole No. 1, started on April 30, 1953 and completed on May 22, 1953. Depth of drill hole measured 277.7 feet. Churn drilling is being done with a Bucyrus No. 21 drill rig, No. 59148, powered by a Le Roi gasoline engine and mounted on a flat bed truck which carries Nevada license No. T-32K, 1953. The drill rig and truck are owned by the Combined Metals Reduction Company and is operated by Frank Schuh. Mr. Schuh is doing the drilling on a contract basis and receives $3.50 per foot. This price includes all labor, bit sharpening, all supplies, water and minor repairs. Any item of major repairs is paid for by the mining company. Mr. Schuh employs his son as drill helper.

The log of the churn drill hole No. 1 is attached to this report. The tungsten analyses for each 5-foot section will be forwarded as soon as received from the laboratory.

Churn drill hole No. 2 is to be located south 18 degrees east of drill hole No. 1. The distance between the two drill holes measured 80 feet. A plan map attached to this report shows the location of drill holes Nos. 1 and 2.

GEOLOGY

The purpose of churn drill hole No. 1 is to cut the vein near the northern part of objective Area 2. Here the depth to the vein is estimated to be 125 feet.

The hole was drilled in fresh dark gray (upper black) limestone containing a few small calcite and quartz stringers. From 155 to 165 feet an iron stained calcite zone containing small amounts of scheelite was cut. The log of the sludge samples is attached to this report.

OPERATOR'S MONTHLY REPORT

Contract amount	$171,400.00
Government participation @ 75% = $128,550.00	
Expenditures to May 1, 1953	9,604.53
Unexpended	$161,795.47

Contract period: 15 months
Contract dated : January 27, 1953
Expiration date: April 27, 1954
Unexpended time: 11 months

Glenn G. Gentry
Mining Engineer

R. M. Smith
Geologist

DRILL LOG

Mine: Minerva tungsten, White Pine County, Nev.

Hole No.: CD 1
Sheet 1 of 2
Logged by: R.M. Smith
Scale: 1 in. = 30 ft.

Inclination: Vertical
Length: 275 feet
Date started: 4/30/53
Date stopped: 5/22/53

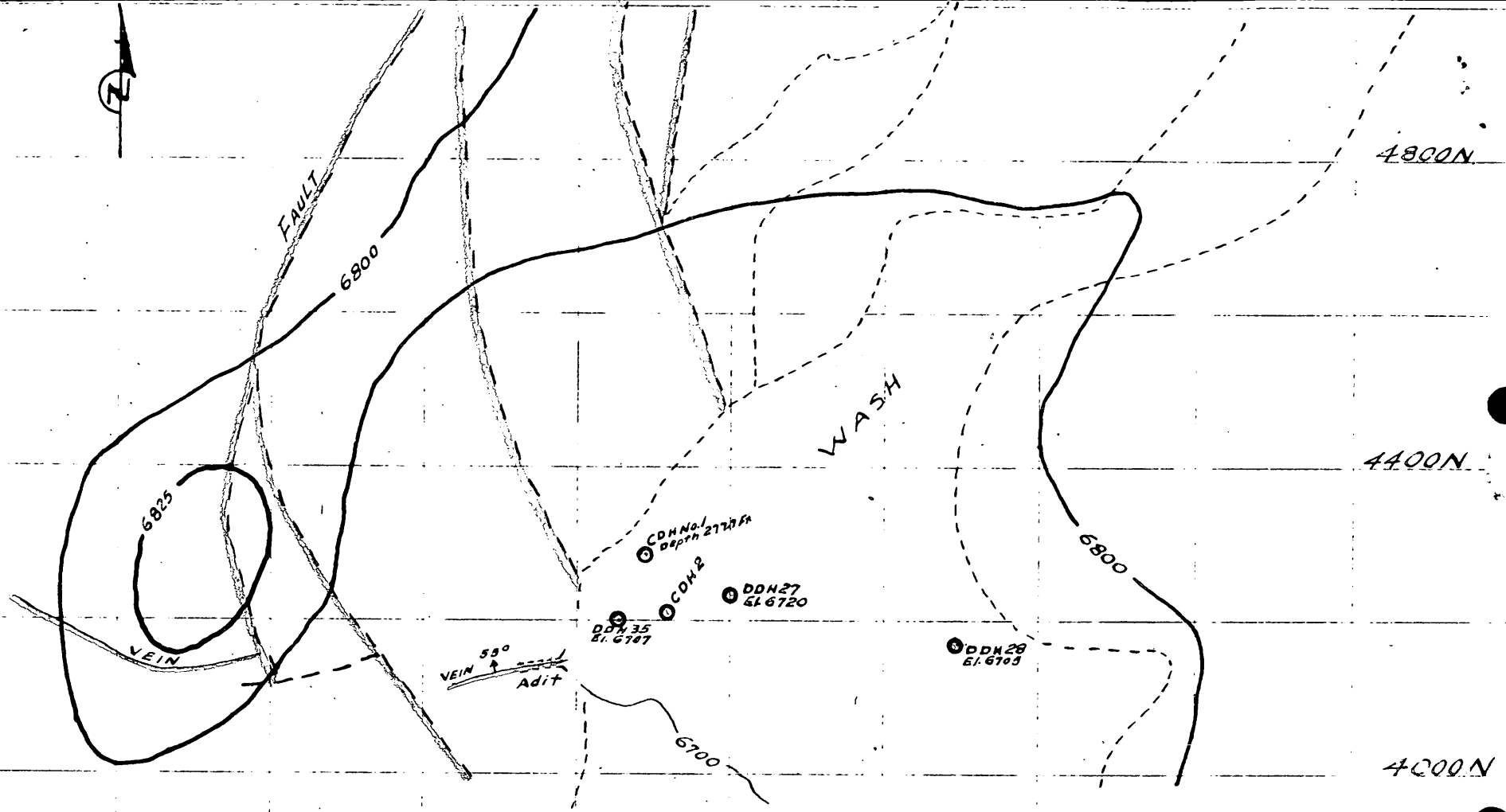
Site: Area 2
Coordinates collar: _____
bottom: _____
Elevations collar 6720
bottom: 6445

Size and condition of hole	Interval feet	Geology: Log	Geology: Rock	Geology: Description	Scheelite	Assays %, WO_3
Cased 5-1/2"	0- 5		ls. (wash)	light gray	-	
"	5-10		ls. "	dark gray	-	
"	10-15		ls. "	" "	-	
"	15-20		ls. "	light and dark gray	-	
Hole 4-3/4"	20-25		ls. "	light and dark gray, little quartz	-	
"	25-30		ls.	dark gray, little calcite and quartz	est. 0.01	
"	30-35		ls.	dark gray, little quartz	-	
"	35-40		ls.	" " " " (fault?)	-	
"	40-45		ls.	light gray, hard	specks, orange	
"	45-50		ls.	dark gray "	est. 0.01	
"	50-55		ls.	" " "	est. 0.01	
"	55-60		ls.	" "	specks	
"	60-65		ls.	" " little calcite	-	
"	65-70		ls.	" "	specks	
"	70-75		ls.	" "	few specks	
"	75-80		ls.	" "	-	
"	80-85		ls.	" "	-	
"	85-90		ls.	" "	specks	
"	90-95		ls.	" "	specks	
"	95-100		ls.	" "	-	
"	100-105		ls.	" "	-	
"	105-110		ls.	" "	-	
"	110-115		ls.	" "	-	
"	115-120		ls.	" "	specks	
"	120-125		ls.	" "	specks, orange	
"	125-130		ls.	" "	-	

Mine: Minerva tungsten, White Pine County, Nev.

Hole No.: CD 1
Sheet 2 of 2
Scale: 1 in. = 30 ft.

Size and condition of hole	Interval feet	Geology: Log	Geology: Rock	Geology: Description	Scheelite	Assays %.WO3
Hole 4-3/4"	130-135		ls.	dark gray	-	
"	135-140		ls.	" "	specks	
"	140-145		ls.	" "	-	
"	145-150		ls.	" "	-	
"	150-155		ls.	" "	specks	
"	155-160		calcite,	brown stained, little ls., dark gray	est. 0.01	
"	160-165		calcite,	" "	-	
"	165-170		ls.	dark gray, little brown stained calcite	-	
"	170-175		ls.	dark gray	-	
"	175-180		ls.	" "	-	
"	180-185		ls.	" "	few specks	
"	185-190		ls.	" "	specks	
"	190-195		ls.	" "	few specks	
"	195-200		ls.	" "	few grains	



M.I.A. MINES CO.

MINERVA TUNGSTEN MINE

WHITE PINE COUNTY, NEVADA

PLAN: LOCATION OF CHURN DRILL HOLES

Scale: 1" = 200'

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Office of
Executive Officer
DMEA Field Team
Region III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 4 1953

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

Date: April 28, 1953

Memorandum

To: Operating Committee, DMEA, Interior Bldg., Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -

Docket DMEA 2688

Contract Idm-E 481

Commodity Tungsten

Operator - M.I.A. Mines Co. (Combined Metals Reduction Co.)
Pioche, Nevada

Property - Minerva Tungsten Mine, White Pine County, Nevada

By Glenn G. Gentry, Mining Engr.

Dated April 14, 1953

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Finance Officer, Region III (With one copy of report)

E. H. Bailey, USGS (With one copy of report)

INTERIM REPORT

Docket No.: DMEA-2688 (tungsten) April 14, 1953

Name and address of operator: M. I. A. Mines Co.,
c/o Combined Metals Reduction Co.,
Pioche, Nev.

Name and location of property: Minerva Tungsten Mine
White Pine County, Nev.

Contract No.: Idm-E481

SUMMARY

The Minerva Tungsten mine was visited on March 27 and 29, 1953 for the purpose of securing information relative to the location of the work proposed under the exploration contract and to inspect any work that had been performed. This inspection covered all surface and underground locations and the examining engineer was shown over the property by Mr. R. H. Godbe who will be in charge of engineering for the applicant.

Mr. Robert Stopper, owner of the mining claims, is to be employed as mine superintendent.

On the dates of the inspection, the applicant had not begun any actual exploration operations in either the Scheelite Chief adit or the Silver Bell shaft.

Preparatory work around the camp and some surface work adjacent to the portal of the Scheelite Chief adit was started on February 27, 1953.

The applicants Salt Lake City, Utah office had not authorized either underground rehabilitation or churn drilling at the time of this inspection, however, permission to begin operations under the exploration contract was expected to be received on or about April 10, 1953.

CONCLUSIONS

The Minerva Tungsten mine is situated 78.5 miles north of the Caselton Plant of the Combined Metals Reduction Co., which will be the source of the major items of equipment and supplies used for the exploration project. Of this distance, 62 miles is via U. S. Highway No. 93, an all weather road, thence via 16.5 miles of unimproved desert road.

The preparatory surface work completed by the applicant has been done in a very satisfactory manner and for the purpose of having adequate installations for both the exploration and production operations.

RECOMMENDATIONS

No recommendations are being made at this time as the exploration work has not started.

STATEMENT OF WORK COMPLETED

Buildings:

Camp: During October and November of 1952, the applicant purchased the following buildings from the Forlorn Hope Mine, located approximately 110 miles southwest of the Minerva Tungsten mine, and moved them via truck to the latter property:

3 Bunk houses, size each, 14 feet by 36 feet
1 Office building, 18 feet by 24 feet
1 Compressor building, 12 feet by 24 feet

The buildings are of timber frame construction, covered with galvanized, corrugated sheets. The compressor building, which is the only one authorized under the contract, is situated approximately 150 feet northwest of the portal of the Scheelite Chief adit and houses an air compressor. The floor of the building is concrete and one section has been partitioned off for a warehouse and/or change room.

The allowable cost of this compressor building (noted on page 10 of Exhibit "A") amounts to $1,500.00. The examining engineer considers the cost of the building at approximately $500.00, and further considers that the installation of a cement floor in the building was not necessary or required for the exploration work proposed by the contract.

1 Fanhouse at collar of churn drill hole, size 6 feet by 6 feet, fram construction, covered with galvanized, corrugated sheets.

Roads:

The applicant has rented a Caterpillar, D8 tractor with bulldozer blade and has completed necessary grading around the camp site, excavations for the installation of the water and fuel tanks, leveling and grading in a small area adjacent to the portal of the Scheelite Chief adit, roadway leading to the site of the proposed water well and roads leading to the site of the various churn drill holes in the area of the Silver Bell shaft. The Caterpillar tractor was also used in excavating a ditch for the installation of 1,200 feet

of 2-inch black, iron pipe from the water tank to the camp and covering this pipe line with dirt after installation.

The examining engineer considers the roads to the sites of the proposed churn drill holes will be adequate for transportation of all necessary equipment and supplies and that additional road work should not be necessary unless caused by heavy rains or floods.

Equipment installations:

1 Ingersoll-Rand air compressor (used, reported to be in good condition), rated capacity 360 c.f.m., connected by 12 V-type drive belts to: G. M. Diesel engine, model PTA 11111, Serial No. 169468-5170847. The compressor and Diesel engine are mounted on a single steel frame.

1 Air receiver, iron, about 30-inch diameter by 8 feet high (used).

1 Allis-Chalmers fan (used), Model 7SB22A5-79768CH, No. AN-B420, connected by V-belts to Bradley gasoline engine, No. 202015-135681, single cyl. (used).

1 Fuel tank, riveted iron plates, 4000 gal. capacity (used).

1 Water tank, galvanized iron, 10 feet by 10 feet, approximately 5,260 gallons capacity (used).

Approximately 100 feet of used 4-inch black, iron pipe for compressed air line from the air receiver to the portal of the Scheelite Chief adit.

Miscellaneous supplies on hand:

Approximately 30 tons of new, 30-pound mine rail, with necessary splice bars, track bolts and spikes.

A considerable supply of square, mine timbers and rough lumber.

Additional work done by the applicant has consisted of laying a 2-inch water line from the water tank to the mine camp buildings, a distance of approximately 1,200 feet.

While this pipe line principally will be used for a water supply to the camp and is not an allowable item of expense under the contract, a part of it could be used in supplying water to the Scheelite Chief adit.

Further work contemplated by the applicant at his expense:

The applicant proposes to drill a water well, to be located in the area adjacent to the water tank, to a depth of probably 300 feet to 400 feet. This well would be of value to the applicant in determining the rock formations in an unknown area and if successful in producing an adequate flow of water, would eliminate the cost of hauling water from a well located near the Stopper mill.

GEOLOGY

The Bureau of Mines, Report of Investigations No. 4648, page 5, summarizes the tungsten ore bodies in the Minerva district occurring as shoots in quartz veins that occupy faults in limestone of Cambrian age.

SAMPLING

One sample of tungsten ore was taken by the examining engineer: BM-502, width 3 feet, quartz vein - Silver Bell shaft. North wall of 3rd level, 100 feet west of shaft - %, WO_3 0.56, oz/T Au trace, oz/T Ag 0.45.

OPERATORS MONTHLY REPORT

At this writing, the applicant has submitted no monthly report and voucher on forms MF-104 and MF-104A covering preparatory work completed in the month of March, therefore the financial status would be as follows:

Contract amount	$171,400.00
Government participation @ 75% = $128,550.00	
Expenditures	None
Unexpended	$171,400.00

Contract period:

Contract dated:	Jan. 27, 1953
Contract period:	15 months
Expiration date:	April 27, 1954
Unexpended time:	13 months

The contract specified that the exploration work shall be completed within a period of 15 months from the date of the contract, however, it is noted in Exhibit "A" attached to the contract that the time schedule of Stage 1, shows a maximum of 8 months and a maximum of 13 months on Stage 2. Therefore, the maximum allowable time might be construed as 21 months as per Exhibit "A".

COMMENTS

The applicant proposes to let a contract to the Centenial Development Company of Eureka, Utah for the trimming of the Scheelite adit and the additional drifting, crosscuts and raises provided in the contract. Attached hereto is submitted a plan of the Scheelite adit (sketches 1 to 8, inclusive) which shows the location of the areas where trimming will be required. The status of the excluded area is not clear.

In order to reach the point of starting exploration of areas outlined in Exhibit "A", the Scheelite Chief adit, necessary for the exploration work, traverses an area which has been reserved by Robert F. Stopper. Inasmuch as part of the Scheelite Chief adit is through ground reserved by Mr. Stopper, it seems that the operators should have an easement for the use of the adit for all required purposes

during the period the exploration contract is in force, and/or the transportation of any subsequent ore in which Government may expect to receive repayment.

The Government is also expending certain funds for trimming through the excluded portion of this Scheelite Chief adit.

The Mining Division office does not have a copy of the Agreement between the M. I. A. Mines Company and Robert F. Stopper, relative to the rights and useage of the excluded area.

At the time the applicant authorizes work to be started, his field office proposes to begin churn drilling with the first hole to be drilled in the area of objective No. 3. The location is adjacent to drill hole No. 37 drilled by the U. S. Bureau of Mines (figs. 2 and 7, Report of Investigations 4648). The applicant proposes to do the churn drilling with their own experienced drill crew and with their own drill, which is:

> Bucyrus drill, Model 21W, chuck mounted, rated to 400 feet. The machine is reported to be in good mechanical condition.

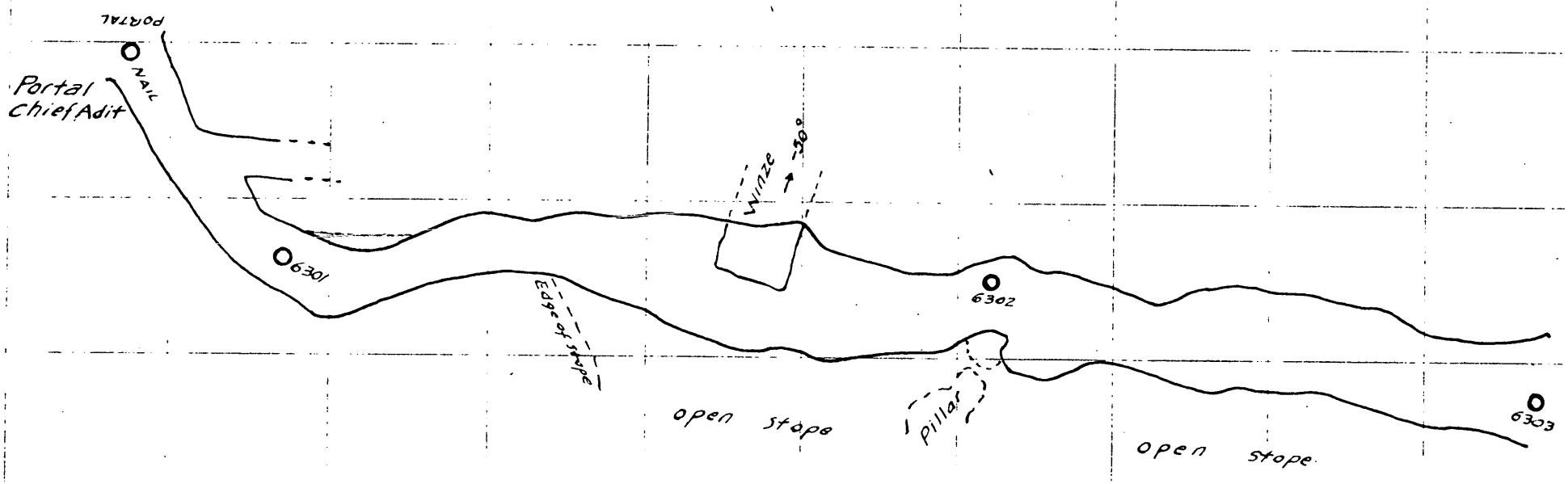
The applicant reports that Mr. Robert F. Stopper, owner of the property is to be employed as superintendent in active charge of the exploration operations. Mr. Stopper has apparently had considerable experience in the operation of the property in past years and is presently operating the Canary Yellow tungsten mine and the Stopper mill.

Judging from his experience record, Mr. Stopper should be a good man, however, if he attempts to continue the operation of his own mine and mill together with the applicants operations, the demand

upon his time may make it difficult to take care of both jobs.

This matter was called to the attention of officials of the applicants field office and they have promised full and adequate supervision on the exploration project.

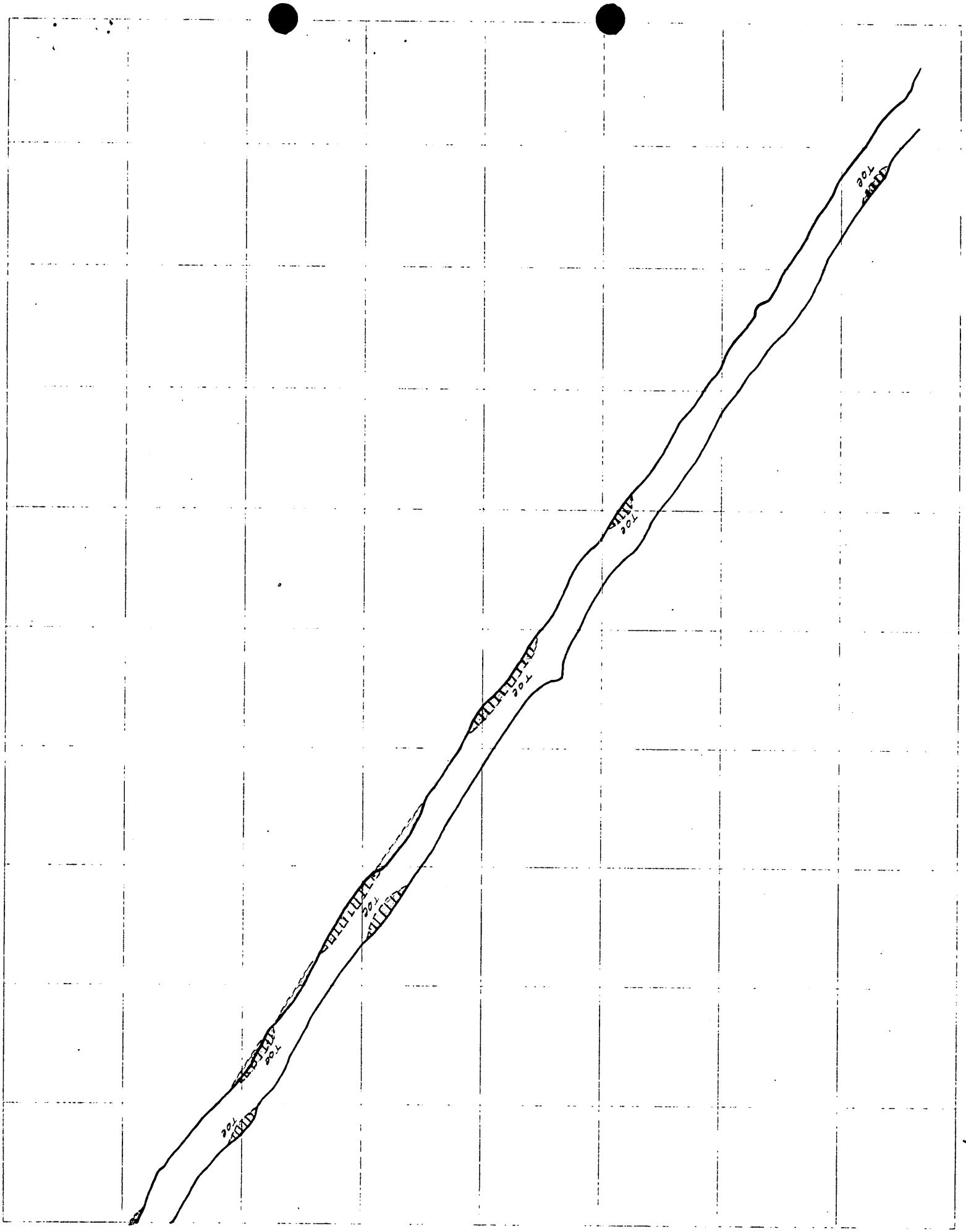
Glenn G. Gentry
Mining Engineer



M.I.A MINES Co.
PLAN - SCHEELITE CHIEF ADIT
CONTRACT IDM-E481
RED = ADIT TRIM - PAGES 1 TO 8, incl.
Scale 1" = 20'

ALBANENE NO. 195M
REVISED MAY 1-F

"ALBANENE" NO. 1
REG. U.S. PAT. OFF.



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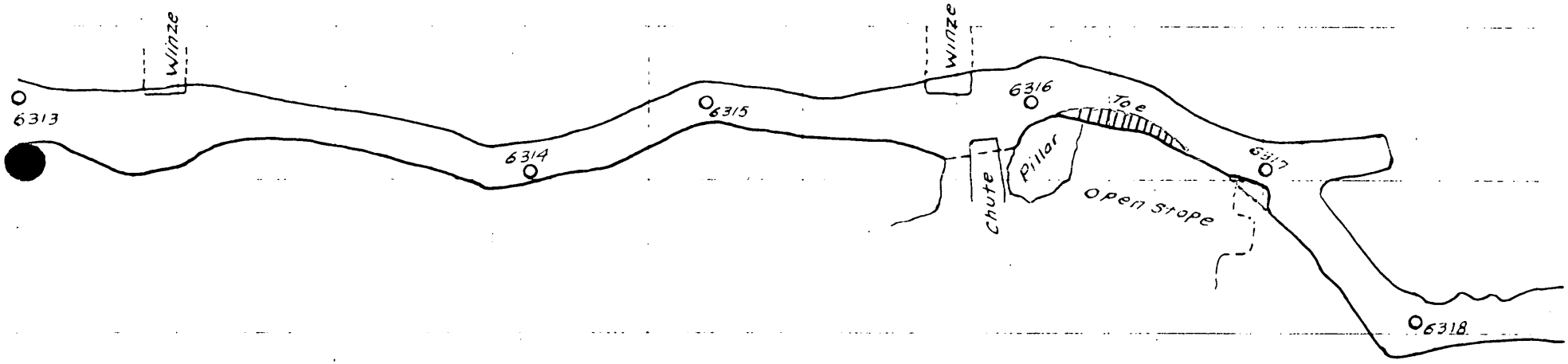
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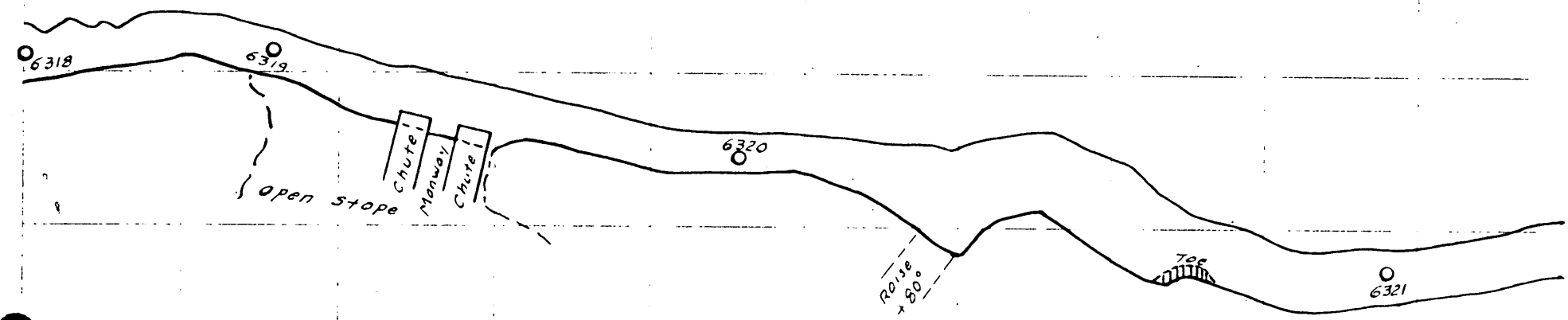
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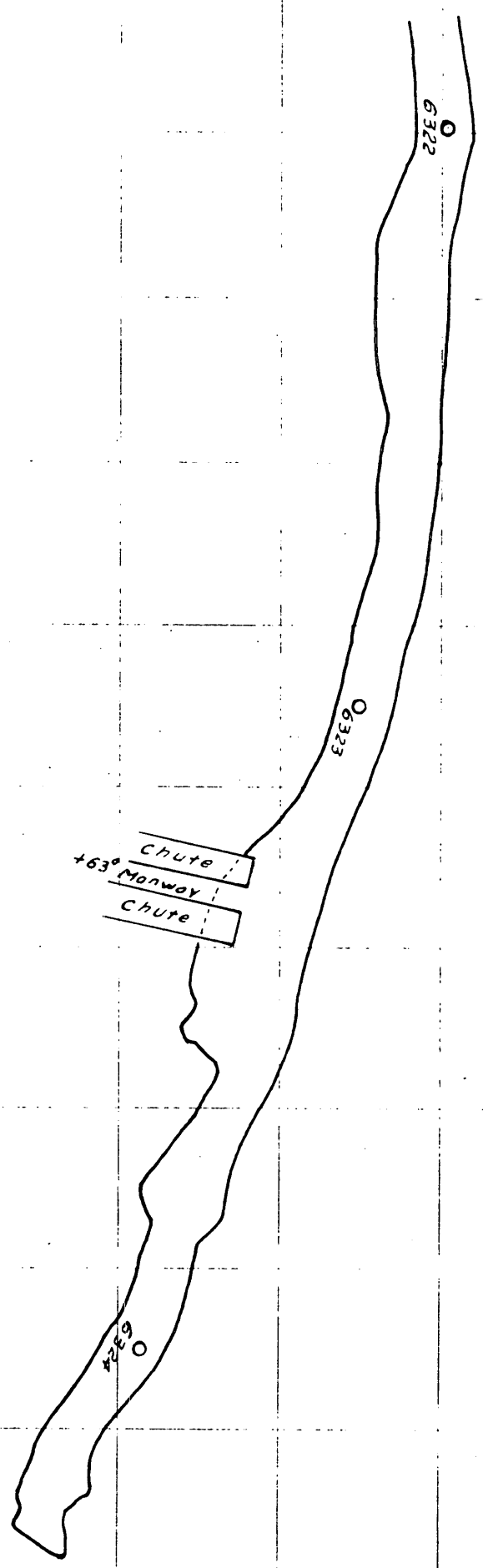


"ALBANENE" NO. 1 LUM PAPER CO., N. Y.
REG. U.S. PAT. OFF.

DMEA-104 (Rev.)
April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January 1955 Docket No. DMEA 2683 Contract No. DMI-D 461

Operator's Name M.I.A. Mines Company Minerals Tungsten

Address 218 Felt Building, Salt Lake City, Utah

Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00 W&M

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 (Diamond	825.00	6,119.47	6,944.47			
(Churn		6,700.00	6,700.00			
Drilling						
Straighten & Widen Adit		1,800.00	1,800.00			
Rehab. Silver Bell Incline						
Contract Skip Pocket		2,300.00	2,300.00			
Drifting	5,180.00	74,252.50	79,432.50			
Raising	297.50	11,333.85	11,631.35			
Lay Track, Air Water Line		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 Topman		1,506.90	1,506.90			
Supervision		6,420.00	6,420.00			
Technical Services		1,190.00	1,190.00			
Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies:						
Drill Steel & Bits		4,394.88	4,394.88			
Timber (incl. Ties)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,458.34	4,458.34			
Diesel Fuel		4,971.83	4,971.83			
Vent Tubing		1,760.10	1,760.10			
Misc. Supplies		6,467.41	6,467.41			
(4) Operating Equipment:						
Rental - Bulldozer & Trans.		545.12	545.12			
Rental - Equip. Silver Bell		1,278.00	1,278.00			
Purchase						
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,803.95	2,803.95			
(6) New Bldgs., Improvements, etc.		2,894.00	2,894.00			
(7) Miscellaneous:						
Repairs to Equipment		5,062.54	5,062.54			
Sampling and Analysis		624.21	624.21			
Payroll Taxes		322.03	322.03			
Liability Insurance		735.67	735.67			
Pickup Transportation		2,384.06	2,384.06			
Road Maintenance - Winter		2,400.00	2,400.00			
(8) Contingencies (Specify)						
Haulage & Supplying Water		3,327.77	3,327.77			
Office & Eng. Supplies		25.81	25.81			
Less suspension. See Final Audit.			5,087.90			
TOTALS	6,302.50	166,833.69	173,136.19			

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

Date 2/17/55 *Payee M.I.A. Mines Company

Per ORIGINAL SIGNED BY O. K. BURTON Title 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:

$ 910.95

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-31

(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. Ism-3401 in accordance with the terms of the contract.

Signature R. C. Johnson Title Supervising Mining Engineer Date Feb. 24, 1955.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Micker Title Executive Officer DMEA Field Team Region II Date February 25, 1955

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.

Form MF-104A
(April 1952)

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 31 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 1955 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals Tungsten
Address [illegible]

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	Ft.	5,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	Ft.	397.50	0.5	19,[illegible]	357.5	[illegible]		
Shafts								
Winzes								
Drilling: Core	Ft.	[illegible]	[illegible]	7,[illegible]	1,[illegible]	[illegible]		
Churn	Ft.			6,[illegible]	1,[illegible]	[illegible]		
Auger								
[illegible] Supervision & Tech.				2,[illegible]				
[illegible] Bookkeeping				2,[illegible]				
[illegible] Supplies & Analysis				[illegible]				
Roads and Trails				2,[illegible]				
[illegible] & Insurance				2,[illegible]				
Total Distributed Costs								Total Costs Authorized by Contract
[illegible] & Depreciation								
Operating Equipment [illegible]				[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.				[illegible]				
[illegible]				5,[illegible]				
Total Costs		[illegible]		[illegible]				

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 5/17/55 Operator [illegible]

Per ORIGINAL SIGNED BY O. F. BURTON Title [illegible]

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

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION II

DEPARTMENT OF THE INTERIOR
Minerals Administration
RECEIVED
MAY 31 1955

Administrative Audit Difference Statement

Date: ~~May 31, 1955~~
Payee's
Reference: ~~Contract No U 402~~
~~Minerva Congaton Mine~~
ATT: Mr. O. P. Burton, Treasurer

M.I.A. Mines Company
219 Felt Building
Salt Lake City, Utah

Gentlemen:

Upon examination of the above Payee's Reference, a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ ~~6,[illegible] ([illegible])~~

Difference $ ~~5,[illegible]~~

Amount Approved $ ~~1,[illegible]~~

The reason for the difference was due to: See Final Audit, dated April 29, 1955 for details.

	Costs per Final Audit to 1/27/55	75% Gov't Cost.
Cost of Contract	$100,513.67	$100,[illegible]
Less Prior payments		1[illegible]
Balance due final payment		$[illegible].05

75% of $[illegible] = $[illegible].05

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

L. H. Sjolander
Chief, Budget and Finance Branch
Region III

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property- Narrative - January, 1955.

February 15, 1955

Mr. Paul Gemmill, Plant Manager

Reginald G. Lee

Dear Paul:

Progress under the Exploration Project Contract with Defense Mineral Exploration Administration during the month of January was as follows:

Exploration D.M.E.A.

Intermediate Sub-level - Map A-1614

The sub-level drift was advanced east on the fissure 38.0 feet during the month. The first 20 feet of advance following the fissure showed only a small amount of scheelite mineralization in the 10" wide quartz fissure.

An east dipping fault zone was encountered between 20 feet and 34 feet of advance, at 38 feet the face was in solid limestone and through the fault zone.

The throw of the fissure in this fault zone is probably to the south. If the fissure is not located in another 10 feet of drifting to the south east, a diamond drill hole will be extended out south.

The raise up from t is sub-level was advanced from 22.0 feet to 30.5 feet, where drill hole No. 13 showed some ore 30 feet above this level.

650 west sub-level - Map A-1658

A cross-cut was driven south 48.0 feet from near the face of the 650 west Drift, coordinates N4210, E12240, to explore the footwall of the flat east dipping fault on this level. However, in 48 feet of cross-cutting limestone, little quartz drag with considerable amount of calcite was noted, but the fissure was not located. It is now evident that the flat dipping fault displaces the fissure much further than was first expected and that the footwall block of the fissure is north of the present face of the 650 west sub-level.

Three short diamond drill holes, No. 17, 79.0 feet long, No. 18, 43.0 feet long and No. 19, 43.0 feet long were drilled south in this 50 feet thick flat dipping fault zone to locate possible fault segments of the fissure. These holes showed a brecciated zone of limestone calcite and some quartz but only a minor amount of scheelite mineralization.

COPY

The next exploration work on this level should be to extend the 650 west drift to the north 80 feet to probable location of the fissure.

300 Level - Silver Bell - Map B-873

The Silver Bell 300 level drift was advanced 62.0 feet during the month. A steep dipping fault was encountered last May shortly before this heading was shut-down, with indications that the fissure was displaced to the north. When this heading was started up last month the drift was turned north and the fissure was cut at 30 feet of advance showing 23 inches of high grade ore assaying from 2% to 3% WO_3, for 32 feet of advance on the fissure. //

The last 25 feet of advance is east of Churn Drill Hole No. 7, which showed good grade ore 37 feet above this level.

Summary of R.M.L.A. Exploration Footage for month of January, 1955

	X-Cutting Drifting	Raising	Drilling
Intermediate sub-level - Map A-1614	18.0'	8.5'	
650 West sub-level - Map A-1658	68.0'		
Diamond Drilling - Map A-1658			165.0'
300 Level Silver Bell - Map B-873	62.0'		
Total	148.0'	8.5'	165.0'

COPY

Production

Production for the month is estimated at 500 tons, of which 200 tons were shipped to Sauer Mill during the latter part of the month. The balance of the tonnage was transferred to stockpile at the mine and left in mine ore passes. Estimated assay value of the above tonnage is 0.75 WO_3.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1614

COMBINED METALS REDUCTION CO.

M.I.A. MINES CO.

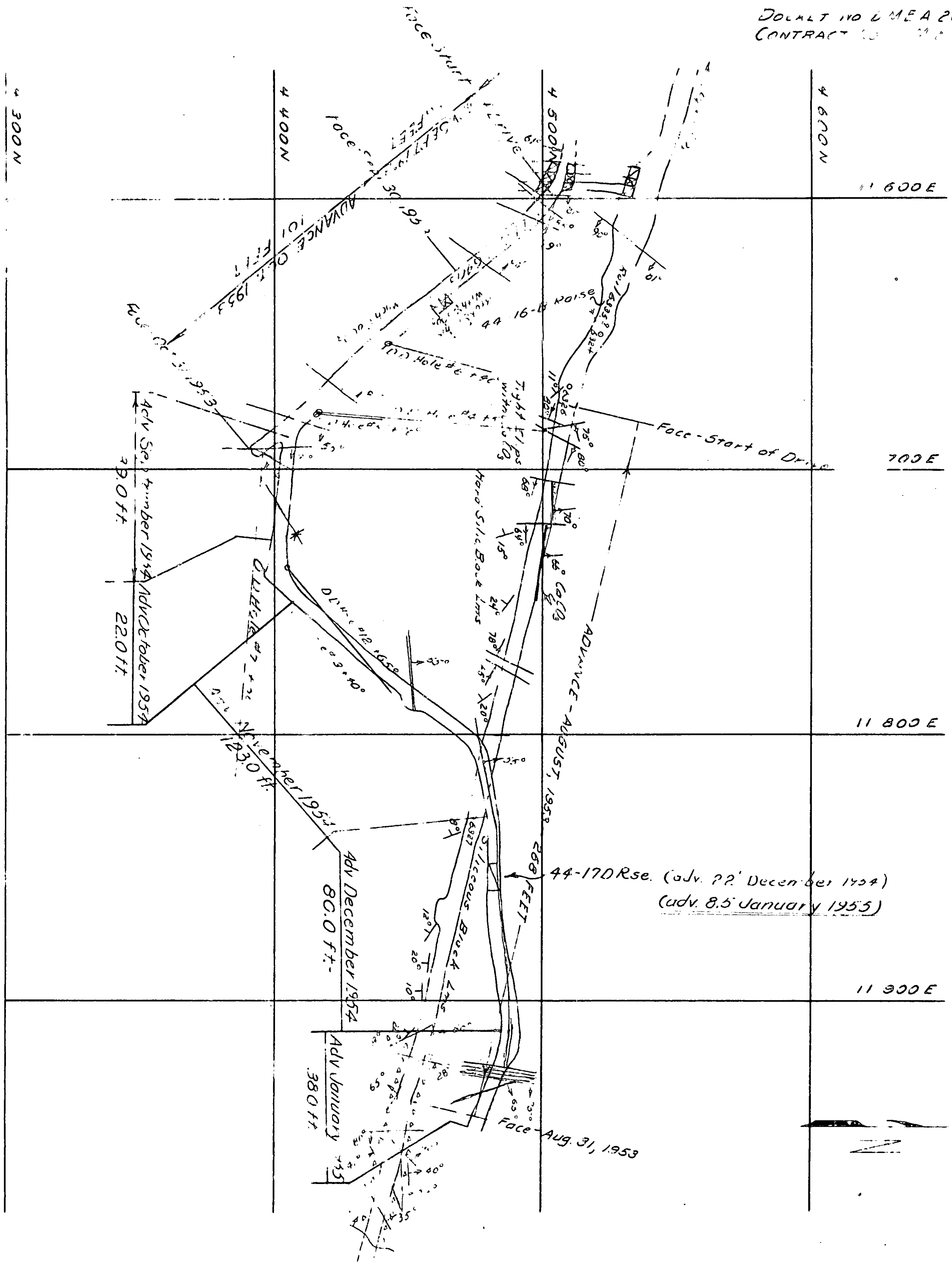
MINERVA TUNGSTEN PROPERTY

WHITE PINE COUNTY, NEVADA

~SCHEELITE CHIEF MINE

DOCKET NO DMEA 26B

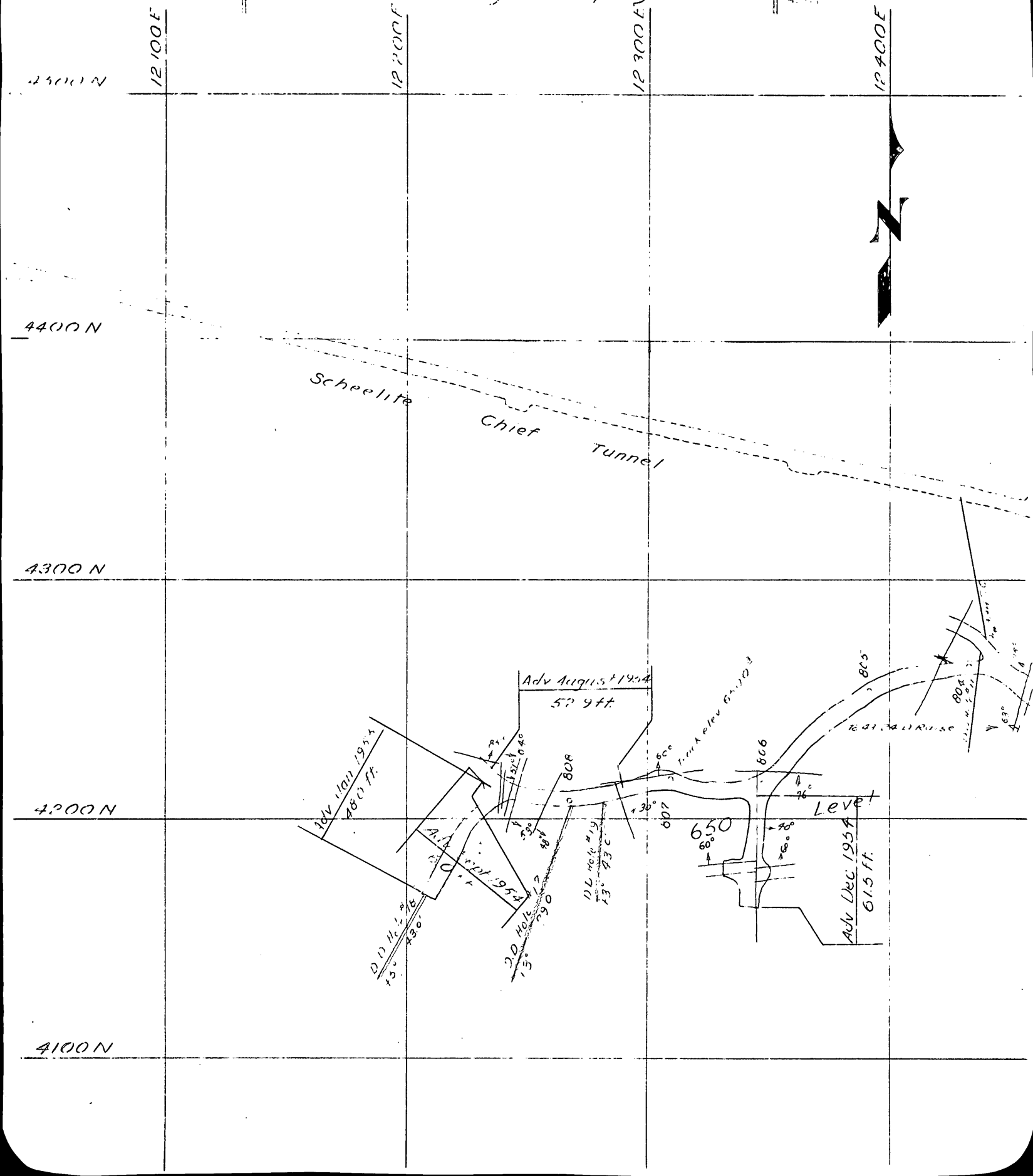
CONTRACT

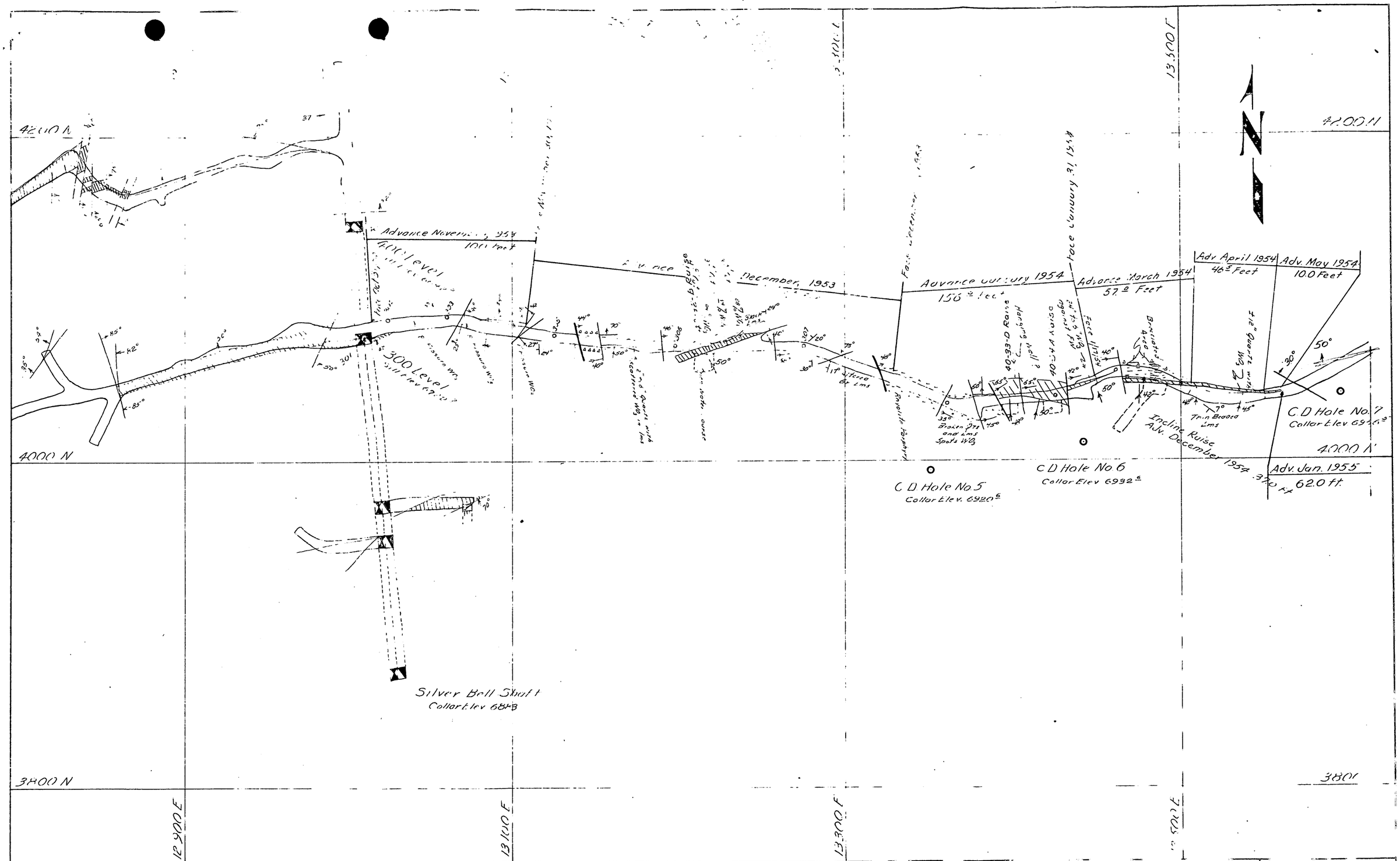


A-1658

COMBINED METALS REDUCTION CO.
MTA Mines
650' LEVEL
Jackson No DM: 42688 Contract No IPM-E 481
Minerva Tungsten Property

Sept 12, 54
O.E. Schrader
1" = 50'





REFERENCES
D-1212, A-1617, A-1618, A-1622
Docket No. DMEA 2688
Contract No. IDM-E 481

REVISIONS

WORK
DRAWN
CHECKED
APPROVED

COMMONWEALTH MINERALS REDUCTION CO.
SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

B-873

SALT LAKE BLUE 1000H

402

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

February 4, 1955

Air Mail

WSM

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Pursuant to your teletype of February 4, 1955, regarding subject docket we are attaching copies of Operator's MF-104A forms and narrative reports for the months of October, November, and December.

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: Finance Office, Region II

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1954 Docket No. DMEA 2600 Contract No. DMEA 411
Operator's Name U.I.A. Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $128,550.00

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: Diamond	382.50	5,736.97	6,119.47			
Churn		6,700.00	6,700.00			
Straightening & widen Adit		1,800.00	1,800.00			
Rehab. raise, fill incline		2,300.00	2,300.00			
Rehab. Skip pocket						
Drifting	4,952.50	69,300.00	74,252.50			
Raising	2,065.00	9,268.85	11,333.85			
Lay track, air, water line		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 Topman		1,506.90	1,506.90			
Supervision		6,420.00	6,420.00			
Technical Services		1,190.00	1,190.00			
Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies:						
Drill Steel & Bits		4,394.88	4,394.88			
Timber (incl. ties)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,458.34	4,458.34			
Diesel Fuel		4,273.83	4,273.83			
Vent Tubing		1,780.10	1,780.10			
Misc. Supplies		6,467.41	6,467.41			
(4) Operating Equipment:						
Rental - Bulldozer & Trans.		545.12	545.12			
Rental - Surf. Equipment		1,278.00	1,278.00			
Truck Silver Bell		3,579.24	3,579.24			
Depreciation		2,803.95	2,803.95			
(5) Initial Rehabilitation and Repairs		2,894.00	2,894.00			
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous: Maint. Labor		5,062.54	5,062.54			
Repairs to Equipment		624.21	624.21			
Sampling and Analysis		322.03	322.03			
Payroll Taxes		735.67	735.67			
Liability Insurance						
Pickup transportation		2,304.06	2,304.06			
Road Maint. - Winter		2,400.00	2,400.00			
(8) Overhead:						
Haulage & Supp. Water		3,327.77	3,327.77			
Office & Eng. Supplies		25.81	25.81			
TOTALS	7,400.00	159,433.69	166,833.69			

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

Date 1-18-55 *Payee U.I.A. Mines Company

Per ORIGINAL SIGNED BY O. F. BURTON Title 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:

5500.00
-1800.00 - Withheld
$ 3750.00

Signature [illegible] (Authorized Certifying Officer)

Date MAR 29 1955 Vou. No. SF-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. 1dm-1401 in accordance with the terms of the contract.

Signature A. C. Johnson Title Mining Engineer Date January 21, 1955

A. C. Johnson

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Micker Title Executive Officer DMEA Field Team Region II Date January 24, 1955

S. Micker

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. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION II

Defense Minerals Administration
RECEIVED
APR - 4 1955

Administrative Audit Difference Statement

Date: March 29, 1955
Payee's
Reference: Contract Idm E-481
Docket DMEA 2688
Minerva Tungsten Mine

M.I.A. Mines Company
P.O. Box 150
Salt Lake City, Utah

Gentlemen:

Upon examination of the above Payee's Reference, a difference was found which made it necessary to suspend your account accordingly:

Govt. Part. Amount Claimed $ 18,883.13 (Oct. Nov. Dec. & Jan.)

Difference $ 6,526.88 Withheld

Amount Approved $ 12,356.25

The reason for the difference was due to:

Explanation of Amounts Paid on the following MF-104 Vouchers

Month	Cost	75% Govt. Participation	Withheld	Net to Operator
Oct. 54	$6525.00	4893.75	-0-	$4893.75
Nov. 54	4950.00	3712.50	-0-	3712.50
Dec. 54	7400.00	5550.00	$1800.00	3750.00
Jan. 55	6302.50	4726.88	4726.88	-0-
	$25,177.50	$18,883.13	$6526.88	$12,356.25

The amount of $6,526.88 has been withheld pending completion of final audit of contract and the final determination of salvage value of Materials and Supplies and other equipment.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

L. H. SJOLANDER

L. H. Sjolander
Budget and Finance Branch
Region II

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
FEB 7 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1954 Docket No. DMEA 2608 Contract No. DMEA 401
Operator's Name E.I.A. Mines Company Minerals Tungsten
Address 216 Felt Building, Salt Lake City, Utah

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	Ft.	4,952.50	141.5	97,257.01	2,690.7	36.04		
Crosscutting								
Raising	Ft.	2,065.00	59.0	19,697.10	340.5	50.52		
Shafts								
Winzes								
Drilling: Core	Ft.	302.50	76.5	6,922.77	1,606.8	4.31		
Churn				6,700.00	1,340.0	5.00		
Auger								
Supervision & Tech.				7,610.00				
Bookkeeping				2,025.00				
Sampling & Analysis				624.21				
Roads and Trails				2,945.12				
Taxes & Insurance				1,057.70				
Total Distributed Costs		7400.00		144,838.99				Total Costs Authorized by Contract
Rental & Depr.				4,857.24				
Operating Equipment Purchased				8,531.57				
Initial Rehabilitation and Repairs				2,894.00				
New Buildings, Improvements, etc.				5,711.63				
Transp. men and supplies								
Total Costs		7,400.00		166,833.63				

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 1-10-55 Operator E.I.A. Mines Company

Per ORIGINAL SIGNED BY O. F. BURTON Title Treasurer

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.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION II
RECEIVED
1955 JAN 24 AM 9:05
SAN FRANCISCO, CALIFORNIA

GPO 83-38475

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - December, 1954.

January 10, 1955

Mr. Paul Gemmill, Plant Manager

Reginald G. Lee

Dear Paul:

Progress under the Exploration Project Contract with the Defense Mineral Exploration Administration during the month of December was as follows:

Exploration D.M.E.A.

Intermediate Sub-Level - Map A-1614

This sub-level was advanced east on the fissure 80.0 feet. Some spotty scheelite mineralization was found in this advance, but of too low grade to be classed as ore. The fissure varied in width from a few inches to 3 feet.

A raise was started, where the scheelite mineralization was the strongest, and advanced 22 feet. The scheelite showing continued up as far as the raise was driven which indicates that we are under the ore. This raise will be continued to a height of approximately 50 feet where diamond drill hole No. 13 cut some ore.

650 West Sub-Level - Map A-1658

After locating the fissure south of the 650 level drift by diamond drilling on 600 level and 650 level, a crosscut was driven out to cut the fissure. The ore is from 3 to 4 feet wide and of average grade. A flat east dipping fault cuts the fissure with only a few feet displacement at the point where the crosscut intersected the fissure.

Total drifting and crosscutting for the month on the 650 west sub-level amounted to 61.5 feet. Exploration and development of this new block of ore will be performed as rapidly as possible. The possibilities are favorable of developing an important block of ore with considerable tonnage to the west, as there are 600 feet to the nearest mine workings.

Silver Bell - Map B-873

A raise following the fissure was driven up from the 300 level to the area where churn drill hole No. 6 showed commercial ore. Advance of this raise for the month amounted to 37.0 feet. The face of the raise showed 2 feet of average grade ore. However, it will be necessary to advance this raise another 25 feet to intersect the point where churn drill hole No. 6 showed the ore.

Diamond Drilling - Map A-1653

Diamond drill hole No. 15, of which 13 feet was completed last month, was extended to a total distance of 63 feet. The hanging wall of the fissure was cut at 36 feet, the footwall at 42.5 feet. The drill core showed 4 feet of ore of which assays are not available yet, but is estimated to be of average grade or better.

Diamond drill hole No. 16 was drilled due south - Zero dip from survey station #806 on 650 west sub-level. The hanging wall of the fissure was cut at 26.5 feet.

Total diamond drill footage for the month totalled 76.5 feet.

Summary of D.M.C.A. Exploration Footage for Month

	X-Cutting Drifting	Raising	Drilling
Intermediate sub-level - Map A-1614	80.0'	22.0'	
650 West sub-level - Map A-1658	61.5'		26.5'
Silver Bell - Map B-873		37.0'	
600 west sub-level - Map A-1653			50.0'
Total Exploration Footage	141.5'	59.0'	76.5'

COPY

Production

No ore was shipped during the month. About 600 tons averaging 0.65% WO_3 was mined and stored in outside ore bins and mine ore passes.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1658

REFERENCES.

COMBINED METALS REDUCTION CO.

M.E.A. Mines

650 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

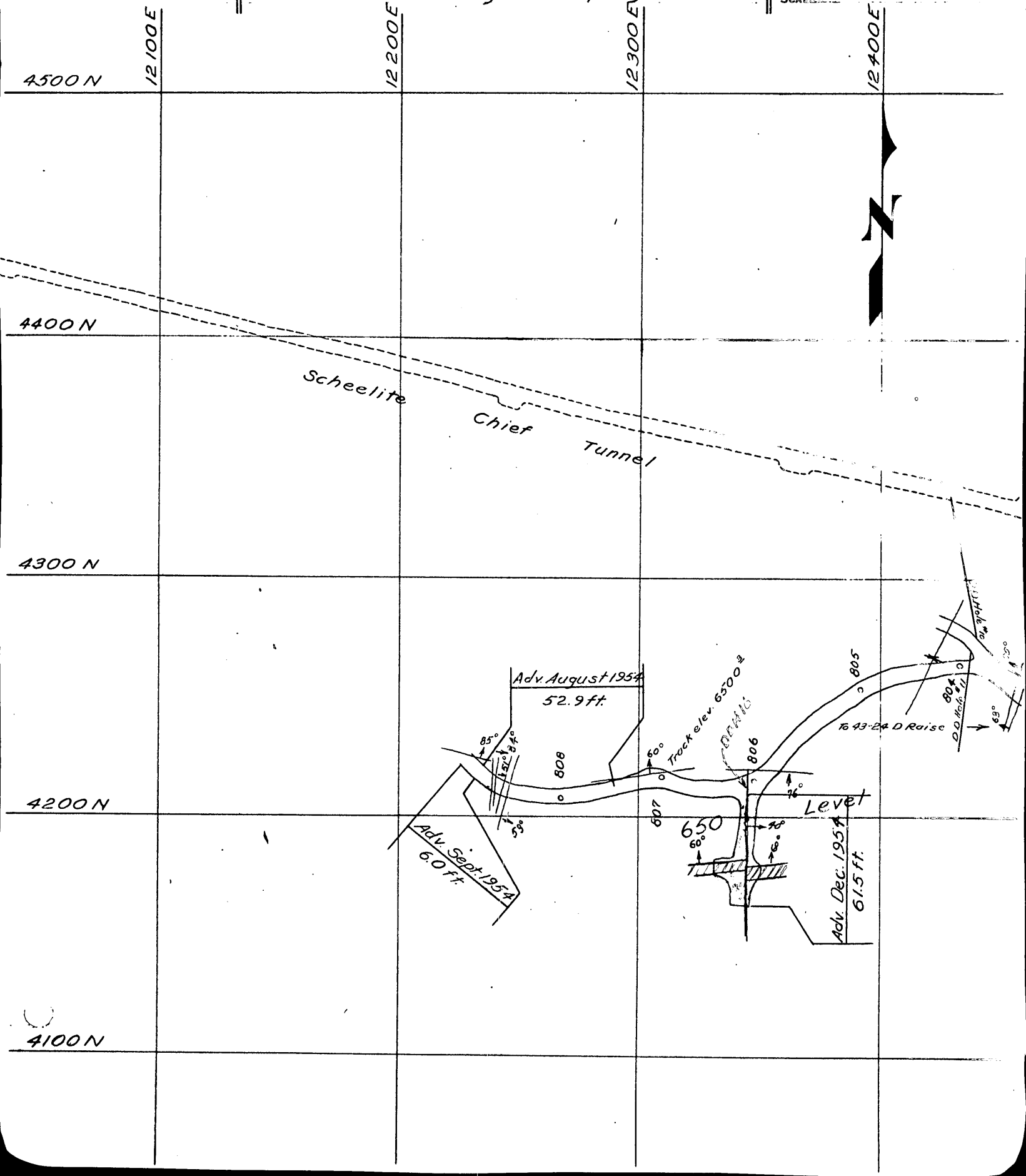
Sept. 12, 19 54

MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A-1614

REFERENCES: C-1107

COMBINED METALS REDUCTION CO.
M. & A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

SEPT. 18, 1953

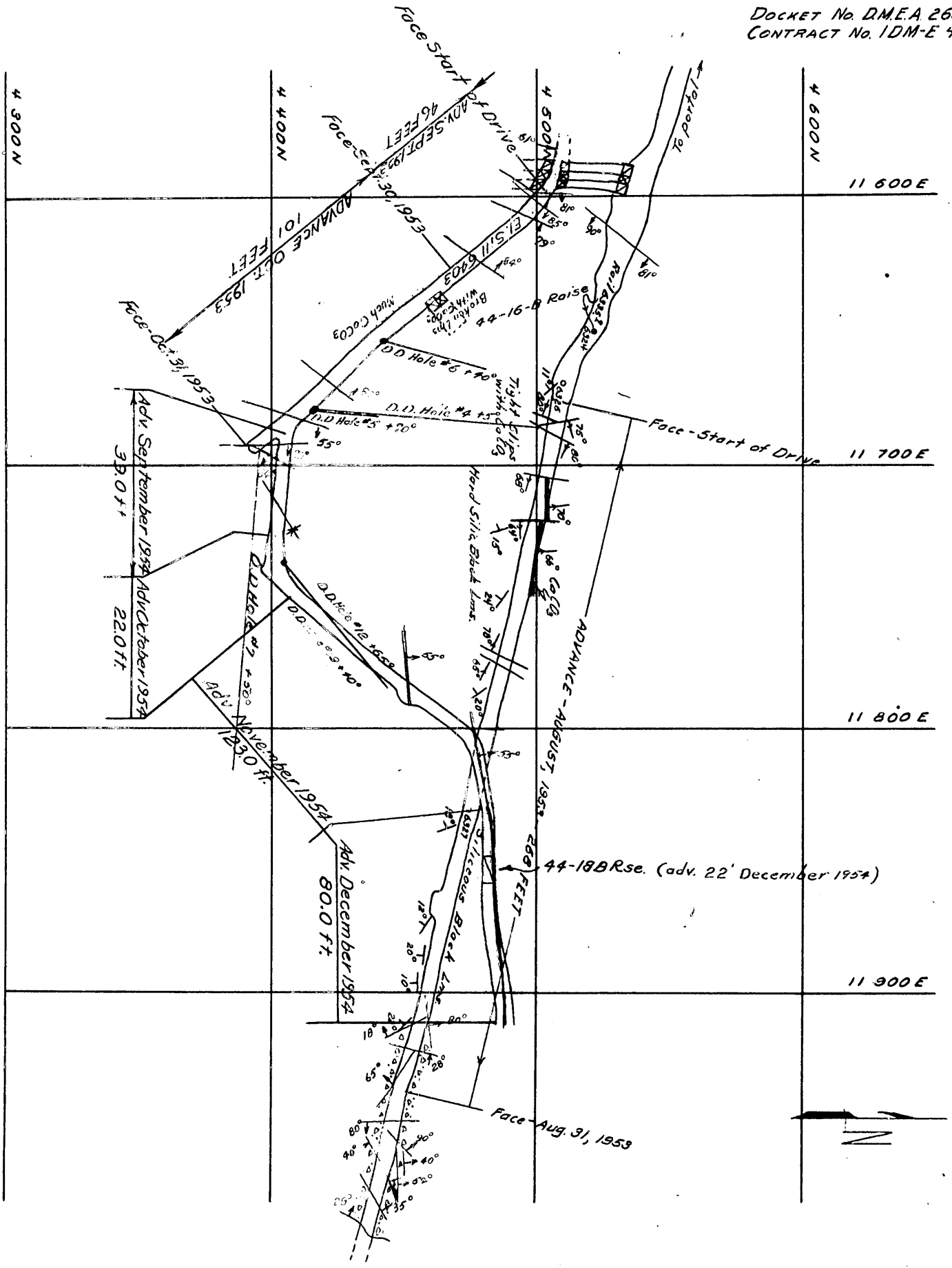
MADE BY: R. H. GODBE

TRACED BY:

CHECKED BY:

SCALE: 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 481

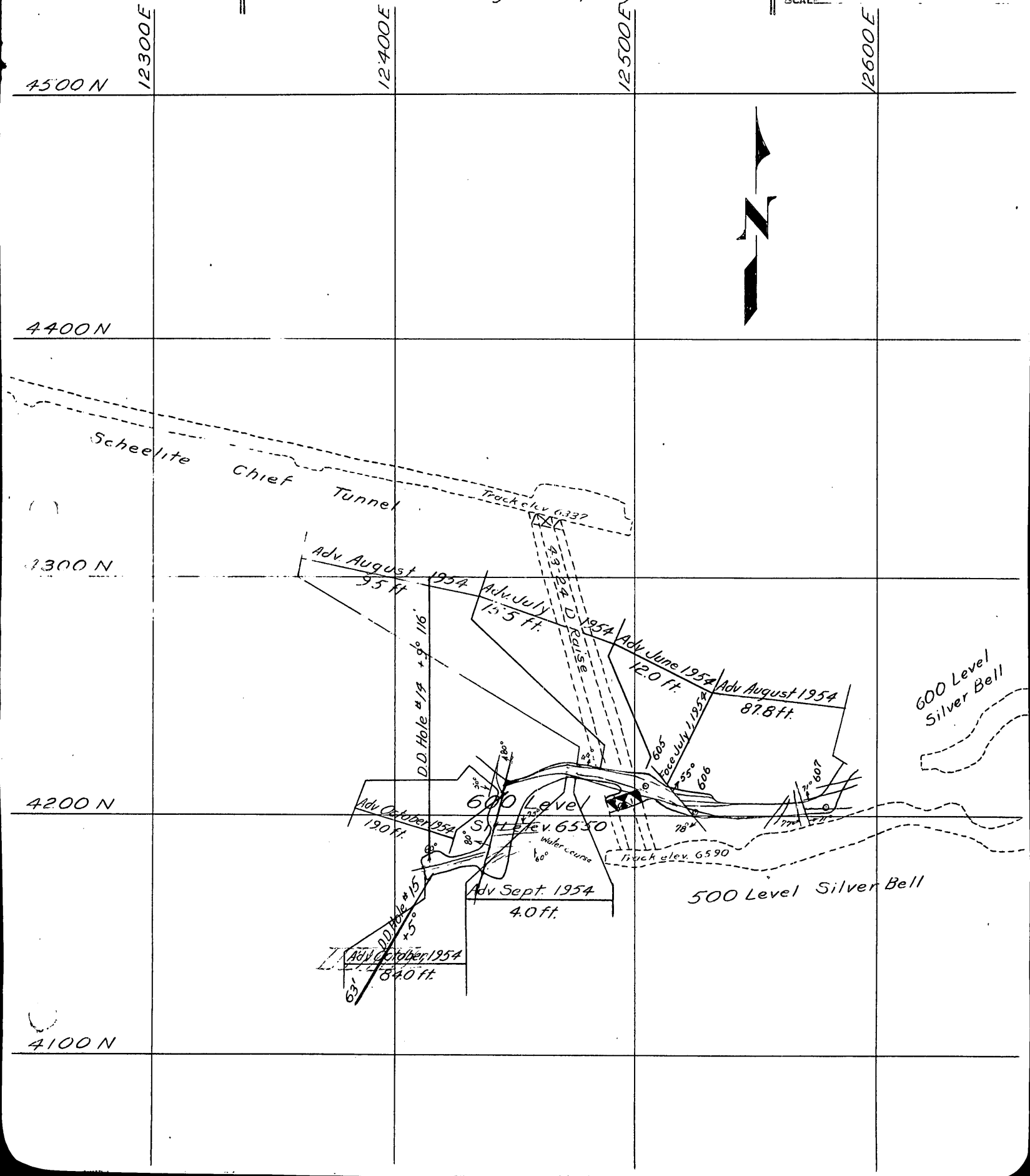


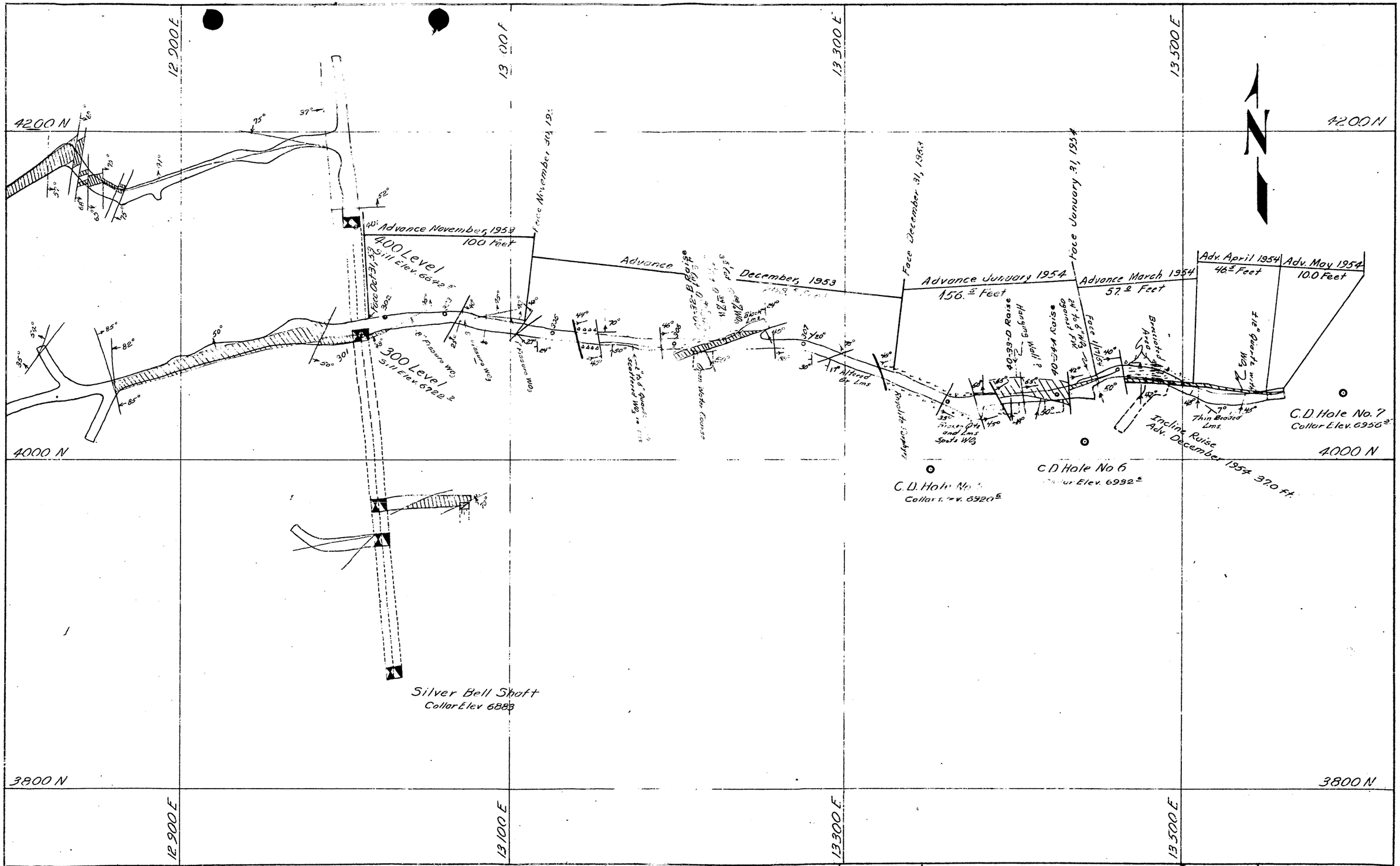
A-1653

REFERENCES

COMBINED METALS REDUCTION CO.
M.I.A Mines
600 LEVEL
Docket No. DMEA 2688 Contract No. IDM-E 481
Minerva Tungsten Property

August 18, 1954
MADE BY Schrader
TRACED BY
CHECKED BY
SCALE 1" = 50'





REFERENCES	D-1212, A-1617, A-1618, A-1622 Docket No. DMEA 2688 Contract No. IDM-E 481	REVISIONS	WORK	DRAWN O.E. Schrader 12-8-53 TRACED " CHECKED R.H. Godbe 12-8-53 APPROVED	COMBINED METALS REDUCTION CO. SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B- 873

SALT LAKE BLUE 1000H

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1954 Docket No. DMEA 2688 Contract No. IDM-E 481

Operator's Name M.I.A. Mines Company Minerals

Address 218 Felt Building, Salt Lake City, Utah

Contract Amount, $ 171,400.00 Government Participation: 75% Amount, $ 128,550.00

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 Contractors Short Form						
Drilling Diamond	645.00	5,091.97	5,736.97			
Churn		6,700.00	6,700.00			
Straighten & Widen adit		1,800.00	1,800.00			
Rehab. Silver Bell Incline-skip pocket.		2,300.00	2,300.00			
Crosscutting Drifting	4,305.00	64,995.00	69,300.00			
Raising		9,268.85	9,268.85			
Lay Track, air, water Lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 Topman		1,506.90	1,506.90			
Supervision		6,420.00	6,420.00			
Technical Services		1,190.00	1,190.00			
Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies:						
drill steel bits		4,394.88	4,394.88			
Timber (incl. Ties)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,458.34	4,458.34			
Diesel Fuel		4,971.83	4,971.83			
Vent Tubing		1,780.10	1,780.10			
Misc. Supplies		6,467.41	6,467.41			
(4) Operating Equipment:						
Rental-Bulldozer & Trans.		545.12	545.12			
Rental-Surface Equip. Silver Bell		1,278.00	1,278.00			
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,803.95	2,803.95			
(6) New Bldgs., Improvements, etc.		2,894.00	2,894.00			
(7) Miscellaneous:						
Repairs to Equipment & Maint. Lbr.		5,062.54	5,062.54			
Sampling and Analysis		624.21	624.21			
Payroll Taxes		322.03	322.03			
Liability Insurance		735.67	735.67			
Pickup Transportation		2,384.06	2,384.06			
Road Maintenance - Winter		2,400.00	2,400.00			
Haulage & Supplying Water		3,327.77	3,327.77			
Office & Engineering Supplies		25.81	25.81			
TOTALS	4,950.00	154,483.63	159,433.63			

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

Date 12-31-54 *Payee M.I.A. MINES COMPANY

ORIGINAL SIGNED BY O.F. BURTON

Per O.F. BURTON Title 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:

$ 3712.50

Lloyd H. Sjolander
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date MAR 29 1955 Vou. No. 9E-DM-04-79

(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-E481 in accordance with the terms of the contract.

Signature R. C. Johnson Title Mining Engineer Date Jan. 7, 1955

R. C. Johnson

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer DMEA Field Team Region II Date January 10, 1955

S. Ricker

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.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 7 1955

Month of November 1954 Docket No. DMEA 2688 Contract No. IDME 481
Operator's Name U.I.A. Mines Company Minerals
Address 218 Felt Building, Salt Lake City, Utah

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	Ft.	4,305.00	123.0	92,304.51	2,557.2	36.10		
Crosscutting								
Raising	Ft.			17,632.18	289.5	60.91		
Shafts								
Winzes								
Drilling: Core	Ft.	645.00	129.0	6,540.27	1,532.3	4.27		
Churn	Ft.			6,700.00	1,340.0	5.00		
Auger								
Supervision & Technical				7,610.00				
Bookkeeping				2,025.00				
Sampling & Analysis				624.21				
Roads and Trails				2,945.12				
Taxes & Insurance				1,057.70				
Total Distributed Costs								Total Costs Authorized by Contract
Rental & Depreciation				4,857.24				
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				8,531.57				
New Buildings, Improvements, etc.				2,894.00				
Transportation & Supplies				5,711.83				
Total Costs		4,950.00		$159,433.63				

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 12-11-54 Operator U.I.A. MINES COMPANY

Per ORIGINAL SIGNED BY O. F. BURTON Title President

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

Minerva Tungsten Property - Narrative - November, 1954.

December 10, 1954

Mr. Paul Gemmill, Plant Manager

Reginald G. Lee

Dear Paul:

Progress under the Exploration Project Contract with the Defense Mineral Exploration Administration during the month of November was as follows:

Exploration D.M.E.A.

45-15D Raise Sub-Level - Map A-1614

Advance of this drift heading amounted to 123.0 feet for the month. At 93 feet of advance the fissure was cut and the additional 30 feet of advance was in the fissure. Width is from 2½ to 3 feet containing narrow streaks of scheelite mineralization but below shipping grade.

Drifting east on the fissure and raising up to the ore zone, as indicated in diamond drill hole D.D.H. No. 13, will continue as rapidly as possible.

Diamond Drilling - Map A-1653

For location see Map A-1653, D.D. Hole No. 14, course due north, ∠ 3 degree dip was drilled to a depth of 116.0 feet. All of this advance was in massive blue limestone.

D.D. Hole No. 15, course S30°W ∠ 3 degree dip was advanced 13 feet during the month. However, at this writing, the fissure has been cut at a depth of 36 feet. The next four feet showed good grade scheelite ore in the quartz fissure. The horizontal throw of this block west of the N-S fault by 43-24D Raise is about 70 feet south.

Total diamond drill footage for the month amounted to 129.0 feet.

The above constitutes all D.M.E.A. Exploration work performed during the month of November.

Company Development

Company development work was expanded on the 400 level and 300 level in the Silver Bell Mine, driving short connections for ore and waste passes, installing chutes and transfer pockets. These jobs are now complete and

production from the East 300 Level of the Silver Bell can be transferred to the Surface through the Chief Adit.

Ore Shipments

Ore shipments from Minerva to Mineral Engineering mill at Ely (Baltimore Camas Mill) totalled 386.1 wet tons for the month of November. No other shipments were made. Other ore mined was stored in outside ore bins, mine chutes and ore passes.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1653

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

600 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

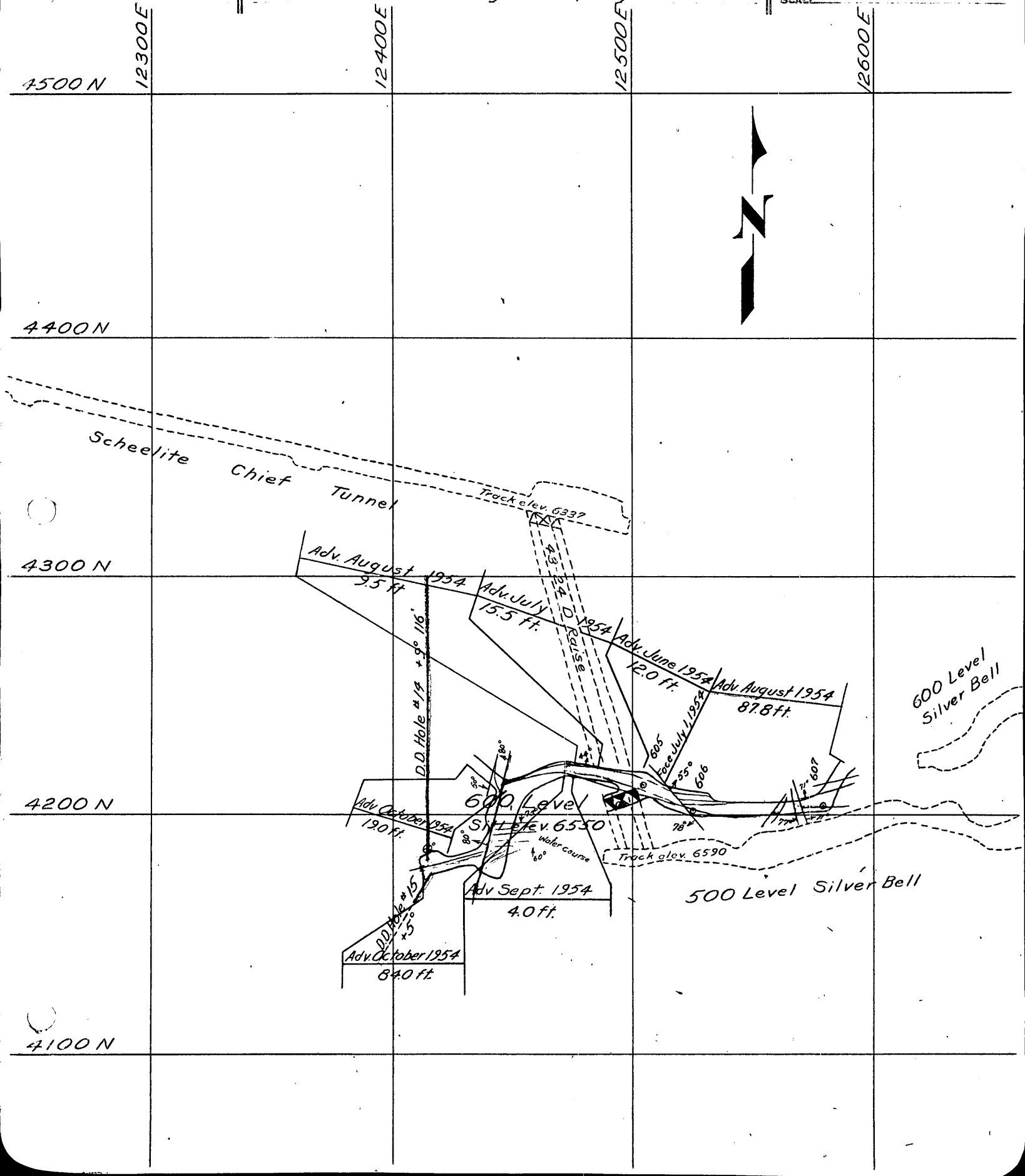
August 18, 1954

MADE BY: Schrader

TRACED BY:

CHECKED BY:

SCALE: 1" = 50'



A-1614

REFERENCES. C-1107

COMBINED METALS REDUCTION CO.
M. & A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

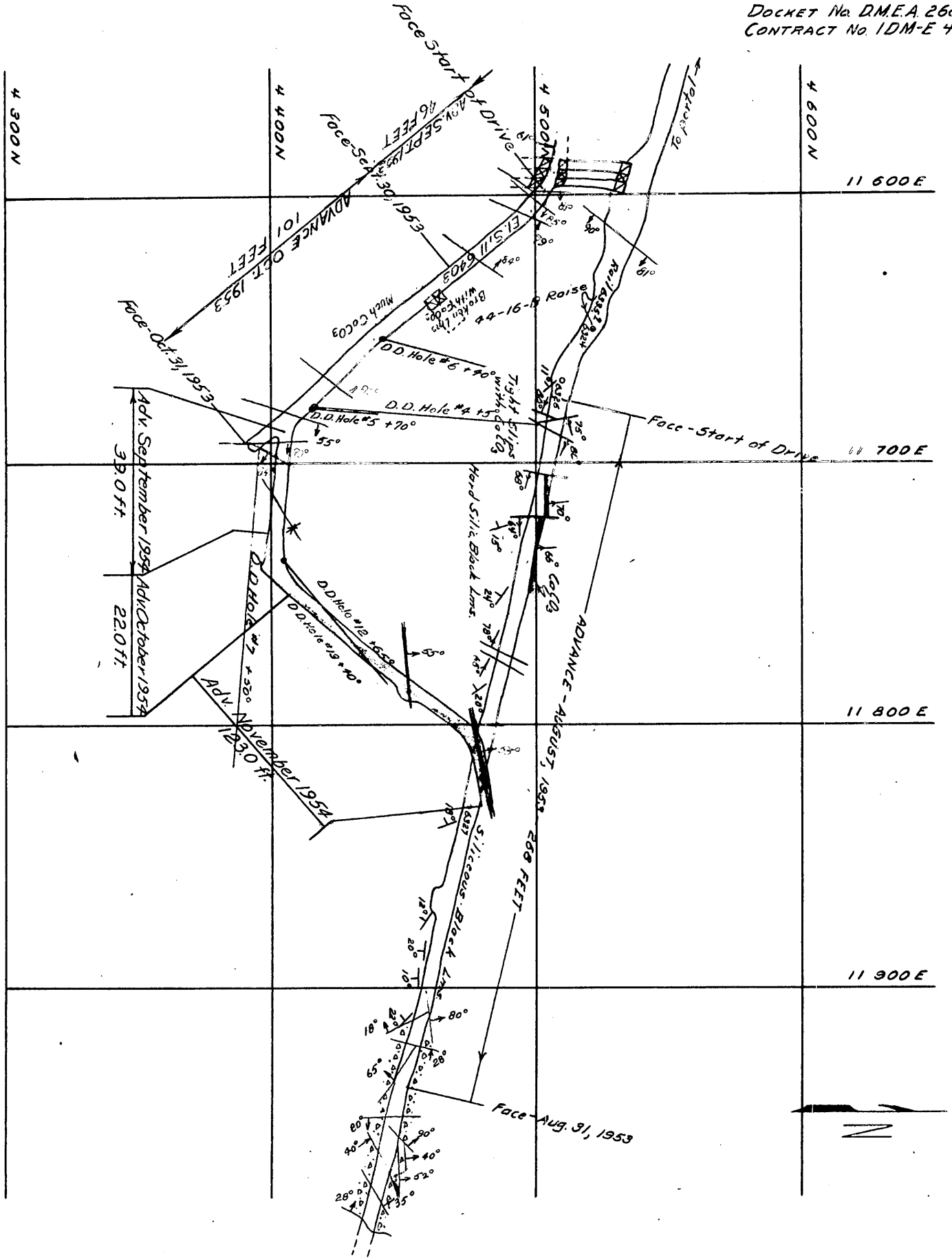
SEPT. 18, 1953

MADE BY R. H. GODBE

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 45



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

1605 Evans Avenue
Reno, Nevada

March 31, 1955

WSM

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Operator's Monthly Progress Reports - Forms MF-104 and MF-104A

Attached are two copies of each of the subject report(s) received from the operator as listed below. These report(s) have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E481 DMEA-2688	M. I. A. Mines Co.	11/22/54	October 1954
"	"	12/31/54	November 1954
"	"	1/18/55	December 1954

S. Ricker

Attach.
SRicker:gh
cc: H. C. Miller
R. M. Smith
File

MF 104's
October
Nov.
Dec.

Form MF-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.

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1954 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name MIA Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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: (Diamond	820.00	4,271.97	5,091.97			
(Churn		6,700.00	6,700.00			
Drilling						
Straighten & widen drift		1,800.00	1,800.00			
Rehab. Silver Bell incline		2,300.00	2,300.00			
Rehab. skip pocket	5,705.00	59,290.00	64,995.00			
Drifting						
Raising		9,268.85	9,268.85			
Lay track, air, water lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 Topman		1,506.90	1,506.90			
Supervision		6,420.00	6,420.00			
Technical Services		1,190.00	1,190.00			
Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies:						
Drill steel & bits		4,394.88	4,394.88			
Timber (incl. ties)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,458.34	4,458.34			
Diesel Fuel		4,971.83	4,971.83			
Vent Tubing		1,780.10	1,780.10			
Misc. Supplies		6,467.41	6,467.41			
(4) Operating Equipment:						
Rentals - Bulldozer & Trans.		545.12	545.12			
Rental Surf. equip. Silver Bell		1,278.00	1,278.00			
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,803.95	2,803.95			
(6) New Bldgs., Improvements, etc.		2,894.00	2,894.00			
(7) Miscellaneous:						
& Maint. Labor		5,062.54	5,062.54			
Repairs to Equipment		624.21	624.21			
Sampling and Analysis		322.03	322.03			
Payroll Taxes		735.67	735.67			
Liability Insurance		2,384.06	2,384.06			
Pickup transp.		2,400.00	2,400.00			
Road Maint. - Winter						
(8) Contingencies (specify):						
Haul. & Supp. Water		3,327.77	3,327.77			
Off. & Eng. Supplies		25.81	25.81			
TOTALS	6,525.00	147,958.63	154,483.63			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 11-22-54 *Payee MIA Mines Company
Per [signature] Title 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:

$ 4893 75

Joyce A. Sjolander
Signature Authorized Certifying Officer
(Authorized Certifying Officer)

Date MAR 29 1955 Vou. No. SF 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-E481 in accordance with the terms of the contract.

Signature George H. Hilmer, Jr. Title Mining Methods Research Engr. Date Dec. 9, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer DMEA Field Team Region III Date December 13, 1954

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.

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 Exploration Administration
RECEIVED
FEB - 7 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1954 Docket No. DMEA 2600 Contract No. DMEA 431
Operator's Name DIA Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah

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	Ft.	5,705.00	163.0	87,999.51	2,434.2	36.15		
Crosscutting								
Raising	Ft.			17,632.18	289.5	60.91		
Shafts								
Winzes								
Drilling: Core	Ft.	820.00	164.0	5,895.27	1,401.3	4.21		
Churn	Ft.			6,700.00	1,340.0	5.00		
Supervision & Tech.				7,610.00				
Bookkeeping				2,025.00				
Sampling & Analysis				624.21				
Roads and Trails				2,945.12				
Taxes & Insurance				1,057.70				
Total Distributed Costs								Total Costs Authorized by Contract
Rental & Depr.				4,057.24				
Operating Equipment Purchased				8,531.57				
Initial Rehabilitation and Repairs				2,094.00				
New Buildings, Improvements, etc.				5,711.83				
Transp. Man & Supplies								
Total Costs		6,525.00		154,463.63				

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 11-22-54 Operator DIA Mines Company

Per [signature] Title Treasurer

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

Minerva Tungsten Property - Narrative - October, 1954.

November 12, 1954

Paul Gemmill, Manager, Nevada Operations

Reginald G. Lee

Dear Paul:

Progress under the Exploration Project Contract with the Defense Mineral Exploration Administration during month of October was as follows:

EXPLORATION D.M.E.A.

45-15D Raise Sub-Level - Map A-1614

Advance in this drift amounted to 22.0 feet for the month. Rock section cut was all massive gray limestone. A diamond drill station was cut at 13 feet of advance.

Diamond Drilling - Map A-1614

Two diamond drill holes were extended out from the above mentioned drill station.

D.D.H. No. 12, bearing N50°E, ∠ 65° cut 4 feet of quartz and two narrow streaks of scheelite at 72 feet.

D.D.H. No. 13, bearing N50°E, ∠ 50° cut 4½ feet of quartz containing scheelite mineralization over a width of 21 inches at 60 feet.

Drifting was resumed to cut and drift east on the fissure.

650 Level East Drift - Map A-1660

Exploration advance on this level was 20 feet of drifting to the east on the fissure. Four feet of quartz was exposed over the entire advance but the scheelite mineralization was poor.

600 Level - West Drift - Map A-1653

Total advance for the month amounted to 103.0 feet. The west drift was extended to where the fissure is cut-off by a major N-S fault. A cross-cut was run to the south 57 feet to locate the faulted segment of the fissure. However, due to the broken-up and brecciated condition of the ground on the west side of this fault it was difficult even to recognize the fissure. Some indications that the fissure was cut at 34 feet of cross-cutting, where a small fissure fault showing a little quartz and a few specks of scheelite with about the same dip and strike as the fissure

proper, was noted and is being drifted on for a few rounds to see if it will open up in size. If the fissure is not found in a few more rounds, diamond drill holes will be extended out to locate the fissure.

500 Level West - Map 1660

This drift was advanced 18.0 feet during the month. Quartz with considerable amount of calcite but very little scheelite was noted throughout this advance. As this heading is near the fault cut in the 600 West Drift 50 feet below, no further advance will be made here until the fissure is located on the west side of the fault on the 600 level.

Total D.M.E.A. Exploration as discussed in details above amounted to 163 feet of drifting and cross-cutting and 164 feet of diamond drilling for the month of October.

Development

Rehabilitation of the 500 foot level east of the 43-24D Raise required 250 man-shifts during month of October. This job is now completed and as soon as the ore and waste passes are completed to 300 level of the Silver Bell, production from the east 300 level area will start.

Production:

Shipment for the month totaled 665.3 wet tons or estimated 660 dry tons assaying about 0.71 WO_3.

Due to shortage of stoping area shipments were temporarily curtailed on October 19, until some ore production from the Silver Bell is forth coming.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1660

REFERENCES

COMBINED METALS REDUCTION CO.

650 LEVEL EAST

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

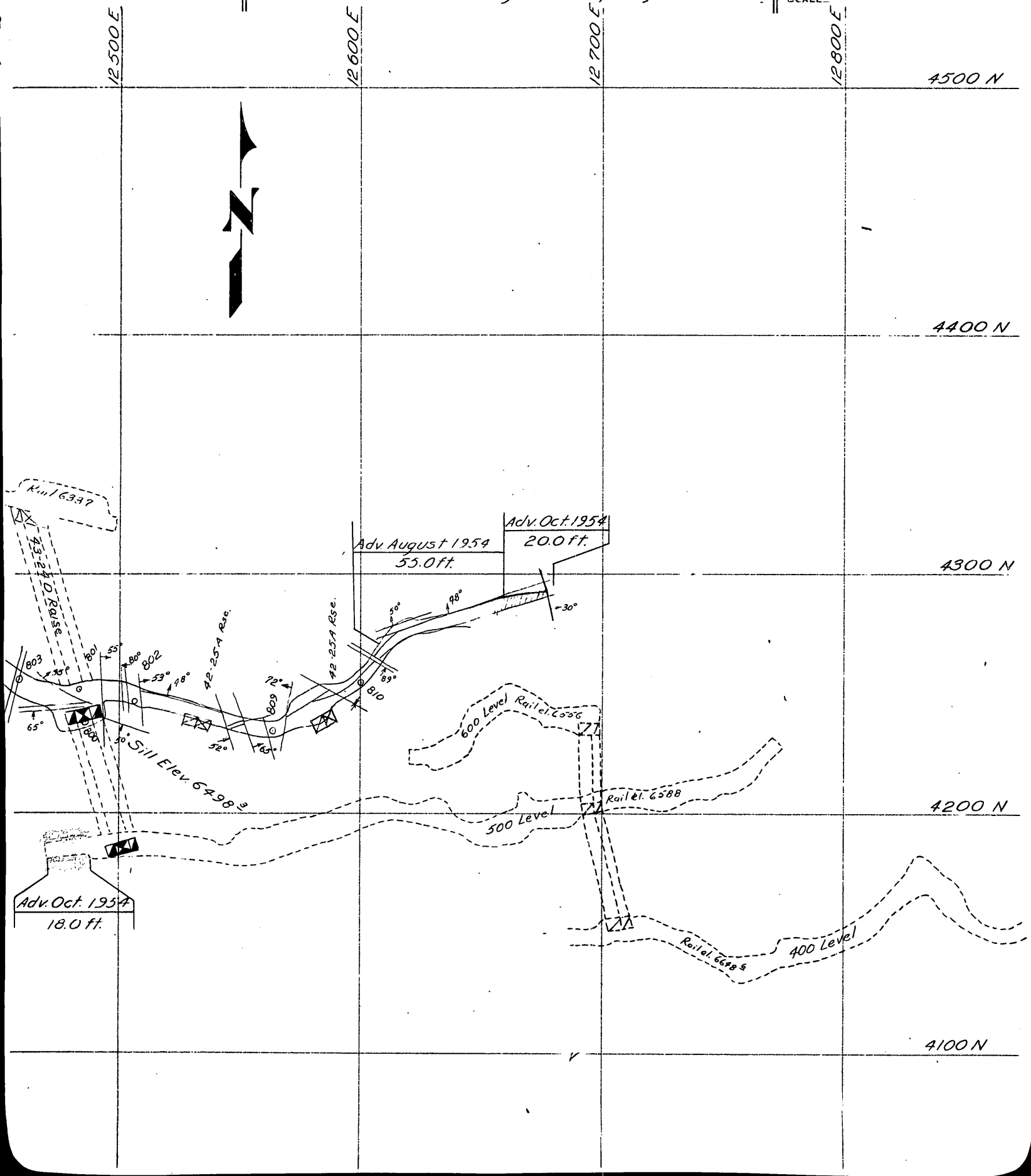
November 4, 1954

MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A-1614

REFERENCES: C-1107

COMBINED METALS REDUCTION CO.
M.D.A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

SEPT. 18, 1953

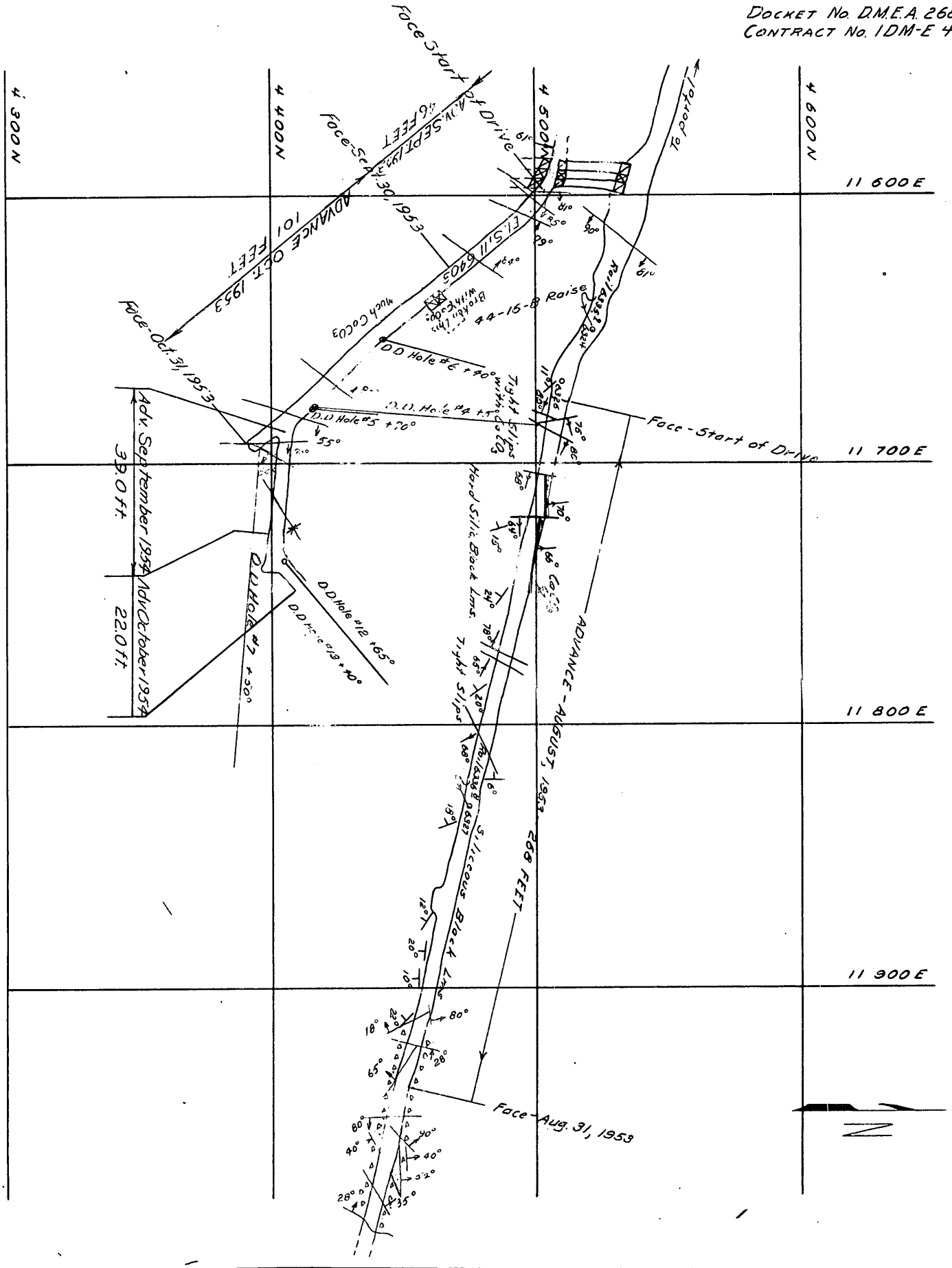
MADE BY R. H. GODBE

TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 481



A-1653

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

600 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

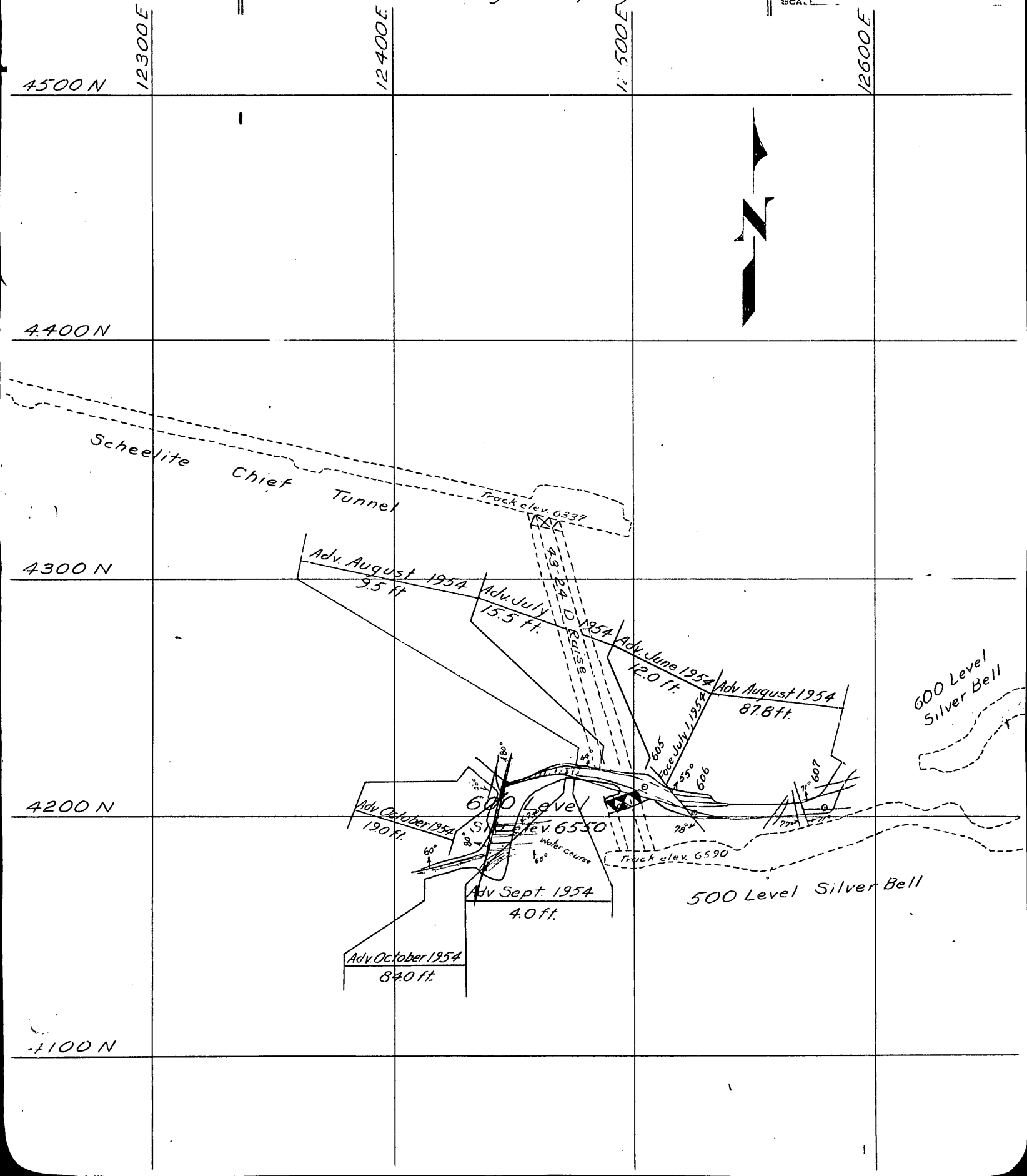
August 18, 1954

MADE BY Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.4
Approval expires 6-30-55

Defense Minerals Administration
RECEIVED
DEC 3 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1954 Docket No. DMEA 2688 Contract No. DMI-E 481
Operator's Name MTA Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $128,550.00

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:						
(Diamond		4,271.97	4,271.97			
(Churn		6,700.00	6,700.00			
Drilling						
Straighten & Widen Adit		1,800.00	1,800.00			
Rehab. Silver Ball Incl.		2,300.00	2,300.00			
Rehab. Skip Pocket	1,715.00	57,575.00	59,290.00			
Drifting						
Raising		9,268.85	9,268.85			
Lay Track, Air, Water Lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
1/2 Topman		1,506.90	1,506.90			
Labor		6,420.00	6,420.00			
Supervision		1,190.00	1,190.00			
Technical Services						
Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies:						
Drill Steel & Bits		4,394.88	4,394.88			
Timber (incl. ties)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,458.34	4,458.34			
Diesel Fuel		4,971.83	4,971.83			
Vent Tubing		1,780.10	1,780.10			
Misc. Supplies		6,467.41	6,467.41			
(4) Operating Equipment:						
Rental - Bulldozer & Trans.		545.12	545.12			
Rental - Surf. Equip. Silver Ball		1,278.00	1,278.00			
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,803.95	2,803.95			
(6) New Bldgs., Improvements, etc.		2,894.00	2,894.00			
(7) Miscellaneous:						
Repairs to Equipment & Maint. Labor		5,062.54	5,062.54			
Sampling and Analysis		624.21	624.21			
Payroll Taxes		322.03	322.03			
Liability Insurance		735.67	735.67			
Pickup Transportation		2,384.06	2,384.06			
Road Maint. - Winter		2,400.00	2,400.00			
(8) Contingencies (Specify):						
Haulage & Supplying Water		3,327.77	3,327.77			
Office & Eng. Supplies		25.81	25.81			
TOTALS	1,715.00	146,243.63	147,958.63			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 10-29-54 *Payee MTA Mines Company
Per ORIGINAL SIGNED BY O. E. BURTON Title 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:

$1286.25

Floyd L. Sleander
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date Vou. No. DF-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-E481 in accordance with the terms of the contract.

Signature R. C. Johnson Title Chief, Mining Div. Date Nov. 1, 1954.

R. C. Johnson Region III

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Executive Officer

Signature W. C. Miller Title DMEA Field Team Date November 2, 1954

H. C. Miller for S. Victor Region III

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

Defense Minerals Administration
RECEIVED
DEC - 6 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of [illegible] 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Mines Company Minerals [illegible]
Address 210 [illegible], Salt Lake City, Utah

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	Ft.	1,729.00	69.0	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	Ft.			[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core	Ft.			[illegible]	[illegible]	[illegible]		
Churn	Ft.			[illegible]	[illegible]	5.00		
Auger								
Supervision [illegible] Mechanical				[illegible]				
[illegible] Bookkeeping				[illegible]				
General [illegible] Maintenance				[illegible]				
[illegible]				[illegible]				
Roads and Trails				[illegible]				
[illegible] Insurance				1,057.70				
Total Distributed Costs							Total Costs Authorized by Contract	
Capital Costs:								
Operating Equipment [illegible]				[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.				[illegible]				
[illegible] supplies				[illegible]				
Total Costs		1,715.00		[illegible]				

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 [illegible] Operator [illegible] Mines Company

Per ORIGINAL SIGNED BY O. F. BURTON Title [illegible]

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

Minerva Tungsten Property - Narrative - September, 1954.

October 12, 1954

Paul Greenill, Manager, Nevada Operations

Reginald O. Lee

Re: Docket No. 2088
Contract No. 1254-E 481

Dear Paul:

During the month of September, progress under the Exploration Project Contract with the Defense Mineral Exploration Administration was as follows:

Exploration - Scheelite Chief Mine

45-150 Raise Sub-level
This drift was advanced 39 feet in blue limestone in the footwall of the fissure. A diamond drill station will be cut at 52 feet. Short diamond drill holes (about 100 foot length) will be extended to cut the fissure at various points.

44-230 Raise - 650 East Drift
This drift was advanced 6 feet and stopped temporarely. Man-power was required to revamp the 500 foot level connecting the Scheelite Chief with the Silver Bell Mine.

44-230 Raise - 600 West Drift
This drift was started-up near the end of the month and advanced 4 feet in quartz with a streak of scheelite 5" wide on the footwall.

Total exploration footage for the month was 49.0 feet of drifting.

Development - Scheelite Chief & Silver Bell Mine

Two raises were driven and connected between 650 level and 600 level on east side of 44-230 Raise. Width of the ore averaged 24 inches, average grade 0.70% WO_3. The ore occur as small lenses in the quartz fissure, the quartz was 4 to 6 feet wide but the ore averaged only two feet in width.

Rehabilitating of the 500 foot level is progressing satisfactorily; by end of next month this work should near completion.

Production (Estimated)

754 dry tons were shipped to Gamer Mill during the month. Average assay value from truck grab-samples was 0.75% WO_3.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1614

REFERENCES C-1107

COMBINED METALS REDUCTION CO.
M.I.A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

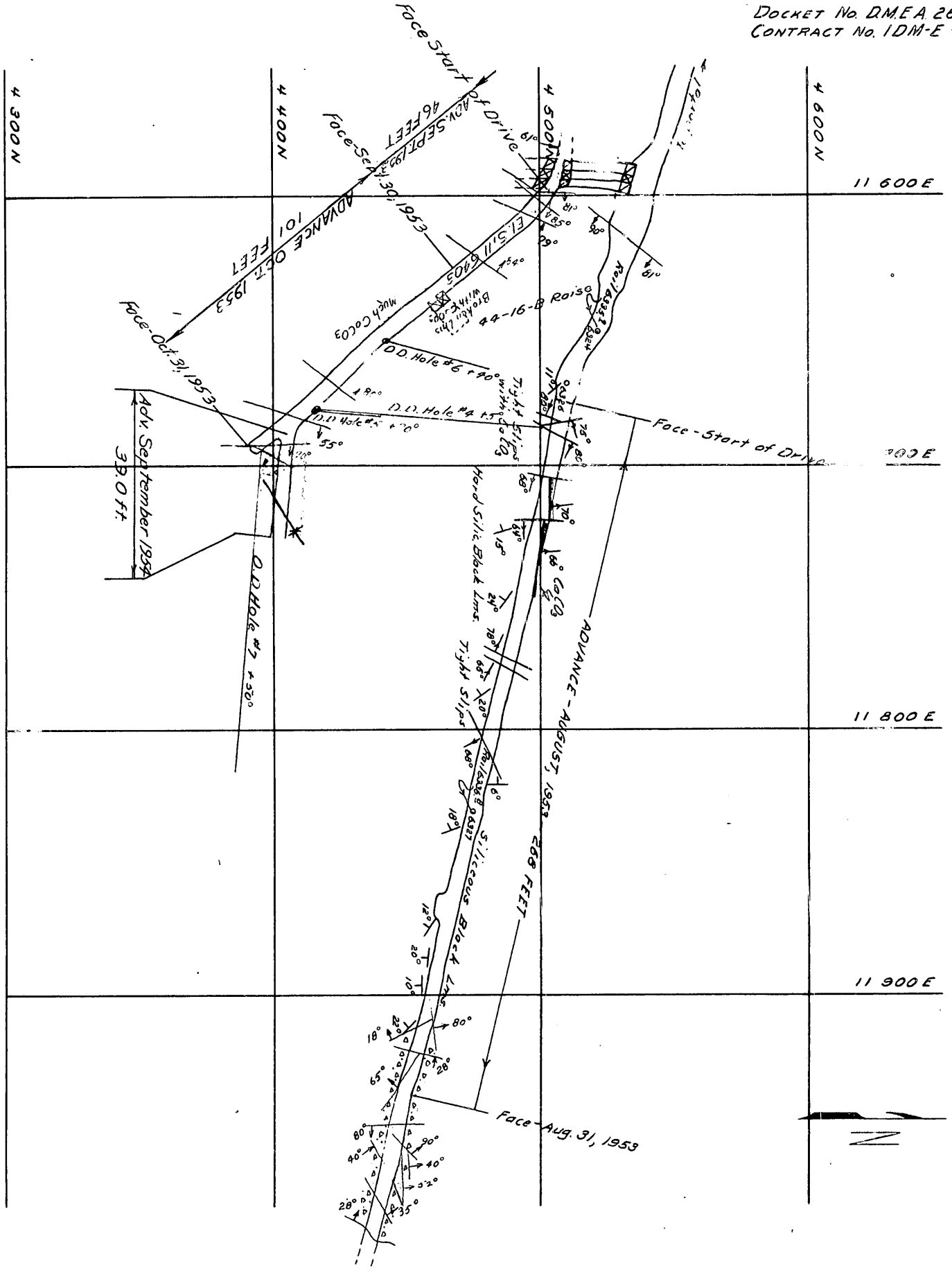
SEPT. 18, 1953

MADE BY R H GODDE

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 4



A.-1658

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

650 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

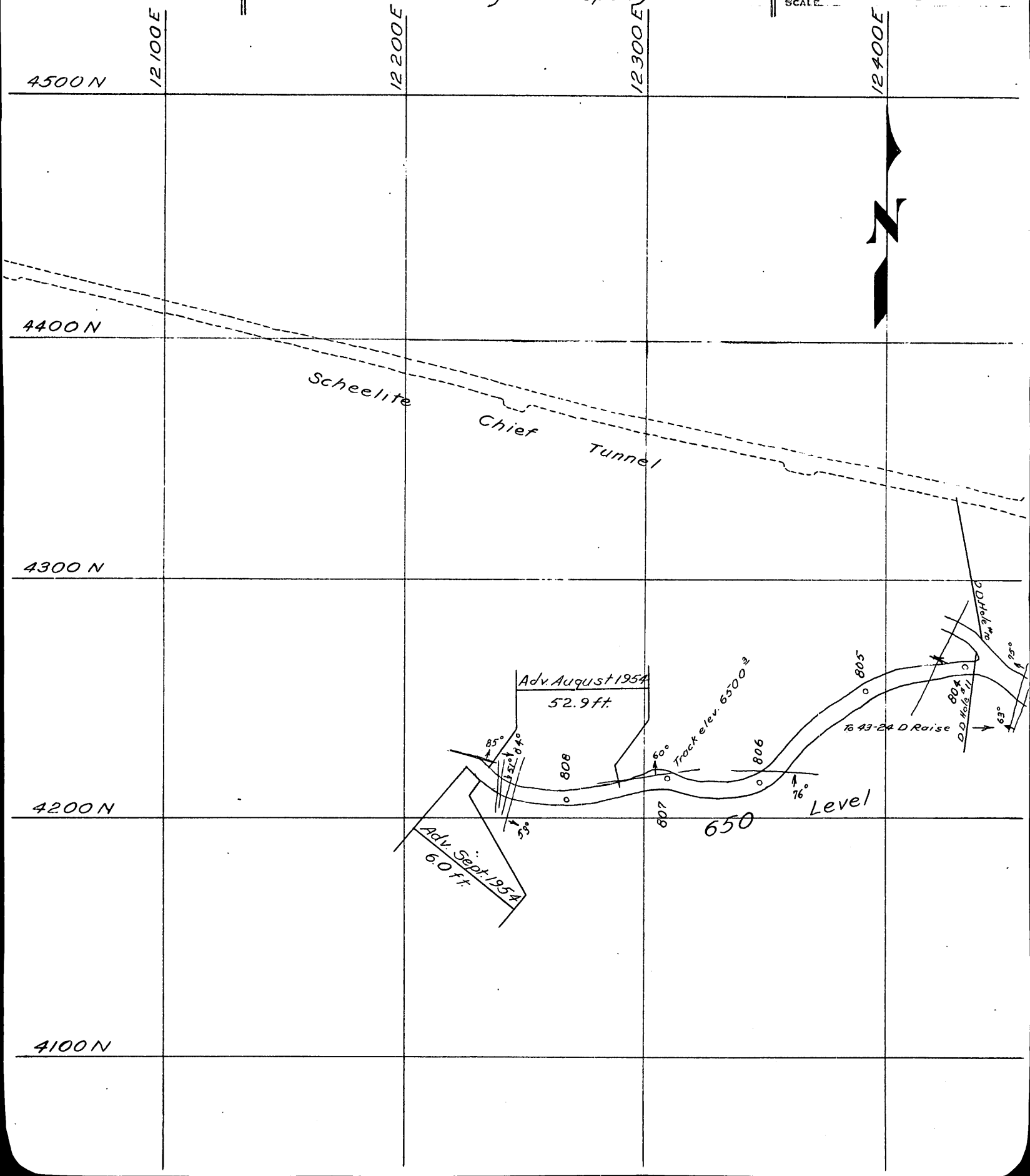
Sept. 12, 19 54

MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'

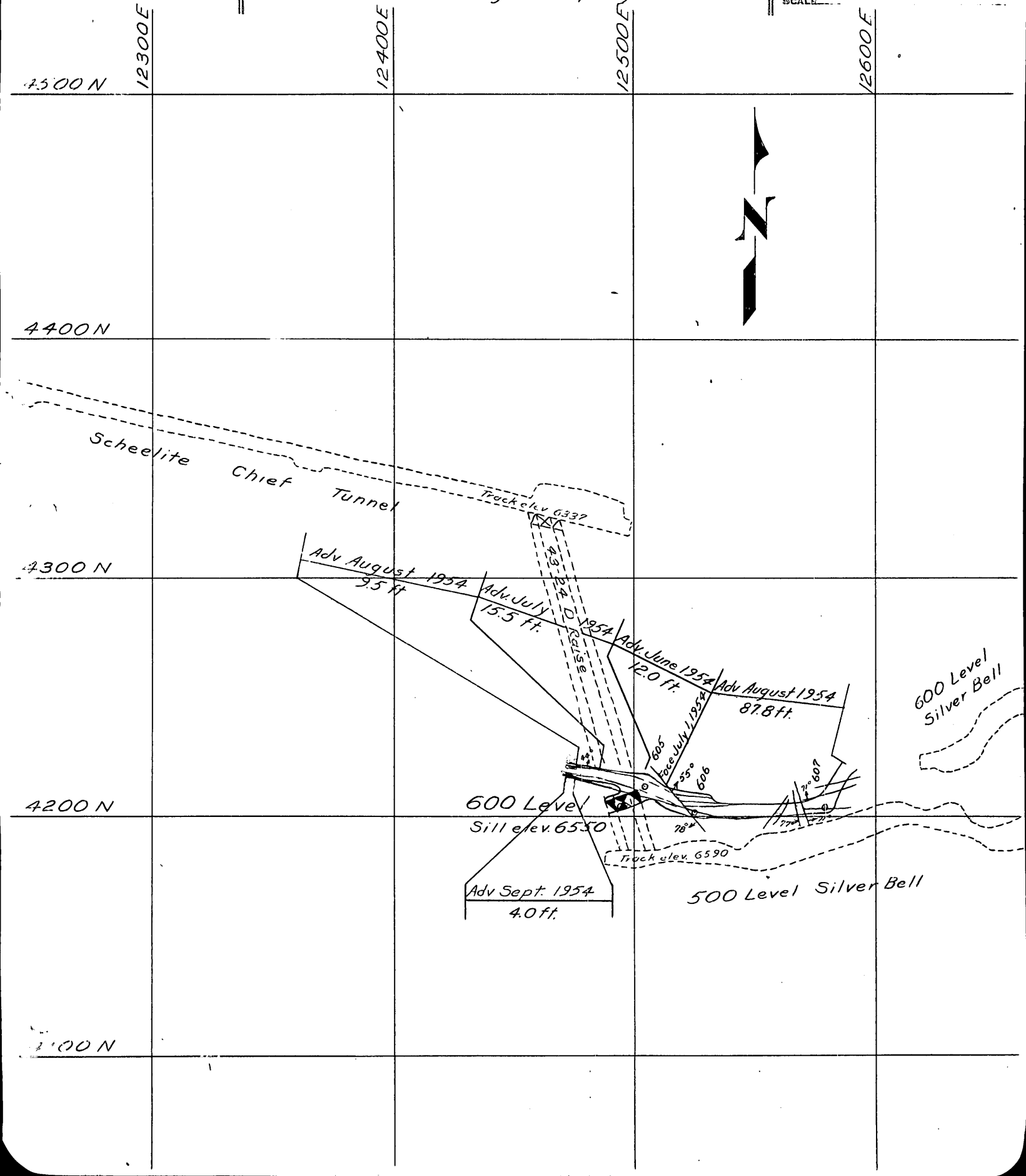


A-1653

REFERENCES

COMBINED METALS REDUCTION CO.
M.I.A. Mines
600 LEVEL
Docket No. DMEA 2688 Contract No. IDM-E 481
Minerva Tungsten Property

August 18, 1954
MADE BY Schrader
TRACED BY
CHECKED BY
SCALE 1" = 50'



Form MM-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

Defense Minerals Administration
RECEIVED
DEC 6 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of [illegible], 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]
Contract Amount, $[illegible] Government Participation: [illegible] % Amount, $[illegible]

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: [illegible]		[illegible]	[illegible]			WSA
Drilling [illegible]		[illegible]	[illegible]			
Bulldozing [illegible]		[illegible]	[illegible]			
Crosscutting	[illegible]	[illegible]	[illegible]			
Drifting	[illegible]	[illegible]	[illegible]			
(2) Labor and Supervision: [illegible]		[illegible]	[illegible]			
Labor		[illegible]	[illegible]			
Supervision		[illegible]	[illegible]			
Technical Services		[illegible]	[illegible]			
(3) Operating Materials and Supplies:		[illegible]	[illegible]			
Timber [illegible]		[illegible]	[illegible]			
Explosives		[illegible]	[illegible]			
Pipe		[illegible]	[illegible]			
Tools [illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
(4) Operating Equipment [illegible]		[illegible]	[illegible]			
Rental [illegible]		[illegible]	[illegible]			
Purchase		[illegible]	[illegible]			
Depreciation		[illegible]	[illegible]			
(5) Initial Rehabilitation and Repairs		[illegible]	[illegible]			
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:		[illegible]	[illegible]			
Repairs to Equipment		[illegible]	[illegible]			
Sampling and Analysis		[illegible]	[illegible]			
Payroll Taxes		[illegible]	[illegible]			
Liability Insurance [illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
[illegible]						
(8) Contingencies (specify): [illegible]						
[illegible]		[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
TOTALS						

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

Date [illegible] *Payee [illegible]

ORIGINAL SIGNED BY

Per O. F. BURTON Title [illegible]

*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:

$5386.50

Lloyd H. Sjolander
Signature Authorized Certifying Officer
(Authorized Certifying Officer)

Date Dec 1 1954 Vou. No. SF-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. [illegible] in accordance with the terms of the contract.

Signature R. C. Johnson Title Chief, Mining Div. Date Sept. 20, 1954
R. C. Johnson Region III

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMA Field Team Date September 28, 1954
H. C. Miller Region III

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

Defense Minerals Administration
RECEIVED
DEC 6 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of ~~September~~ August 1954 Docket No. DMEA 2000 Contract No. DMEA 201
Operator's Name [illegible] Mine Company Minerals Tungsten
Address 210 Felt Building, Salt Lake City, Utah

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	ft.	7,202.00	205.2	20,570.51	3,222.2	96.26		
Crosscutting								
Raising	ft.			17,632.15	259.5	68.01		
Shafts								
Winzes								
Drilling: Core	ft.			5,075.27	1,237.0	4.10		
Churn	ft.			6,700.00	1,340.0	5.00		
Auger								
Supervision & Tech.				7,012.00				
Shipping								
Trucking & Hoisting				2,625.00				
Assays & Analysis				624.21				
Roads and Trails				3,745.12				
Fixed & Insurance				1,057.70				
Total Distributed Costs								Total Costs Authorized by Contract
Rental & Exp.				4,057.24				
Operating Equipment Purchased				6,501.57				
Initial Rehabilitation and Repairs				2,004.00				
New Buildings, Improvements, etc.				5,711.00				
Prop. Con & Supplies								
Total Costs		7,202.00		116,243.63				

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 9/21/54 Operator [illegible] Mine Company

Per ORIGINAL SIGNED BY O. F. BURTON Title Treasurer

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

Minerva Tungsten Property - Narrative - August, 1954

September 14, 1954

Paul Gemmill, Manager, Nevada Operations

Reginald G. Lee

Docket No. 2588
Contract No. IDM-E 481

Dear Paul:

During the month of August, progress under the Exploration Project Contract with the Defense Mineral Exploration Administration was as follows:

Exploration - Scheelite Chief Mine

West Drift 650 Level - Objective Area 3 & 4

Advance in this drift amounted to 32.0 feet for the month. Several small east dipping faults were encountered which off-set the fissure to the north. As pointed out in last months report, the fissure in this area is filled mostly with calcite with only a small amount of quartz and an occasional crystal of scheelite.

East Drift 650 Level - Objective Area 3 & 4

This drift was advanced 55.0 feet during the month. About one half of this advance was in ore, the fissure being 4½ feet wide and the scheelite mineralization about 2 feet wide. Samples taken from muck pile of 25 feet of advance averaged 0.58% WO_3.

At the end of the month the fissure narrowed down to 15 inches with only small amount of scheelite showing. Before any further advance in this drift, some exploratory raising will be driven up following the ore as much as possible, to see what this ore amounts to above this level.

West Drift 600 Level - Objective Area 3 & 4

This drift was advanced 9.5 feet in quartz with small amount of scheelite.

East Drift 500 Level - Objective Area 3 & 4

A total advance of 87.8 feet in quartz 6 feet wide, with bands of scheelite mineralization from 3" to 18" wide that would pinch-out in one round and reappear again in the next round. Where the quartz vein is the widest there is definitely a footwall and hanging wall streak of scheelite mineralization. Near the present face the fissure splits into two streaks of quartz with limestone between. Only a few rounds of this advance was high enough in grade to go for shipping ore.

Silver Bell

No work was expended in the Silver Bell during the month of August.

The above covers exploration work performed during the month of August.

Development Chief Mine

43-13C raise sub-level was advanced 25 feet during the month. A streak of ore 18" wide of good grade was followed out to the east.

A raise started last month was further advanced and double blasting was necessary in order to keep dilution to minimum.

Silver Bell

In order to open up the 43-24D Raise to handle production from the Silver Bell Mine, considerable dead-work is necessary to cut and fill for a track from the top of the 43-20D Raise to the east stope on the 500 foot level. This work is now in progress on two shifts.

East Everit Mine

Some surface mining was done during the month on the East Everit outcrops. About 25 tons assaying 1.05 WO_3 was trucked to the shipping bin at Minerva.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1653

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

600 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

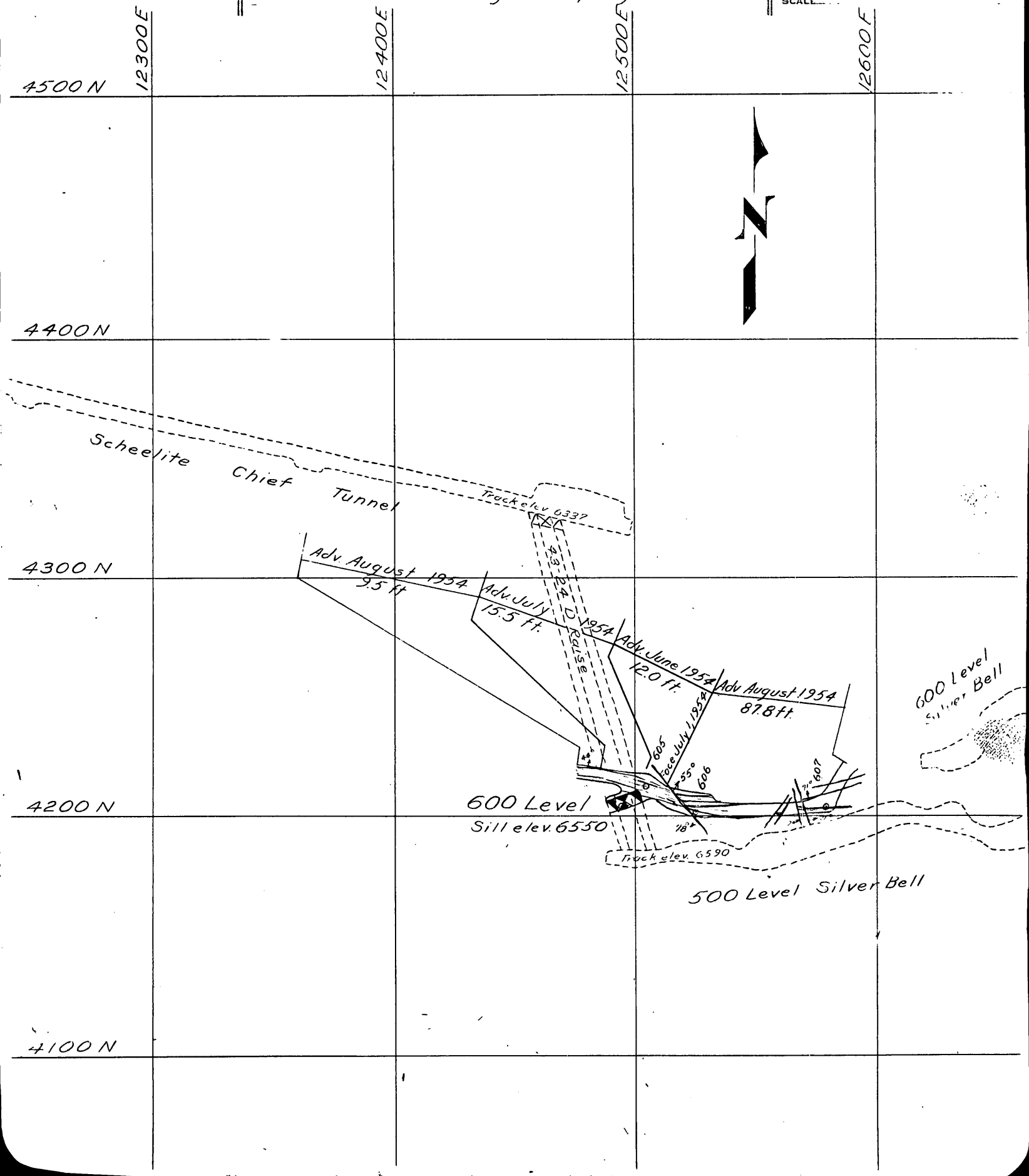
August 18, 1954

MADE BY Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A-1645

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

650 LEVEL

Docket No DMEA2688 Contract No IDM-E 481

Minerva Tungsten Property

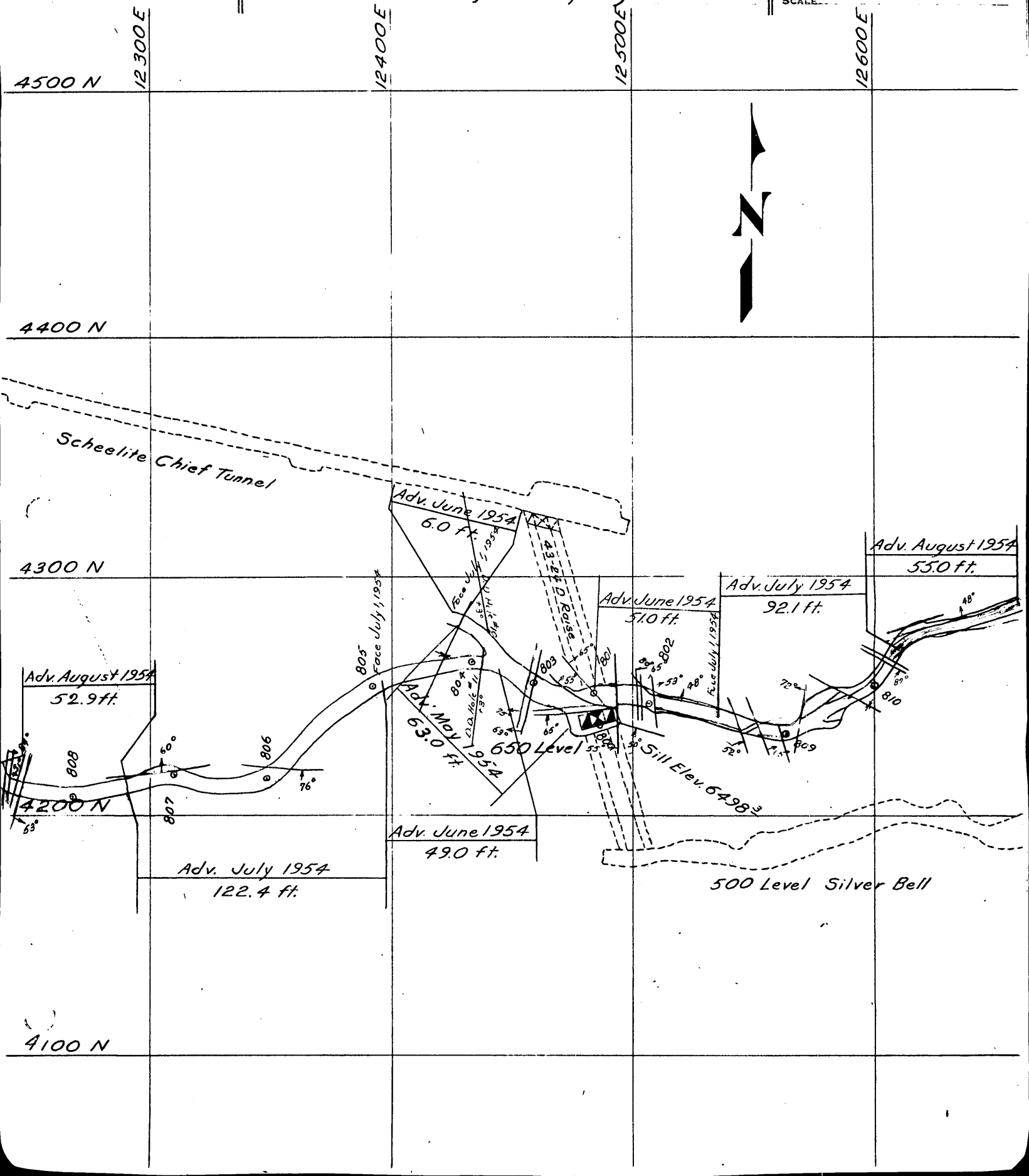
June 18, 1954

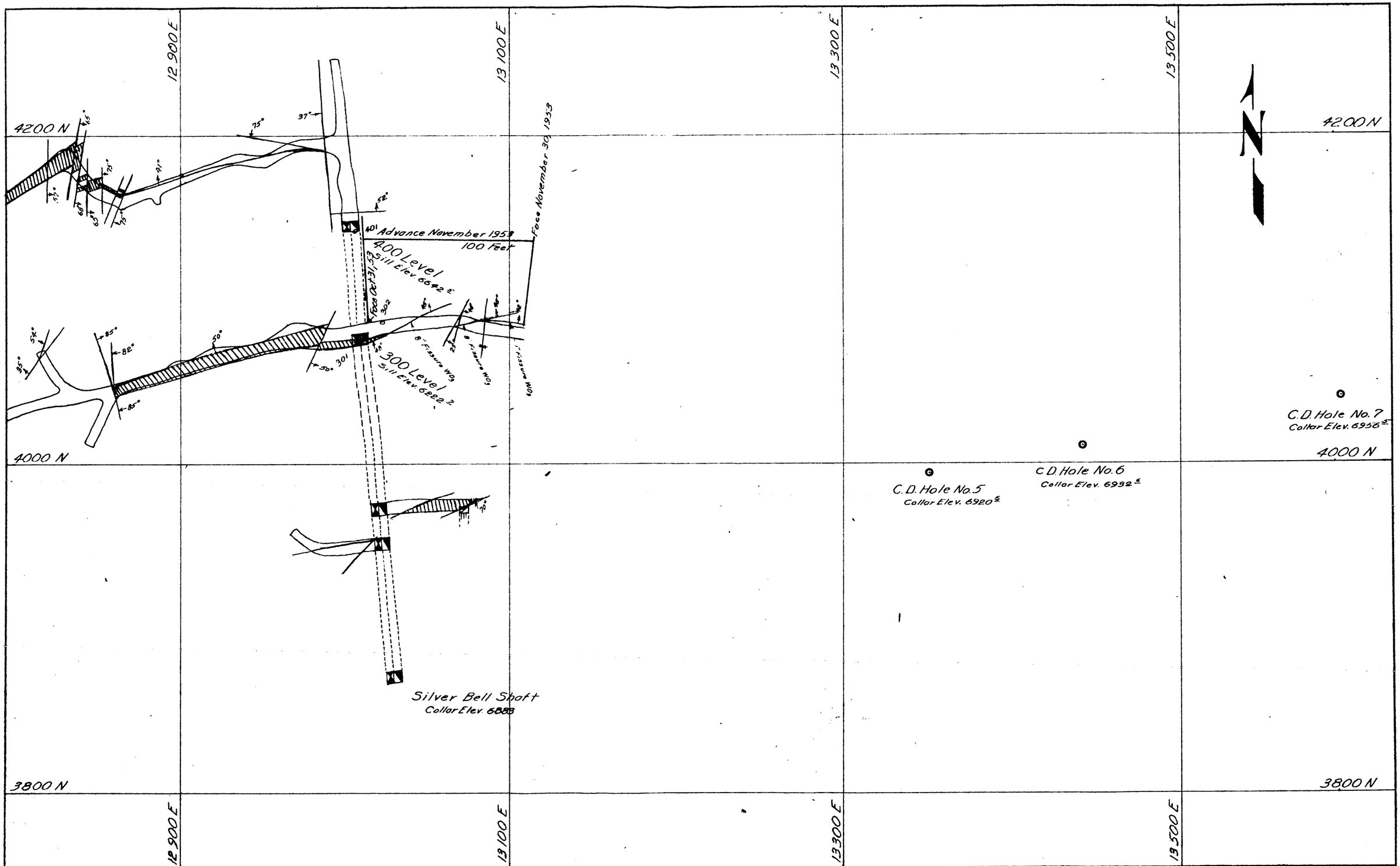
MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'





REFERENCES	D-1213, A-1617, A-1618, A-1622 Docket No. DMEA 2688 Contract No. IDM-E 481	REVISIONS	WORK	DRAWN O.E. Schrader	12-8-53
				TRACED	
				CHECKED R.H. Godbe	12-8-53
				APPROVED	

COMBINED METALS REDUCTION CO.
SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B- 873

SALT LAKE BLUE 1000H

Form MF-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

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July 1954 Docket No. DMEA 2600 Contract No. DMEA 401
Operator's Name M.I.A. Mines Company Minerals Tungsten
Address 210 Felt Building, Salt Lake City, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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 (Diamond		4,271.97	4,271.97			
(Churo		6,700.00	6,700.00			
Drilling		1,000.00	1,000.00			
Stratigraphic & widen adit		2,300.00	2,300.00			
Rehab. Silver Belt Tailing		2,300.00	2,300.00			
Contract slip pocket	8,050.00	42,543.00	50,593.00			
Drifting		9,260.05	9,260.05			
Pabing		1,425.00	1,425.00			
Lay track, Air, Water Lines						
(2) Labor and Supervision: 1/2 Cooran		1,500.00	1,500.00			
Labor		6,420.00	6,420.00			
Supervision		1,190.00	1,190.00			
Technical Services		2,025.00	2,025.00			
(3) Operating Materials and Supplies		4,304.00	4,304.00			
Timber (incl. ties)		2,332.74	2,332.74			
Explosives		46.54	46.54			
Pipe		1,320.70	1,320.70			
Track		4,450.96	4,450.96			
Diesel fuel		4,271.83	4,271.83			
Vent Tubing		1,200.10	1,200.10			
Misc. Supplies		6,467.51	6,467.51			
(4) Operating Equipment: Hilmoor & Pump.		545.12	545.12			
Rentals: Equip. Other						
Purchase		1,270.00	1,270.00			
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,003.95	2,003.95			
(6) New Bldgs., Improvements, etc.		2,004.00	2,004.00			
(7) Miscellaneous:						
Repairs to Equipment		5,062.54	5,062.54			
Sampling and Analysis		624.21	624.21			
Payroll Taxes		322.03	322.03			
Liability Insurance		735.67	735.67			
Ulalup Transportation		2,304.00	2,304.00			
Road Maint. - Winter		2,400.00	2,400.00			
(8) Contingencies (specify):						
Pulley & Supplying Water		9,327.77	9,327.77			
Office & Misc. Supplies		25.01	25.01			
TOTALS	8,050.00	131,011.63	139,061.63			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date 8-30-54 *Payee M.I.A. Mines Company
Per ORIGINAL SIGNED BY O. A. MORTON Title 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:
$ 6037.50
Lloyd M. Sieminski
Authorized Certifying Officer
Signature
(Authorized Certifying Officer)
Date DEC 1 1954 Vou. No. SF-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-E461 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Region III Date Sept. 3, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature C. Micker for N. C. Miller Title Executive Officer DMEA Field Team Region III Date September 7, 1954

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

ACCOUNTS Sept. 1954 RECD - 8

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

DEC - 6 1954

Month of [illegible] 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible]
Address [illegible]
Minerals [illegible]

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	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	[illegible]			[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core	[illegible]			[illegible]	[illegible]	[illegible]		
Churn	[illegible]			[illegible]	[illegible]	[illegible]		
Auger								
Stripping	[illegible]			[illegible]				
Trenching	[illegible]			[illegible]				
Test Pits	[illegible]			[illegible]				
Roads and Trails				[illegible]				
Total Distributed Costs	[illegible]							Total Costs Authorized by Contract
Operating Equipment Purchased				[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.				[illegible]				
Total Costs		[illegible]		[illegible]				

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 [illegible] Operator [illegible]

Per ORIGINAL SIGNED BY O. F. BURTON Title [illegible]

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

Minerva Tungsten Property - Narrative - July, 1954

August 18, 1954

Paul Gemmill, Manager Nevada Operations

N. C. Lee

Docket No. 2688
Contract No. IDM-X 481

Dear Paul:

During the month of July, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Exploration - Scheelite Chief Mine

West Drift 650 Level Objective Area 3 & 4

This drift was advanced 122.4 feet during the month of July. The fissure was intersected (from information obtained from the previous month diamond drilling), and drifted on to the west. No ore was encountered, the fissure is only from one to two feet wide and filled mostly with calcite, only a minor part of the fissure is quartz with a few spots of scheelite in the quartz.

East Drift 650 Level - Objective Area 3 & 4

Advance in this drift amounted to 92.1 feet for the month of July. All of this advance was on the fissure. Scheelite mineralization was spotty and irregular for the first 55 feet of advance, the last 37 feet of advance showed considerable improvement in the Scheelite mineralization with a series of areas fracturing in the footwall. Samples taken from the muck-pile of the last 30 feet of advance averaged 0.60% WO_3. Average width of the fissure is 3 feet in this area.

West Drift 600 Level - Objective Area 3 & 4

This drift was advanced 15.5 feet west of 43-249 Raise during the month of July. All of this advance was on the fissure. The scheelite mineralization follows the footwall and is about 10 inches wide the rest of 4 feet wide fissure is quartz.

Silver Bell Mine

No work was performed in the Silver Bell Mine during the month of July.

The above covers exploration work performed during the month of July.

Development Chief Mine

Development work in the Chief Mine consisted of driving a sub-level drift off the 45-148 raise to the east. This work was started near the close of the month and advanced 19 feet on the fissure.

Other development included raising and sub-level drifting in 44-163 on the east side of this ore block.

Stoping

During the later part of the month stoping was started in 44-163 block, about 175 tons of ore was mined from this block during the month.

Ore Shipments to Bauer Mill

Twelve railroad cars were shipped from Delta, Utah to Bauer Mill in the month of July. As 78% of this ore was mined from development faces, the grade is lower than average.

Dry Tons	Assay Value	Net Mine Value/Ton	Total
812.244	0.63% WO_3	$ 9.13	$ 7,414.00

General

During the month additional compressed air capacity of 375 cu. ft. diesel driven compressor was installed and put in operation.

A sorting plant with primary ore bin, belt feeder, washing screen and sorting belt in dark-room under ultra-violet lights, 50 ton shipping ore bin and waste disposal chute were also completed and put in operation.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

A-1645

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

650 LEVEL

Docket No DMEA2688 Contract No IDM-E 481

Minerva Tungsten Property

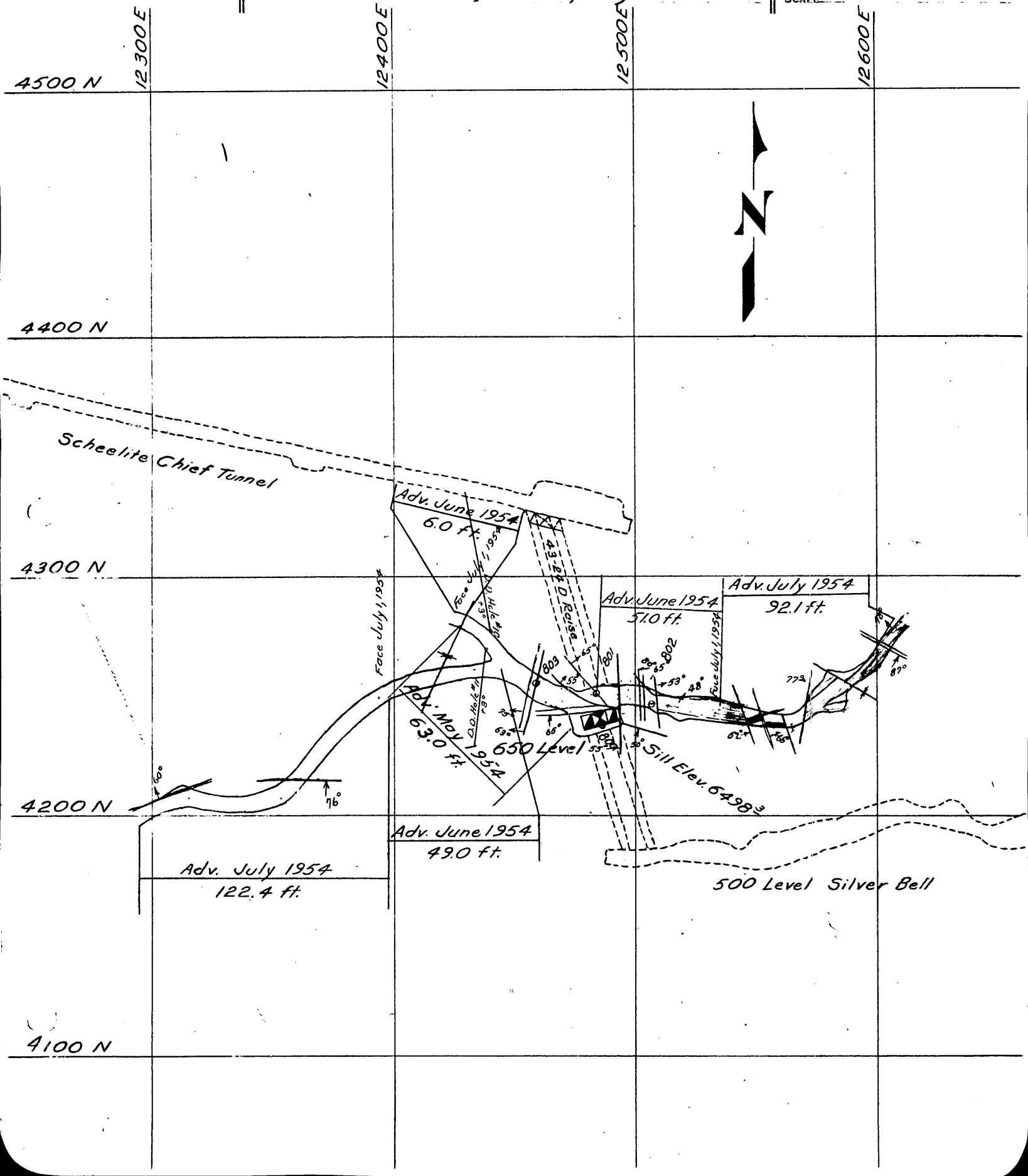
June 18, 1954

MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A-1653

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

600 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

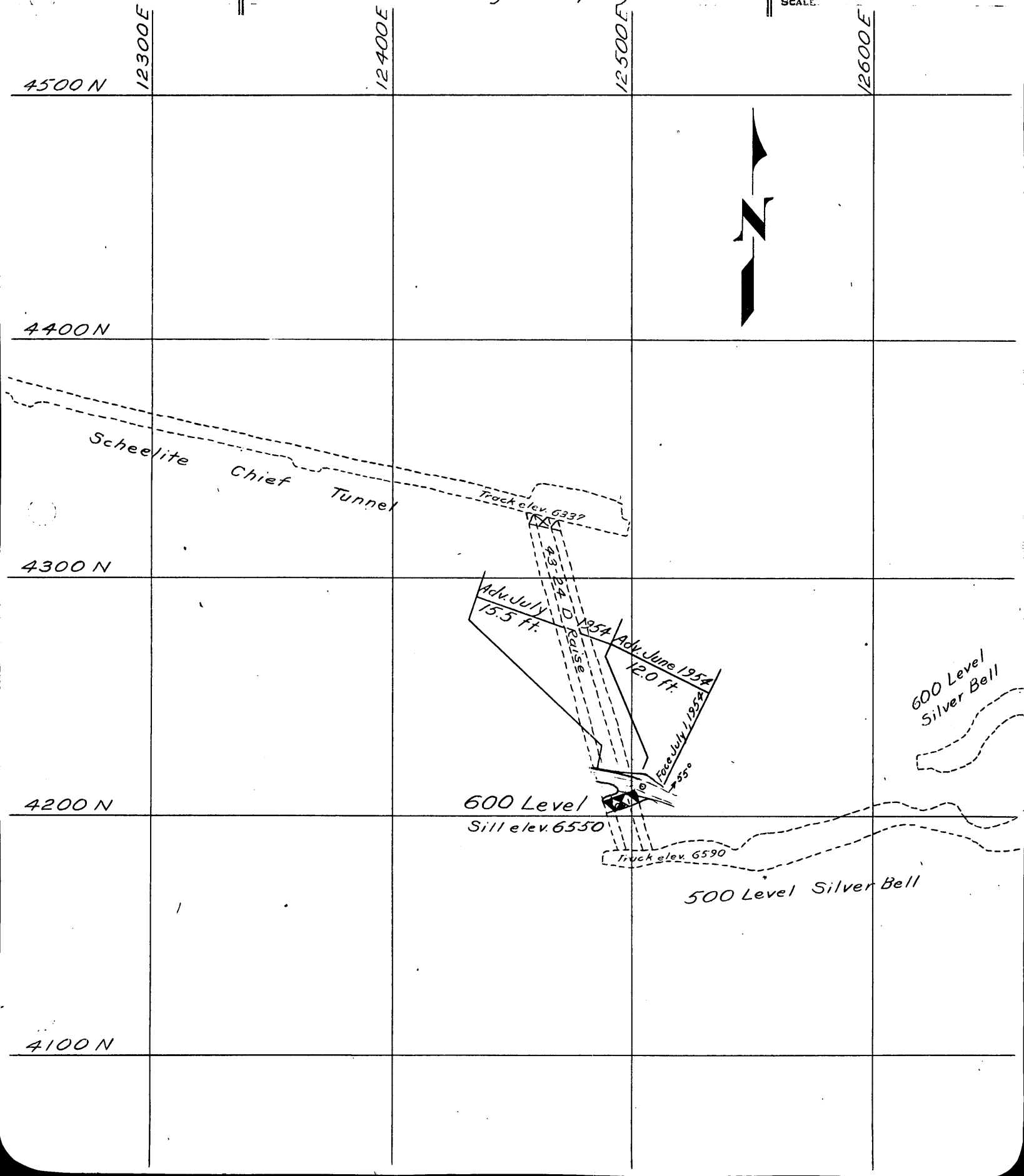
August 18, 1954

MADE BY: J. Schrader

TRACED BY:

CHECKED BY:

SCALE: 1" = 50'



Form MF-101 (Rev.) (April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-55

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Lemuel Minerals Administration
ACCOUNTS RECEIVED SEP - 3 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June 1954 Docket No. DMEA 2600 Contract No. [illegible] 401
Operator's Name D. I. A. Mines Company Minerals Manganese
Address [illegible] Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $120,550.00

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: Diamond Churn	490.00	3,781.97	4,271.97			
Drilling		6,700.00	6,700.00			
Stratton & Wilder Hole		1,000.00	1,000.00			
Rehab. Silver Hill Incline		2,300.00	2,300.00			
Crosscuts and Tunnels	4,130.00	38,213.00	42,343.00			
Drifting						
Raising		9,269.85	9,269.85			
Lay Track, Air, Water Lines		1,425.00	1,425.00			
(2). Labor and Supervision: 1/2 Topman		1,506.90	1,506.90			
Labor		6,420.00	6,420.00			
Supervision		1,190.00	1,190.00			
Technical Services Bookkeeping		2,025.00	2,025.00			
(3) Operating Materials and Supplies: Fuel Oil		4,394.88	4,394.88			
Timber (incl. Lies)		2,332.71	2,332.71			
Explosives		46.54	46.54			
Pipe		1,326.70	1,326.70			
Track		4,450.34	4,450.34			
Diesel Fuel		4,971.63	4,971.63			
Vent Tubing		1,780.10	1,780.10			
Mine Supplies		6,467.41	6,467.41			
(4) Operating Equipment: Bulldozer Trans.		545.12	545.12			
Rental: Gull Oil Silver						
Purchase		1,278.00	1,278.00			
Depreciation		3,579.24	3,579.24			
(5) Initial Rehabilitation and Repairs		2,003.95	2,003.95			
(6) New Bldgs., Improvements, etc.		2,094.00	2,094.00			
(7) Miscellaneous:						
Repairs to Equipment		5,062.54	5,062.54			
Sampling and Analysis		624.21	624.21			
Payroll Taxes		322.03	322.03			
Liability Insurance		735.67	735.67			
Bldg. Transportation		2,304.06	2,304.06			
Food Maint. - Winter		2,400.00	2,400.00			
(8) Contingencies (specify): Bldgs. & Supplying Water		3,327.77	3,327.77			
Off. & Eng. Supplies		25.31	25.31			
TOTALS	4,620.00	126,391.63	131,011.63			

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

Date 6-23-54 *Payee D.I.A. Mines Company

ORIGINAL SIGNED BY

Per O. F. BURTON Title 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:

$ 3465.00

Lloyd R. Stender
Signature Authorized Certifying Officer
(Authorized Certifying Officer)

Date Vou. No. SF-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. Nm-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Region III Date Sept. 2, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker for H. C. Miller Title Executive Officer DMEA Field Team Region III Date September 3, 1954

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 ME-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

RECEIVED
DEC 6 1954

Month of June 1954 Docket No. DMEA 2600 Contract No. IDI-B 401
Operator's Name M.I.A. Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah

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	Ft.	4,130.00	118.0	65,347.51	1,707.0	38.57		
Crosscutting								
Raising	Ft.			17,632.18	289.5	60.91		
Shafts								
Winzes								
Drilling: Core	Ft.	490.00	98.0	5,075.27	1,237.3	4.10		
Churn	Ft.			6,700.00	1,340.0	5.00		
Auger								
Supervision & Tech.				7,610.00				
Bookkeeping				2,025.00				
Sampling & Analysis				624.21				
Test Pits								
Roads and Trails				2,945.12				
Taxes and Insurance				1,057.70				
Total Distributed Costs								Total Costs Authorized by Contract
Rental & Depr.								
Operating Equipment				4,857.24				
Initial Rehabilitation and Repairs				8,531.57				
New Buildings, Improvements, etc.				2,894.00				
Transp. Con & supplies				5,711.83				
Total Costs		4,620.00		131,011.63				

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 8-28-54 Operator M.I.A. Mines Company

Per ORIGINAL SIGNED BY O. F. BURTON Title Treasurer

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

Minerva Tungsten Property - Narrative - June, 1954

August 4, 1954

Paul Gammill, Manager Nevada Operations

R. G. Lee

Re: Docket No. 2688
Contract No. IBM-X 481

Dear Paul:

During the month of June progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Exploration-Scheelite Chief Mine - Objective Area No. 4

The west drift on the 650 foot level off 43-248 Raise was advanced 55.0 feet in limestone. Faulting has displaced the chief fissure and it was necessary to locate fissure by diamond drilling. Two diamond drill holes, one 38 feet north and the other 40 feet south located the fissure south of the drift. Drifting was resumed to the south to cut the fissure at the end of the month.

The east drift off 43-248 Raise on the 550 foot level was advanced 51.0 feet on the fissure. The first 20 feet of this advance was mostly in quartz the last 31 feet showed spotty scheelite in the 3 feet wide quartz fissure, with a footwall high grade streak 8" to 10" wide.

The 800 foot level east drift was advanced 12 feet out from the 43-248 Raise following the fissure. The quartz showed a width of 7 feet with well defined footwall but obscure hanging wall. Scheelite mineralization was noted as very spotty across the width of the fissure.

Silver Bell Mine

No work was done in the Silver Bell Mine.

The above covers exploration work for the month of June.

Development in the Chief Mine

A two compartment raise was driven up from the slusher drift near the east end of the ore block in 44-168. At a height of 35 feet above the slusher drift the ore and fissure pinches down to 2 feet in width. This block is ready for stoping as soon as shipments are resumed to Bauer Mill. Present ore from development are being stock-piled at the mine.

Other development included a 20 feet incline raise in 45-153. Very little ore was encountered in this raise.

Stoping: No stoping of ore was done in the month of June.

Estimated tonnage mined from development and stock-piled during the month amounted to 970 tons with assay value of 0.69% WO_3.

Very truly yours,

Reginald O. Lee

Reginald O. Lee

A-1653

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

600 LEVEL

Docket No. DMEA 2688 Contract No. IDM-E 481

Minerva Tungsten Property

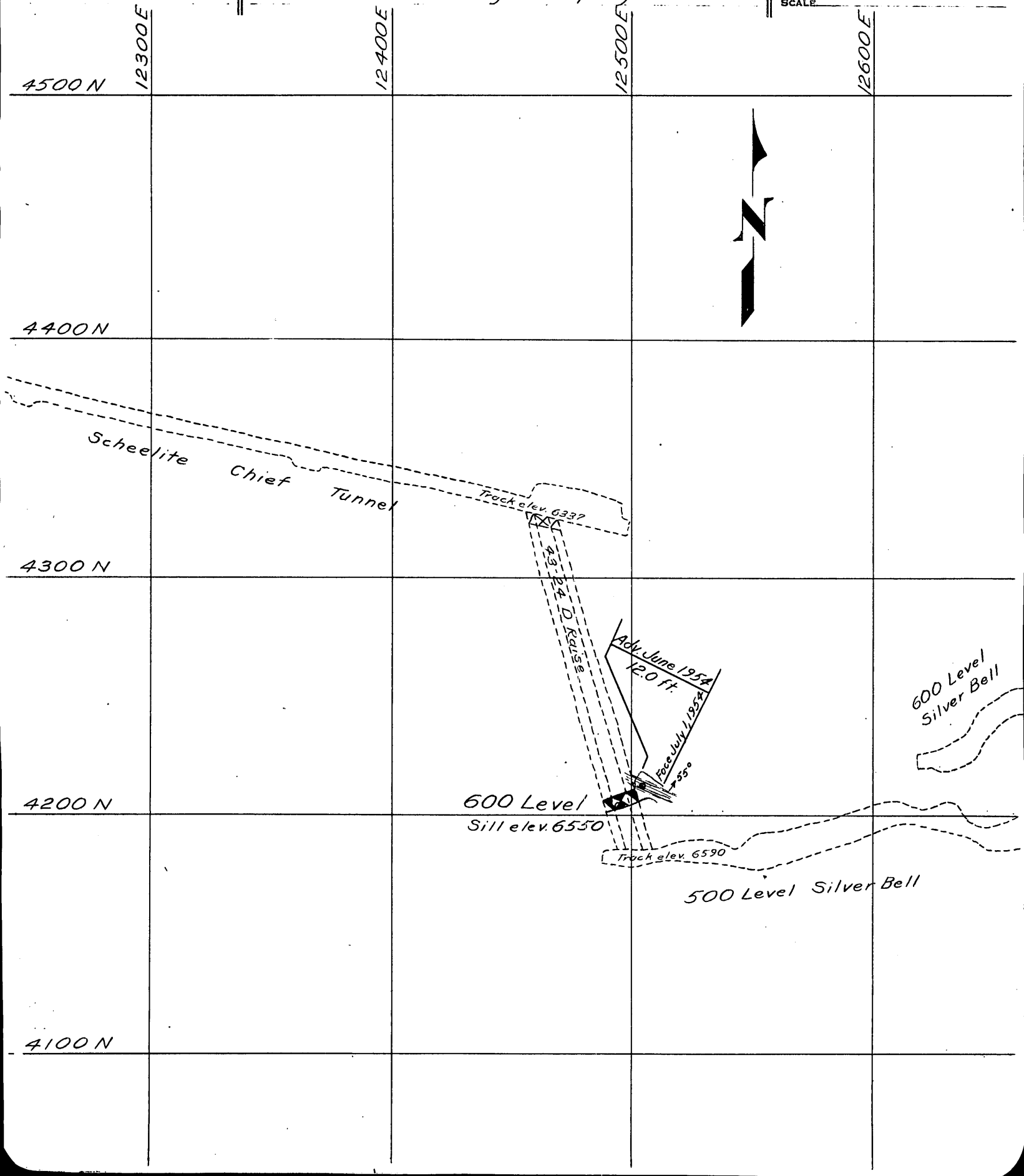
August 18, 1954

MADE BY Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A-1645

REFERENCES.

COMBINED METALS REDUCTION CO.

M.I.A. Mines

650 LEVEL

Docket No DMEA2688 Contract No IDM-E 481

Minerva Tungsten Property

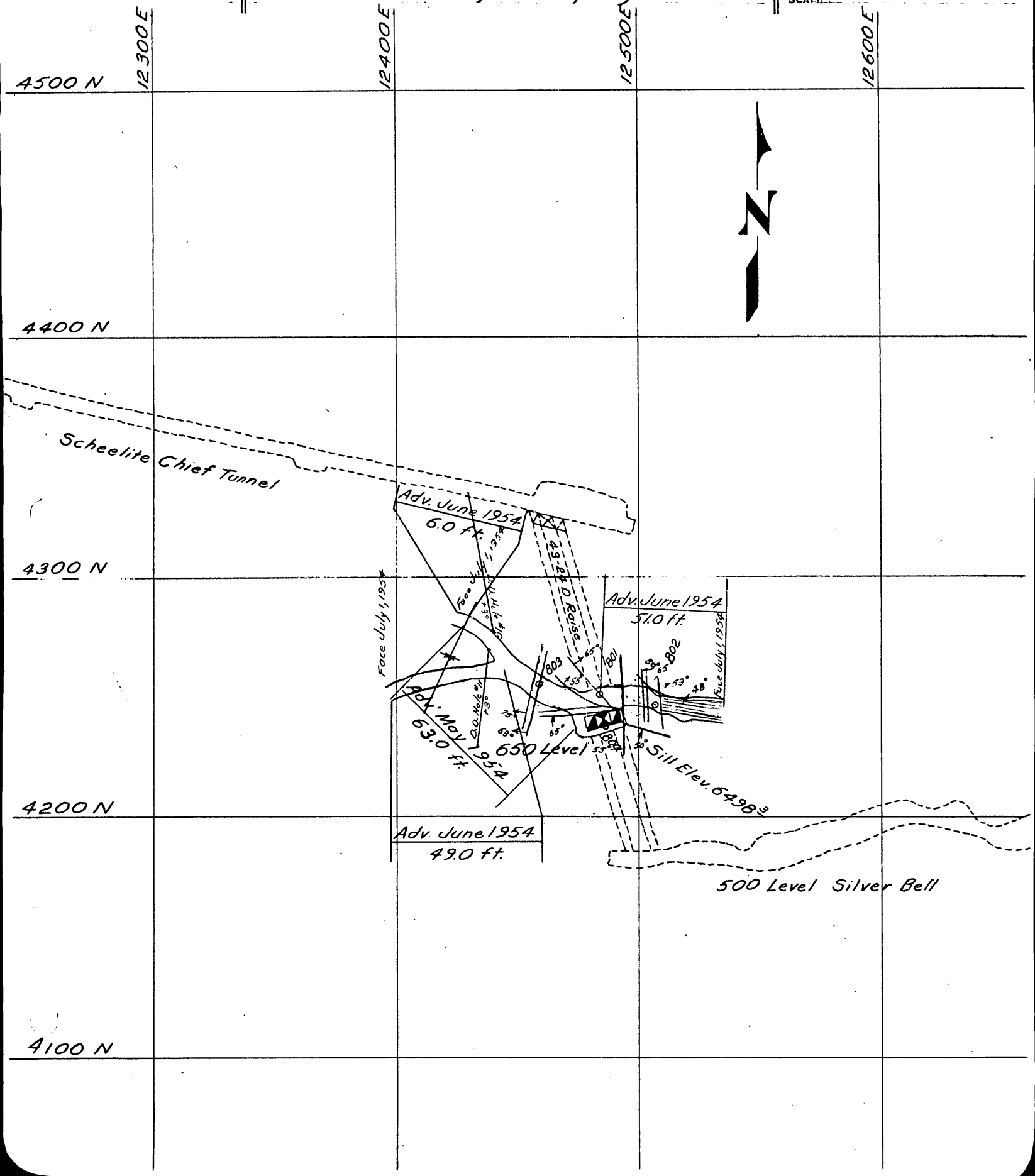
June 18, 1954

MADE BY O.E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A - 1664

REFERENCES

COMBINED METALS REDUCTION CO.

MINERV DIAMOND DRILL HOLE NO. 10

Docket No. 3688 Contract No. IDM 421

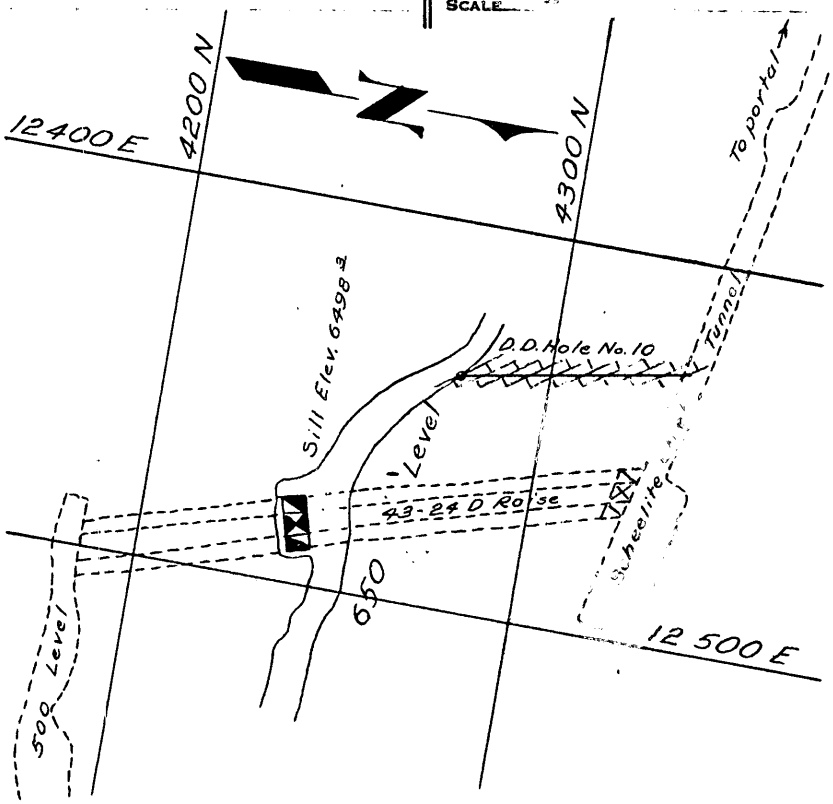
August 1, 1954

MADE BY Ehrmier

TRACED BY

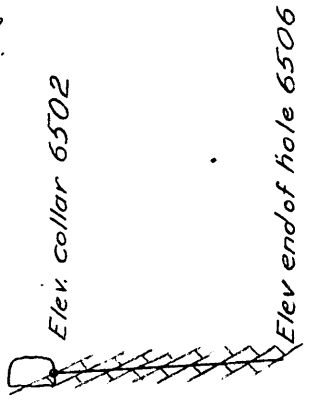
CHECKED BY

SCALE 1 = '



Limestone is plotted on an assumed strike and dip.

Coordinates: N , 77
E 1 , 9
Collar Elev: , 32
Course: N 1.°
Inclination: +°
Depth: 88. ft.
Core Recovery: 100%
Size of Hole:
Started: June , 1954
Finished: June , 1954
Driller: James Tulsa
Lee Nordquist



Section Looking S 80° W

LOG OF HOLE

0 - 88 Entire hole was in blue to black limestone, slightly mottled with calcite.

88 End of hole.

Scheelite was not encountered in this hole as no Scheelite was noted.

A - 1385

REFERENCES

COMBINED METALS REDUCTION CO.

MINNEWAUKAN DRILL HOLE No. 11

Docket No. 8688 D. D. Contract No. DD 2481

August 10, 1954

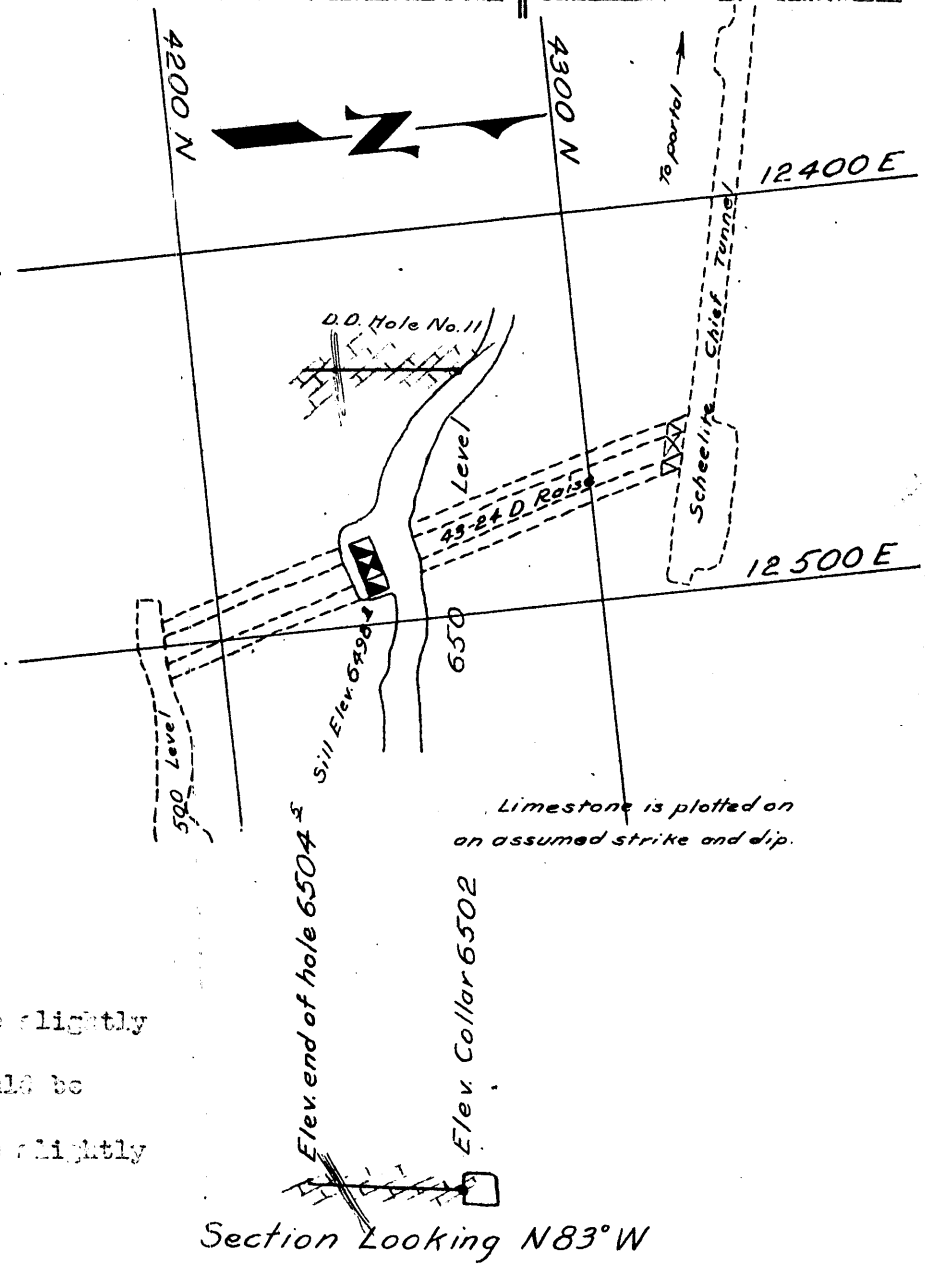
MADE BY Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'

Coordinates: N [illegible], 969
[illegible] 1, [illegible]7
Hole [illegible]: [illegible]
[illegible]: [illegible]
Inclination: +[illegible]
[illegible]: [illegible]
[illegible] Begun: 1953
[illegible]:
[illegible]: [illegible], 1954
[illegible]: [illegible], 1954
Drillers: [illegible]
[illegible] Moran [illegible]



LOG OF HOLE

0 - 30 [illegible] to black limestone slightly mottled with calcite.
30 - [illegible] calcite zone, could be [illegible].
35 - 40 [illegible] black limestone slightly mottled with calcite.
40 End of hole.

[illegible] was not encountered in this hole as no Scheelite was noted.

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

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

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

Month of _____, 195_ Docket No. DMEA _____ Contract No. _____
Operator's Name _____ Minerals _____
Address _____
Contract Amount, $_____ Government Participation: _____ % Amount, $_____

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						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Materials 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):						
Less disallowance per DMEA Audit				-135.54		
TOTALS				6,626.95	119,629.14	126,256.09

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

Date _____ *Payee _____

Per _____ Title _____

*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:

$ 4970.21

Lloyd H. Sjolander
Authorized Certifying Officer

Signature _____
(Authorized Certifying Officer)

Date _____ Vou. No. SF-DMCA-4

(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. Lim-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Date June 30, 1954.

A. C. Johnson

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Region III

Executive Officer

Signature W. Miller Title DMEA Field Team Date July 1, 1954

W. C. Miller Region III

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 [illegible] 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

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	Ft.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	Ft.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core	Ft.			[illegible]	[illegible]	[illegible]		
Churn	Ft.			[illegible]	[illegible]	[illegible]		
Auger								
Supervision & Staff		[illegible]		[illegible]				
Equipment Rental		[illegible]		[illegible]				
Assaying & Analysis		[illegible]		[illegible]				
Roads and Trails				[illegible]				
Bond & Insurance		[illegible]		[illegible]				
Less Disallowance		-135.56		-135.56				
Total Distributed Costs							Total Costs Authorized by Contract	
Rental & Depr.								
Operating Equipment Purchased		[illegible]		[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.				[illegible]				
Transp. Inc & Supplies		[illegible]		[illegible]				
Total Costs		[illegible]		[illegible]				
		6,626.95		126,256.09				

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 June 24, 1954 Operator [illegible]

Per [illegible] Title [illegible]

By. [illegible]

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

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Date: August 17, 1954
Payee's
Reference: Docket No. DMEA 2688
Contract IEM E-481
M.I.A. Mines Minerva Tungsten
Property

M.I.A. Mines Company
218 Felt Building
Salt Lake City, Utah

Gentlemen:

Upon examination of the above Payee's Reference, a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed $ 6,762.42 (May MP-104)

Difference $ 135.54

Amount Approved $ 6,626.88

The reason for the difference was due to:

Disallowances per DMEA Audit Report for the period ending May 31, 1954.*

Disallowances	$31,759.02
Less Additional Costs	31,623.48
Net Disallowance	135.54

* Note: A copy of the audit report for the period ending May 31, 1954 which details the net disallowance of $135.54 will be forwarded.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

L. H. Sjolander
Chief, Budget and Finance Branch
Region III

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - May, 1954

May 15, 1954

Paul Gemmill, Supt. Nevada Mines

M. O. Lee

Docket No. 2688
Contract No. [illegible] 481

Dear Paul:

During the month of May, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Exploration - Scheelite Chief Mine

The main raise (43-240) was advanced 26.5 feet during the month for a total advance of 289.5 feet. Timber advance in the raise for the month was 14.0 feet aggregating a total advance of 289.5 feet, at which point the raise joins the 5th level of the Silver Bell Mine.

The footwall of the quartz fissure was exposed in the hanging wall of the raise to the 5th level of the Silver Bell Mine. Further development of the quartz fissure from sub-levels to be driven easterly and westerly from the 43-240 raise will determine ore tonnage in objective area 4 of this Exploration Project.

After the raise (43-240) was connected with the 5th level of the Silver Bell, sub-level drifting was started westerly from the raise station at 6498 feet elevation described in last months report. This sub-level is shown on this month's progress map [illegible]-1645 as the 650 feet level. The west drift on this level should be considered the work listed under item (6) Objective Area 4. Step 1, Amendment No. 3, Docket No. [illegible] - 2688. Advance for the month amounted to 43.0 feet. The first 25 feet of this advance was in the fissure with some scheelite mineralization, the last 18 feet being in fractured limestone. Several faults exist in this area. From previous drill hole information, the throw of the fissure is to the north, therefore, the 650 west sub-level drift was turned to the right.

The above covers the exploration work in the Scheelite Chief Mine for the month.

Development & stoping - Scheelite Chief Mine

During the month ore mined from development and stoping in Objective Area I is estimated at 350 dry tons at an average assay value of 1.500% WO_3.

Exploration - Silver Bell Mine

Drifting east on the Silver Bell 300 feet level totaled 10 feet for the month. The quartz fissure with a small amount of scheelite mineralization is exposed in the face of the drift. No ore was produced from the drift rounds. Advance in this heading will be slow until air and water lines are connected with the Scheelite Chief Mine through the 43-240 Raise.

Development & stoping - Silver Bell Mine

A small amount of stoping was done during the month; production was as follows:

Place	Estimated Tons	Estimated Assay Value
40-34A	35	0.500% WO_3
40-34C	35	0.500% WO_3
Total	40	0.500% WO_3

COPY

Minerva CDH #9 was completed at 295 feet, but evidently this hole intersected a fracture or fault in the fissure with only negative information.

The churn drilling program was terminated for the time being and the drill moved to Canelton.

Ore Shipments

Ore shipments to Combined Metals Reduction Co. plant at Bauer, Utah was continued during the first half of the month.

Total dry tons shipped from Delta, Utah via Union Pacific Railroad during month of May is estimated as follows:

Place Produced	Dry Tons	Assay Value
Silver Bell	133.0	.508 % WO_3
Silver Bell	54.0	.640 % WO_3
Chief	350.0	1.500 % WO_3

COMBINED METALS REDUCTION COMPANY

Dry weights and final assays are not available as yet for May production.

Distribution of cost for May as shown on the Operator's Monthly Report and Voucher follows:

				Cumulative Overage To Date $
Stage I				
Raise Advance - 26.5 feet @ $31.00		$ 821.50		278.00
Stage II				
Drift Advance - 73.0 feet @ $30.00		2,190.00		
			$3,011.50	
Labor and Supervision				
Supervision		$ 440.00		
Tapman (½ D. Dotson Time)		238.54		
Bookkeeper		150.00		75.00
			868.54	
Operating Materials and Supplies				
Stage I				
Diesel Fuel	$ 167.76			
Raise Timber 34.0 Mf. @ 56.45	219.30			
Oils, Greases, etc.	16.43			
Tools and Misc.	223.23			
Pipe	55.38			
Drill Steel	332.68			
Truck	289.50			2,051.59
		$1,304.28		
Stage II				
Diesel Fuel	$ 69.07			
Gasoline	11.36			
Pipe & Fittings	31.53			
Truck	73.84			
Tools & Misc.	85.24			
		$ 271.04		
			$1,575.32	
Operating Equipment				
Stage I				
100 Kw Generator	$ 85.01			
G.M.C. Compressor	119.00			
15 Kw Generator	40.00			

COPY

COMBINED METALS REDUCTION COMPANY

4 May 15, 1934 Paul Gemmill

				Cumulative Overage to Date $
2 - 5 HP Fans	$ 12.00			
Battery Tamper	113.00			
10 Mine Cars	20.00			
Water Pressure Tank	5.00			
	$ 384.91			
DMAA @ 31%		$ 119.92		
Issue II				
Surface Equipment	$ 300.00			78.00
Gasoline Hoist	30.00			
Jay Compressor	121.00			
Gasoline Fan	14.17			
Water Pressure Tank	5.00			
3 Mine Cars	5.00			
	$ 470.[illegible]			
DMAA @ 31%		$ 145.[illegible]		
			$ 275.07	
Rehabilitation and Repairs				
None				
New Buildings, Improvements, Installations				
None				
Miscellaneous				
Supplying Water		$ 244.71		146.77
Repair Parts		138.10		
Maintenance Labor		395.53		
Assaying @ 31%		34.80		
Pickup Trucks				
#46 - 1,000 miles @ $0.09	$ 187.30			
#18 - 320 miles @ $0.14	44.80			
#20 - 480 miles @ $0.09	43.20			
#22 - 480 miles @ $0.09	43.20			
#53 - 480 miles @ $0.09 (K. wagon)	43.20			
	$ 361.10			
DMAA @ 31%		$ 112.10		5.06
Payroll Taxes		41.25		
Liability Insurance		57.77		
			$1,011.26	
Total for Month of May			$6,762.48	$3,614.42

COPY

COMBINED METALS REDUCTION COMPANY

It is evident that an average on certain items and an excess allowance for other items will show-up more and more as the project nears completion, due to variation in prices and variation in the rock characteristics and necessary changes in the operations.

A new requirement of the various items from actual operating data, which is now available, should be worked out and presented to proper government authorities for approval. The total estimated cost of the project would remain the same as before.

The following will show cost estimate to complete project and cost to date of the most important items:

Item	Allowed Expense $	June 1, 1954 Actual Expense $
Labor-Supervision - Consultants		
Bookkeeper	1,980.00	2,015.00
Supervising Engineer	7,800.00	6,430.00
Engineering	1,200.00	1,180.00
Teamsters	2,700.00	1,804.90
Liability Ins. & Payroll Tax	1,800.00	1,657.70
Operating Material & Supplies		
Nails	4,085.00	4,458.34
Pipe	3,672.00	1,326.70
Timber	7,813.00	1,332.71
Diesel Fuel	5,746.00	4,971.83
Operating Equipment		
Silver Ball Surface Equipment	1,200.00	1,278.00
Depreciation 1/60 of present value	18,709.00	3,579.00
Repairs & Maintenance Labor	7,150.00	3,882.53
Transportation		
Co. Pickups and Trucks	1,379.00	1,384.06
Supplying Water	1,181.28	1,327.77
Road Maintenance (winter only)	1,400.00	1,400.00
Miscellaneous		
Assaying	650.00	624.21
Office Supplies	350.00	25.81
Mine Development		
Drifting and Crosscutting	35,857.00	35,213.00
Raising	8,900.00	9,268.00

COPY

COMBINED METALS REDUCTION COMPANY

May 14, 1944 Paul Gemmill

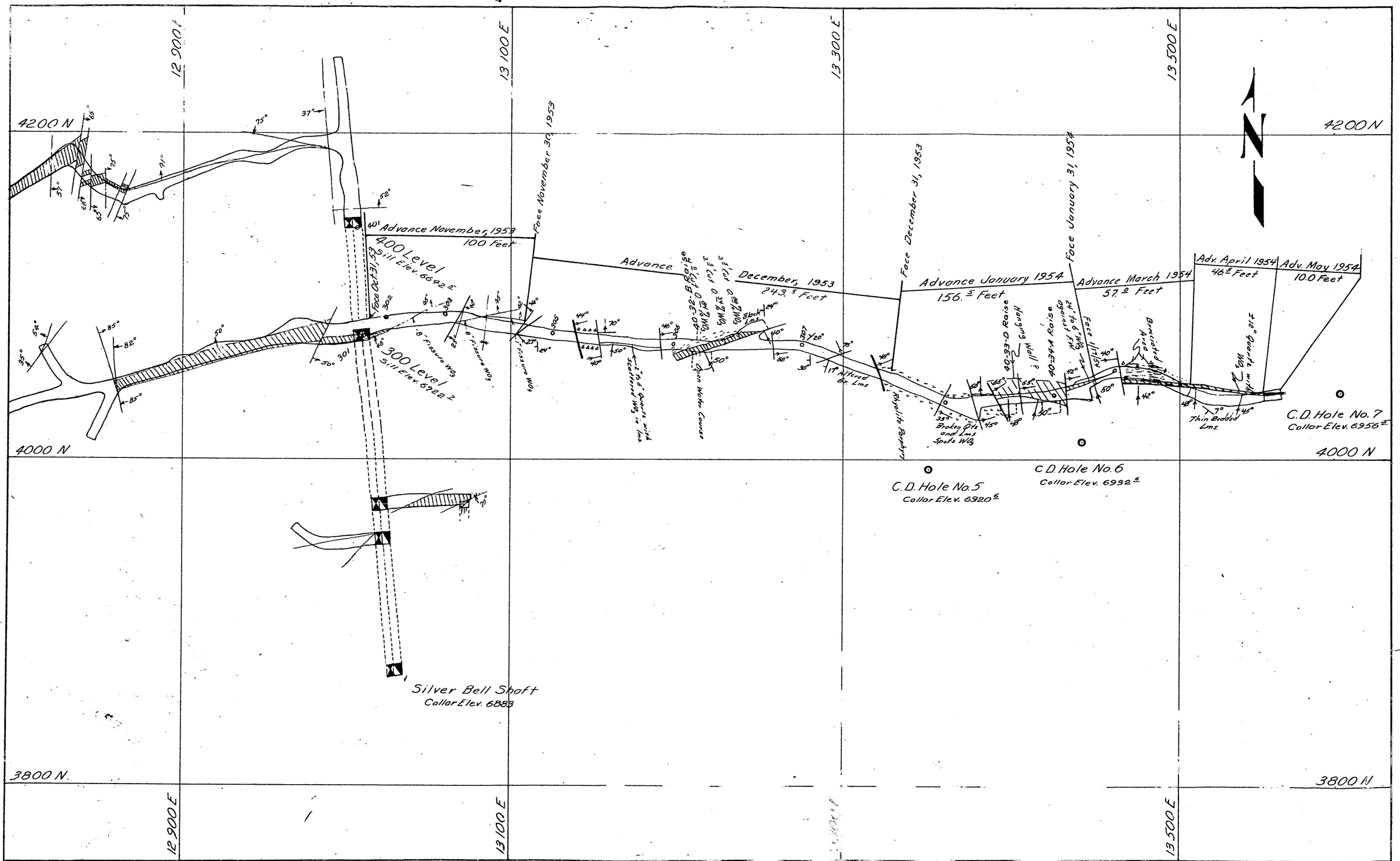
Please note that all allowance for transportation is depleted, allowance for diesel fuel will be depleted soon and many others to follow that is absolutely essential for the advancement in any rock section.

Very truly yours,

Reginald G. Lee

RGL/ph

COPY



REFERENCES	REVISIONS	WORK		
D-1219, A-1617, A-1618, A-1622		DRAWN O.E. Schrader	12-8-53	COMBINED METALS P[illegible]TION C[illegible]
Docket No. DMEA 2688		TRACED		SALT LAKE [illegible]
Contract No. IDM-E 481		CHECKED R.H. Godbe	12-8-53	
		APPROVED		

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B- 873

SALT LAKE BLUE 1000H

7. Are subordination agreements necessary?_____

   a) MF-201?_____

   b) MF-202?_____

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

   a) Available manpower_____

   b) Equipment and supplies_____
      (question 14 plus general knowledge of availability)*

   c) Accessibility (question 12)*_____

   d) Water (question 13)*_____

   e) Power (question 13)*_____

   Is a field check needed on any of these points?_____

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

   _____

   Is a field check needed on this point?_____

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

    a) Is the project adequately described?_____

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

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

       _____

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

       If not, what part of it is?_____

       _____

       _____

       _____

A-1632

REFERENCES: C-1112, A-1621

COMBINED METALS REDUCTION CO.

MIA. Mines

PLAN and SECTION 43-24-D RAISE

Docket No. DMEA 2688 Contract No. IDM-E-481

Minerva Tungsten Property

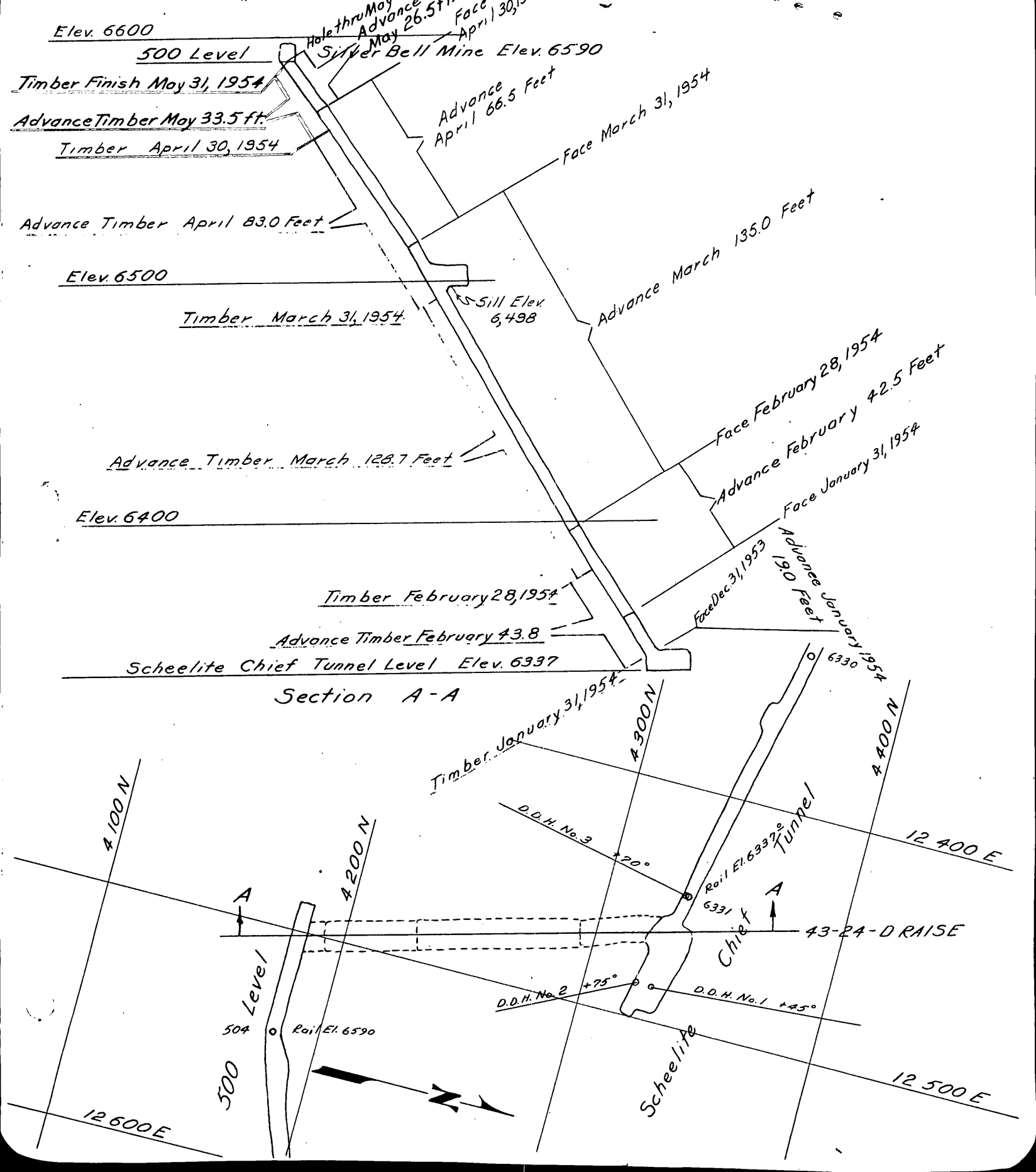
February 9, 54

MADE BY O. E. Schroder

TRACED BY

CHECKED BY

SCALE 1" = 50'



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

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

a) Good _____

b) Poor _____

c) None _____

d) Don't know—needs field examination _____

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

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

6. If applicant is a lessee, is a copy of the lease attached? _____

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

*question numbers are those of MF-103

1645

REFERENCES

COMBINED METALS REDUCTION CO.

M.I.A. Mines

650 LEVEL

Docket No DMEA2688 Contract No IDM-E 481

Minerva Tungsten Property

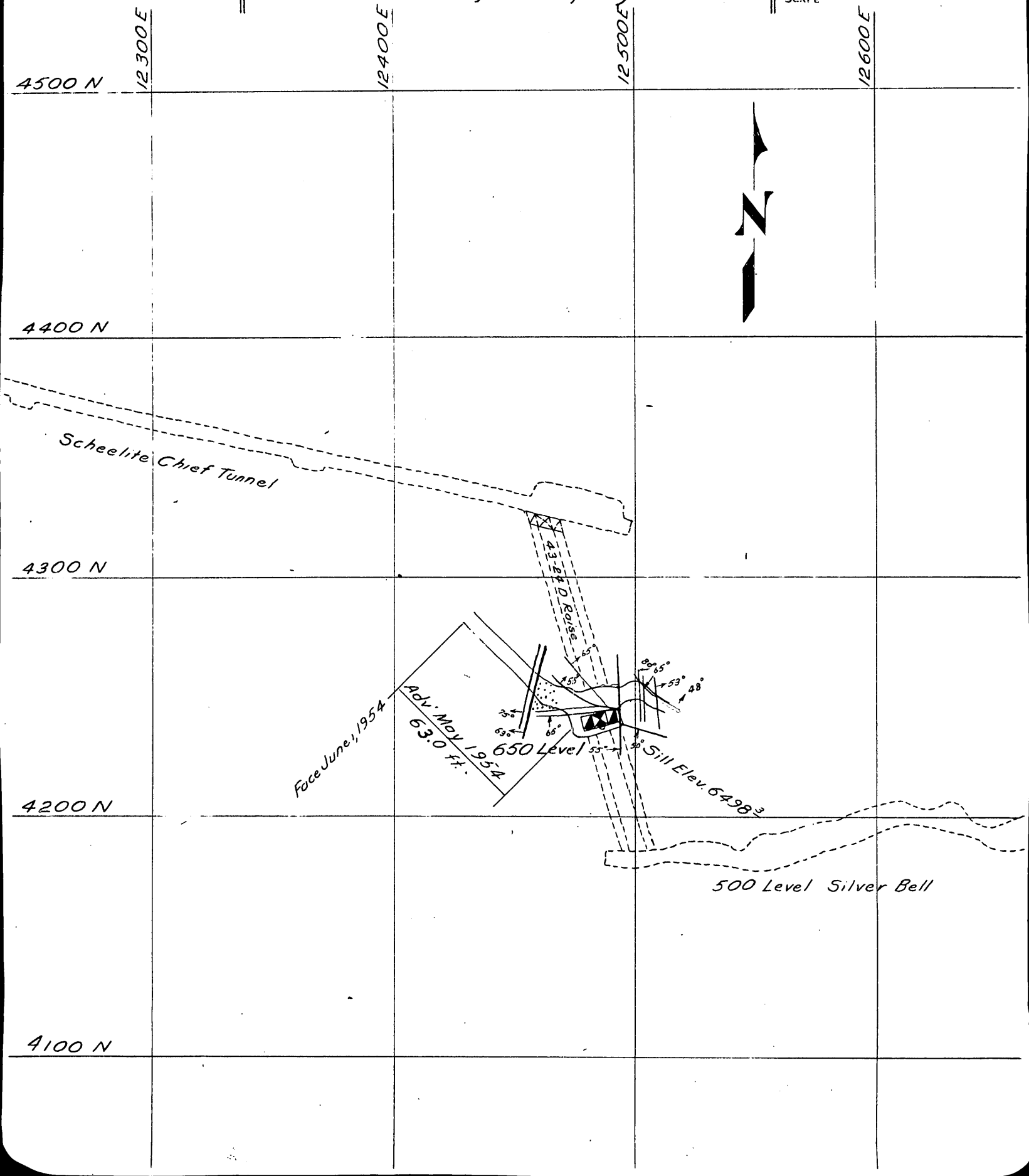
June 18, 1954

MADE BY O. L. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No._____

Commodity_____

Total Amount_____

Govt. Participation_____

1. Name and Address of Applicant_____

_____

2. Location of Property_____

_____

_____

3. Mineral or metal_____ Is it listed in Section 9 of MO-5?

If not, application will be rejected.

DMEA-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.4
Approval expires 6-30-54.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 1954 Docket No. DMEA 2608 Contract No. DMR 801
Operator's name H.I.A. Mines Company Minerals Tungsten
Address 210 Felt Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $120,550.00

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: (Diamond		3,781.97	3,781.97			
(Churn		6,700.00	6,700.00			
Drilling						
Straighten & widen adit		1,800.00	1,800.00			
Rehab. Silver Bell Incl. skip pocket		2,300.00	2,300.00			
Drifting	1,395.00	34,628.00	36,023.00			
Raising	2,061.50	6,385.85	8,447.35			
Lay track, air, water lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 Topman	170.39	1,097.97	1,268.36			
Supervision	500.00	5,440.00	5,940.00			
Technical Services		1,190.00	1,190.00			
Bookkeeping	150.00	1,725.00	1,875.00			
(3) Operating Mat'ls and Supplies:						
Drill steel & bits	573.60	3,488.60	4,062.20			
Timber (incl. ties)	610.35	1,503.06	2,113.41			
Explosives		46.54	46.54			
Pipe	13.23	1,236.56	1,249.79			
Track		4,095.00	4,095.00			
Diesel Fuel	271.98	4,463.02	4,735.00			
Vent Tubing		1,780.10	1,780.10			
Misc. Supplies	257.72	5,863.43	6,121.15			
(4) Operating Equipment:						
Rental Bulldozer Trans. & surface equip.		545.12	545.12			
Rental Silver Bell	108.00	1,077.00	1,185.00			
Depreciation	203.67	3,192.70	3,396.37			
(5) Initial Rehabilitation and Repairs		2,803.95	2,803.95			
(6) New Bldgs., Improvements, etc.	(421.96)	3,315.96	2,894.00			
(7) Miscellaneous: Maint. labor	359.22	4,152.69	4,511.91			
Repairs to Equipment	12.24	587.17	599.41			
Sampling and Analysis	35.42	245.36	280.78			
Payroll Taxes	49.05	622.85	671.90			
Liability Insurance	108.64	2,163.32	2,271.96			
Pick-up transport.	400.00	2,000.00	2,400.00			
Road Maint. - Winter						
(8) Contingencies (specify):						
Haulage & water suppl.	244.71	2,838.35	3,083.06			
Office & Eng. supplies		25.01	25.01			
TOTALS	7,102.76	112,526.38	119,629.14			

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

Date 5/13/54 *Payee H.I.A. Mines Company

ORIGINAL SIGNED BY

Per O. F. BURTON Title 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:

$ 5327.01

Signature
(Authorized Certifying Officer)

Date JUN 2 1954 Vou. No. SF-DMEA-43

(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-E481 in accordance with the terms of the contract.

Signature R. C. Johnson Title Chief, Mining Div. Date May 24, 1954.

R. C. Johnson Region III

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Date May 26, 1954

H. C. Miller Region III

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

MAY [illegible] 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of [illegible] 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

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	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core	[illegible]			[illegible]	[illegible]	[illegible]		
Churn	[illegible]			[illegible]	[illegible]	[illegible]		
Auger								
[illegible]	[illegible]	[illegible]		[illegible]				
Stripping		[illegible]		[illegible]				
Trenching		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
Test Pits		[illegible]		[illegible]				
Roads and Trails		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
[illegible]	[illegible]	[illegible]		[illegible]				
Operating Equipment Purchased				[illegible]				
Initial Rehabilitation and Repairs		[illegible]		[illegible]				
New Buildings, Improvements, etc.		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
TOTAL COSTS		[illegible]		[illegible]				

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 [illegible] Operator [illegible]

Per ORIGINAL SIGNED BY O. F. BURTON Title [illegible]

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - April, 1954

May 8, 1954

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. 2688
Contract No. IDM-E 481

Dear Paul:

During the month of April, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Scheelite Chief Mine

The main raise (43-24D) was advanced 66.5 feet during the month for a total advance of 263.0 feet. Timber advance in the raise was 83.0 feet for a total advance of 255.5 feet. As stated in the previous month's report, excavation work was started for a station in the hanging wall of the raise on March 29. This work was completed on April 15, and work then continued in advancing the raise proper. The sill elevation of the station is at 6,498 feet - or approximately 92 feet below the 5th level of the Silver Bell Mine. The raise broke through into the 5th level of the Silver Bell Mine on May 5. The connection was at the predetermined calculated position, and verifys the accuracy of underground surveys in both the Scheelite Chief and Silver Bell Mines, together with the established surface triangulation system. The footwall of the main quartz scheelite bearing fissure held quite consistently in the hanging wall of the raise and crossed the easterly corner on a near easterly strike. Irregular scheelite mineralization was noted on the footwall quartz throughout. Test holes into the fissure indicate a quartz width probably in excess of five feet. Although favorable scheelite mineralization was noted in the quartz footwall for about 100 feet above the raise station, The extent and grade of mineralization must await development of this block from the raise station. Present indications are that this block, defined in the Exploration Project as Objective Area 4, will develop a very substantial tonnage of ore in an assay range between 0.4% and possibly 1.0% of WO_3 content.

Work continued during the month in developing the ore located above the sub-level in the area defined as Objective Area 1. Production during April totaled 377 (16 cubic ft.) cars having a weighted average assay of 1.638% WO_3. A slusher drift is being advanced easterly to undercut the ore. It has been found that the rake of the bottom of the ore shoot upward to the east is probably in excess of 20 degrees. A raise is currently

being advanced upward within the walls of the steeply dipping fissure (65° North) to locate the upper extremity of the ore. This work has proven a vertical extension of about 30 feet at this time.

Silver Bell Mine

Drift progress on the 300 level east heading totaled 46.5 feet for a total advance of 103.5 feet of the 167 feet requested in Amendment No. 3 to the contract. Work in this heading was suspended on April 23 due to necessity of hoisting ore for shipment to the Bauer Plant of the Combined Metals Reduction Co. This ore was being held in an old stope located west of the incline and between the 3rd and 4th levels. The fissure as exposed by the April advance showed a narrow quartz width (approx. one foot) with some scheelite mineralization. No ore was obtained from drift rounds from this work.

Limited steping was done in the Silver Bell Mine during the month. Production was as follows:

Place	Cars (30 cubic ft.)	% WO_3
40-34A	12	0.50
40-32B	2	0.45

Cherry Drilling

Minerva CDH #8, located between CDH #3 and #4 was bottomed at a depth of 186 feet on April 16. The predetermined position of the hanging wall of the fissure was at a depth of 157 feet. This hole apparently missed the fissure on a fault gap, and negative information was obtained from the hole. A log of the hole is appended.

Minerva CDH #9 was collared at a position approximately 184 feet and S 79° E from Minerva CDH #7. Coordinates are as follows: N. 4,093.5 E. 13,776.8 and collar elevation 6,987.5. Without faulting the location of the hanging wall of the fissure is at an approximate depth of 170 feet. Any north-south faulting will lengthen the depth to the fissure. On May 1 the hole was at a depth of 130 feet and in limestone.

Both Minerva CDH #8 and #9 are being carried on M.I.A. Mines Company account.

COMBINED METALS REDUCTION COMPANY

Ore Shipments

Shipments of ore to the Combined Metals Reduction Company plant at Bauer, Utah were started on April 24, 1954. The ore is being trucked to Delta, Utah (Harry Young Trucking Co.), and then via Union Pacific Railroad to distination, by the end of April, a total of seven carloads were enroute from Minerva. Of these five were from the Scheelite Chief Mine and the other two from the Silver Bell Mine. At this writing, May 8, a total of twelve carloads have been loaded out - seven Scheelite Chief and five Silver Bell. Weights and assays are not as yet available. Pertinent information concerning shipments will be made a part of future DMEA monthly reports.

Distribution of costs for April, as shown on the Operator's Monthly Report and Voucher, follows:

Independent Contracts

			Overage
Stage I			
Raise Advance - 66.5 feet @ $31.00		$ 2,061.50	
Stage II			
Drift Advance - 46.5 feet @ $30.00		1,395.00	
			$ 3,456.50
Labor and Supervision			
Supervision		$ 500.00	
Topman (½ B.Detson Time)		170.39	
Bookeeping		150.00	
			820.39
Operating Materials and Supplies			
Stage I			
Diesel Fuel	$ 212.83		
Raise X Timber 83.0 Ft. @ $6.45	535.35		
Oils, Greases, etc.	25.65		
Tools and Misc.	22.00		
Pipe Fittings	13.48		
Drill Steel	573.60		
		$ 1,382.81	
Stage II			
Diesel Fuel	$ 59.15		
Gasoline	16.69		
Ties	75.00		
Pipe 1"	13.23		

COPY

COMBINED METALS REDUCTION COMPANY

			Overage
Neoprene Hose 2½"	$ 155.20		
Oils, greases, etc.	24.70		
		$ 343.97	
			$ 1,726.88
Operating Equipment			
Stage I			
100 KW Generator	$ 85.91		
G.M.C. Compressor	119.00		
15 KW Generator	40.00		
2 - 5 HP Fans	12.00		
Battery Trammer	113.00		
10 Mine Cars	20.00		
Water Pressure Tank	5.00		
	$ 394.91		
DMEA @ 36%		$ 142.17	
Stage II			
Surface Equipment	$ 300.00		
Gasoline Hoist	20.00		
Joy Compressor	125.00		
Gasoline Fan	14.17		
Water Pressure Tank	5.00		
3 Mine Cars	6.00		
	$ 470.82		
DMEA @ 36%		$ 169.50	
			$ 311.67
Rehabilitation and Repairs			
None			
New Buildings, Improvements, Installations			
Credit as per letter, copy appended, dated May 3, 1954 by Frank H. Anderson, Office Manager to Mr. George Maver, DMEA Auditor.			$ (421.96) $421.96
Miscellaneous			
Supplying Water		$ 244.71	
Repair Parts		106.42	
Maintenance Labor		252.80	
Assaying @ 36%		12.24	

COPY

COMBINED METALS REDUCTION COMPANY

5 May 8, 1954 Paul Gemmill

				Overage
Road Maintenance			$ 400.00	
Pickup Trucks				
#46	1,920 Miles			
#20	480 "			
#22	160 "			
#38	160 "			
#44	160 "			
J. Hulse	473 "			
	3,353 Miles @ $.09 @ 36%		108.64	
Payroll Taxes			35.42	
Liability Insurance			49.05	
			$ 1,209.28	
		TOTALS	$ 7,102.76	$ 421.96

Very truly yours,

R. H. Godbe

COPY

A-1632

REFERENCES

C-1112, A-1621

COMBINED METALS REDUCTION CO.

M.I.A. Mines

PLAN and SECTION 43-24-D RAISE

Docket No. DMEA 2688 Contract No. IDM-E-481

Minerva Tungsten Property

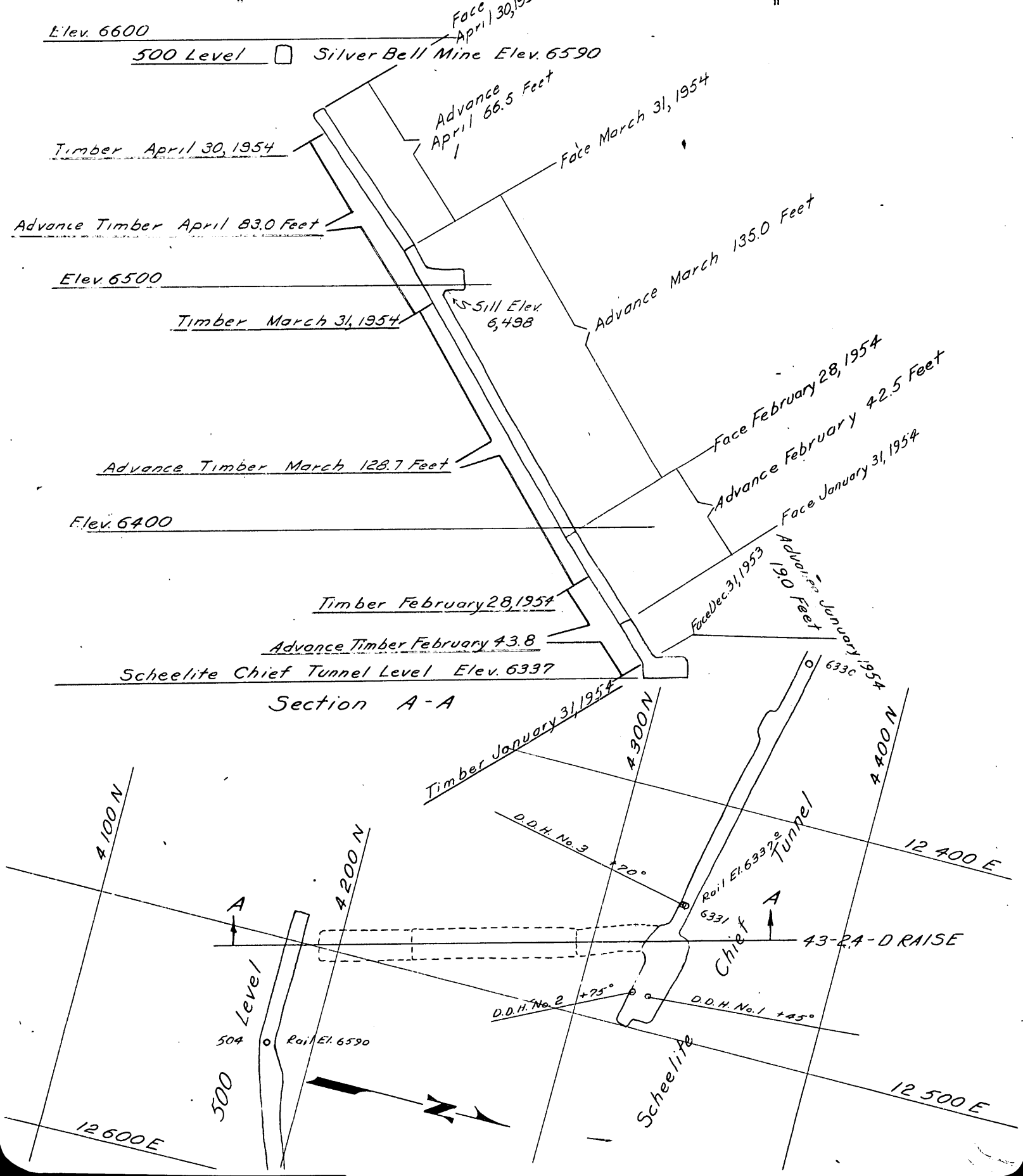
February 9, 1954

MADE BY O. E. Schrader

TRACED BY

CHECKED BY

SCALE 1" = 50'



A -1[illegible]

REFERENCES

COM[illegible]ED METALS REDUCTION CO.

[illegible] No. 8

Objective [illegible] and 5

May 1[illegible], 19 54

MADE BY Schrader

TRACED BY

CHECKED BY [illegible]

SCALE 1" = [illegible]'

Coordinates: [illegible]

[illegible]

Collar [illegible]:

Started: [illegible]

Finished: [illegible]

Drillers: Fullerton

[illegible]

Inclination: [illegible] / [illegible] inches

[illegible]

- [illegible] [illegible].

[illegible] - [illegible] [illegible] limestone.

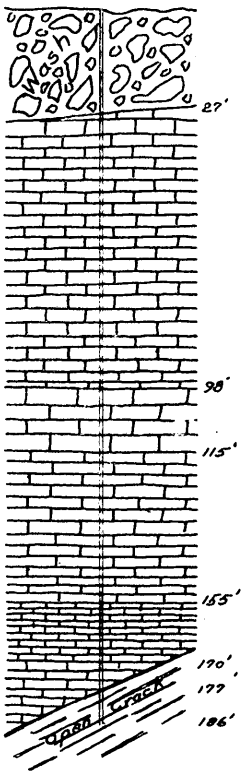
[illegible] - 11 [illegible] limestone. Little [illegible] [illegible].

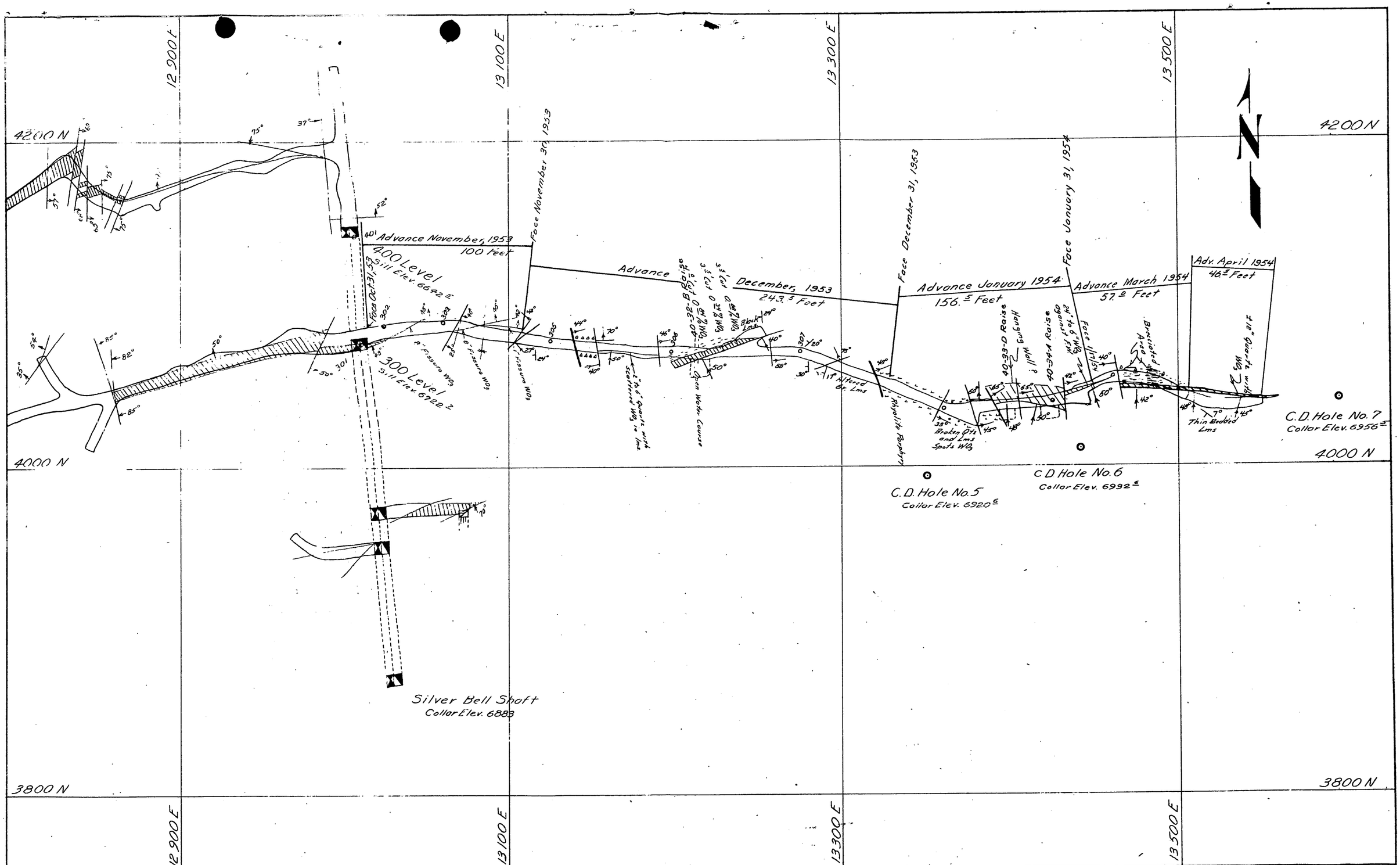
11 - [illegible] [illegible] limestone.

[illegible] - 17 [illegible] limestone [illegible] [illegible] this [illegible] [illegible].

17 - 177 [illegible] limestone [illegible] [illegible].

177 - [illegible] [illegible]. [illegible] [illegible] [illegible].





REFERENCES	REVISIONS	WORK		
D-1219, A-1617, A-1618, A-1622		DRAWN O.E. Schroder	12-8-53	COMBINED METALS REDUCTION CO.
Docket No. DMEA 2688		TRACED		SALT LAKE CITY, UTAH
Contract No. IDM-E 481		CHECKED R.H. Godbe	12-8-53	
		APPROVED		

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B-873

SALT LAKE BLUE 1000H

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 [illegible]arch, 1954 Docket No. DMEA 2[illegible]00 Contract No. [illegible] 401
Operator's Name [illegible] Mine Company Minerals [illegible]ngton
Address 210 [illegible] Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $[illegible]20,550.00

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 Contractors:						
Short Form [illegible] Diamond		2,[illegible]84.77	2,[illegible]84.77			
Drilling [illegible] Chum		8,700.00	8,700.00			
Bulldozing [illegible]		1,000.00	1,000.00			
Conducting [illegible]		2,300.00	2,300.00			
Drifting	1,210.00	32,910.00	34,120.00			
[illegible] air [illegible]	4,165.00	2,200.65	6,365.65			
Water [illegible]		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor 1/2 [illegible]man	159.95	938.02	1,097.97			
Supervision	500.00	4,960.00	5,460.00			
Technical Services		1,120.00	1,120.00			
Bookkeeping	150.00	1,775.00	1,925.00			
(3) Operating Materials and Supplies:						
Timber [illegible]	830.12	672.84	1,502.96			
Explosives		46.54	46.54			
Pipe		1,036.56	1,036.56			
Track		4,995.00	4,995.00			
[illegible] Fuel	936.93	3,206.32	4,143.25			
Vent Tubing	166.23	1,612.19	1,778.42			
Misc. Supplies	1,976.79	4,106.64	6,083.43			
(4) Operating Equipment:						
Rental [illegible]		845.12	845.12			
Purchase [illegible]	177.00	900.00	1,077.00			
Depreciation	933.70	2,059.92	2,993.70			
(5) Initial Rehabilitation and Repairs		2,000.95	2,000.95			
(6) New Bldgs., Improvements, etc.		3,315.06	3,315.06			
(7) Miscellaneous: [illegible] Mint. Labor	420.[illegible]	3,731.61	4,152.69			
Repairs to Equipment	15.34	571.83	587.17			
Sampling and Analysis	30.51	206.85	245.36			
Payroll Taxes	53.33	575.53	628.86			
Liability Insurance	225.93	2,937.40	3,163.33			
[illegible] Bond	600.00	1,600.00	2,200.00			
[illegible] Maint.-Inter						
(8) Contingencies (specify):						
[illegible] Supplies						
[illegible]ctor	871.24	2,567.21	3,438.35			
[illegible] Mfg. Corp.		25.01	25.01			
TOTALS	11,850.39	100,675.99	112,526.38			

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

Date [illegible]-54 *Payee [illegible] Mine Company

By [illegible] Title Operator

*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:

$ 8887.79

Signature
(Authorized Certifying Officer)

Date JUN 2 1954 Vou. No. SF-DMEA-43

(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-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Region III Date May 7, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. G. Miller Title DMEA Field Team Executive Officer Region III Date May 11, 1954

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.

ACCOUNTS MAY 12 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of [illegible] 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

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	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core	[illegible]			[illegible]	[illegible]	[illegible]		
Churn	[illegible]			[illegible]	[illegible]	[illegible]		
Auger								
[illegible]		[illegible]		[illegible]				
Stripping		[illegible]		[illegible]				
Trenching		[illegible]		[illegible]				
Test Pits		[illegible]		[illegible]				
Roads and Trails		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
Total Distributed Costs							Total Costs Authorized by Contract	
[illegible]		[illegible]		[illegible]				
Operating Equipment Purchased				[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
Total Costs		[illegible]		[illegible]				

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 [illegible] Operator [illegible]

Per [signature] Title [illegible]

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

Minerva Tungsten Property - Narrative - March, 1954

April 15, 1954

Paul Gemmill, General Supt. Nevada Mines

R. N. Cadbe

Docket No. 2658
Contract No. 1DM-L 491

Dear Paul:

During the month of March, progress under the Exploration Project Contract with Defense Minerals Exploration Administration was as follows:

Scheelite Chief Mine

The main raise (43-24D) was advanced 135.0 feet during the month for a total advance of 196.5 feet. Timber advance in the raise was 128.7 feet for a total advance of 172.5 feet. On March 29 excavation work was started in the hanging wall of the raise to cut a station. This work afterward exposed the quartz-scheelite bearing fissure in the station proper. A quartz width of 5.5 feet is exposed along the easterly wall and low grade scheelite mineralization is present in this area. The sill elevation of the station is at 6,498 feet, or approximately 92 feet below the 5th level of the Silver Bell Mine. In accordance with the prior agreement with the Defense Minerals Exploration Administration, the cost of stations are being carried by the M.I.A. Mines Company.

Work continued during the month in the ore located by diamond drilling above the sub-level and in the area defined in the exploration project as Objective Area 1. Development work during the month has proven the fissure to average approximately 4.5 to 5.0 feet in width in the productive ore horizon. Excellent assays have been consistently obtained from car samples taken from mined ore. Production during March totaled 154 (16 cubic ft.) cars having a weighted average assay of 2.167% WO_3.

Silver Bell Mine

Work resumed on March 1 in advancing the 300 level drift to the east. A total of 57.0 feet drift progress was made during the month on a one shift basis. A very brecciated quartz - limestone zone was penetrated and two rounds in this area exposed excellent sheelite

mineralization on all walls. One round here assayed 0.87% WO_3, and the next round assayed 1.18% WO_3. Additional rounds showed a marked decrease in mineralization; however the production totaled 107 (20 cubic ft.) cars having a weighted average assay of 0.597% WO_3. The fissure narrowed to approximately one foot toward the end of the month, and broken rock was being taken for waste due to dilution.

Churn Drilling.

Minerva C.D.H. #8, located between C.D.H. #3 and #4, was advanced to a depth of 140 feet during March. Repeated motor trouble greatly hindered progress. The calculated position of the hanging wall of the fissure is at a depth of 157 feet. Coordination of the holes are as follows: No 4,270.5 E. 12,048.2 and the collar elevation is 6,733 feet. This hole is being carried on N.I.A. Mines Co. account.

Distribution of costs for March, as shown on the Operator's Monthly Report and Voucher, follows:

Independent Contracts

Stage I

Raise Advance - 135 feet @ $31.00	$ 4,185.00	

Stage II

Drift Advance - 57 feet @ $30.00	1,710.00	
		$ 5,895.00

Labor and Supervision

Supervision	500.00	
Foreman (½ D. Detson time)	159.95	
Bookkeeping	150.00	
		$ 809.95

Operating Materials and Supplies - Stage I

Diesel Fuel	$ 396.24	
Raise timber - 128.7 feet @ $6.45	830.12	
Oils, Greases, etc.	18.69	
Tools and Misc.	204.24	
Pipe fittings	5.10	
12" vent line	168.00	
Electric cable	1,489.50	
Sample sacks	7.54	
		3,119.43

Stage II

Diesel Fuel	$ 40.39		
Gasoline	69.72		
Nail, Spikes, Belts			39.75
		$ 110.11	
			$ 3,229.54

Operating Equipment

Stage I

100 KW Generator	$ 85.91		
G.M.C. Compressor	119.00		
15 KW Generator	40.00		
2 - 5 H.P. Fans	12.00		
Battery Trammer	113.00		
10 Mine Cars	20.00		
Water Pressure Tank	5.00		
	$ 394.91		
DMEA @ 59%		$ 233.00	

Stage II

Surface equipment	$ 300.00		
Gasoline Hoist	20.00		
Joy Compressor	125.65		
Gasoline driven fan	14.17		
Water pressure tank	5.00		
3 Mine cars	6.00		
	$ 470.82		
DMEA @ 59%		$ 277.78	
			$ 510.78

Rehabilitation and Repairs

None

New Buildings, Improvements, Installations

None

Miscellaneous

Supplying water	$ 244.71
Repair parts	63.99
Maintenance Labor	356.89
Assaying @ 39%	15.34
Road Maintenance	400.00

Pickup Trucks				
#46 -	1,440 miles			
#22 -	480 miles			
#20 -	160 miles			
#44 -	320 miles			
#53 -	800 miles			
J. Hulse -	678 miles			
	3,878 miles	@ $.09 = 59%	$ 203.92	
Haulage Supplies				
#18 Truck - 320 miles		@ $.14 = 59%	26.43	
Payroll Taxes			38.51	
Liability Insurance			53.33	
				$ 1,425.12
		TOTALS		$11,880.39 $9.75

Very truly yours,

R. H. Godbe

R. H. Godbe

Check with Chamber
after next 104 received
3-30-54
and see if Operator's [illegible]
are [illegible] [illegible] allowed
under contract —
see footnote 4 to contract

4-15-54
Code OK [illegible]
supervision high with
small progress.

A - 1632

REFERENCES

C: 1112 , A-1621

COMBINED METALS REDUCTION CO.

M.I.A. Mines

PLAN and SECTION 43-24-D RAISE

Docket No. DMEA 2688 Contract No. IDM-E-481

Minerva Tungsten Property

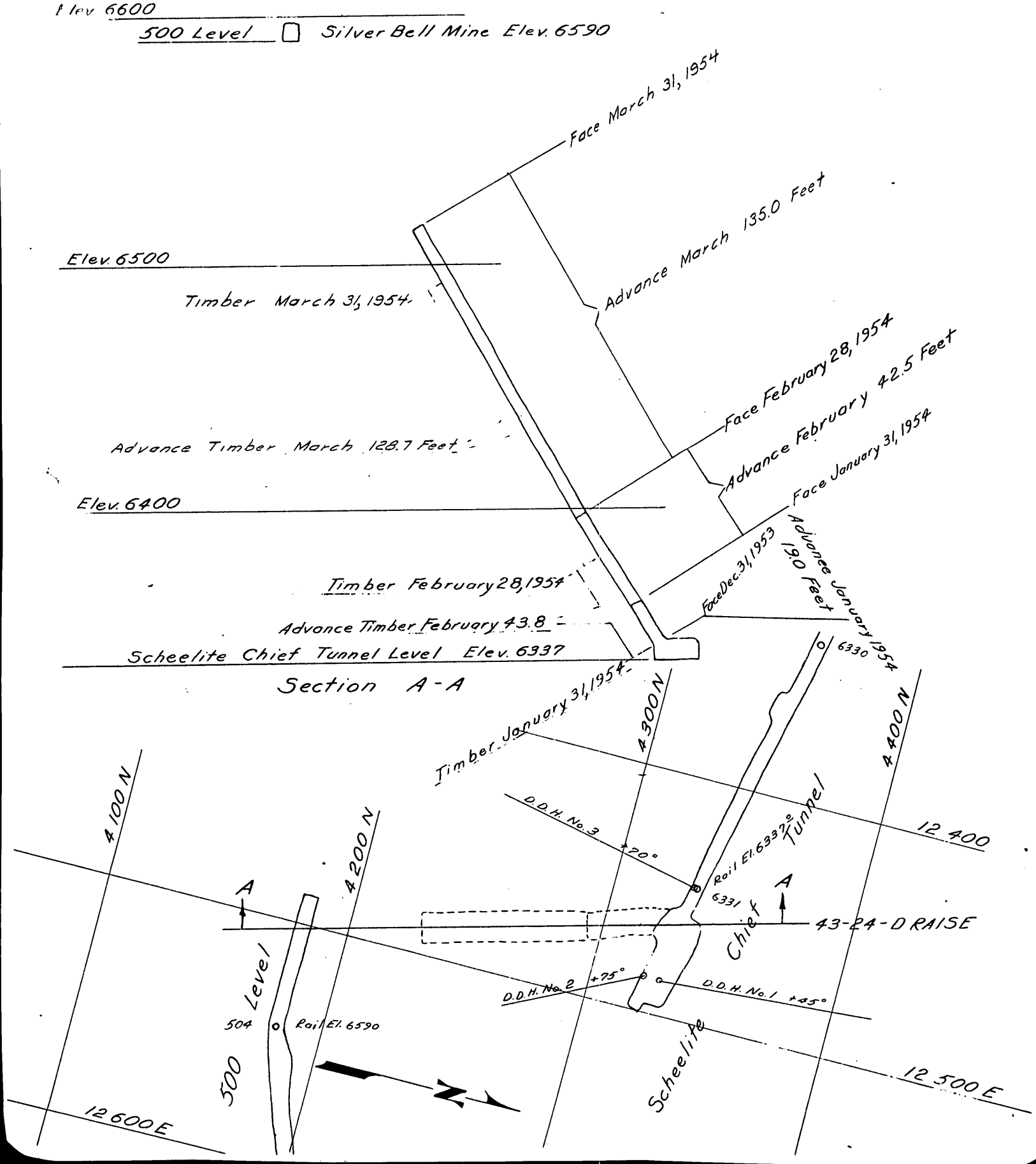
February 9, 1954

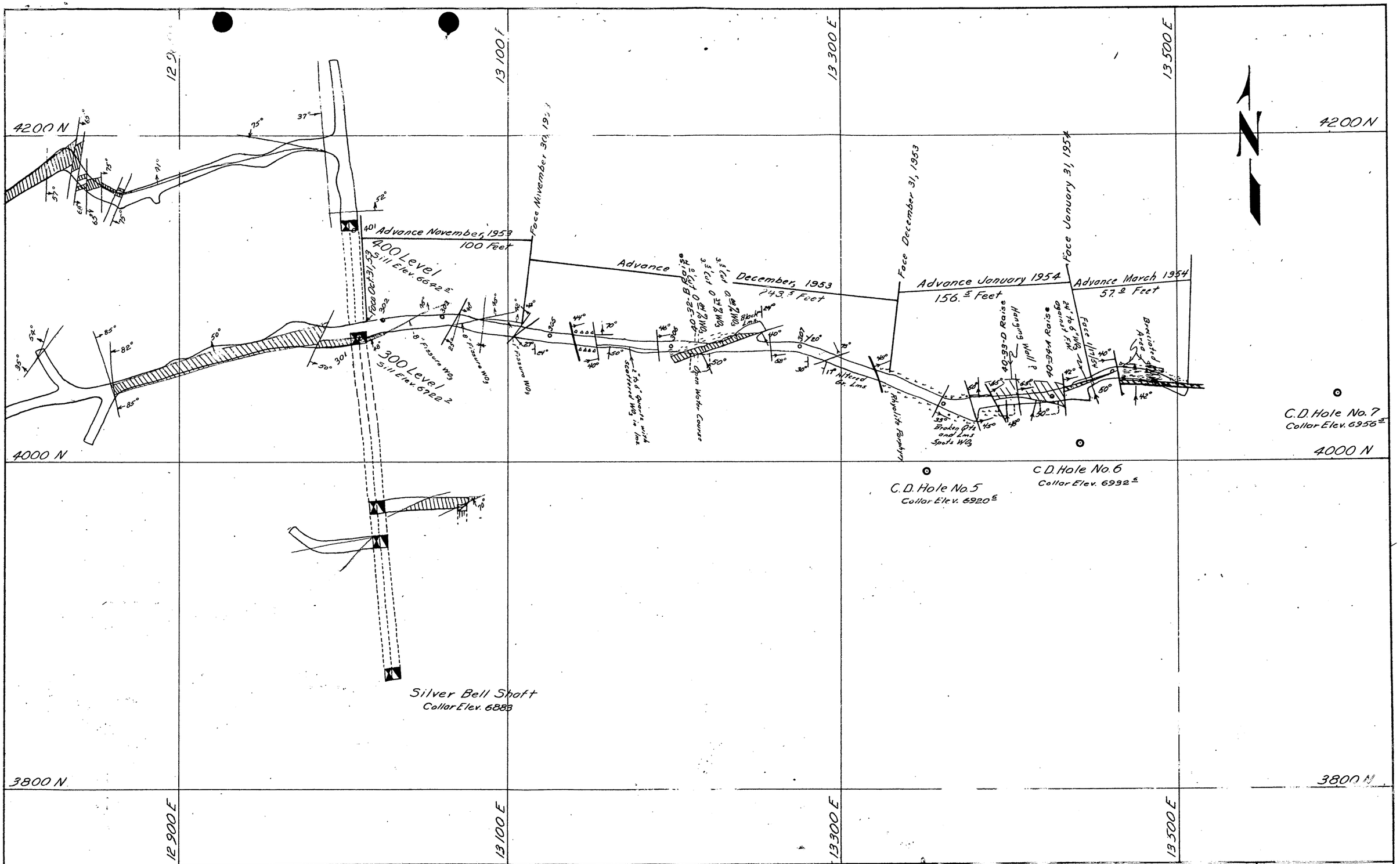
MADE BY O. E. Schroder

TRACED BY

CHECKED BY

SCALE 1" = 50'





REFERENCES		REVISIONS	WORK			
D-1219, A-1617, A-1618, A-1622			DRAWN O.E. Schrader	12-8-53	COMBINED METALS REDUCTION CO.	M.I.A MINES CO.
Docket No. DMEA 2688			TRACED		SALT LAKE CITY, UTAH	MINERVA TUNGSTEN PROP.
Contract No. IDM-E 481			CHECKED R.H. Godbe	12-8-53		SILVER BELL MINE
			APPROVED			

SCALE 1" = 50

B-873

SALT LAKE BLUE 1000H

400

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

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

April 9, 1954

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Operators' Monthly Progress Reports - Forms IF-104 and 104A

Enclosed herewith are two copies of each of the subject reports received from the following operators as listed below. These reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E323 DMA-861X	Northfield Mines, Inc.	Nov. 12, 1953 (Final)	October 1953
Idm-E481 DMA-2680	M. I. A. Mines Co.	March 25, 1954	February 1954

S. Ricker for
H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to: Roscoe Smith, USGS

4-13-54
Mrs Curtis says they have no
lease 861-X - The avails reverse
[illegible]

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 [illegible] 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]
Contract Amount, $ [illegible] Government Participation: 75 % Amount, $ [illegible]

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: [illegible]		[illegible]	[illegible]			
Drilling		[illegible]	[illegible]			
Bulldozing		[illegible]	[illegible]			
Crosscutting		[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
(2) Labor and Supervision: [illegible]	[illegible]	[illegible]	[illegible]			
Labor	[illegible]	[illegible]	[illegible]			
Supervision		[illegible]	[illegible]			
Technical Services	[illegible]	[illegible]	[illegible]			
(3) Operating Materials and Supplies:	[illegible]	[illegible]	[illegible]			
Timber	[illegible]	[illegible]	[illegible]			
Explosives	[illegible]	[illegible]	[illegible]			
Pipe		[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
(4) Operating Equipment: [illegible]		[illegible]	[illegible]			
Rental		[illegible]	[illegible]			
Purchase	[illegible]	[illegible]	[illegible]			
Depreciation		[illegible]	[illegible]			
(5) Initial Rehabilitation and Repairs		[illegible]	[illegible]			
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous: [illegible]	[illegible]	[illegible]	[illegible]			
Repairs to Equipment	[illegible]	[illegible]	[illegible]			
Sampling and Analysis	[illegible]	[illegible]	[illegible]			
Payroll Taxes	[illegible]	[illegible]	[illegible]			
Liability Insurance	[illegible]	[illegible]	[illegible]			
(8) Contingencies (specify) [illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]		[illegible]	[illegible]			
	[illegible]	[illegible]	[illegible]			
TOTALS						

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

Date ..... *Payee .....

Per [illegible] Title 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:

$ 3106 94

Signature .....
(Authorized Certifying Officer)

Date APR 8 1954 Vou. No. SF-DMEA-36

(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-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Date April 2, 1954
A. C. Johnson Region III

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Date April 5, 1954
H. C. Miller Region III

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 [illegible] 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

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	[illegible]			[illegible]	[illegible]	[illegible]		
Crosscutting								
Raising	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
Shafts								
Winzes								
Drilling: Core				[illegible]	[illegible]	[illegible]		
Churn				[illegible]	[illegible]	[illegible]		
Auger								
Stripping		[illegible]		[illegible]				
Trenching		[illegible]		[illegible]				
Test Pits		[illegible]		[illegible]				
Roads and Trails		[illegible]		[illegible]				
[illegible]		[illegible]		[illegible]				
TOTAL DISTRIBUTED COSTS								TOTAL COSTS AUTHORIZED BY CONTRACT
[illegible]		[illegible]		[illegible]				
Operating Equipment Purchased				[illegible]				
Initial Rehabilitation and Repairs				[illegible]				
New Buildings, Improvements, etc.				[illegible]				
[illegible]		[illegible]		[illegible]				
TOTAL COSTS		[illegible]		[illegible]				

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 [illegible] Operator [illegible]

Per [illegible] Title [illegible]

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

Minerva Tungsten Property - Narrative - February, 1954

March 9, 1954

Paul Gemmill, General Supt. Nevada Mines

R. M. Goebe

Docket No. 2688
Contract No. IDM-E 481

Dear Paul:

During the month of February, progress under the Exploration Project Contract with the Defense Minerals Administration was as follows:

Scheelite Chief Mine

Core drilling operations were discontinued on February 7 on completion of Minerva DDH #9 at a depth of 222.5 feet. The predetermined fissure location was at a projected position of approximately 175 feet. Limestone was penetrated throughout and a zone heavily mottled with calcite (170.9 to 175.5 feet) was interpreted as the "possible" fissure area. No scheelite was noted under mineral lamp investigation of the core. A log of the hole is appended.

The main raise (43-24D) was advanced 42.5 feet during the month for a total advance of 61.5 feet. Timber advance in the raise totaled 43.8 feet. Progress is shown on map A-1632, and a timber sketch complete with derivation of cost per linear foot of raise timber is included on map A-1633.

During the month an inclined raise entry (44-16S) was driven on the sub-level to the ore located in the fissure by diamond drilling. The position of this work is shown on map A-1614 appended. A total of 41 cars (16 cubic ft.) were taken for ore and gave a weighted average assay of 0.565% WO_3. This ore carried considerable dilution in exposing the ore face. A mineable width of about four feet of excellent grade ore was exposed by this work and chute, manway, and requisite track installation with mine car were installed during the early part of March. This work is being carried forward on M.I.A. Mines Co. account.

Silver Bell Mine

Work at the Silver Bell mine was confined to establishing raise entries into the ore that was previously undercut in advancing the 300 level east drift. Map B-873 has been included to show the position of these raises.

A total of 48 cars giving a weighted average assay of 0.573% WO_3 was mined from 40-32B raise. The vein here is approximately 4.5 feet thick as exposed along the easterly wall of the raise. The vein tends to split into two seams to the west with a horse of limestone between. This limestone is about three feet thick as shown along the westerly wall of the raise.

The next raise entry, 40-33B, showed the ore thickness here to be narrow (approx. 2.5 feet), and this factor coupled with irregular tongues of porphyry caused much dilution. A total of 45 cars assayed only 0.06% WO_3. This work was stopped in favor of a 40-34A raise entry located about 25 feet easterly along the drift. The latter produced 51 cars assaying 0.921% WO_3.

Total Production from the Silver Bell Mine to March 1, 1954 follows:

Class	Location	Cars (20 cu. ft.)	% WO_3
I	41-27D stope	189	0.767
II	40-29B	134	0.170
II	Surface Stockpile	236	0.074

All work undertaken at the Silver Bell Mine during the month of Feb. was for the account of M.I.A. Mines Co. drifting operations to the east on the 300 level were resumed on March 1.

Churn Drilling

Request for amendments to the contract covering modification fo work items was initiated by letter dated January 21, 1954. Under Proposal B, a 500 feet drift was requested to be driven westerly to Objective Areas 2 and 3 at a position in elevation below the favorable mineralization located in Minerva CBM #3 and possible at a position in elevation below the 5th level of the Silver Bell Mine. Minerva CBM #8, located on line and equal distance between Minerva CBM #3 and #4, was collared on February 13 to explore for favorable mineralization on the fissure at a lower elevation than defined by Minerva CBM #3. This hole was at a depth of 105 feet and in limestone at the end of February. The January 21 letter requested modification of remaining churn drill footage to drift and for raise footage equivalent, and for this reason the cost of Minerva CBM #8 is being carried by M.I.A. Mines Co.

Proration of Costs

Until the month of February, 1954, work at the property was confined to exploration under contract with the Defense Minerals Exploration Administration. Page 11 of the contract states as follows:

"The Operator may elect to carry on simultaneously with the exploration work, development and production operations. In this event, the exploration work shall be carried on, as far as practicable, with equipment, materials, crews, and supervision separate and distinct from any other operations of the operator, in order to avoid confusing the costs under this contract with any other costs. However, to the extent economically practicable, equipment (such as compressor and hoist), incidental labor, and supervision used in development and production operations may be used also for exploration and the direct costs arising out of such use prorated between the operations, but the basis of such proration shall at all times be subject to the approval of the Government, and the costs resulting to the exploration project from such proration will be disallowed by the Government to the extent disapproved by the Government."

The following basis has been established for apportioning costs in accordance with the above:

1. A man-shift basis for company and DMEA operations; exclusive of maintenance labor, as carefully tabulated for all work at the property will be used in deriving a factor for apportionment of complimentary cost items.

2. Operating materials and supplies will be charged directly to company or DMEA operations in so far as practicable. Fuel requirements for generators, compressors, and hoist will be apportioned in accordance with the man-shift factor.

3. Supervision and engineering will be charged to the DMEA project on the basis of $500.00 per month. Present operations demand the services of a supervising engineer, foreman, and an engineer (part time). ?

4. Topman-mechanic labor will be charged to the DMEA project on the basis that prior operations have dictated full use of one man in this capacity in carrying forward the work under the exploration project. ?

5. Bookkeeper - clerk, part time, will be charged as at present on the basis of $150.00 per month. This is justified on the basis of work load requirements in this category.

Distribution of costs for February, as shown on the Operator's Monthly Report and Voucher, Follow:

Independent Contracts

	Stage I		Overage
Raise Advance - 42.5 feet @ $31.00		$ 1,317.50	

Labor and Supervision

Supervision	$ 500.00		
Teman (½ B.Detson Time)	138.14		
Bookkeeping	150.00		
		$ 788.14	

Operating Materials and Supplies

	Stage I		
Diesel Fuel - credit as per invoice	(184.80)		
Raise timber - 43.8 feet @ $6.45	282.51		
Rail, spikes, bolts			$ 114.45
12" vent tubing (300 ft.)	286.50		
Electric switchs	26.86		
Electric cable	52.50		
2" pipe (173 ft.)	111.93		
1" pipe (105 ft.)	13.23		
Tools and misc.	35.84		
		$ 636.57	

Operating Equipment

	Stage I		
100 KW Generator	$ 85.91		
G.M.C. Compressor	119.00		
15 KW Generator	40.00		
2 - 5 HP Fans	12.00		
Battery Trammer	113.00		
10 Mine Cars	20.00		
Water Pressure Tank	5.00		
	$ 394.91		
EMMA @ 36% 04		$ 142.17	

Rehabilitation and Repairs

None

New Buildings, Improvements, Installations

None

Miscellaneous		
Supplying Water		$ 244.71
Repair Parts		79.04
Maintenance Labor		338.68
Assaying @ 36%		14.40
Road Maintenance - Winter		400.00
Pickup Trucks		
#46 - 1,440 miles		
#38 - 168 miles		
#44 - 640 miles		
J.Mulse - 456 miles		
2,696 miles @ $.09 @ 36%		87.35
Haulage Supplies		
#35 Truck - 320 miles @ $.14 @ 36%		16.13
Payroll Taxes		36.86
Liability Insurance		51.04
	$ 1,258.71	
	$ 4,142.59	$ 114.45

Very truly yours,

R. H. Godbe

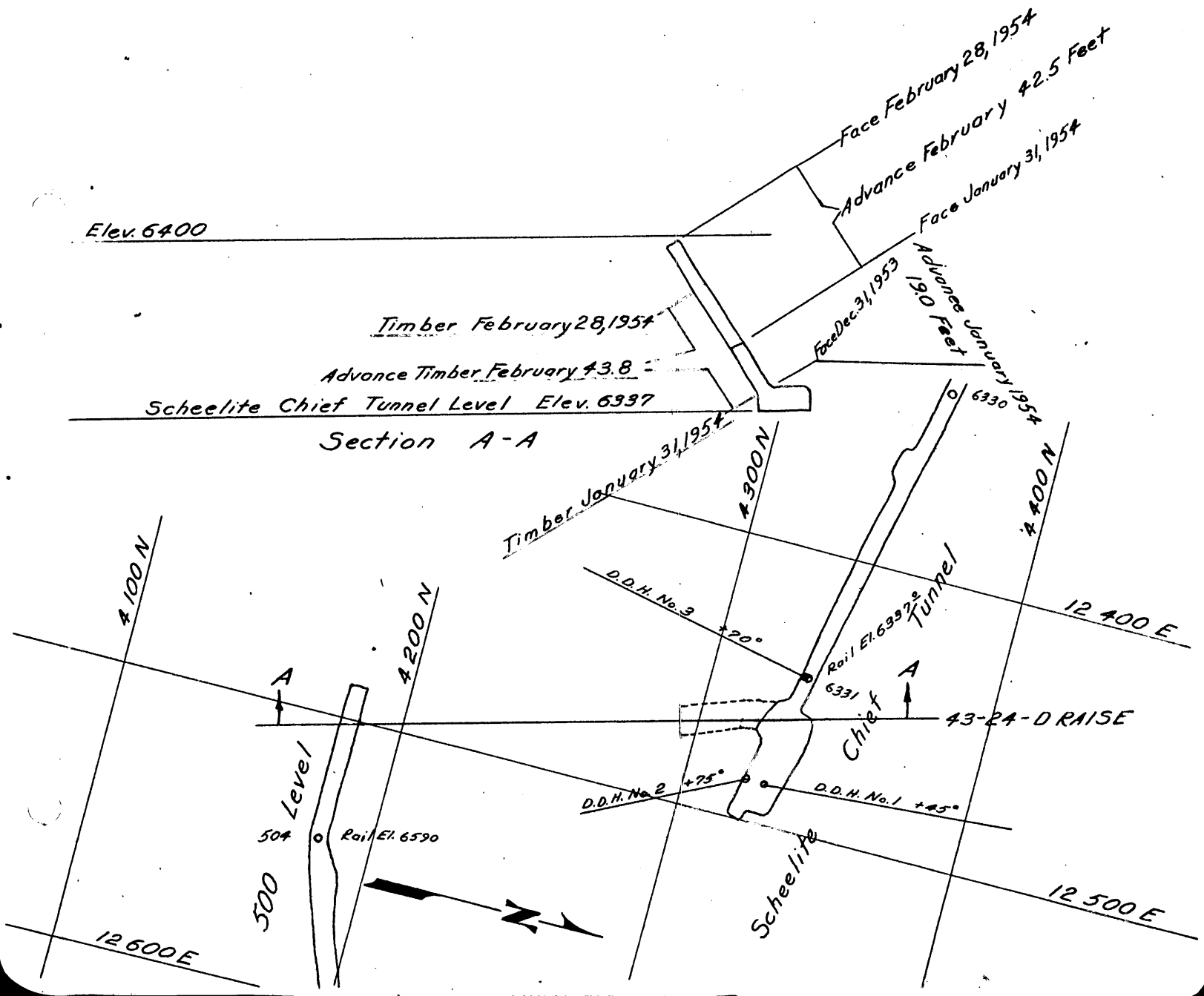
#17.47
/jt

A 1632

REFERENCES
C-1112, A-1621

COMBINED METALS REDUCTION CO.
M.I.A. Mines
PLAN and SECTION 43-24-D RAISE
Docket No. DMEA 2688 Contract No. IDM-E-481
Minerva Tungsten Property

February 9, 1954
MADE BY O. E. Schroder
TRACED BY
CHECKED BY
SCALE 1" = 50'



A - 1631

REFERENCES -1107, -1113

COMBINED METALS REDUCTION CO.

[illegible] No. 9

Project No. [illegible] Contract No. [illegible]

March [illegible], 19[illegible]

MADE BY [illegible]

TRACED BY

CHECKED BY

SCALE 1" = [illegible]

Coordinates: [illegible]

Collar El: [illegible]

Course: [illegible]

Inclination: [illegible]

Depth: [illegible] ft.

Core Recovery: [illegible]

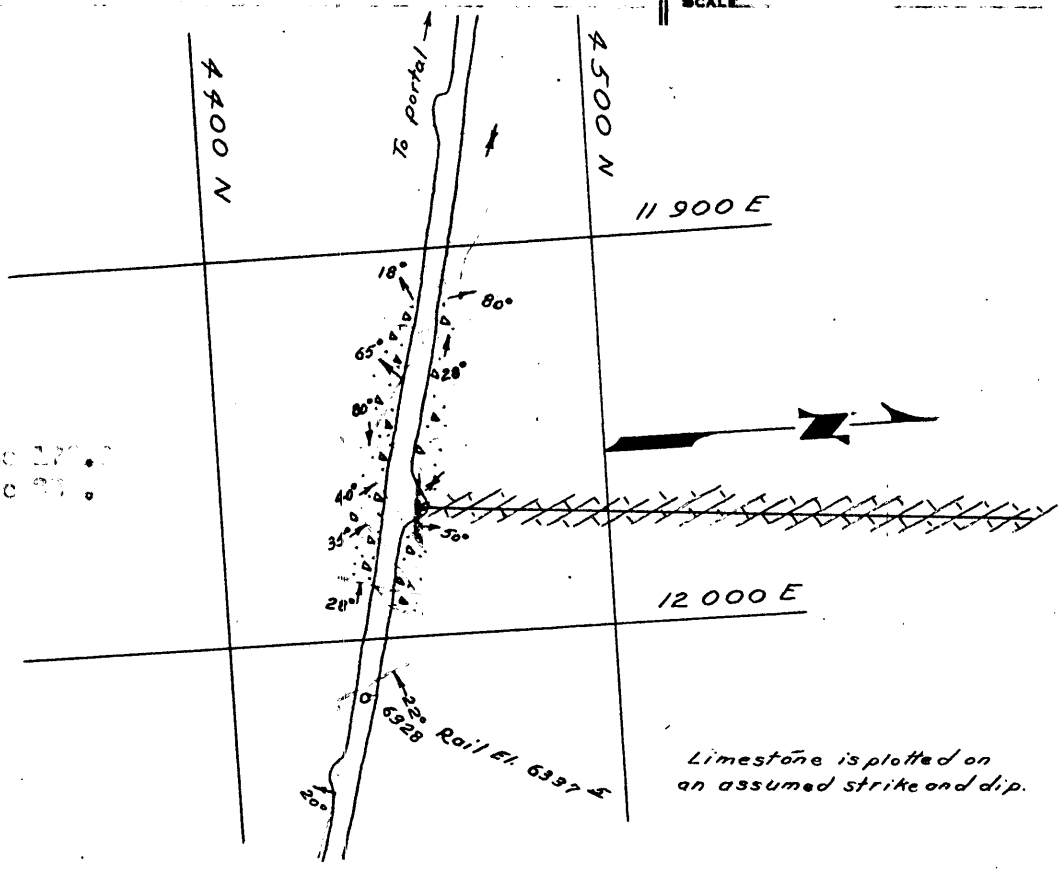
Time of Hole: [illegible]

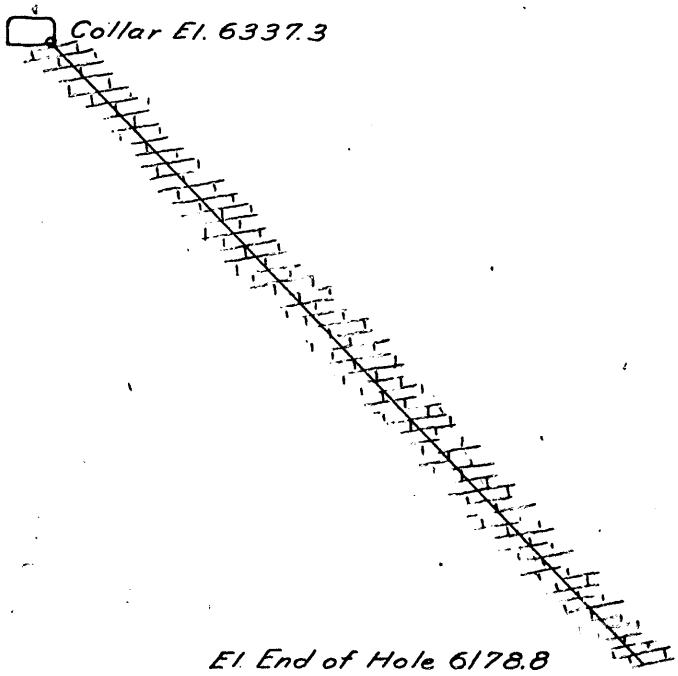
Started: [illegible]

Finished: [illegible]

Driller: [illegible]

Helper: [illegible]





Section Looking N 85° W

[illegible]

0.0 - 1[illegible] [illegible] limestone, brecciated, [illegible] with calcite.

1[illegible] - 1[illegible] Black limestone slightly [illegible] with calcite.

1[illegible] - 1[illegible] Black limestone [illegible] with calcite.

1[illegible] - 1[illegible] Black limestone [illegible], pebbles [illegible] calcite. [illegible] from [illegible], [illegible] Platinum [illegible].

1[illegible] - 1[illegible] [illegible] black [illegible] calcite [illegible] limestone [illegible] limestone.

1[illegible] - 1[illegible] [illegible] limestone.

[illegible] limestone [illegible] in this [illegible] no [illegible] [illegible] [illegible].

A-1633

REFERENCES

COMBINED METALS REDUCTION CO.

Timber Sketch 43-24-D Raise

Derivation of Timber Cost Per Foot

Minerva Tungsten Property

March 3, 1954

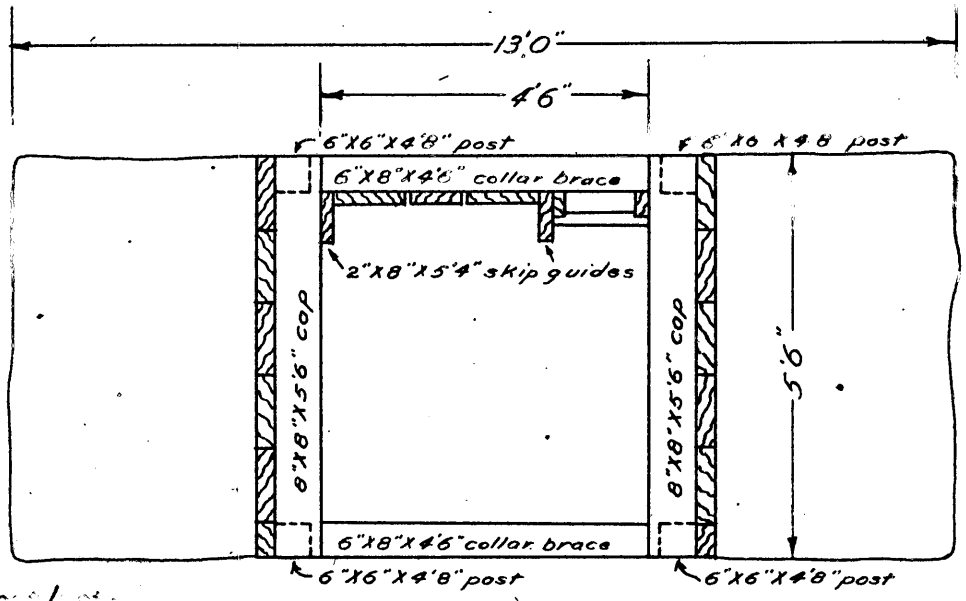
MADE BY O.E. Schrader

TRACED BY

CHECKED BY

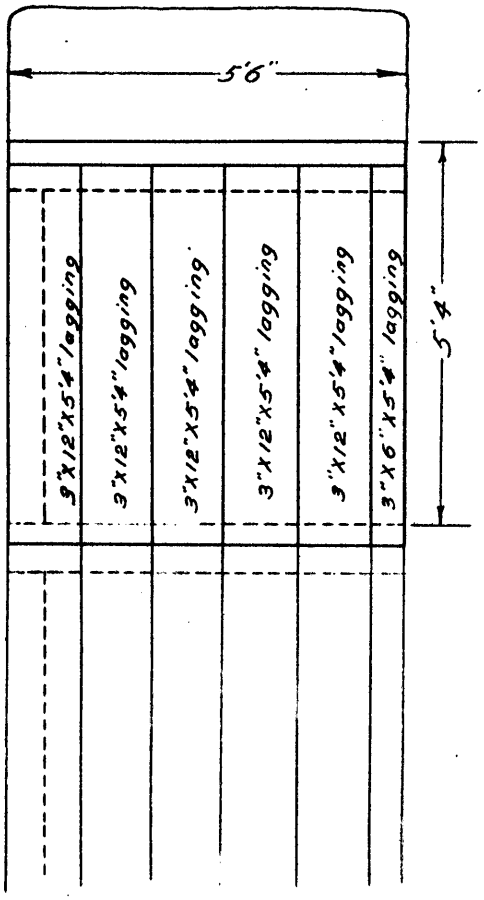
SCALE 3/8" = 1'

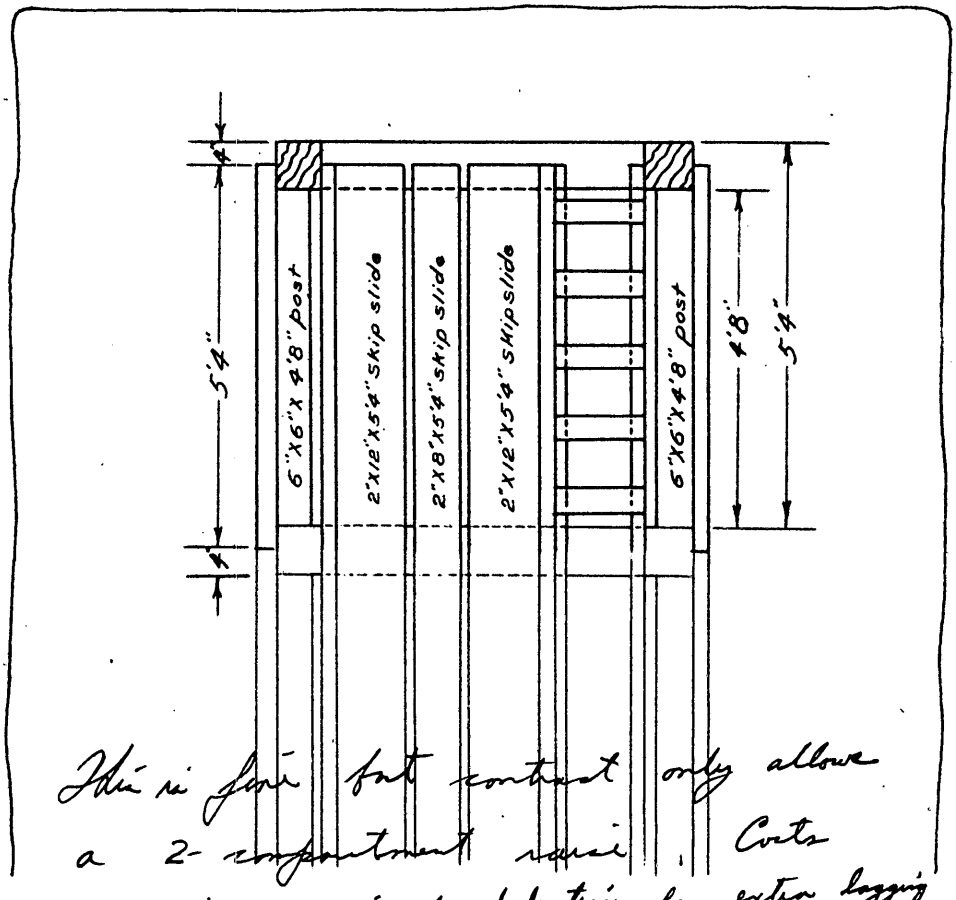
Docket No. DMEA 2688 Contract No. IDM-E-481



[illegible] .17 x 117.00/thousand = [illegible] cost/ft.

$\frac{\$34.[illegible]}{[illegible] \text{ ft. set}}$ = [illegible] cost/linear ft.





This is for fat contract only allows a 2-compartment raise. Costs are OK in view of deduction for extra lagging

A-1614

REFERENCES: C-1107

COMBINED METALS REDUCTION CO.
M. I. A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

SEPT. 18, 1953

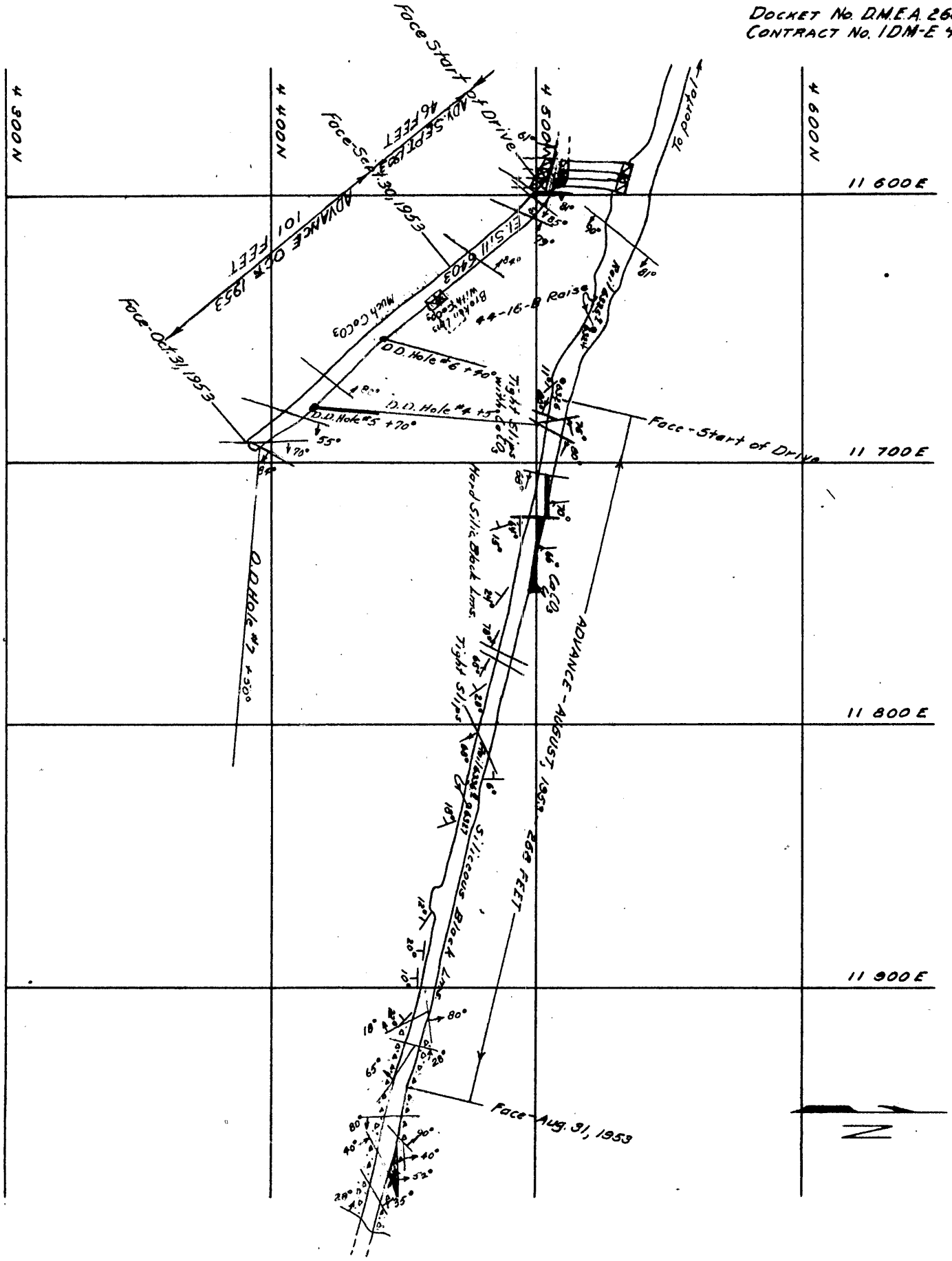
MADE BY: R. H. GODBE

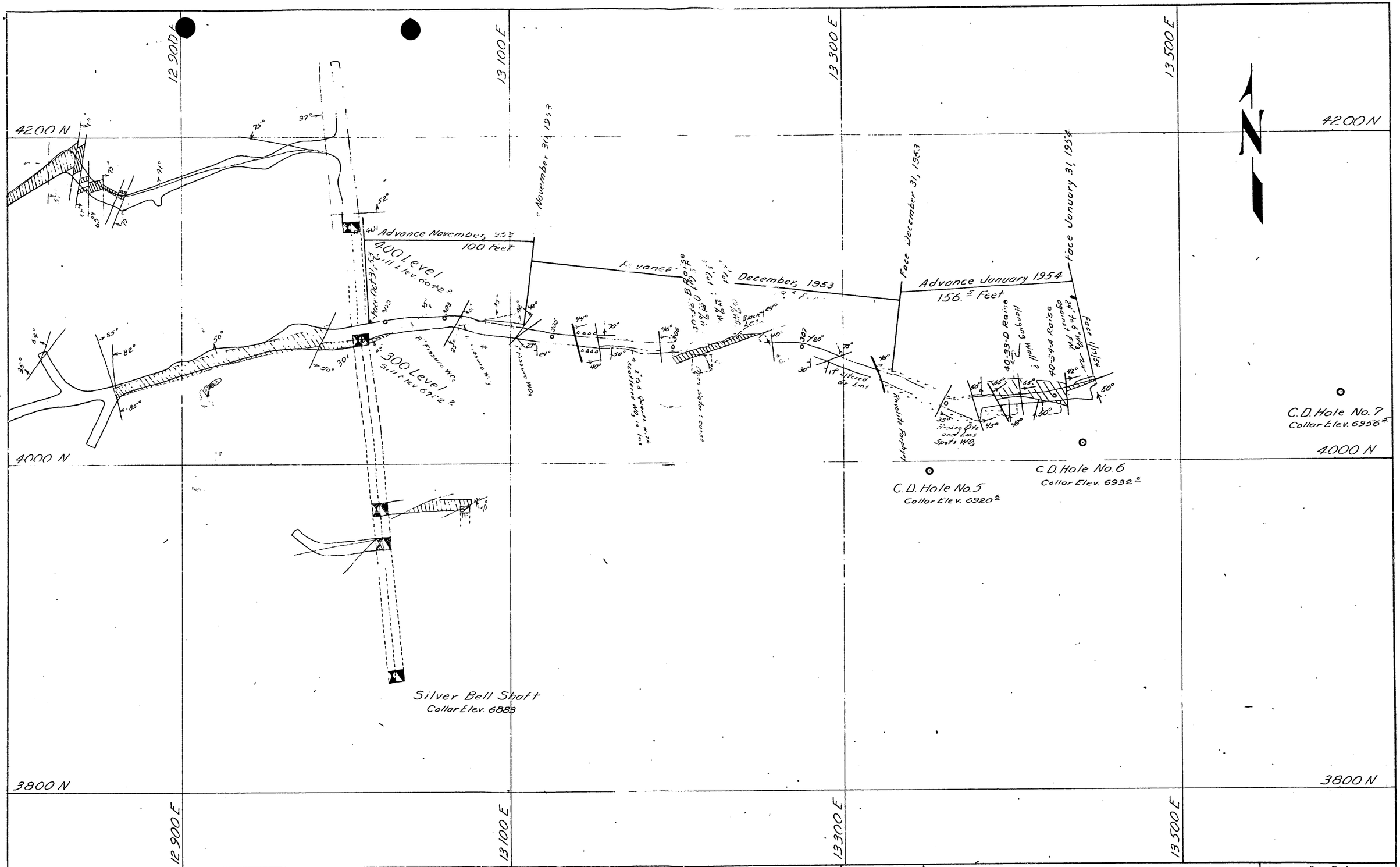
TRACED BY:

CHECKED BY:

SCALE: 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 481





REFERENCES	D-1213, A-1617, A-1618, A-1622	REVISIONS		WORK	DRAWN O.E. Schrader 12-8-53
	Docket No. DMEA 2688				TRACED
	Contract No. IDM-E 481				CHECKED R.H. Godbe 12-8-53
					APPROVED

COMBINED METALS REDUCTION CO.
SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B-873

SALT LAKE BLUE 1000H

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

1012 Flood Building
870 Market Street
San Francisco 2, California

March 16, 1954

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Operators' Monthly Progress Reports - Forms MF-104 and MF-104A

Enclosed herewith are two copies of each of the subject reports received from the following operators as listed below. These reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-2442 DMEA-2257	Walker Corporation	March 1, 1954	February 1954
Idm-2481 DMEA-2688	M. I. A. Mines Co.	Feb. 24, 1954	January 1954
Idm-2620 DMEA-2992	Consolidated Eureka Mining Company	March 5, 1954	February 1954

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to: Roscoe Smith, DMEA

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

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

MAR - 9 1

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of January, 1954 Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals Tungsten
Address 218 Felt Bldg., Salt Lake City, Utah
Contract Amount, $71,400.00 Government Participation 75 % Amount, $53,550.00

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 - Diamond	1,160.47	2,621.50	3,781.97			
Bulldozing - Churn		6,700.00	6,700.00			
[illegible] Golden Belt		1,800.00	1,800.00			
[illegible] Kenny River						
Drifting - [illegible] Pocket		2,300.00	2,300.00			
[illegible]	4,369.00	23,849.00	28,218.00			
[illegible]	883.35	1,625.00	1,629.00			
[illegible] tr. air str. lines						
(2) Labor and Supervision:						
Labor 1/2 [illegible]	152.22	647.66	799.88			
Supervision	650.00	3,790.00	4,440.00			
Technical Services	240.00	950.00	1,190.00			
Bookkeeping	200.00	1,225.00	1,425.00			
(3) Operating Materials and Supplies:						
[illegible]	972.94	2,495.06	3,468.00			
Timber (incl. ties)	16.38	574.05	590.43			
Explosives	46.54		46.54			
Pipe		1,111.40	1,111.40			
Track		4,095.00	4,095.00			
Diesel Fuel	1,131.90	3,079.29	4,211.19			
Vent Tubing	169.20	1,168.47	1,337.67			
Misc. Supplies	481.17	3,532.27	3,953.44			
(4) Operating Equipment:						
Rental - Bulldozer & [illegible]		945.12	945.12			
Purchase - Silver Bell	300.00	600.00	900.00			
Depreciation	415.73	2,301.02	2,716.75			
(5) Initial Rehabilitation and Repairs		2,503.95	2,503.95			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Maint. Labor						
Repairs to Equipment	870.64	2,453.45	3,324.09			
Sampling and Analysis	52.00	505.43	557.43			
Payroll Taxes	61.29	82.70	169.99			
Liability Insurance	112.58	411.90	524.48			
Pick-up Transp.	227.25	1,642.80	1,870.05			
Maint. - Winter	600.00	600.00	1,200.00			
(8) [illegible] Supplies - Winter	311.91	1,994.46	2,306.37			
(9) [illegible] Supplies	3.41	22.40	25.81			
TOTALS	12,033.60	68,649.72	80,533.40			

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

Date 2/28/54 *Payee M.I.A. MINING COMPANY

Per [signature] Title 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:

$ 9662 76

Signature [illegible] H. Stolander
[illegible] Certifying Officer
(Authorized Certifying Officer)

Date MAR 12 1954 Vou. No. SF-DMEA-37

(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-E481 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engineer Date March 4, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date March 5, 1954

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 January 195 4 Docket No. DMEA 2633 Contract No. DMEA 421
Operator's Name U.S.A. Mines Company Minerals Tungsten
Address 220 Post Bldg., Salt Lake City, Utah

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	ft.	6,470.60	156.5	53,099.16	1,492.5	35.59		
Crosscutting								
Raising	ft.	1,056.25	19.0	1,056.25	19.0	97.70		
Shafts								
Winzes								
Drilling: Core		1,556.07	310.8	4,535.27	1,139.3	4.02		
Churn				6,700.00	1,340.0	5.00		
Auger								
Supervision & Tech.		890.00		5,630.00				
Bookkeeping		200.00		1,425.00				
Test Pits								
Sampling & Analysis		52.00		557.43				
Roads and Trails		450.00		1,745.12				
Taxes & Insurance		193.87		694.47				
TOTAL DISTRIBUTED COSTS		11,620.79		76,892.70				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased		725.73		3,616.75				
Initial Rehabilitation and Repairs				8,531.57				
New Buildings, Improvements, etc.				3,315.96				
Prem. Men & Supplies		539.16		4,176.42				
TOTAL COSTS		12,883.68		96,533.40				

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.

REMARKS: Includes operating labor, explosives, and drill steel & bits (on hand).

Date 2/24/54 Operator U.S.A. MINES COMPANY

By [signature] Title Treasurer

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - January, 1954

February 12, 1954

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. 2688
Contract No. [illegible] 481

Dear Paul:

During the month of January, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration as follows:

Scheelite Chief Adit

Core drilling operations were continued throughout the month with a total advance of 310.8 feet.

Minerva DDH #7 was at a depth of 69.0 feet at the end of December. On January 1 the AX holes was cemented and failed to seal a water course. The hole was then cased to 69', reduced to [illegible] and drilled to a bottom depth of 190.6 feet on January 15. The quartz fissure was penetrated between 173.1 and 180.5 feet. Scheelite mineralization occurred in the fissure zone, but assays of the split core were low. A log of the hole complete with assays is appended.

Drilling operations were temporarily suspended after completion of DDH #7 due to illness of the driller. On Jan. 20 the equipment was moved from the sub-level location to the main adit at a position approximately 300 feet from the original face. As described in previous reports, excellent scheelite values were penetrated in this area in advancing the adit. Minerva DDH #8 was aligned on a N55°E course with a zero inclination toward the projection of the fissure to drift elevation. Minor scheelite mineralization continued in the highly brecciated zone for 9.8 feet. This was followed by black limestone with calcite to 53.2 feet. A possible fissure zone with heavy calcite was penetrated from 53.2 to 81.1 feet. No scheelite was noted under a mineral lamp. The hole was bottomed on Jan. 26 in black limestone at a depth of 87.7 feet. A log of this hole is appended.

Minerva DDH #9 was collared on Jan. 27 at the same drill station. This hole was aligned on a due north course and -45° inclination toward the downward projection of the fissure. A water course was encountered at 58 feet and the hole was cased to 62 feet and continued AX. At 101 feet another water course was encountered and an unsuccessful attempts was made to cement it off. On Jan. 31 the AX hole was reamed from 62 to 88 feet and reaming operations continued in early February. Limestone was penetrated throughout with the fissure objective located at a depth of approximately 175 feet.

FORM 25

During January excavation was made for the main raise station near the face of the advanced Chief adit. The raise itself was advanced 19 feet from the chute mouth; and chutes were being installed at the end of the month. In accordance with the agreement with the government, costs of raise stations are being carried in M.I.A. Mines Co. account. A raise section of 5½' x 13' is being advanced on a S15°E course and plus 60° inclination. Map A-1632 has been prepared to show location of and monthly progress of the raise.

Silver Bell Mine

Drifting operations continued on the easterly drive on the 3rd level during the month. Approved drift progress totalled 156.5 feet. The faulted segment of the fissure was successfully located in the hanging wall of rhyolite porphyry filled fault zone area. Excellent scheelite mineralization was obtained in the quartz fissure with widths ranging from two to six feet. Car samples representative of two consecutive rounds in the best area assayed 1.05 and 0.95 WO_3 respectively. The fissure width narrowed to 6" in the face and broken limestone fragments in this area indicate a fault immediately ahead. Projection of the fissure from churn drill hole information shows a fissure offset in the order of 15 to 20 feet to the south to satisfy the position of the fissure at drift elevation in the CBM #6 - CBM #7 block.

On completion of the total drift footage of 500 feet on the 3rd level, a mutual agreement was reached between the Centennial Development Co., contractor, and the M.I.A. Mines Co. for cancellation of the contract agreement covering work at the property. Future work under the Exploration Project Contract will be carried forward by M.I.A. Mines Co. Operations at the Casselton property of the the Combined Metals Reduction Co. are in the process of curtailment, and required crews are being transferred to the Minerva operation.

Distribution of costs for January, as shown on the Operator's Monthly Report and Voucher, follows:

Independent Contracts			Overrun
Stage I			
Diamond Drilling - 310.8 feet @ $3.15	$ 979.02		
Reaming - 26 ft. @ $1.75	45.50		
Cementing and lost time due to lack of air or water	135.95		
		$1,160.47	
Operating Labor (Raising) - C.M.R. Co.		883.35	
Stage II			
Drift Footage 156½ ft. @ $26.00		4,069.00	
			$6,112.82

COMBINED METALS REDUCTION COMPANY

3 Feb. 12, 1954 Paul Gemmill

Labor and Supervision			
Supervision	$ 650.00		
Tapman (½ S.Dotson time)	152.22		
Bookkeeper-Clerk (part time)	200.00		
Engineer (part time)	240.00		
		$	$ 1,242.22
Operating Materials and Supplies			
Stage I			
-Combined Metals Reduction Co.-			
Explosives	$ 46.54		
Diesel Fuel	395.60		
-Centennial Development Co.-			
Drill steel and bits	926.16 ?		
		$1,368.50	
Stage II			
-Combined Metals Reduction Co.-			
Oils, greases, gas, etc.	$ 32[illegible].85		
Ties	16.[illegible]		
12" Vent tubing	165.20		
Diesel fuel	736.00		
Rail, spikes, bolts			$ 4.08
Pipe fittings	.81		
Sample sacks	1.78		
Tools and misc.	41.87		
		$1,318.75	
-Centennial Development Co.-			
Drill steel and bits		66.58 ?	
			$2,753.83
Operating Equipment			
Stage I			
G.M.C. Compressor		$ 119.00	
Stage II			
100Kw Generator	$ 85.91		
15Kw Generator	40.80		
3 Mine Cars	6.00		
Portable Joy Compressor	125.65		
Ventilation Fan	14.17		
Water Pressure Tank	5.00		
Gasoline Driven Hoist	20.00		
Surface Equipment-Silver Bell	300.00		
		$ 596.73	
			$ 715.73

COPY

FORM 25

COMBINED METALS REDUCTION COMPANY

4 Feb. 12, 1954 Paul Demmill

			Overage
Rehabilitation and Repairs			
None			
New Buildings, Improvements, Installations			
None			
Miscellaneous			
Supplying water		$ 244.71	
Repair Parts - U.M.R. Co.		169.12	
Repair Parts - Cont. Dev. Co.		363.65	
Maintenance Labor		337.87	
Assaying		52.00	
Road Maintenance for winter		400.00	
Office & Engineering supplies		3.41	
Pickup Trucks			
#46	1,600 miles		
J. Hulse	445 miles		
#44	480 miles		
	2,525 miles @ 3.09	227.25	
Haulage Supplies			
#18 Truck 480 miles @ $.14		[illegible]	
Payroll taxes		81.[illegible]	
Liability Insurance		113.[illegible]	
			$ 2,039.08
			$12,883.68
			$ 4.08

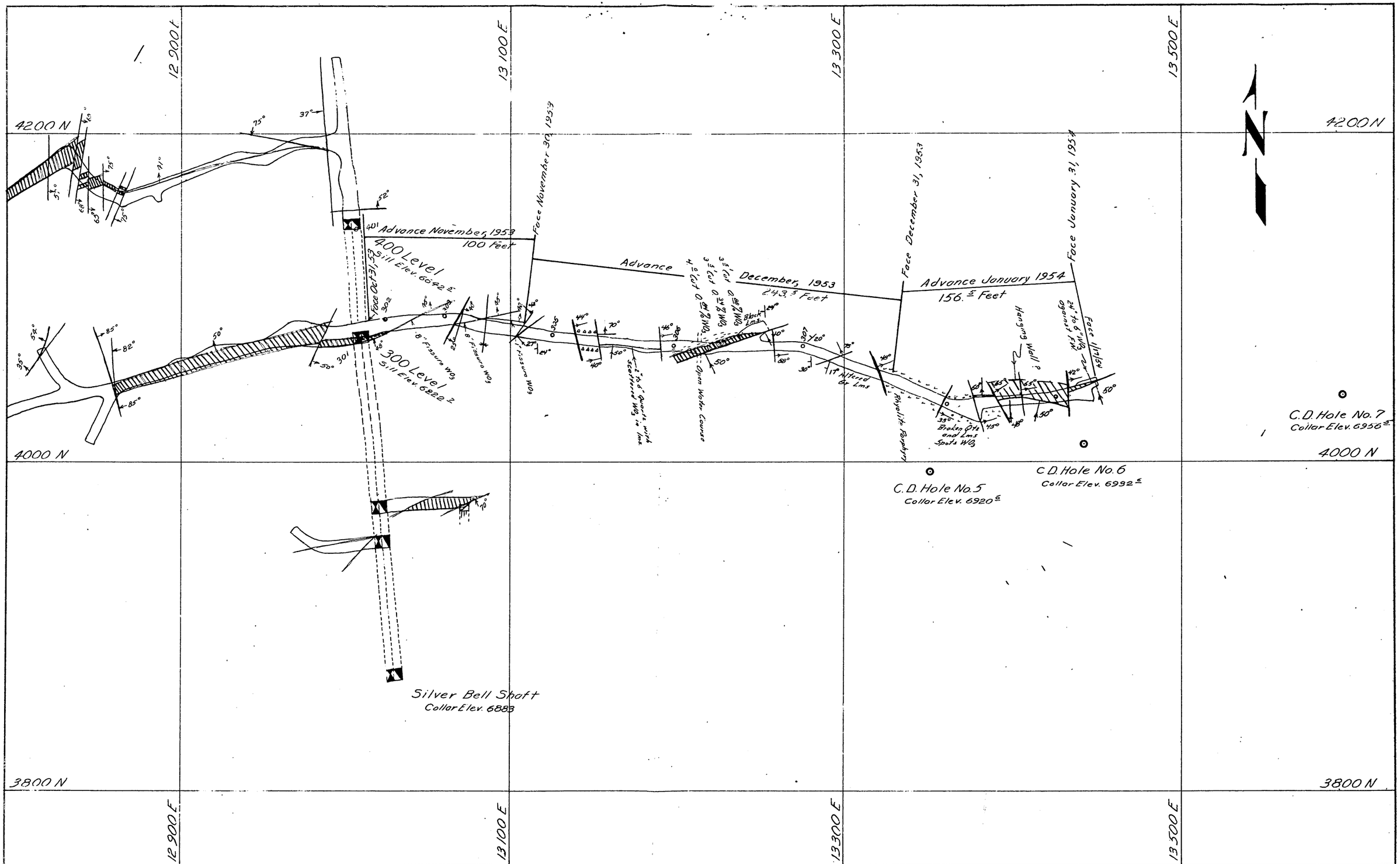
COPY

Very truly yours,

R. H. Godbe

R. H. Godbe

FORM 25



REFERENCES
D-1219, A-1617, A-1618, A-1622
Docket No. DMEA 2688
Contract No. IDM-E 481

REVISIONS

WORK
DRAWN O.E. Schrader 12-8-53
TRACED
CHECKED R.H. Godbe 12-8-53
APPROVED

COMBINED METALS REDUCTION CO.
SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B-873

SALT LAKE CITY, UTAH

A-1618

REFERENCES: C-1107

A-1614

COMBINED METALS REDUCTION CO.

M.I.A. MINES CO.

MINERVA TUNGSTEN PROPERTY

WHITE PINE COUNTY, NEVADA

~SCHEELITE CHIEF MINE~

OCT. 22, 1953

MADE BY R. H. GODBE

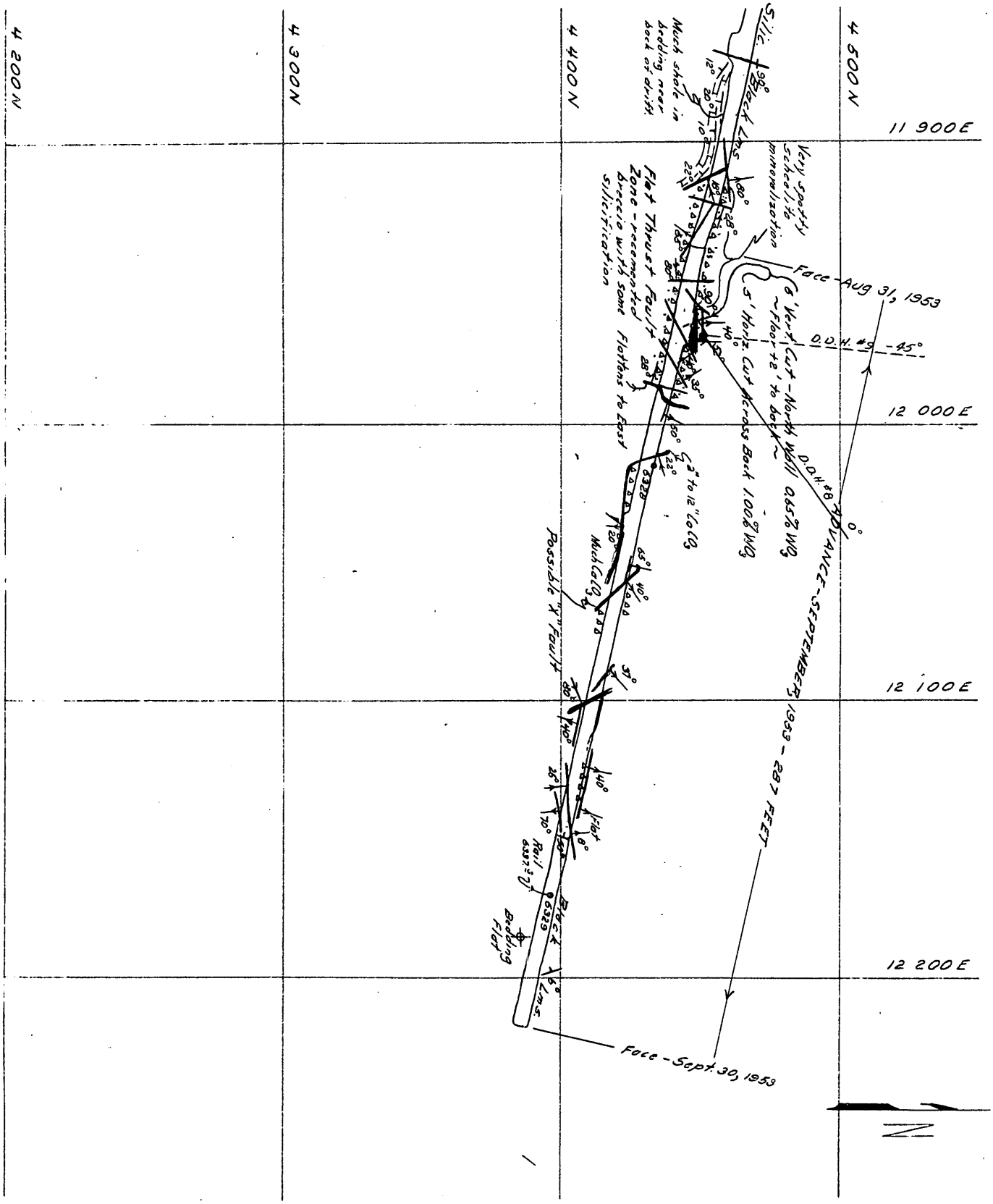
TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688

CONTRACT No. IDM-E 481



A

REFERENCES

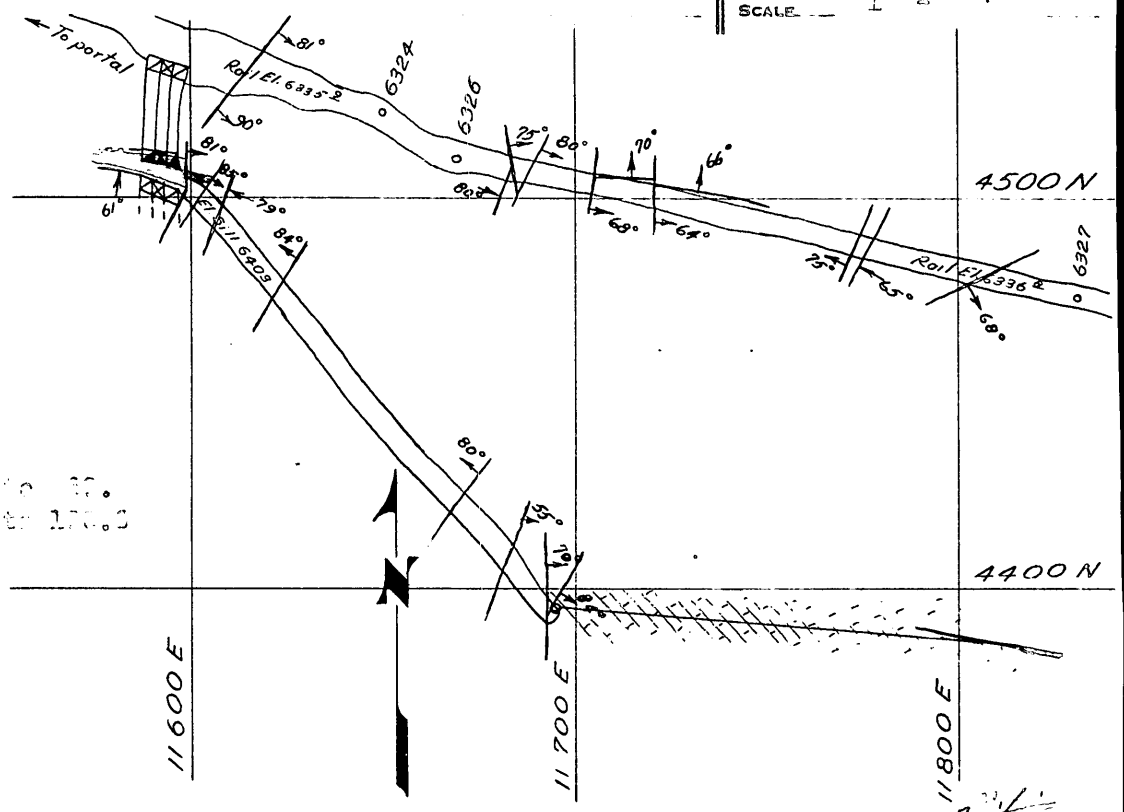
COMBINED METALS REDUCTION CO.

MADE BY

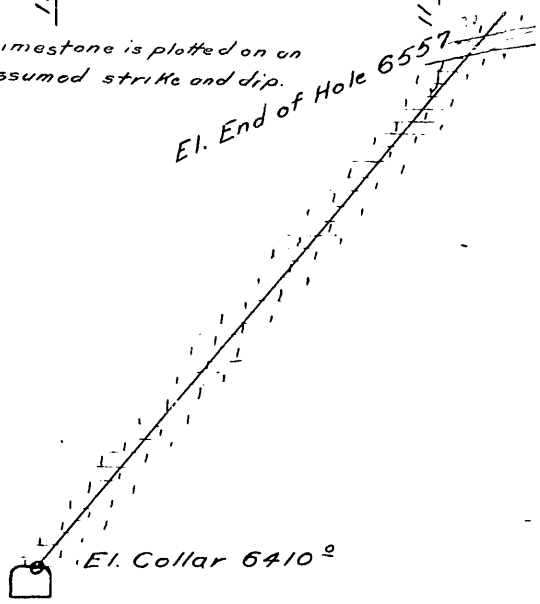
TRACED BY

CHECKED BY

SCALE 1 8



Limestone is plotted on an assumed strike and dip.



Section Looking N5°E

A-11

REFERENCES

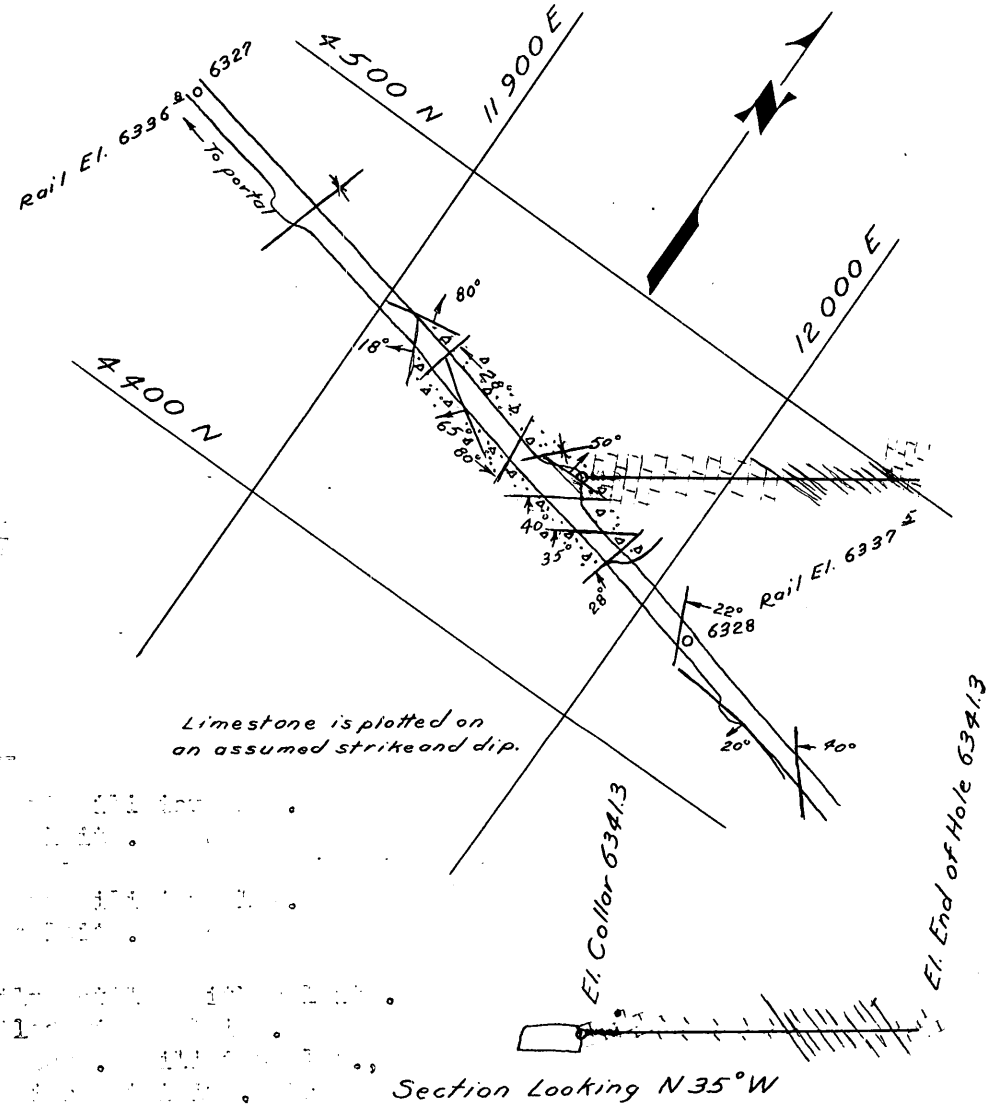
COMBINED METALS REDUCTION CO.

MADE BY

TRACED BY

CHECKED BY

SCALE



A-1621

REFERENCES C-1107
A-1614 A-1618

COMBINED METALS REDUCTION CO.
M. I. A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

Nov. 23, 1953

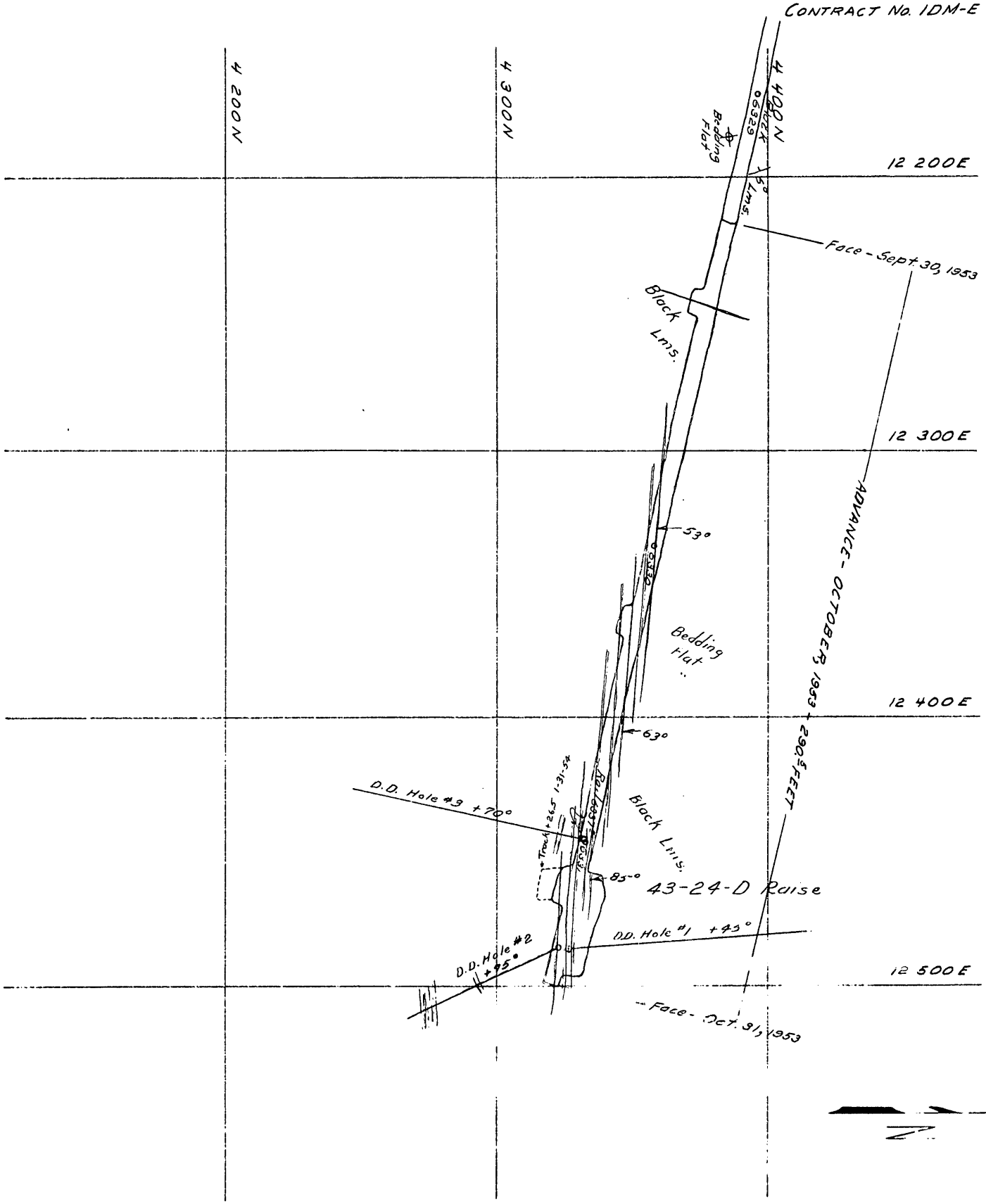
MADE BY R. H. GODBE

TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. IDM-E 481

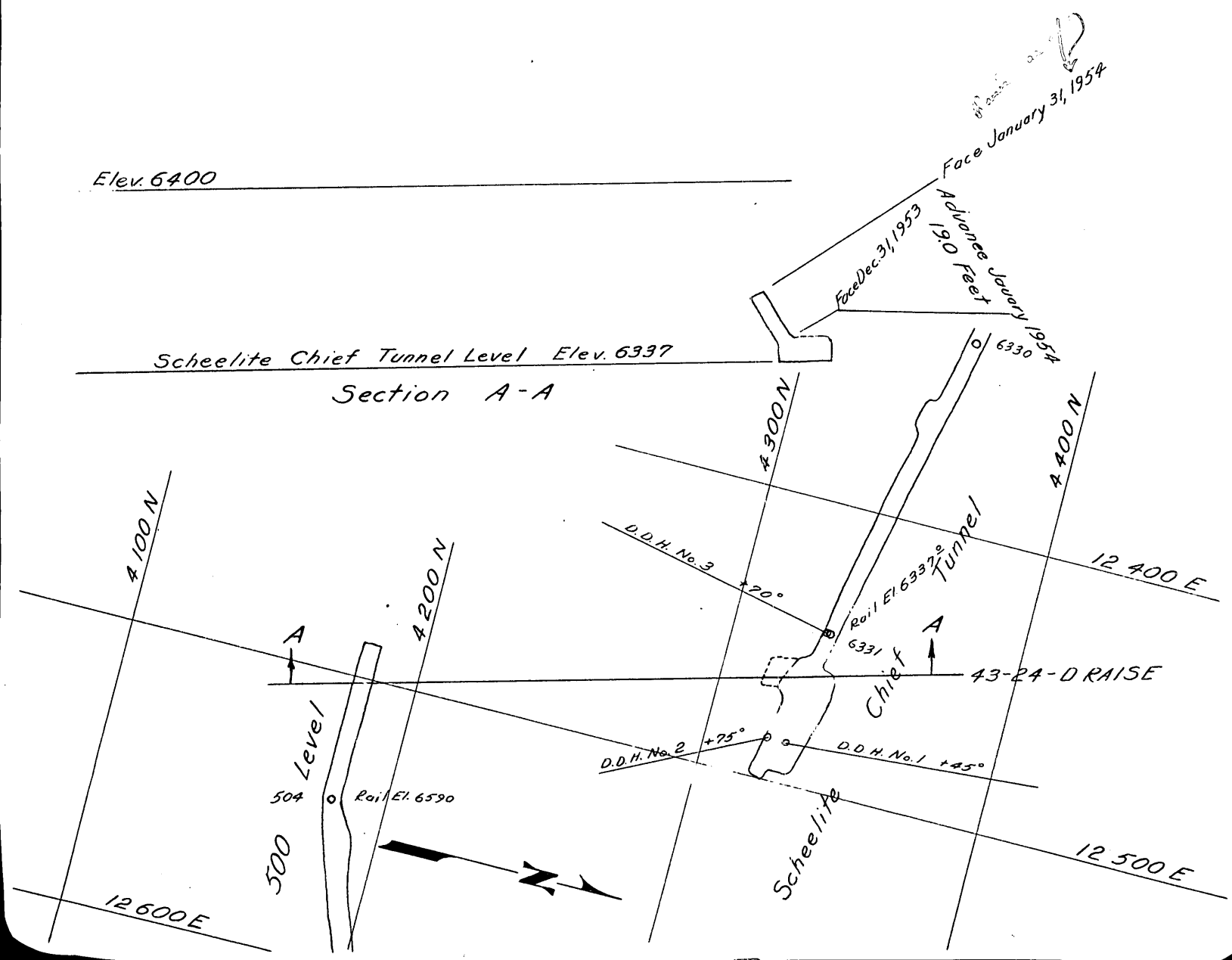


A-1632

REFERENCES
C-1112, A-1621

COMBINED METALS REDUCTION CO.
MIA. Mines
PLAN and SECTION 43-24-D RAISE
Docket No. DMEA 2688 Contract No. IDM-E-481
Minerva Tungsten Property

February 9, 1954
MADE BY O. L. Schroeter
TRACED BY
CHECKED BY
SCALE 1" = 50'



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 December 1953 Docket No. DMEA 2680 Contract No. [illegible] 481
Operator's Name [illegible] Mines Company Minerals Tungsten
Address [illegible] Box 150, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $129,550.00

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 Contracts:						WSM
Shaftsinking - Diamond	1,417.25	1,204.25	2,621.50			
Drilling - Cathedral Burn		5,700.00	5,700.00			
Prospecting - Golden Gait		1,800.00	1,800.00			
Mapping - Silver Bell		2,300.00	2,300.00			
Crosscutting - Skip Pocket	6,399.00	22,450.00	28,849.00			
Drifting - Track, air, water lines		1,625.00	1,625.00			
(2) Labor and Supervision:						
Labor - 1/2 Topman	154.04	493.62	647.66			
Supervision	680.00	3,110.00	3,790.00			
Technical Services	300.00	650.00	950.00			
Bookkeeping	200.00	1,025.00	1,225.00			
(3) Operating Materials and Supplies:						
Timber	58.62	2,436.94	2,495.56			
Cement - Tubing		315.23	374.05			
Explosives		1,218.40	1,218.40			
Pipe		1,111.40	1,111.40			
Track		4,095.00	4,095.00			
Diesel fuel	1,115.78	1,963.81	3,079.59			
Misc. Supplies	195.10	3,357.17	3,552.27			
(4) Operating Equipment:						
Bulldozer		545.12	545.12			
Bottle						
Rental - Air compr.	300.00	300.00	600.00			
Purchase - Jeep - Drill	425.73	1,875.29	2,301.02			
Depreciation		2,803.95	2,803.95			
(5) Initial Rehabilitation and Repairs		3,315.96	3,315.96			
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment - Labor	332.73	2,120.72	2,453.45			
Sampling and Analysis	56.00	449.43	505.43			
Payroll Taxes	16.66	72.04	88.70			
Liability Insurance	68.78	343.12	411.90			
Pickup Transp.	244.80	1,398.00	1,642.80			
Road Maint. - Winter	400.00	400.00	800.00			
Mill Supplies - Water	267.11	1,727.35	1,994.46			
(8) Contingencies (specify): Off. & Shop Supplies	3.41	18.99	22.40			
TOTALS	12,625.01	72,024.71	84,649.72			

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

Date January 21, 54 *Payee [illegible] Mines Company

Per [signature] Title 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:

$ 9468 76

Signature [illegible]
(Authorized Certifying Officer)

Date FEB 4 1954 Vou. No. SF-DMEA-29

(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-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Region III Date Jan. 28, 1954.

A. C. Johnson

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date February 1, 1954

H. C. Miller

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:

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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 Exploration Administration
RECEIVED
FEB 9 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1953 Docket No. DMEA 2688 Contract No. XDM-E 481
Operator's Name M.I.A. Mines Company Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah

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	Ft.	7,850.98	243.5	47,218.56	1,336.0	35.34		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	1,824.95	446.2	3,029.20	828.5	3.66		
Churn	Ft.			6,700.00	1,340	5.00		
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails		409.00		1,345.12				
Supervision & Tech.		980.00		4,740.00				
Bookkeeping		200.00		1,225.00				
Sampling & Analysis		56.00		305.43				
Taxes & Insurance		87.44		500.60				
TOTAL DISTRIBUTED COSTS		11,397.37		65,263.91				TOTAL COSTS AUTHORIZED BY CONTRACT
Rental & Depr. Operating Equipment		715.73		2,901.02				
Initial Rehabilitation and Repairs				8,531.57				
New Buildings, Improvements, etc.				3,315.96				
Transp. Men & Supplies		511.91		3,637.26				
TOTAL COSTS		12,625.01		83,649.72				

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 1/21/54 Operator M.I.A. Mines Company

Per [signature] Title Treasurer

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - December, 1953

January 6, 1954

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. 2688
Contract No. IDM-E 481

Dear Paul:

During the month of December, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Scheelite Chief Adit

Core drilling operations were continued throughout the month with a total advance of 446.2 feet.

Minerva DDH #3 was started on November 28 and was at a depth of 80.8 feet on December 1. As previously noted, the hole was designed to intersect the downward rake of the productive zone of the fissure to the west and below the lowest workings of the Silver Bell mine. The hole was bottomed on December 10 at a depth of 249.3 feet. Limestone was penetrated throughout with the exception of a narrow quartz-calcite fissure zone with minor scheelite mineralization from 26.9 to 29.4 feet. A log of the hole with assays is appended. Map A-1621 has been included to show the position and alignment of Minerva DDH #1, #2, and #3.

On completion of DDH #3, the drill was moved to the sub-level drift to explore for the fissure and favorable ore horizon designated in the Exploration Project as Objective Area 1. Previous drifting operations at the sub-level location had failed to locate the faulted segment of the fissure. Three shallow holes, Minerva DDH #4, 5, 6, were completed in this area during the month with excellent results. Minerva DDH #7 was collared on December 28 to explore for the favorable horizon in this block on its eastern extremity in the footwall of the "X" fault. Map A-1614 has been included to show the position and alignment of the drill holes in this area. Individual logs with assays of Minerva DDH #4, 5, and 6 are also included.

Minerva DDH #4 was located about 29 feet from the face of the advanced sub-level drift. The hole was aligned on a N 5° E bearing and a ∠ 5° inclination. Weakly mineralized quartz in a zone between 44 and 51 feet was interpreted to be the fissure at a point below the productive ore horizon.

FORM 25

Minerva DDH #5 was drilled from the same station and bearing alignment but with a ∠ 70° inclination. Favorable scheelite mineralization was obtained between 58 and 65 feet. A weighed average assay here gives 0.61% WO_3 for seven feet.

Minerva DDH #6 was collared at a position approximately 65 feet from the face of the drift. This hole was aligned on a N 15° E bearing and a ∠ 40° inclination. The fissure zone was penetrated between 23.4 and 33.3 feet. Excellent assays were obtained from 23.4 to 27.4 feet, and also 32.2 to 33.3 feet. A weakly mineralized limestone zone exists from 27.4 to 32.2 feet; however a weighed average assay over the 9.9 feet gives 1.20% WO_3.

Silver Bell Mine

Drifting operations continued on the easterly drive on the 3rd level during the month. A total of 243.5 drift feet progress was made by the contractor, and map B-873 is attached to show this work. A prominent N-S easterly dipping fault was encountered about 130 feet from the east edge of the incline. The fault zone required timber for 17 feet. The fissure was off-set to the south in the hanging wall block, and the drift penetrated the fissure in this block at a point approximately 200 feet from the incline. The drift was aligned on the strike of the fissure (N 70° E), and followed until the quartz width narrowed to a few inches. The heading was then stopped in favor of driving on a S 70° E bearing alignment toward the projection of the fissure in DDH #5 to drift elevation. At the end of the month, the drift heading was in a rhyolite porphyry filled fault zone. This fault unquestionably will off-set the fissure to the projected position to drift elevation in the next block, and the fissure should be encountered within the next few rounds.

A productive zone of about 30 feet along the strike of the fissure was undercut during the month. Three cut samples were taken at right angles to the fissure in this zone. Assay results were as follows:

Location	Length of Cut	% WO_3
Spad 305 ∠ 20'	4.0'	0.84
Spad 305 ∠ 31'	3.5'	0.34
Spad 305 ∠ 40'	3.5'	0.88

Diesel fuel, oil, and gasoline requirement costs for December are not included with this month's invoices due to closing of accounts prior to receipt of invoices from suppliers.

Distribution of costs for December, as shown on the Operator's Monthly Report and Voucher, follows:

COMBINED METALS REDUCTION COMPANY

3 January 6, 1954 Paul Gemmill, General Supt. Nevada Mines

Independent Contracts							Overage
		Stage I					
Diamond Drilling	416.9 ft.	@ $3.15	$ 1,313.23				
	29.3 ft.	@ $3.55	104.02				
				$ 1,417.25			
		Stage II					
Drift Footage	243.5 ft.	@ $26.00	$ 6,331.00				
Drift Timbered Sect.	17.0 ft.	@ $4.00	68.00				
				$ 6,399.00			
					$ 7,816.25		
Labor and Supervision							
Supervision			$ 680.00				
Topman (½ D. Dotson Time)			154.04				
Bookkeeper - Clerk (Part-time)			200.00				
Engineer (Part-time)			300.00				
					1,334.04		
Operating Materials and Supplies							
		Stage I					
-Combined Metals Reduction Company-							
Oils, greases, etc.			$ 175.76				
Diesel Fuel			1,113.78				
Sample sacks			18.67				
				1,308.21			
		Stage II					
Ties (100)			$ 58.62				
Nail, spikes, bolts							$ 310.67
Tools and misc.			2.67				
				61.29			
					1,369.50		
Operating Equipment							
		Stage I					
Compressor				119.00			
		Stage II					
100 KW Generator			85.91				
15 Kw Generator			40.00				
3 Mine Cars			6.00				
Portable Joy Compressor			125.65				
Ventilation Fan			14.17				
Gasoline Driven Hoist			20.00				
Water Pressure Tank			5.00				
Surface Equipment - Silver Bell			300.00				
				596.73			
					715.73		

COPY

FORM 25

COMBINED METALS REDUCTION COMPANY

4 January 6, 1954 Paul Gemmill, General Supt. Nevada Mines

Rehabilitation and Repairs

None

New Buildings, Improvements, Installations

None

Miscellaneous

Supplying Water		$ 244.71	
Repair Parts - C.M.R. Co.		146.89	
Repair Parts - Centennial Dev. Co.		14.84	
Maintenance Labor		171.00	
Assaying		56.00	
Road Maintenance for Winter		400.00	
Office & Engineering Supplies		3.41	
Pickup Trucks			
#46	2,080 miles		
J. Hulse	320 miles		
#44	320 miles		
	2,720 miles @ $.09	244.80	
Haulage Supplies			
#18 Truck	320 miles @ $.14	32.40	
Payroll Taxes		16.66	
Liability Insurance		68.78	
			$ 1,389.49
TOTALS		$12,625.01	$ 310.67

COPY

Very truly yours,

R. H. Godbe

R. H. Godbe

FORM 25

A - 139

REFERENCES

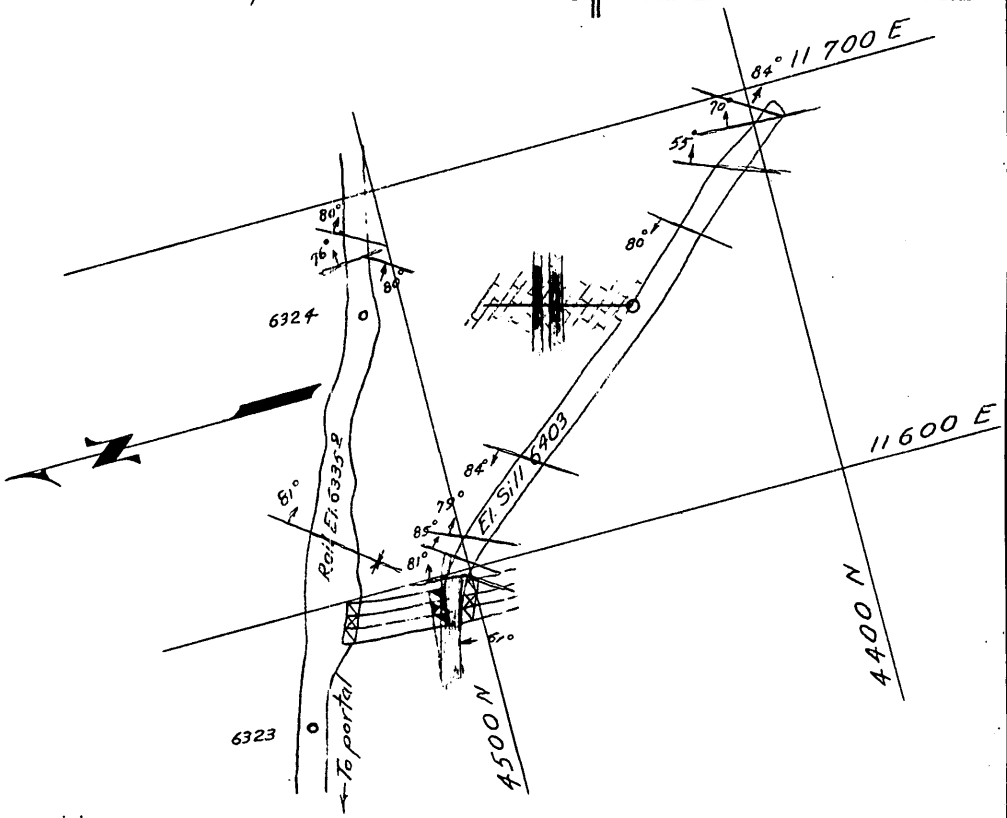
COMBINED METALS REDUCTION CO.

MADE BY

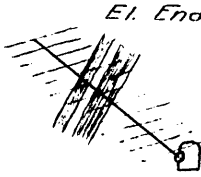
TRACED BY

CHECKED BY

SCALE 1 = 1



Limestone is plotted on an assumed strike and dip.



Section Looking S 75°E

A -

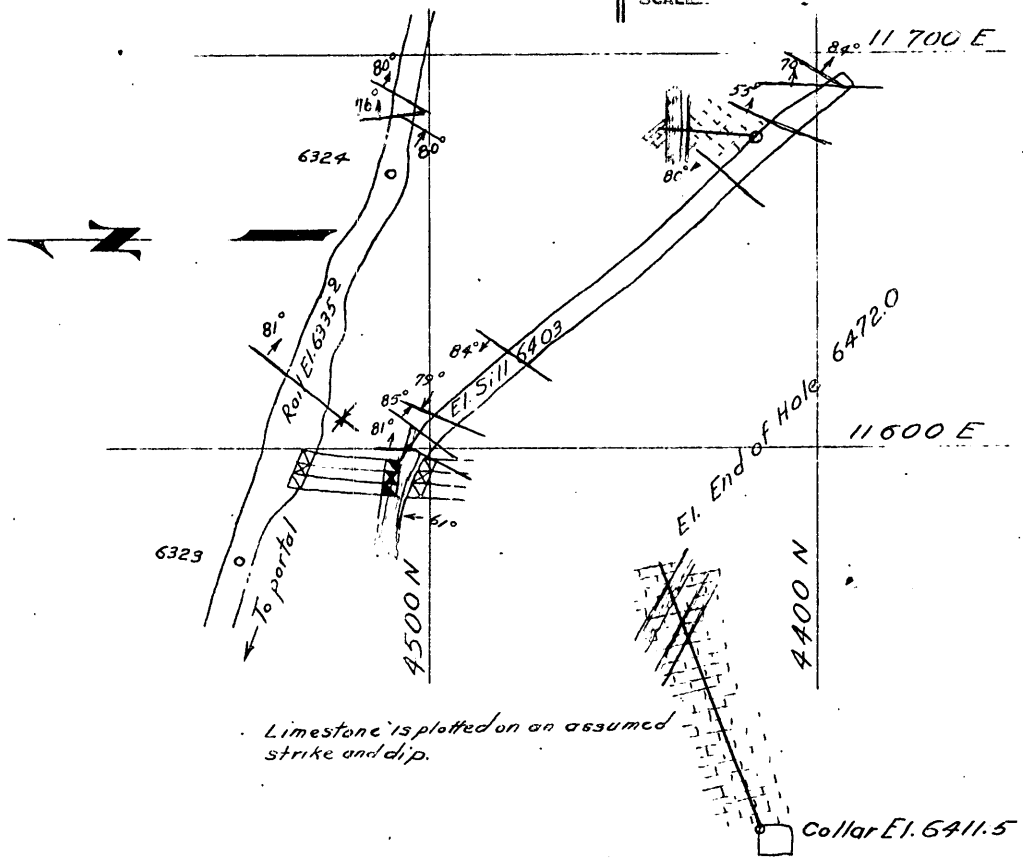
REFERENCES

COMBINED METALS REDUCTION CO.

TRACED BY

CHECKED BY

SCALE



Section Looking S85°E

6.0

1.

A

REFERENCES

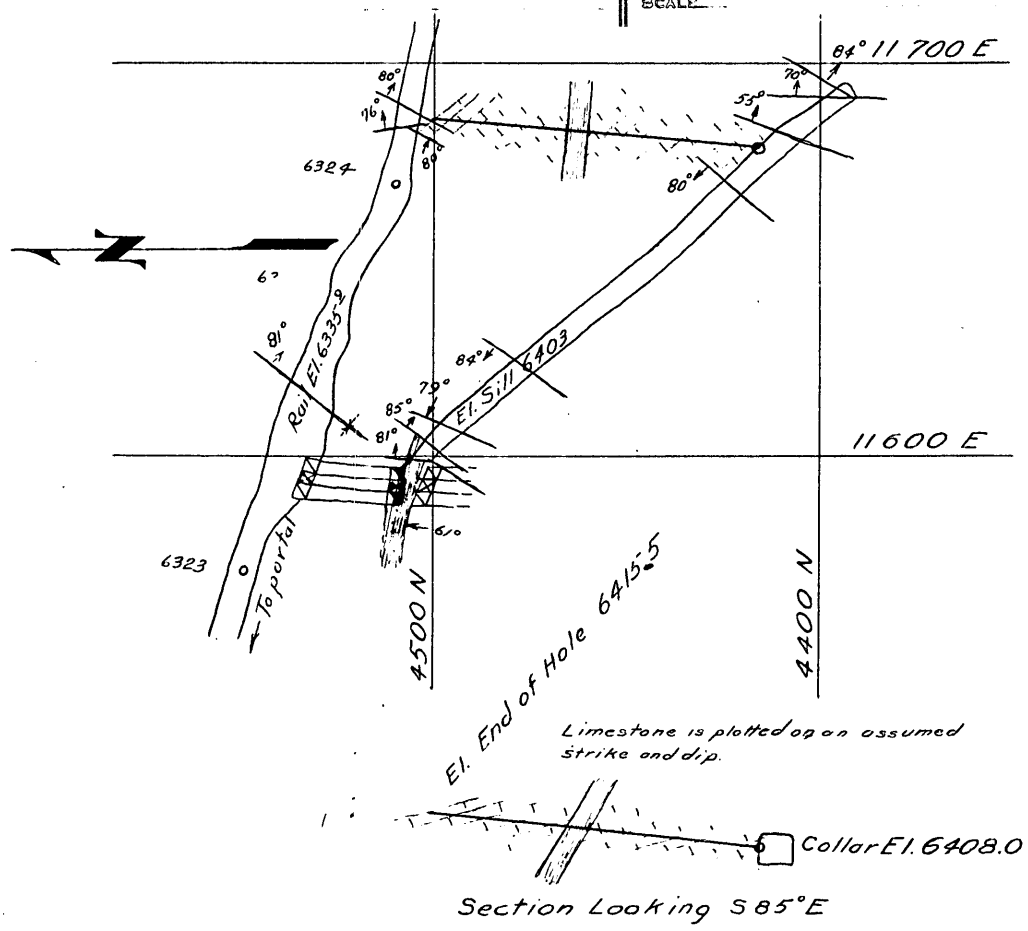
COMBINED METALS REDUCTION CO.

MADE BY

TRACED BY

CHECKED BY

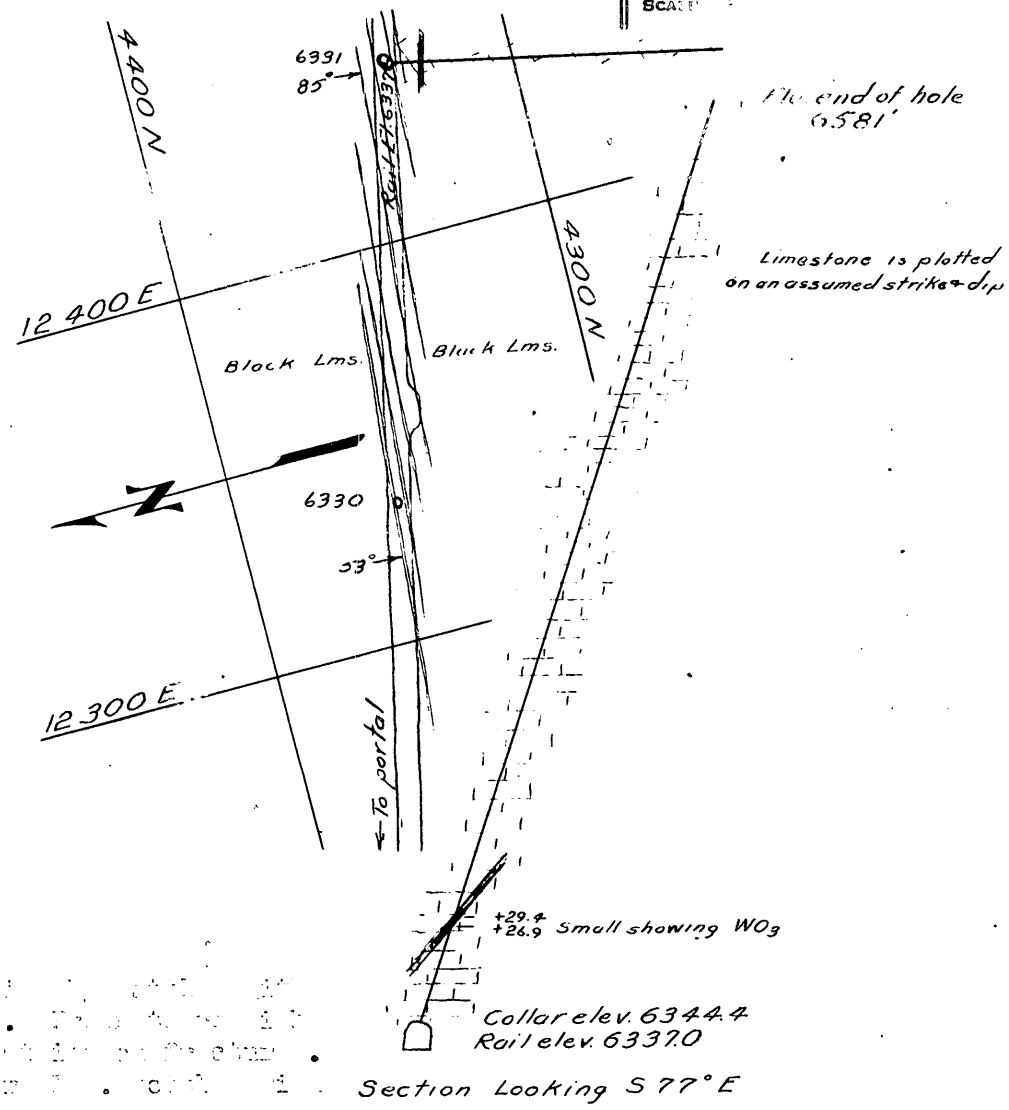
SCALE 1 =



A - 1

COMBINED METALS REDUCTION CO.

MADE BY
TRACED BY
CHECKED BY
SCALE 1 = 1



Section Looking S 77° E

A-1621

REFERENCES C-1107
A-1614 A-1618

COMBINED METALS REDUCTION CO.
M. I. A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

NOV. 23, 1953

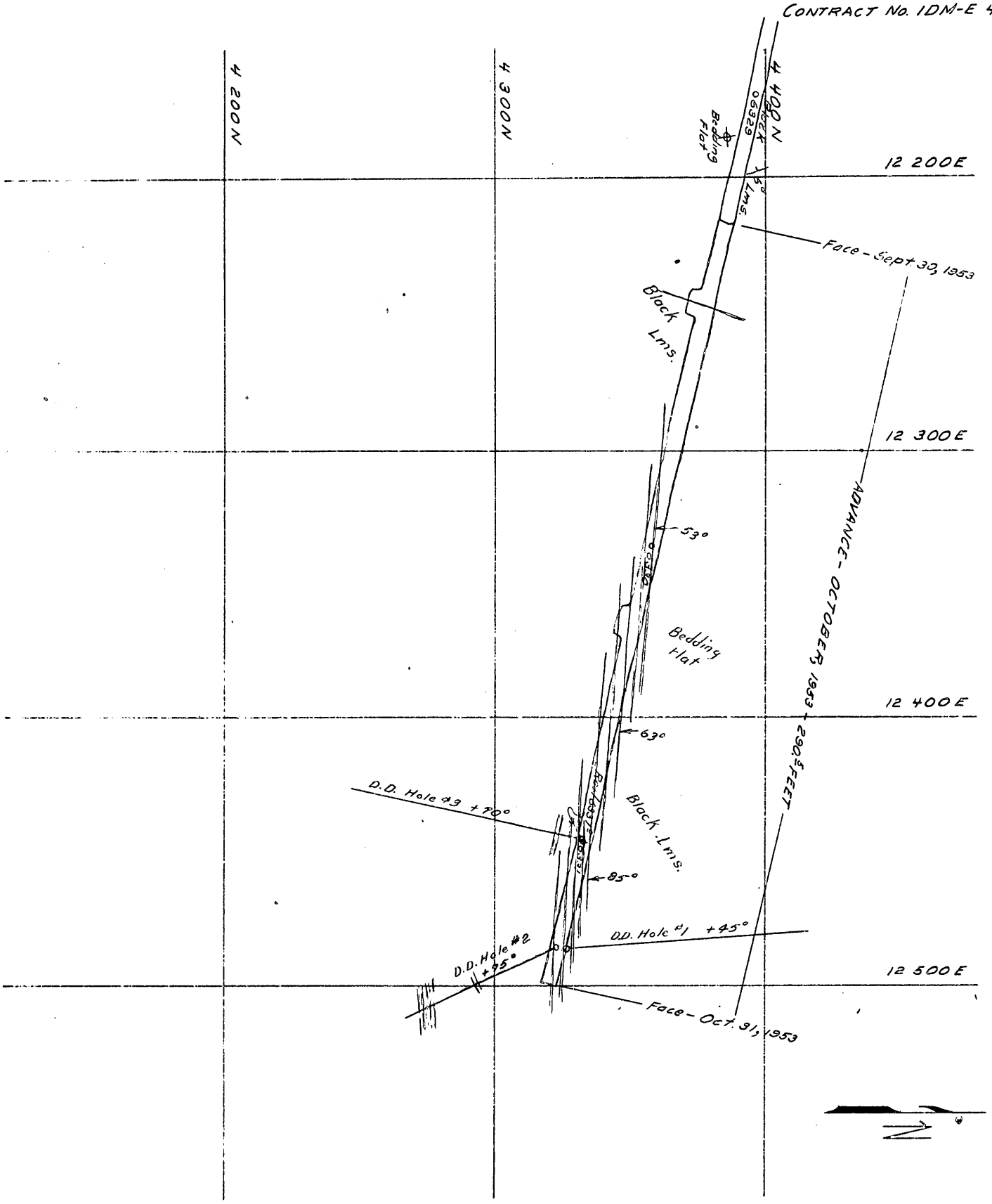
MADE BY R. H. GOODE

TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. IDM-E 481



A-1614

REFERENCES C-1107

COMBINED METALS REDUCTION CO.

M. I. A. MINES CO.

MINERVA TUNGSTEN PROPERTY

WHITE PINE COUNTY, NEVADA

~SCHEELITE CHIEF MINE~

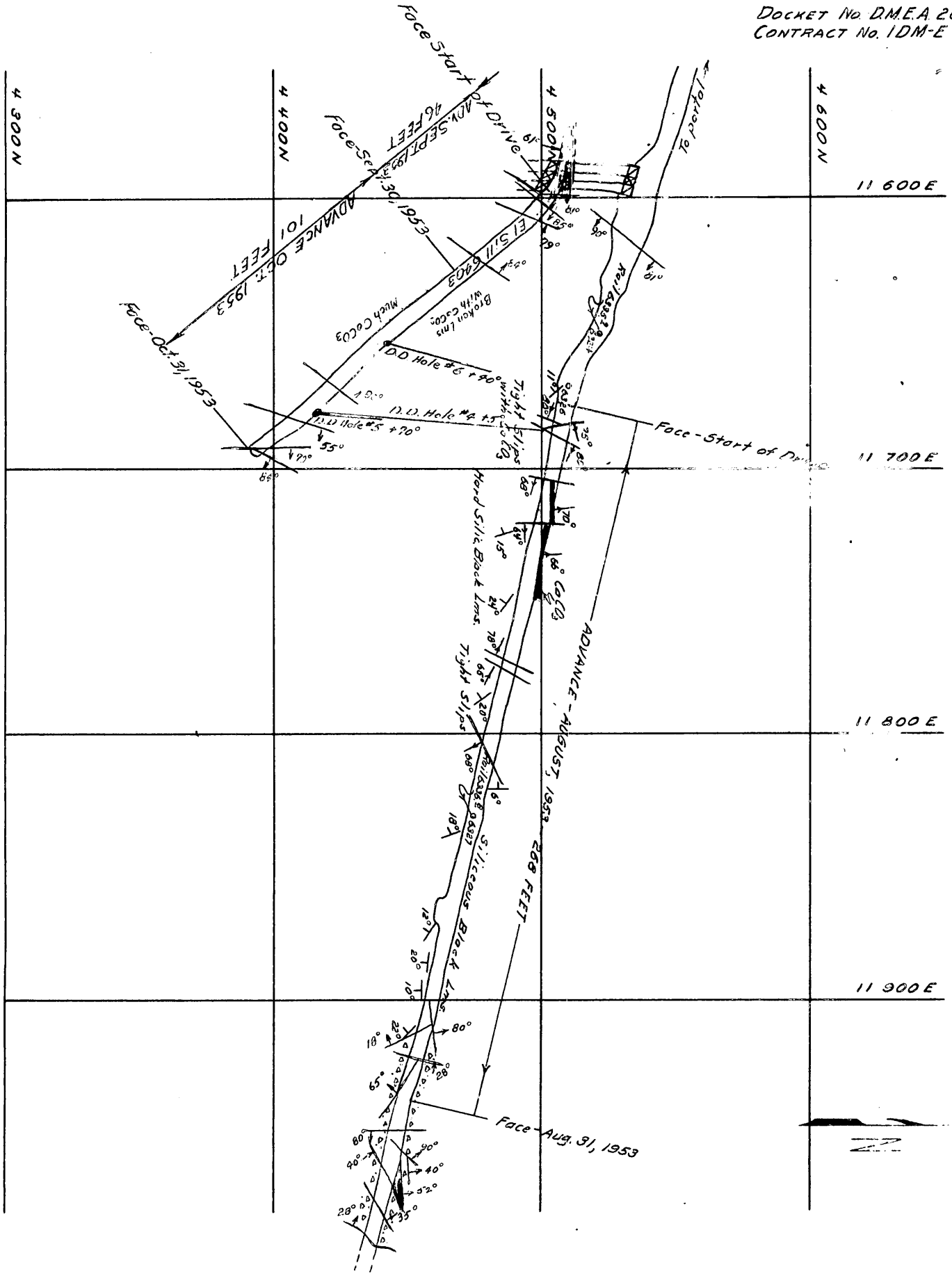
SEPT. 18, 1953

MADE BY R. H. GODBE

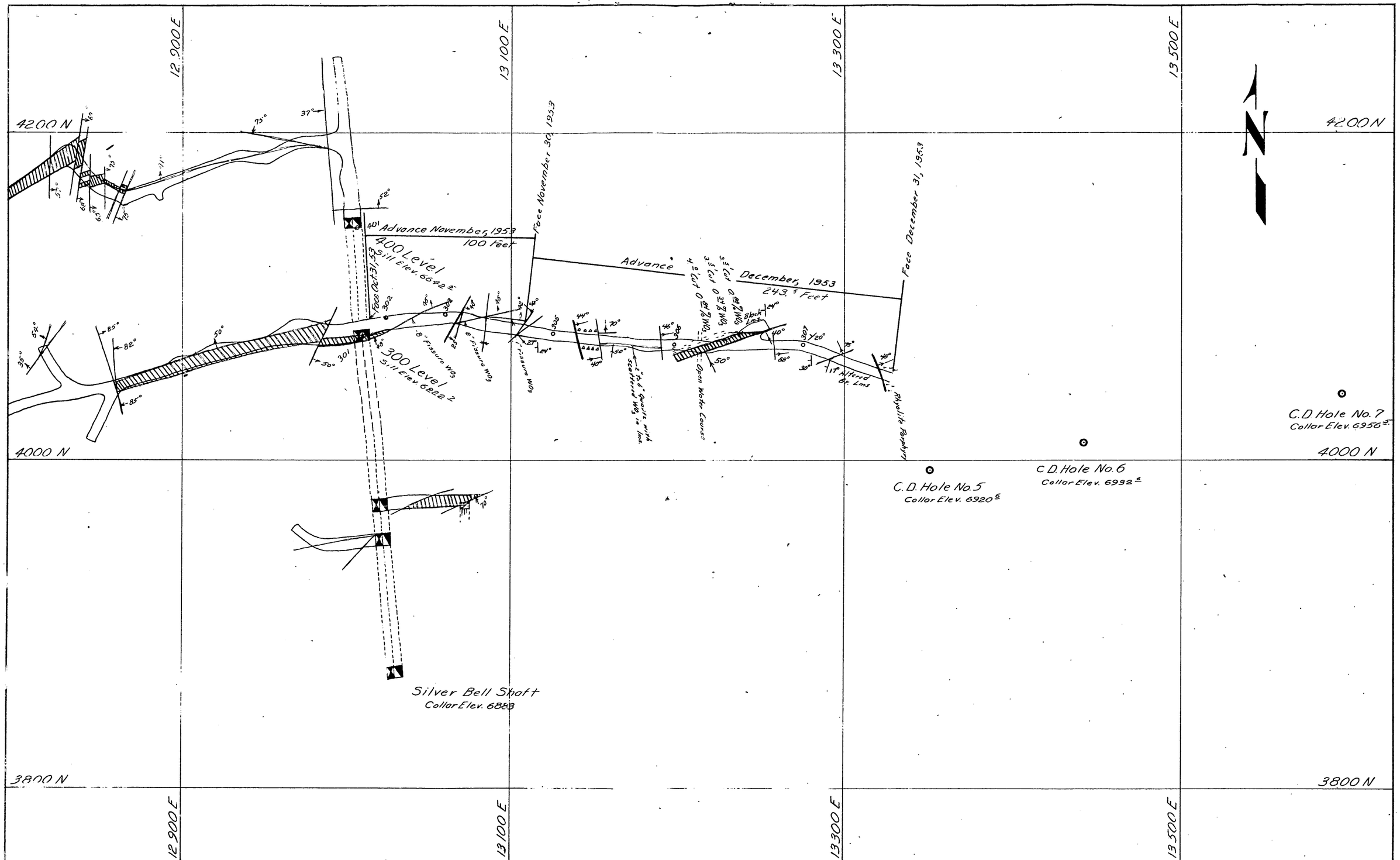
SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688

CONTRACT No. IDM-E 461



Amer 2688
Dec M7-104 - Map



REFERENCE: A-1612, A-1617, A-1618, A-1622
Docket No. DMEA 2688
Contract No. IDM-E 481

REVISIONS

WORK
DRAWN O.E. Schroder 12-8-53
TRACED
CHECKED R.H. Godbe 12-8-53
APPROVED

COMBINED METALS REDUCTION CO.
SALT LAKE CITY, UTAH

M.I.A MINES CO.
MINERVA TUNGSTEN PROP.
SILVER BELL MINE

SCALE 1" = 50'

B-873

SALT LAKE BLUE 1000H

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

RECEIVED

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1953 Docket No. DMEA 2000 Contract No. [illegible] 461

Operator's Name U.I.A. MINE COMPANY Minerals Tungsten

Address 210 Felt Bldg., Salt Lake City, Utah

Contract Amount, $174,400.00 Government Participation: 75 % Amount, $129,550.00

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:						WSM
Drilling - Diamond	1,204.25	6,300.50	8,204.25			
Drilling - Churn	391.96		8,700.00			
[illegible] trenching &		1,800.00	1,800.00			
[illegible] shaft, air						
Crosscutting [illegible]	2,300.00		2,300.00			
Drilling - Rip Pocket	2,600.00	19,850.00	22,450.00			
Dry track, air, water line		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor - A/B [illegible]	213.37	270.25	493.62			
Supervision	710.00	2,400.00	3,110.00			
Technical Services	400.00	250.00	650.00			
Bookkeeping	150.00	875.00	1,025.00			
(3) Operating Materials and Supplies:						
Drill steel & rods	690.54	1,805.12	2,495.66			
Timber (min. rods)	72.00	240.43	312.43			
[illegible] vent tubing	413.00	735.40	1,148.40			
Explosives	506.78	604.62	1,111.40			
Pipe		4,095.00	4,095.00			
Track	397.62	1,966.19	1,953.81			
Diesel fuel	272.23	3,034.94	3,357.17			
Misc. Supplies						
(4) Operating Equipment:						
Rental - Bulldozer & [illegible]		545.12	545.12			
Rental - Surface Equip.-Driver Bell	300.00		300.00			
Depreciation	(534.71)	2,420.00	1,885.29			
(5) Initial Rehabilitation and Repairs	383.39	2,420.56	2,803.95			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment - Maint.	624.25	1,496.47	2,120.72			
Sampling and Analysis	16.00	433.43	449.43			
Payroll Taxes	1.77	70.27	72.04			
Liability Insurance	81.07	262.05	343.12			
Pick-up transp.	273.60	1,124.40	1,398.00			
Road maint. - Winter	400.00		400.00			
Haul., hauling water	319.71	1,407.64	1,727.35			
(8) Contingencies (specify):						
Off. & eng. Supplies	10.99		10.99			
Add: Disallowance Oct.				963.37		
MF 104 adjusted by operator Nov. MF 104						
TOTALS	12,210.36	58,814.35	71,024.71	13,150.63	57,872.08	71,022.71

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

Date 12/21/53 *Payee U.I.A. MINE COMPANY

Per [signature] Title 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:

$ 9864 47

Signature (Authorized Certifying Officer)

Date FEB 4 1954 Vou. No. SF-DMEA-29

(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-E481 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engineer Date Dec. 28, 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date 12/30/53

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
DEC 29 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 195 3 Docket No. DMEA 2600 Contract No. [illegible]
Operator's Name U.S.A. MINING COMPANY Minerals Tungsten
Address P. O. Box 199, Salt Lake City, Utah

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	Ft.	9,024.78	100.0	39,370.50	1,092.3	30.04		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	Ft.	1,204.25	322.3	1,204.25	322.3	3.15		
Churn	Ft.	351.50	70.3	6,700.00	1,340.0	5.00		
Exploration Geological		1,110.00		3,700.00				
Stripping								
Assay & Analysis		10.00		449.63				
Trenching								
Truck Lookout Inc.		150.00		1,025.00				
Test Pits		400.00		955.12				
Roads and Trails								
Taxes & Insurance		22.00		419.16				
Total Distributed Costs		9,279.37		53,077.24				Total Costs Authorized by Contract
Oct. Expansion adjusted		942.87						
Rental & Depreciation		(231.71)		3,183.29				
Operating Equipment Purchased		2,672.39		8,520.57				
Initial Rehabilitation and Repairs				3,913.96				
New Buildings, Improvements, etc.		999.91		3,126.35				
Mats. Tools & Supplies								
Total Costs		~~12,210.26~~ 13,183.63		~~71,024.71~~				

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 12/21/53 Operator U.S.A. MINING COMPANY

By [signature] Title Treasurer

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

Minerva Tungsten Property - Narrative - November, 1953.

December 7, 1953

Paul Gessill, General Supt. Nevada Mines

R. H. Gedke

Docket No. 2688
Contract No. IDM-X 481

Dear Paul:

During the month of November, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

CHURN DRILLING

Minerva C.D.H. #7 was completed on November 17 at a measured depth of 243.3 feet. Drill progress for the month totalled 78.3 feet. The mineralized fissure was encountered at 195 feet. Excellent assay values were obtained in the 195-200 ft. run. In addition the 200-205 ft. run indicated probable ore with a 0.5% WO_3 assay. A probable fault zone was encountered below this area with several open cracks greatly hindering drill progress. A complete log of the hole with assays is appended. Churn drilling operations were suspended indefinitely on completion of this hole.

SCHEELITE CHIEF ADIT

Core drilling operations in the advanced adit were started November 8. Howard Knighton of Henderson, Nevada was awarded the core drilling contract on the basis of his bid, a copy of which is appended. A rate of $5.50 per foot was allowed in the contract with D.M.E.A. Rental of the compressor at the Scheelite Chief mine together with operating supplies are justified on the basis of low price per foot as awarded to the contractor with compressed air and water being furnished at the drill.

Minerva D.D.H. #1 was aligned to intersect the downward projection of the fissure in the Silver Bell mine at a depth of about 70 feet. The hole was completed at a depth of 125.7 feet on November 15. Two "heavy" calcite zones were penetrated with the actual location of the fissure indefinite. No scheelite was observed in the core. A log of the hole is included.

Minerva D.D.H. #2 was started on November 16. This hole was aligned to intersect the fissure about 100 feet below the Silver Bell mine workings. A mineralized fissure zone was cut between 141.0 and 157.3 feet. Four distinct narrow bands of quartz showed scheelite mineralization, and assays were made of a split core portion in these areas. The hole was bottomed in limestone at a depth of 175.8 feet. Log of the hole with assays is appended.

Minerva D.D.H. #3 was collared on November 25 about 50 feet westerly in the adit from D.D.H. #2 . This hole was designed to intersect the downward rake of the fissure to the west and below the lowest workings of the Silver Bell mine. At the end of the month the hole was advanced 80.8 feet in limestone.

Two slab rounds and a full round were made into the ore showing encountered in driving the main adit. The present face shows several irregular areas up to one foot diameter carrying scheelite, and would be unquestionably classified as waste. Additional exploratory work in this area is warranted, however, to prospect for a a commercial ore body. Work in this area is being carried forward on company account.

SILVER BELL MINE

The contractor's drift crews were transferred to the rehabilitation of the inclined shaft in the Silver Bell mine after completing the main drive in the Scheelite Chief mine on October 31. This work was carried forward by the contractor under a work incentive agreement with the crew. The required surface plant provided at the expense of N. I. A. Mines Co., and drifting operations were started on the 3rd. level. At the end of November the drift had been advanced a measured 100 feet. Map B-673 is attached and shows this progress. The fissure thus far has proven to be very narrow-a quartz width of up to eight inches with scheelite mineralization. The strike of the fissure varies from N600 E to N80° E, and has a northerly dip of 45°. The "usual" fault pattern, with N-S east dipping faults affecting the vein in the hanging wall block to the south, has proven to be the case in advancing this drift. The drift is presently aligned toward the projection to drift elevation of the mineralized fissure in the block delineated by Minerva D.D.H. #6 and #7.

Distribution of costs for November, as shown on the Operator's Monthly Report and Voucher, follows:

Independent Contracts

				Overage
Stage I				
Chaser Drilling 78.3 ft. @ $5.00	$ 391.50			
Diamond Drilling 382.3 ft. @ 3.15	1,204.25			
		$ 1,595.75		
Stage II				
Rehabilitation Silver Bell Incline	$ 1,800.00			$ 144.92
Ship packet-3rd. level Silver Bell	900.00			73.31
Drift footage 100 ft. @ $26.00	2,600.00			
		4,500.00		
			$ 6,495.75	

Labor and Supervision

Supervision	$ 710.00	
Yeoman (½ D. Dotson Time)	215.37	
Bookkeeper-Clerk (Part-time)	150.00	
Engineer (part-time)	400.00	
		1,475.37

Operating Materials and Supplies				Overhead
	Stage I			
- Combined Metals Reduction Company-				
Oils, greases, gas	$ 21.24			
2½" Neoprene hose	192.33			
Diesel Fuel	397.42			
Sample Bags	11.72			
Tools and misc.	13.50			
		$ 626.33		
	Stage II			
-Combined Metals Reduction Company-				
Oils, greases, gas	$ 116.32			
Tins (100)	75.00			
2½" Neoprene Hose	314.55			
Pipe Fittings	20.93			
1½" Vent Line (500 ft.)	413.00			
Tools and misc.	88.50			
		1,028.30		
-Centennial Development Company-				
Drill Steel and bits		690.54		
			$ 2,355.17	
Operating Equipment				
	Stage I			
Compressor	$ 119.00			
Adjustment-100 KW Generator (3 months)	(942.27)			
		(823.27)		
	Stage II			
100 KW Generator (November)	$ 85.91			
15 KW Generator	40.00			
3 Mine Cars	6.00			
Portable Jay Compressor(210 cu. ft.)	125.45			
Ventilator Fan	6.00			
Gasoline driven hoist	20.00			
Water pressure tank	5.00			
Surface Equipment-Silver Bell	300.00			
		$ 588.36		
			(234.71)	
Rehabilitation and Repairs				
	Stage II			
Timber	$ 39.14			201.14
Nail, spikes, bolts				
Air line, water inlet to underground storage (2½" neoprene hose)	279.60			
Pipe Fittings	22.35			
Misc. (300' 3/8" Cable)	42.30			
			383.39	
New Buildings, Improvements, Installations				
None				

Miscellaneous

Supplying water	$ 144.71	
Repair parts-CMMCo.	234.43	
Repair parts-Centennial Dev.	91.22	
Maintenance Labor	298.60	
Assaying	16.00	
Road Maintenance for winter	400.00	
Office and engineering supplies	18.09	
Pickup trucks		
#46 1920 miles		
#44 800 miles		
#23 120 miles		
3040 miles @ $.09	273.60	
Custom haulage 2 loads	50.00	
Custom haulage-compressor returned to Minerva after repairs	25.00	
Payroll taxes	1.77	
Liability insurance	81.07	
	1,715.39	
Totals	$ 12,210.36	$ 419.37

Very truly yours,

R. M. Godbe

R. M. Godbe

C O P Y

Howard H. Knighten
615 California Ave.
Boulder City, Nevada
October 10, 1953

Mr. R. H. Godbe, Geologist
Combined Metals Reduction Company
Caselton Plant,
Pioche, Nevada

Dear Mr. Godbe:

In regard to your letter of September 26, 1953, an invitation to bid on the diamond core drill exploratory program at the Scheelite Chief Mine, Minerva Tungsten property, White Pine County, Nevada.

I would like to submit the accompanying bid for diamond drill work as described in your letter, on the following basis;

1. Drill stations to be located to give working room (5'x7' drift) to efficiently operate drill. 5 foot pull anticipated. Contractor to furnish drill equipment and labor.
2. Drilling AX upward holes to approximate depth of 200 feet. $3.15 per foot.
3. A minimum footage of approximately 1,200 feet guaranteed by the company.
4. If it is necessary in some instances to drill deeper than the 200 feet estimated in the bid invitation, hole going 10% beyond the estimated depth of 200 feet- $3.55 per foot from 220 feet to 320 feet.
5. Holes reduced from AX to EX the same unit price of $3.15 per foot to completion. The raising and lowering of casing to be at contractors expense.
6. Reaming of hole from EX to AX for the purpose of regaining lost water and drill sludges after EX casing has been set, $1.75 per foot.
7. Air and water to be furnished by the company at the drill stations at no expense to contractor in sufficient quantity to adequately carry out drilling operations.
8. Diamond drill core and sludges to be properly taken care of by contractor in company furnished core boxes and sludge sacks.
9. Payment to contractor to be made monthly for footage on holes completed.

Living quarters and boarding house for single men to be available for drill crew at the going rate. Rate to be payed as the company designates.

Thanking you for the invitation to bid, I remain.

Yours very truly,

Signed Howard H. Knighten

A-s 1698

REFERENCES 1-1107

COMBINED METALS REDUCTION CO.

MINERVA DIAMOND DRILL HOLE NO. 1

Docket No. DMA 2688 Contract No. IDM I 481

December [illegible] 19[illegible]

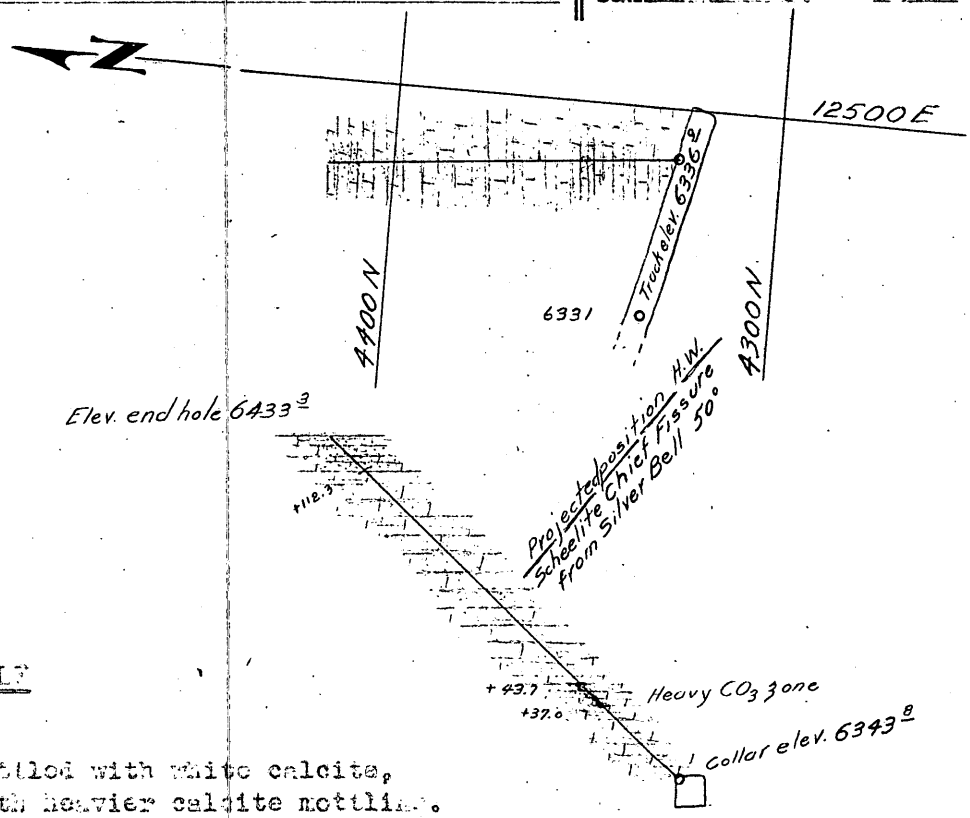
MADE BY [illegible]

TRACED BY

CHECKED BY

SCALE 1" = [illegible]'

Coordinates: N [illegible]
[illegible] 1, [illegible]
Collar Elev: 6, [illegible]
Course: N [illegible] N
Inclination: - 45
Depth: 1[illegible].7
Core Recovery: 100%
Size of Hole: [illegible]
Started: 11- - [illegible]
Finished: 11-[illegible]-53
Driller: [illegible] Walsten
Helper: J. [illegible]

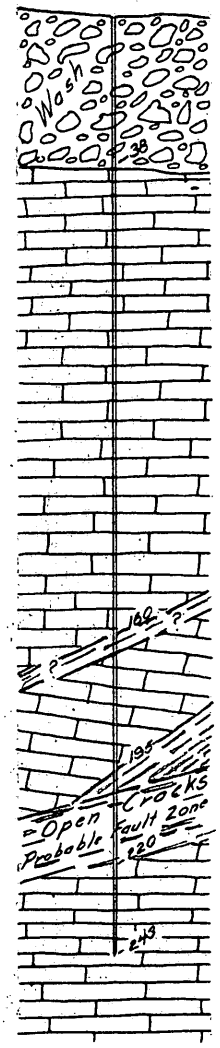


LOG OF HOLE

[illegible] - [illegible].7 Black lm. mottled with white calcite.
[illegible] - [illegible] Black lm. with heavier calcite mottling.
[illegible] - [illegible].7 Heavy calcite zone.
[illegible] - 11[illegible] Black lm. mottled with white calcite.
11[illegible] - 11[illegible] Very silicified lm. zone with heavy calcite.
1[illegible] - 1[illegible].7 Siliceous black lm. with calcite.

A-1 1292	**COMBINED METALS REDUCTION CO.**	December [illegible], 1953
REFERENCES -1107		MADE BY [illegible] Forbes
-1[illegible], -1[illegible], -1[illegible]	[illegible] CHURN DRILL HOLE No. 7	TRACED BY
-1[illegible], -1[illegible], -1[illegible]	Objective Area 6	CHECKED BY
	Docket No. DMM 8688 Contract No. IDM E 481	SCALE 1" = [illegible]'

Coordinates: N [illegible]
[illegible]
Collar Elev. [illegible]
Started: 1[illegible]-1[illegible]-53
Finished: 11-1[illegible]-53
Driller: Fulkerton
Depth: 24[illegible].7
Size of Hole: 4 3/4"



LOG OF HOLE

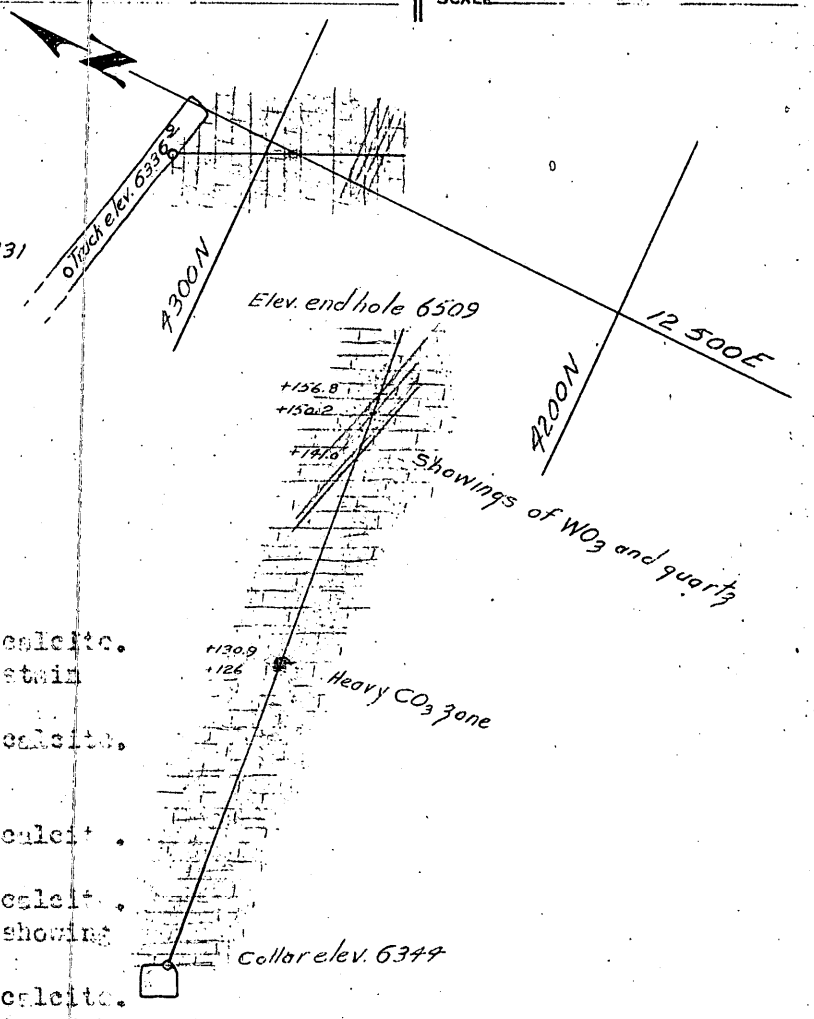
0 - 38.0 Wash
38 - 45. Dark blue l[illegible]. altered to buff color.
45 - 165.[illegible] Dark blue l[illegible]. with pinkish cast.
Considerable white calcite noted at
6[illegible]' - 8[illegible]' run.
165 - 1[illegible] Blue l[illegible].
165 - 1[illegible] Possible fault. Altered lms. with
muddy brown appearance. White calcite noted.
1[illegible] - 1[illegible] Gray l[illegible].
1[illegible] - 2[illegible] Quartz fissure with considerable scheelite.
2[illegible] - 2[illegible] Probable fault zone. Open cracks with
very slightly drilling.
2[illegible] - 24[illegible] Gray l[illegible].

ASSAYS

Depth	% WO3 Unmarked	% WO3 Marked
1[illegible] - 155	[illegible]	[illegible]
1[illegible] - 160	[illegible]	[illegible]
1[illegible] - 195	[illegible]	[illegible]
19[illegible] - 200	[illegible]	[illegible]
200 - 205	[illegible]	[illegible]
205 - 210	[illegible]	[illegible]
21[illegible] - 215	[illegible]	[illegible]
21[illegible] - 220	[illegible]	[illegible]

A - 1684 References: -11[illegible], -1685	**COMBINED METALS REDUCTION CO.** LIBERIA DIAMONT DRILL HOLE No. 6 Pocket No. DMTA 8638 Contract No. IDM F 421	December [illegible], 19 53 Made by: Alexander Traced by: Checked by: Scale 1" = [illegible]'

Coordinates: N [illegible],703
E 1[illegible],185
Collar Elev: 6,344
Course: [illegible]
Trending Elev: - 73°
Depth: 1[illegible]
Core Recovery: [illegible]%
Size of Hole: [illegible]
Started: 1[illegible]-1[illegible]-53
Finished: [illegible]-[illegible]-53
Drillers: [illegible]
Helper: [illegible]



LOG OF HOLE

[illegible] - [illegible]	Black lm. mottled with white calcite. Brown to reddish iron colored stain on fractures.
[illegible] - [illegible]	Black lm. mottled with white calcite. Small bunches calcite noted.
[illegible] - [illegible]	Solid white calcite.
[illegible] - [illegible]	Black lm. mottled with white calcite.
[illegible] - [illegible]	Solid white calcite.
[illegible] - [illegible]	Black lm. mottled with white calcite.
[illegible] - [illegible]	Quartz filled fissure. Small showing WO3 at 141.7 - 142.[illegible]
[illegible] - [illegible]	Black lm. mottled with white calcite.
[illegible] - [illegible]	White calcite with small amounts of black lm.
[illegible] - [illegible]	Black lm. and calcite with showing of small stringers containing WO3 and quartz.
[illegible] - [illegible]	Black mottled lm.
[illegible] - [illegible]	Quartz with weak showing WO3.
[illegible] - [illegible]	Siliceous lm.
[illegible] - [illegible]	Black lm. [illegible] calcite with showing of small stringers containing WO3 and quartz.
[illegible] - [illegible]	Siliceous lm. with small amounts of black lm. and calcite.
[illegible] - [illegible]	Gray lm. mottled with calcite.

ASSAYS OF SPLIT CORE

Depth	% WO3
141.7 - 142.[illegible]	[illegible].03
[illegible] - [illegible]	[illegible].[illegible]
[illegible] - [illegible]	[illegible].[illegible]
[illegible] - [illegible]	[illegible].41

Form MF-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.

ACCOUNTS DEC 8 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October, 1953 Docket No. DMEA 2688 Contract No. IDM-2 481
Operator's Name M.I.A. Mines Co. Minerals Tungsten
Address 218 Felt Bldg., Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $28,550.00

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	1,105.00	5,203.50	6,308.50			WBM
Straighten & widen Adit		1,800.00	1,800.00			
Drifting	7,830.00	12,020.00	19,850.00			
Lay Trk, Air, Water Lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor - 1/2 Topman	227.50	50.75	278.25			
Supervision	500.00	1,900.00	2,400.00			
Technical Services	130.00	120.00	250.00			
[illegible]	150.00	725.00	875.00			
(3) [illegible]:	358.96	1,446.16	1,805.12			
Timber		240.43	240.43			
Vent Tubing	82.60	652.80	735.40			
Explosives						
Pipe	15.12	589.50	604.62			
Track		4,095.00	4,095.00			
Diesel Fuel	397.44	1,168.75	1,566.19			
Misc. Supplies	200.93	2,884.01	3,084.94			
(4) Operating Equipment:						
Rental Bulldozer & Trans.		545.12	545.12			
Purchase Rental Contract	400.00	800.00	1,200.00	-1200.00	0	0
Depreciation	317.00	903.00	1,220.00			
(5) Initial Rehabilitation and Repairs	136.10	2,284.46	2,420.56			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Maint.	559.50	936.97	1,496.47			
Repairs to Equipment	212.00	221.43	443.43			
Sampling and Analysis	(38.40)	108.67	70.27			
Payroll Taxes	50.78	211.27	262.05			
Liability Insurance	125.20	999.20	1,124.40			
Pick-up Transp.	114.13	1,293.51	1,407.64			
Haulage & Supplying Water						
(8) Contingencies (specify):						
Depreciation				257.73	0	257.73
TOTALS	12,873.86	45,940.49	58,814.35	$11,931.59	45,940.49	57,872.08

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

Date 12/2/53 *Payee M.I.A. Mines Co.

ORIGINAL SIGNED BY

Per O. F. BURTON Title 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:

$8948.69

Signature
(Authorized Certifying Officer)

Date Vou. No. 5F-DMEA-26

(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-E481 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engr. Date Dec. 4, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] for H. O. Miller Title Executive Officer DMEA Field Team Region XII Date December 7, 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.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1251.1
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

ACCOUNTS DEC 8 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1953 Docket No. DMEA 2688 Contract No. IDM-2 481
Operator's Name M.I.A. Mines Co. Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah

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
		24.71						
Drifting	Ft.	9,672.05	391.5	33,553.80	992.5	33.81		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	Ft.	1,105.00	221	6,308.50	1,261.7	5.00		
Supervision								
Office & Technical		630.00		2,650.00				
Assay & Analysis		212.00		433.43				
Office Bookkeeping		150.00		875.00				
Roads and Trails				545.12				
Taxes & Insurance		12.38		332.32				
TOTAL DISTRIBUTED COSTS		11,781.43		44,698.17				TOTAL COSTS AUTHORIZED BY CONTRACT
Purchase Rental		400.00		1,200.00				
Depreciation		317.00		1,220.00				
Operating Equipment Purchased								
Initial Rehabilitation and Repairs		136.10		5,848.18				
New Buildings, Improvements, etc.				3,315.96				
Transp. Men & Supplies		239.33		2,532.04				
TOTAL COSTS		12,873.86		58,814.35				
		$11,931.59 -942.27		943.27		$57,872.08		

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.

REMARKS:

Date 12/2/53 Operator M.I.A. Mines Co.

Per ORIGINAL SIGNED BY O. F. BURTON Title Treasurer

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)

$27.65/ft including all changes except churn drilling

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property-Narrative-October, 1953

November 23, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. 2688
Contract No. IDM-2 AMI

Dear Paul:

During the month of October, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

CHURN DRILLING

Minerva C.D.H. #6 was bottomed at 191 feet on October 13. As noted in last month's report, excellent scheelite values were obtained in the quartz fissure zone (163'-177½'); and low grade mineralization in both the hanging wall limestone (135'-163') and footwall limestone (177½' to bottom). A complete log of this hole with assays was included to the September report.

Minerva C.D.H. #7 was collared on October 16. The location of this hole is as follows: Coordinates: E. 4,039.3 N. 13,594.8 Collar elevation: 6,954.5. The hole penetrated 38 feet of wash and followed by blue limestone to a depth of 165 feet on October 31. This hole was afterward bottomed on November 17 at a measured depth of 243.3 feet. The mineralized fissure zone was encountered in the 195' - 200' run with excellent values. A probable fault zone was encountered between 200 and 220 feet. Several open cracks greatly hindered drill progress in this area. Very minor particles of scheelite were noted by mineral lamp in the drill cuttings below the "open crack" area. Assay results available at this time are as follows:

Depth	WO_3 - Unwashed Sludge	WO_3 - Washed
150-155	0.05	0.05
155-160	0.05	0.05
190-195	0.05	0.06
195-200	0.94	1.54

Churn drilling operations were suspended indefinitely on completion of Minerva C.D.H. #7. Results of drilling in the previously unsampled area to the east of the Silver Bell incline (Objective Area 6) indicates an extension of the known ore shoot for a strike length of about 575 feet. Assuming a vein dip of 45° to the north, an apparent vein strike of S84° E with minor faulting is indicated. The three churn drill holes (Minerva C.D.H. #5, #6, & #7) have all penetrated mineralization in the fissure above the 3rd. level of the Silver Bell mine. Drifting operations to the east on this level are currently under way.

FORM 25

SCHEELITE CHIEF ADIT

Drift progress for the month of October in the main drive toward Objective Area 4 totalled 290.5 feet. Total drift footage in this drive measured 845.5 feet. Approximately 850 feet was allocated for this work in the contract. The last round was mucked out on day shift of October 31. Reference is made to accompanying map A-1621 showing this progress. No additional mineralized zones were encountered in this work.

A total of 101 feet progress was made during the month in the sub-level drift (Objective Area 1). Work here has been suspended pending approval of requested amendments to the contract for diamond drilling exploration to locate the favorable ore horizon within the fissure, and afterward provide an entry.

Mr. Howard Knighton, core drilling contractor, of Henderson, Nevada was awarded the diamond drilling work in the Scheelite Chief adit. Knighton started moving his equipment to Minerva on November 4 and, following requisite preliminary work, started drilling operations on November 8. Minerva D.D.H. #1 was started at the following location: Coordinates: N. 4,126.3 E. 12,486.5 Collar elevation: 6,343.8 Course: N. 5° W Inclination: ∠ 45°. This hole was aligned to intercept the downward projection of the fissure in the Silver Bell mine at a depth of about 70 feet. The hole was bottomed at 125.7 on November 16 with inconclusive results in regard to the fissure location. A heavy calcite zone was noted from 37-43½ feet. In addition a very silicified zone with much calcite was penetrated at 112.5 feet and continued to near the bottom of the hole. All other core would be classified as a mottled blue and/or black limestone. No scheelite mineralization was found under a mineral lamp. Minerva D.D.H. #2 was then started at the same drill location in the drift. This hole was aligned to intercept the favorable ore horizon in the fissure on the downward projection below the lowest workings of the Silver Bell mine. A transit tie has not been made as yet to this hole for coordinates. The hole was aligned on a S25° E course and an inclination of ∠ 75°. At this writing the hole has been advanced about 100 ft. with the objective at approximately 150 feet.

SILVER BELL MINE

Upon completion of the drift work in the main drive in Scheelite Chief adit on October 31, the contractors' crew was transferred immediately to the prescribed rehabilitation job from the collar to the 3rd. level of the Silver Bell mine. The required surface plant was concurrently provided, as agreed to in the contract, at the sole expense of the N. L. M. Mines Company. Facilities provided include headframe, hoist house, gasoline driven hoist, skip(23 cubic ft. capacity for 30" gauge track), underground water storage (1,000 gal.), diesel fuel storage (660 gal.), gasoline storage, etc. Rehabilitation work including required preparatory excavation on the 3rd. level and skip loading pocket were completed by the contractor on November 18. Drifting operations to the east from the incline are currently under way.

Distribution of costs for October, as shown on the Operator's Monthly Report and Voucher, follow:

COMBINED METALS REDUCTION COMPANY

3 November 23, 1953 Paul Gemmill, General Supt. Nevada Mines

				Overrun
Independent Contractor				
Churn Drilling	221 feet @ $5.00	$ 1,105.00		
Drift Footage	391.5 feet @ 20.00	7,830.00		
			$ 8,935.00	
Labor and Supervision				
Superintendent		$ 500.00		
Tapman (½ D. Watson Time)		227.50		
Bookkeeper-Clerk (Part Time)		150.00		
Engineers (Part Time)		130.00		
			$1,007.50	
Operating Materials & Supplies				
Stage I (Scheelite Chief)				
-Combined Metals Reduction Co.-				
Tools & Misc.	$78.65			
Mine Truck(Max. previously exceeded)				236.80
Pipe Fittings	62.09			
12" Flexible Vent Line 100 ft.	82.60			
Diesel Fuel 2,160 gal.	397.44			
Oils, Greases, Compressor gas	52.79			
Sample Sacks	7.40			
		$ 680.97		
-Commercial Development Co.-				
Drill Steel and Bits		358.96		
Stage II (Silver Bell)				
-Combined Metals Reduction Co.-				
1" Pipe 120 ft.		15.12		
			$ 1,055.05	
Operating Equipment				
15 KW Diesel		$ 40.00		
2 Five H.P. Fans		12.00		
Water Pressure Tank		5.00		
20 Mine Cars		20.00		
Battery Trammer		115.00		
Battery Trammer(correction for July, Aug. Sept.)		6.00		
Compressor		119.00		
75 KW Diesel (purchase-rental with allowable max.)		400.00		
			$ 717.00	
Initial Rehabilitation and Repairs (Stage II)				
Mine Truck (max. previously exceeded)				216.82
1" Pipe 300 feet		$ 37.80		
Pipe Fittings		17.54		
Tools & Misc.		14.46		
Timber		66.28		
			$ 136.10	

COPY

FORM 25

COMBINED METALS REDUCTION COMPANY

4 November 23, 1953 Paul Gemmill, General Supt. Nevada Mines

New Buildings, Improvements, Etc. Name				Average
Miscellaneous				
Repair Parts - C. M. R. Co.			$ 169.18	
Repair Parts - Centennial Dev. Co.			47.81	
Maintenance Labor			317.51	
Assaying			212.00	
Pickup Trucks				
#46 800 Miles @ .09		$72.00		
#46 (Correcting June Invoice)		10.00		
#22 320 Miles @ .09		28.80		
#53 160 Miles @ .09		14.40		
			125.20	
Custom Haulage 1 load			25.00	
Custom Haulage-Compressor to Gamalton for repairs			25.00	
Supplying Water			244.71	
Adjustment for overcharge for water (July-Aug.)			(155.58)	
Payroll Taxes			5.05	
Liability Insurance			40.51	
Payroll Taxes (Adjustment for April-September)			(43.45)	
Liability Ins. (Adjustment for April-September)			9.77)	
			$ 1,023.21	
Totals			$ 12,873.86	$ 453.62

Very truly yours,

R. H. Godbe

R. H. Godbe

COPY

FORM 25

A-1621

REFERENCES C-1107
A-1614 A-1618

COMBINED METALS REDUCTION CO.
M. I. A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

Nov. 23, 1953

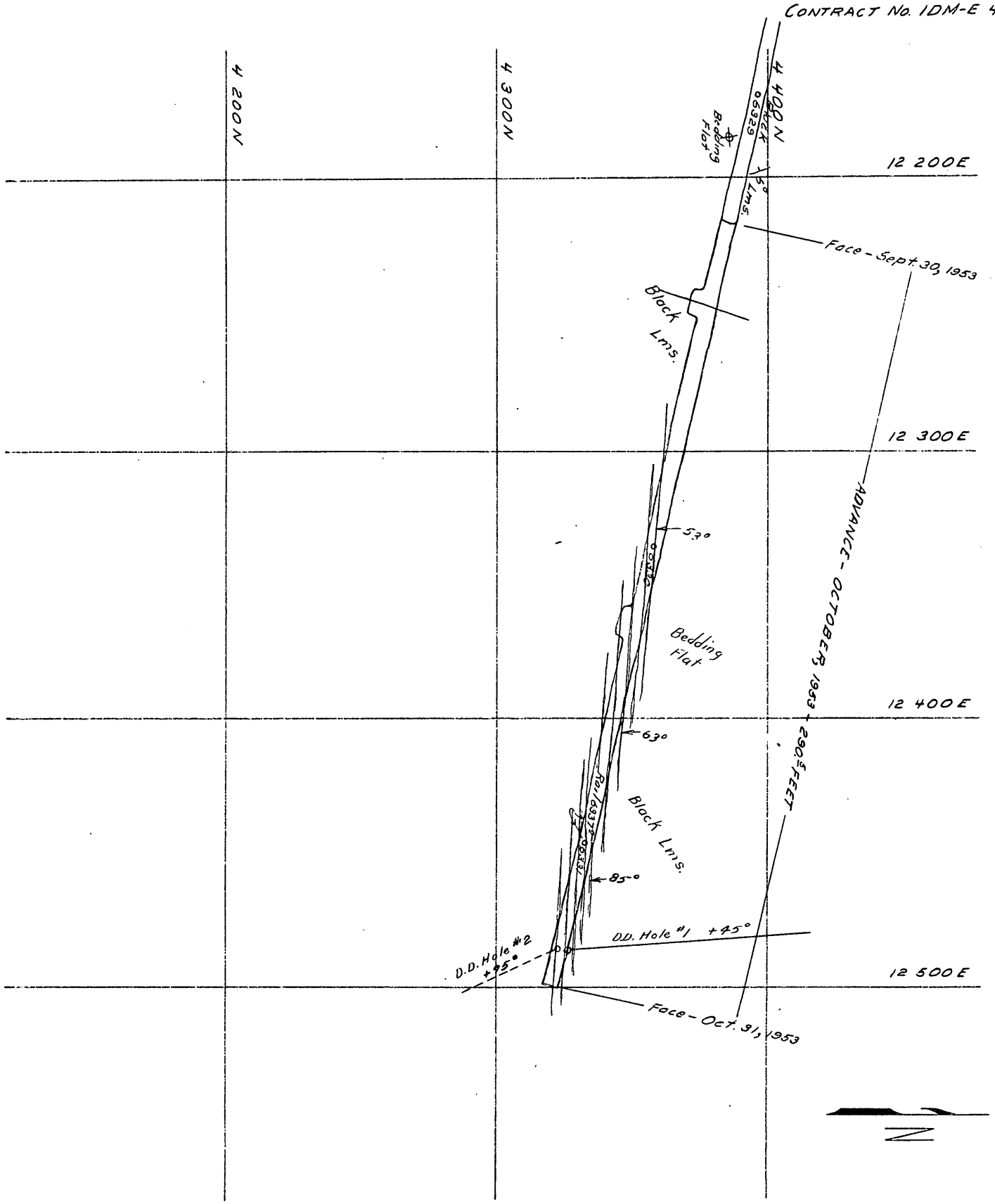
MADE BY R H GODBE

TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. IDM-E 481



A-1614

REFERENCES: C-1107

COMBINED METALS REDUCTION CO.

M.I.A. MINES CO.

MINERVA TUNGSTEN PROPERTY

WHITE PINE COUNTY, NEVADA

~SCHEELITE CHIEF MINE~

SEPT. 18, 1953

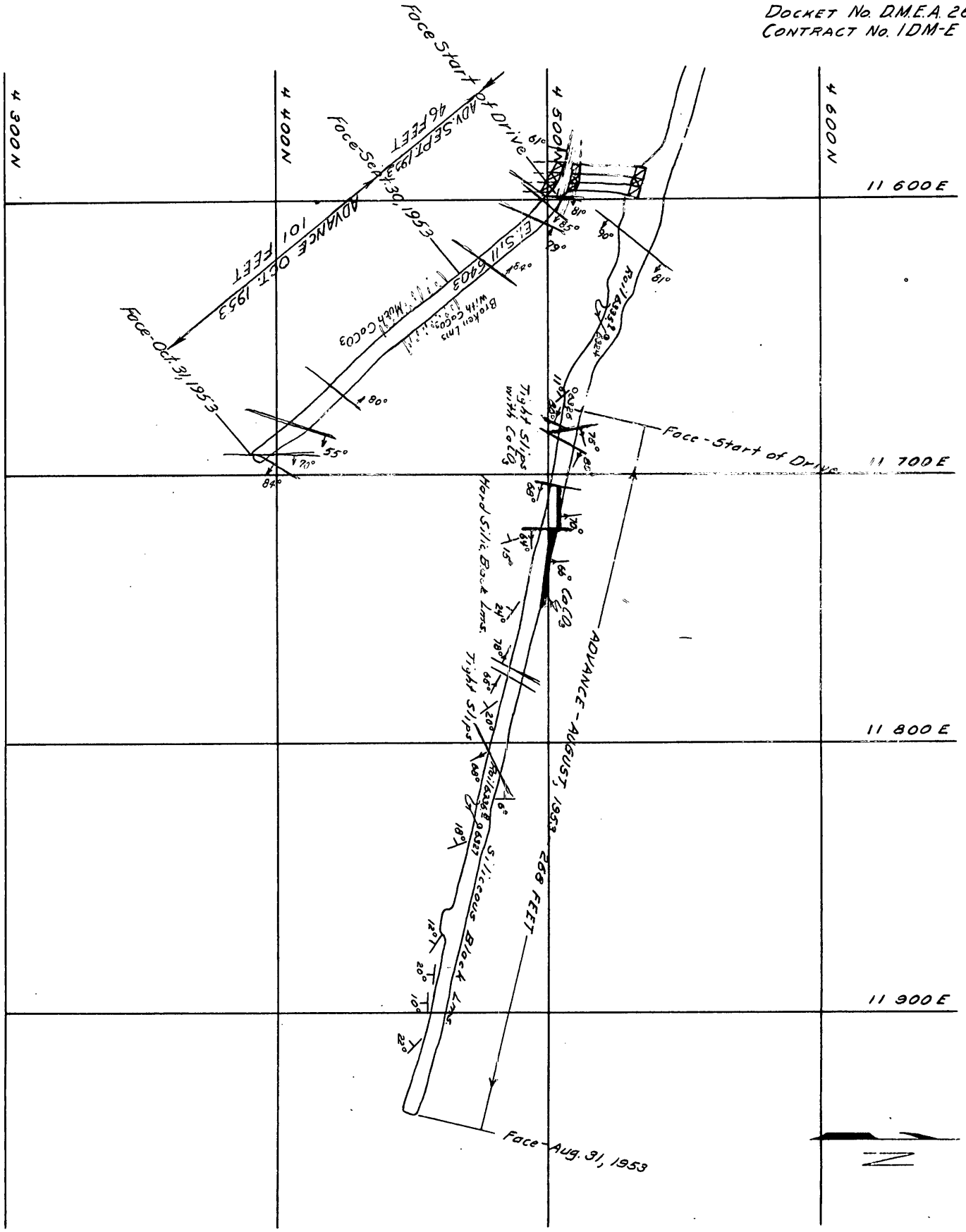
MADE BY: R.H. GODBE

TRACED BY:

CHECKED BY:

SCALE: 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 481



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

Administrative Audit Difference Statement

Date: December 31, 1953
Payee's
Reference: Contract IDM-D 481
Docket DMEA 2688
M.I.A. Mines Company

M.I.A. Mines Company
218 Felt Bldg.
Salt Lake City, Utah

Gentlemen:

Upon examination of the above Payee's Reference, a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$	12,873.86
Difference	$	942.27
Amount Approved	$	11,931.59

The reason for the difference was due to:

$1200.00	Disalloved per Interim Audit (March 1, thru Sept. 30, 1953 and letter dated 12/1/53 signed by George Mavor.
257.73	Depriciation in lieu of Purchase Contract for the period August, September and October at $85.91 per month.
$942.27	Total amount disalloved.

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

L. H. Sjolander
Chief, Budget and Finance Branch
Region III

Form MF-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.

ACCOUNTS NOV 24 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1953 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name M.I.A. MINES COMPANY Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $128,550.00

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	1,205.00	3,998.50	5,203.50			
Straighten & Widen Adit		1,800.00	1,800.00			
Drifting	6,660.00	5,360.00	12,020.00			
Lay track, air, water lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor - 1/2 Topman	50.75		50.75			
Supervision	500.00	1,400.00	1,900.00			
Technical Services	150.00	695.00	845.00			
(3) Operating Mat'ls. and Supplies:						
Drill steel & bits	1,446.16		1,446.16			
Timber (incl. ties)	119.50	120.93	240.43			
Vent tubing	326.40	326.40	652.80			
Pipe	192.72	396.78	589.50			
Track		4,095.00	4,095.00			
Power, diesel fuel, wire, switches	1,807.44	1,400.91	3,208.35			
Misc. Supplies	251.14	593.27	844.41			
(4) Operating Equipment:						
Rental Bulldozer & Transp.		545.12	545.12			
Purchase - Rental Contract	400.00	400.00	800.00			
Depreciation	309.00	594.00	903.00			
(5) Initial Rehabilitation and Repairs		2,284.46	2,284.46			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs Maint.	498.12	438.85	936.97			
Sampling and Analysis	52.00	169.43	221.43			
Payroll Taxes	19.38	89.29	108.67			
Liability Insurance	42.36	168.91	211.27			
Pick-up Transp.	188.40	810.80	999.20			
Haulage & Supplying water	294.71	998.80	1,293.51			
(8) Contingencies (specify):						
TOTALS	14,513.08	31,427.41	45,940.49			

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

Date Nov. 5, 1953 *Payee M.I.A. MINES COMPANY

Per [signature] Title 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:

$10,884.81

Signature [signature] Authorized Certifying Officer
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-26
(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-E481 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engr. Date Nov. 17, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date November 19, 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).

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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.

ACCOUNTS NOV 24 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1953 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name M.I.A. MINES CO. Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah

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	Ft.	11,352.23	333	23,881.75	601	39.74		
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	Ft.	1,205.00	241	5,203.50	1,040.7	5.00		
Auger								
Supervision & Technical		650.00		2,745.00				
Sample & Analysis		52.00		221.43				
Roads and Trails				545.12				
Taxes & Insurance		61.74		319.94				
TOTAL DISTRIBUTED COSTS		13,320.97		32,916.74				TOTAL COSTS AUTHORIZED BY CONTRACT
Purchase Rental		400.00		800.00				
Depreciation		309.00		903.00				
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				5,712.08				
New Buildings, Improvements, etc.				3,315.96				
Trans. Men & Supplies		483.11		2,292.71				
TOTAL COSTS		14,513.08		45,940.49				

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 November 5, 1953 Operator M.I.A. MINES COMPANY

By [signature] Title Treasurer

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: Drifting "Units to Date" for August was erroneously listed as 186 feet. The correct figure is 268 feet with a unit cost of $46.75.

(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

Minerva Tungsten Property-Narrative-September, 1953

October 23, 1953

Paul Gemmill, General Supt. Nevada Mines

A. H. Godbe

Docket No. 2688
Contract No. 1DM-E 481

Dear Paul:

During the month of September, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

CHURN DRILLING

Minerva C.D.H. #5 was at a depth of 60 feet at the end of August. The hole was completed at a measured depth of 146 feet on September 16. As previously described in the August report, the fissure was penetrated at 129 feet and passed through an undefined footwall zone between 145 and 155 feet. Under a mineral lamp, very definite scheelite mineralization was apparent, however assay results were low. The only assay of significance was from 135 to 137½ feet giving about 0.20% tungsten trioxide. A complete log of the hole with assays is appended.

On September 19 Minerva C.D.H. #6 was collared at elevation 6,932.6 about 92 feet easterly (87°E) from C.D.H. #5. First scheelite mineralization was encountered in the 135-140 ft. run. Low grade mineralization continued to about 165 feet where the hanging wall of the main quartz fissure was penetrated. Excellent scheelite values were indicated in the quartz zone with the footwall located at about 177½ feet. Pertinent assay results follow:

Depth	% WO_3
135-140	0.11
140-162½	0.02 to 0.06
162½-165	0.09
165-170	0.02
170-172½	0.28
172½-175	1.40
175-177½	0.61
177½-180	0.08
180-190	0.02

The hole was at a depth of 135 feet at the end of September, and was completed at a depth of 191 feet on October 13.

Minerva C.D.H. #7 was located about 140 feet N80°E from C.D.H. #6, and drilling operations resumed on October 16.

SCHEELITE CHIEF MINE

Drift progress for the month of September in the main drive toward Objective Area 4 totalled 287 feet. Reference is made to map 4-1618 showing this progress. As shown on the map, scheelite mineralization was encountered in a flat thrust fault zone early in the month. The area is highly brecciated with some silicification. Scheelite mineralization occurs for about 65 feet in the drift. One area for about 12 to 15 feet along the north wall and over the back indicates a probable ore zone. A six foot vertical cut (floor + 2 feet to back) assayed 0.65% WO_3; and a five foot horizontal cut across the back assayed 1.00% WO_3.

A total of 44 feet progress was made during the month in the sub-level drift being driven southeasterly toward Objective Area 1. This drift has been advanced through limestone in the hanging wall of the fault bounding the stope. October progress has advanced this drift to a total footage in excess of 100 feet. The faulted segment of the vein has not yet been reached. The contract agreement with the government calls for 100 feet of drift and a 50 feet raise to the mineralized zone. It is proposed to eliminate the drift as presently aligned to the vein and substitute drift equivalent footage for raise footage.

Indications are that the main drive of 650 feet will be completed by the contractor on or about November 1. Bid invitations have been forwarded and bids received from diamond drilling contractors for the drilling program outlined for the Scheelite Chief Mine. Plans are being carried out at the present time to provide the needed surface plant at the Silver Bell mine. On completion of the main drive, the drift crews will be transferred to the rehabilitation job in the inclined shaft at the Silver Bell mine. The diamond drilling program can then be efficiently carried out in the advanced main drift adit.

Formal approval of the proposed modification of the contract to allow the company to provide water to the operation by means other than hauling has been received. This modification allows $244.71 per month for supplying water during the project. Actual water haulage costs for August totalled $290.00. The excess amount must be carried by N.I.A. Mines Company.

Distribution of costs for September, as shown on the Operator's Monthly Report and Voucher, follow. Invoices covering carbide-insert type steel for the drift work thus far have been received from the contractor, and are included this month.

Approximately 1600 additional gallons of diesel fuel was delivered during September and must be included in the October accounting due to bookkeeping entries.

				Average
INDEPENDENT CONTRACTS				
Churn Drilling	241 feet @ $5.00	$ 1,205.00		
Drift Footage	333 feet @ $20.00	6,660.00		
			$ 7,865.00	
LABOR AND SUPERVISION				
Supervision		500.00		
Technical Services		150.00		
Tepman (½ of Watson time)		50.75		
			700.75	
OPERATING MATERIAL & SUPPLIES				
-Combined Metals Reduction Company-				
Tools and Mine.		145.85		
Timber		7.00		
Drill steel and bits		37.40		
Oils and Greases		58.89		
Ties 150 (4" x 6" x 36")		112.50		
Mine Track (max. previously exceeded)				148.50
Pipe Fittings		16.02		
Neoprene Hose	200 Feet	139.80		
1" Pipe	420 Feet	52.92		
12" Flexible Vent Line	400 Feet	326.40		
Diesel Fuel	2,160 Gal.	397.44		
#4-3 Cond. Cable (used)	1,410 ft.	1,410.00		564.00
Sample Sacks		7.40		
			2,711.42	
-Centennial Development Company-				
Drill Steel and Bits		1,408.76		
Mine Track (max. previously exceeded)				8.08
Tools and Mine.		22.98		
			1,431.74	
OPERATING EQUIPMENT				
15 KW Diesel		40.00		
Water Pressure Tank		5.00		
2 Five H.P. Fans		12.00		
10 Mine Cars		20.00		
Battery Tractor		113.00		
Compressor		119.00		
75 KW Diesel-purchase-rental with allowable max.		400.00		
			709.00	
REHABILITATION AND NEW JOBS				
None				

Repair Parts - C. M. A. Co.		302.18	
Repair Parts-Centennial Dev. Co.		31.95	
Maintenance Labor-C. M. A. Co.		163.99	
Assaying 26 det. @ $2.00		52.00	
Pickup Trucks			
#22 460 Miles @ $.09	$ 43.20		
#46 1,280 Miles @ .09	115.20		
Centennial Pickup			
300 Miles @ $ .10	30.00		
		188.40	
Custom Haulage 2 Loads @ $25.00		50.00	
Supplying Water		244.71	
Payroll Taxes		19.38	
Liability Insurance		42.36	
			1,094.97
Totals		$ 14,313.08	$ 720.38

Very truly yours,

R. H. Godbe

R. H. Godbe

A - 1617

REFERENCES: C-1167
-1609, -1611, -
-1612, -1613, -
-1616

COMBINED METALS REDUCTION CO.

Minerva Churn Drill Hole No. 6
Objective Area 6
Docket No. DMEA-2688 Contract No. 13M-1 461

October 28, 19 52

MADE BY R. H. Godbe

TRACED BY

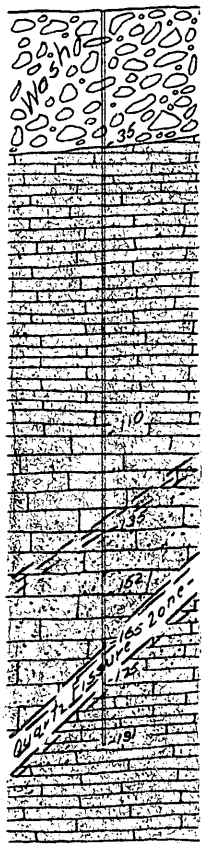
CHECKED BY

SCALE 1" = 50'

Coordinates:

N. 4,009.7
E. 13,441.4

Collar Elev:	6,932.6
Started:	9-19-53
Finished:	10-13-53
Driller:	Fullerton
Depth:	191'
Size of Hole:	4 3/4"



LOG OF HOLE

0-35 Wash
35-110 Blue limestone.
110-152 Light gray limestone with white calcite. Note-Considerable scheelite noted 135 to 140 run.
152-165 White calcite and quartz with light gray limestone. Specks scheelite noted.
165-177½ Finely ground quartz, some calcite. Much scheelite under mineral lamp.
177 -182 Light gray limestone with much calcite and a little quartz. Some scheelite noted.
182-191 Dark gray limestone.

ASSAYS

Depth	% WO_3 - Unwashed	% WO_3 - Washed
135-140	0.11	0.10
140-145	[illegible]	0.04
145-147½	[illegible]	0.03
147½-150	[illegible]	0.04
150-152½	Sample lost by Driller	0.02
152½-155	[illegible]	0.03
155-157½	0.04	0.04
157½-160	0.05	0.06
160-162½	0.03	0.04
162½-165	0.03	0.10
165-170	0.02	0.12
170-172½	0.28	0.29
172½-175	1.40	1.80
175-177½	0.61	0.63
177½-180	0.08	0.04
180-182½	0.02	0.03
182½-185	0.02	0.03
185-187½	0.02	0.03
187½-190	0.02	0.03

A -1616

REFERENCES C - 1107
-1608, A-1611,
-1612, A-1615

COMBINED METALS REDUCTION CO.

Minerva Churn Drill Hole No. 5

Objective Area 6

Docket No. DMEA 2688 Contract No. 10M - E 481

October 13, 1953

MADE BY R. H. Godbe

TRACED BY

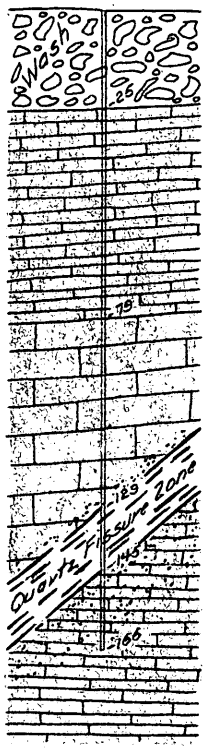
CHECKED BY

SCALE 1" = 50'

Coordinates: N. 3,993.3
E.13,350.3
Collar Elev: 6,920.6
Started: 8-20-53
Finished: 9-16-53
Drillers: Schuh, Fullerton
Depth: 166'
Size of Hole: 4 3/4"

LOG OF HOLE

0-25 Wash
25-79 Blue Limestone.
79-129 White Limestone (Light pinkish cast).
129-145 Finely ground white quartz with scheelite mineralization under mineral lamp.
145-155 Light gray limestone. Scheelite noted.
155-166 Dark gray limestone. Few specks scheelite noted.



ASSAYS

Depth	WO_3 - Unwashed	WO_3 - Washed
125-130	Not Assayed	0.03
130-135	0.05	0.03
135-137½	0.20	0.03
137½-140	0.03	0.03
140-142½	0.04	0.03
142½-145	0.03	0.04
145-147½	0.05	0.05
147½-150	0.03	0.04
150-152½	0.02	0.04
152½-155	0.03	0.03
155-157½	0.03	0.05
157½-160	0.06	0.04
160-162½	0.04	0.03
162½-165	0.04	0.02

A-1618

REFERENCES C-1107

A-1614

COMBINED METALS REDUCTION CO.

M. I. A. MINES CO.

MINERVA TUNGSTEN PROPERTY

WHITE PINE COUNTY, NEVADA

~SCHEELITE CHIEF MINE~

OCT. 28, 1953

MADE BY R. H. GODBE

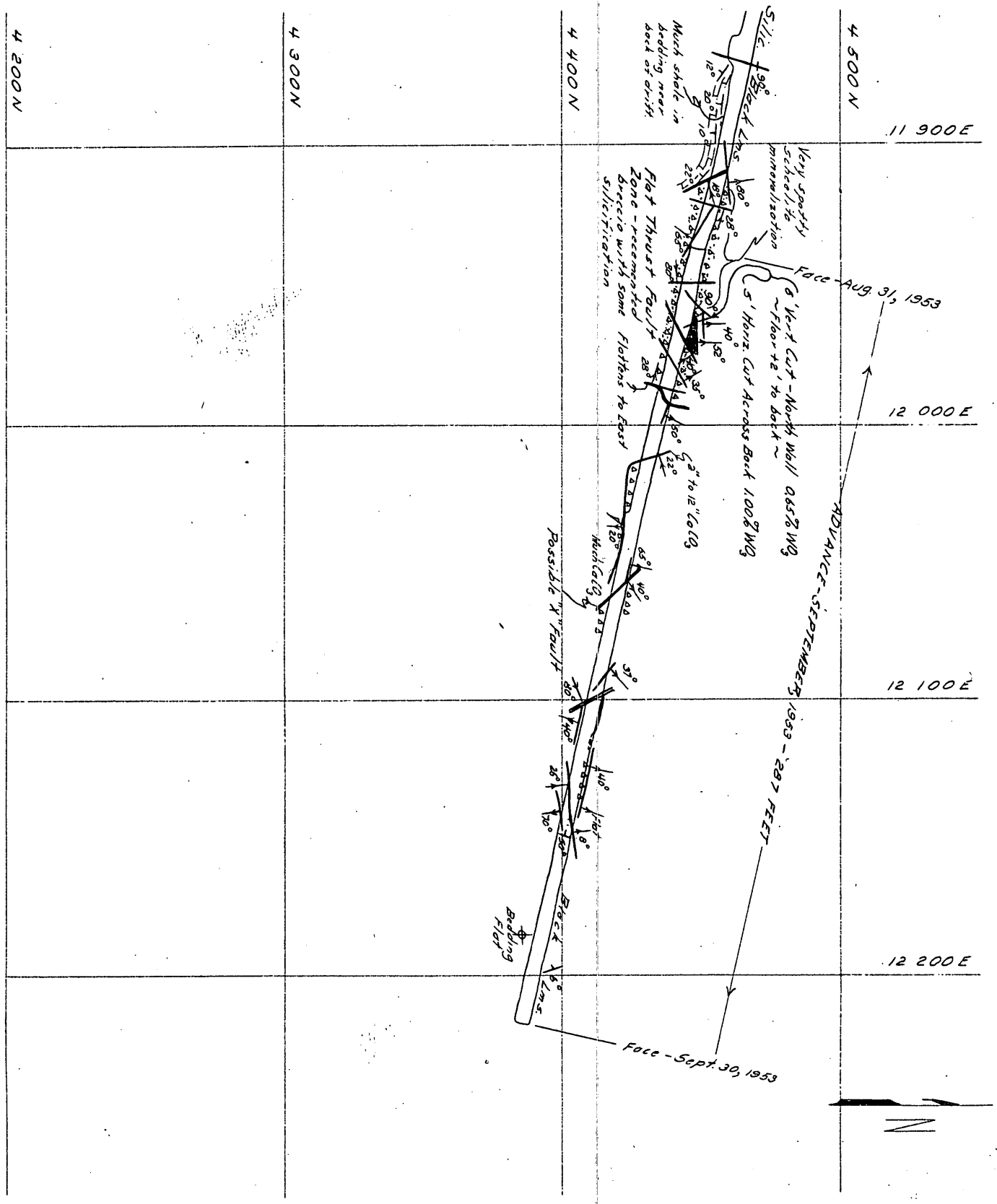
TRACED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688

CONTRACT No. 1DM-E 481



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

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

ACCOUNTS OCT 14 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August, 195 3 Docket No. DMEA 2688 Contract No. Idm E 481
Operator's Name MIA MINES COMPANY Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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	625.00	3,373.50	3,998.50			
Straighter & Nilden Adit (Bulldozing)		1,800.00	1,800.00			
Crosscutting						
Drifting	5,360.00		5,360.00			
Lay Track, air & Water Lines		1,425.00	1,425.00			
(2) Labor and Supervision:						
Labor						
Supervision	400.00	1,000.00	1,400.00			
Technical Services	150.00	545.00	695.00			
(3) Operating Mat'ls. and Supplies:						
Timber	68.43	52.50	120.93			
~~Explosives~~ Vent Tube		326.40	326.40			
Pipe	174.75	222.03	396.78			
Track		4,095.00	4,095.00			
Diesel Fuel	352.49	1,048.42	1,400.91			
Misc. Supplies	379.54	213.73	593.27			
(4) Operating Equipment:						
Dozer & Transportation ~~Rental~~		545.12	545.12			
~~Purchase~~ Rental Contract	400.00		400.00			
Depreciation	297.00	297.00	594.00			
(5) Initial Rehabilitation and Repairs		2,284.46	2,284.46			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment Maintenance	328.72	110.13	438.85			
Sampling and Analysis	120.23	49.20	169.43			
Payroll Taxes	18.43	70.86	89.29			
Liability Insurance	42.35	126.56	168.91			
Pickup Transportation	250.40	560.40	810.80			
Haulage	370.00	628.80	998.80			
(8) Contingencies (specify):						
TOTALS	9,317.34	22,110.07	31,427.41			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date Sept. 30, 1953 *Payee MIA MINES COMPANY
By [signature] Title 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:

$6988.00

Signature Lloyd H. Alexander
Authorized Certifying Officer
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-22
(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-E481 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Region III Date Oct. 12, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date October 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.

GPO 83-38476

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

ACCOUNTS OCT 14 1953
RECEIVED NOV 2 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 195 3 Docket No. DMEA 2688 Contract No. Idm B 481
Operator's Name MIA MINES COMPANY Minerals Tunsten
Address P. O. Box 150, Salt Lake City, Utah

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	Ft	6663.93	~~186~~ 268	12,529.52	~~186~~ 268	67.36		
Crosscutting						46.60		
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	Ft	625.00	125	3,998.50	799.7	5.00		
Auger								
Sample & Analysis		120.23		169.43				
Taxes & Ins.		60.78		258.20				
Roads and Trails				545.12				
Supervision & Teck.		550.00		2,095.00				
TOTAL DISTRIBUTED COSTS		8019.94		19,595.77				TOTAL COSTS AUTHORIZED BY CONTRACT
Purchase Rental		400.00		400.00				
Depreciation		297.00		594.00				
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				5,712.08				
New Buildings, Improvements, etc.				3,315.96				
Trans. Men & Supplies		600.40		1,809.60				
TOTAL COSTS		9317.34		31,427.41				

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 Sept. 30, 1953 Operator MIA MINES COMPANY

By [signature] Title Treasurer

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)

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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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property - Narrative - August, 1953

September 20, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Cadbe

Docket No. 2688
Contract No. IDM-E 481

Dear Paul:

During the month of August, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Churn Drilling

Minerva C.D.H. #4 was at a depth of 180 feet at the end of July. This hole was completed at a depth of 245 feet on August 15. The hanging wall of the quartz fissure was encountered at 225 feet and the footwall at about 237 feet. The balance of the hole was in a light gray limestone. Definite scheelite mineralization was apparent in the fissure zone under a mineral lamp. Our assay results of the unwashed sludge gave a WO_3 content in the order of 0.05% to 0.07%. Assay results as determined by the U.S. Bureau of Mines are not as yet available. A complete log of the hole with assays is appended.

On completion of C.D.H. #4, the rig was moved to the area east of the Silver Bell incline, designated as Objective Area 6 in the Exploration Project Contract. Minerva C.D.H. #5 was collared on August 20 and was at a depth of 60 feet at the end of the month. A total of 25 feet of wash was penetrated and followed by limestone to 60 foot depth. This hole was afterward bottomed at a measured depth of 166 feet. The fissure was penetrated at 129 feet and passed through an indefinite footwall zone between 145 feet and 155 feet. The cuttings from 155 feet to the bottom were of a blue limestone with a little shale noted. Excellent scheelite mineralization was noted under a mineral lamp from 130 to 140 feet. Rapidly decreasing values were indicated at lower depths. A surveyed tie (transit-stadia) gives the following location of this hole:
Coordinates (N. 3,993.3 E. 13,350.3), Collar Elev. 6,920.6.

Minerva C.D.H. #6 has been started at the following location: Coordinates (N. 4,009.7 E. 13,441.1), Collar Elev. 6,932.6.

Scheelite Chief Adit

The Centennial Development Co., contractor, completed the rehabilitation of the main adit the first of August and commenced the main drive on this level on August 3. This drift alignment was made on a S 77° 30' E bearing. During the month the heading was advanced a total of 268 feet in a very hard, siliceous limestone. After a two week period the "throw-away" type liddicoat bits used with standard one and one eighth inch round steel had to be discarded in favor of carbide-insert type steel. A drill round

COMBINED METALS REDUCTION COMPANY

SHEET 2 DATE September 20, 1953 Raul Connill, Gen. Supt. Nevada Mines

averaging 27 holes using a burn cut with a large unloaded hole in the center has proven successful. The contractor has furnished all of the carbide-insert type steel and invoice for same has not been received or included in this month's figures.

Work was undertaken toward the end of August to rehabilitate the steeply inclined raise to the sub-level location of the 100 foot drive and probable raise to Objective Area 1.

Distribution of costs for August, as shown on the Operator's Monthly Report and Voucher follow. As previously noted, the cost of carbide-insert type steel is not included this month. In addition the following major items must be included in the September accounting due to bookkeeping entries:

1410 feet of used AWG #4 3 conductor cable
1080 gal. diesel fuel (delivered to property 8/26/53.)

Independent Contracts

Churn Drilling 125 feet @ $ 5.00	$ 625.00	
Rehabilitate Scheelite Chief Adit (straighten and widen) —allowable max. previously exceeded— 110 cu. ft. @ $ .50		$ 55.00
(Track, air, water lines) —allowable max. previously exceeded— 36 ft. @ $ .75		27.00
(Switches) —not allowed for in contract— 4 switches @ $ 20.00 (July)		80.00
1 switch @ $ 20.00 (Aug.)		20.00
Note — An allowable maximum of $ 1,800.00 was given for straighting and widening of the adit in the contract. The July invoice from Centennial Development Co. totalled $2,010.00 (4,020 cu. ft. @ $ .50 per cu. ft.) The average was incorrectly listed as $612.00, or an excess of $402.00		(402.00)
Drifting (5' x 7' drift) 268 feet @ $ 20.00	$5,360.00	
		$ 5,985.00

Labor and Supervision

Supervision	400.00	
Technical Services	150.00	
		$ 550.00

FORM 23

COMBINED METALS REDUCTION COMPANY

3 SHEET | September 20, 1953 DATE | Paul Gemmill, Gen. Supt. Nevada Mines TO

Operating Materials and Supplies

			OVERAGE
Mine track (max. previously exceeded)			$ 29.10
2½" neoprene hose 250 ft. @ .699	$174.75		
Drill steel and bits	123.09		
Timber	68.43		
Tools and misc. supplies	161.56		
Pipe fittings	88.45		
Diesel fuel 1,080 gal. @ .184	198.72		
Greases and oils	6.44		
Electric cable	127.75		
Electric switches	26.03		
		$ 975.21	

Operating Equipment

Battery trammer complete with two 20 cell batteries, control panel, and M.G. set (1/60 x $6,908)	$113.00	
Compressor (1/60 x $7,146)	119.00	
10 mine cars (1/60 x $120 x 10)	20.00	
15 KW Diesel-Elec. Generator (1/60 x $2,400)	40.00	
Diesel-electric generator Caterpillar D-13000, purchase-rental (allowable max.)	400.00	
Water pressure tank	5.00	
		$ 697.00

Rehabilitation and Repairs

None

New Buildings, Improvements, Installations

None

Miscellaneous

Repair parts	$ 3.72	
Maintenance labor	325.00	
Assaying - August 14 @ $2.00	28.00	
Assaying-correction July invoice	75.00	
Sampling (sample sacks)	17.23	
Custom hualage 1 load @ $25.00	25.00	
Water hualage 69 loads @ $5.00	345.00	
Pickup trucks		
#22 960 Miles @ $ .09		
#46 1600 Miles @ $ .09		
-or 2,560 Miles @ $ .09	230.40	
Payroll taxes	18.43	
Liability insurance	42.35	
		$1,110.13

FORM 23

COMBINED METALS REDUCTION COMPANY

SHEET 4 September 30, 1953 Beal Gemmill, Gen. Supt. Nevada Mines

Totals	$ 9,317.34	($ 190.90)

Very truly yours,

R. H. Cobbe

COPY

FORM 23

A-1614

REFERENCES C-1107

COMBINED METALS REDUCTION CO.
M.I.A. MINES CO.
MINERVA TUNGSTEN PROPERTY
WHITE PINE COUNTY, NEVADA
~SCHEELITE CHIEF MINE~

SEPT. 18, 1953

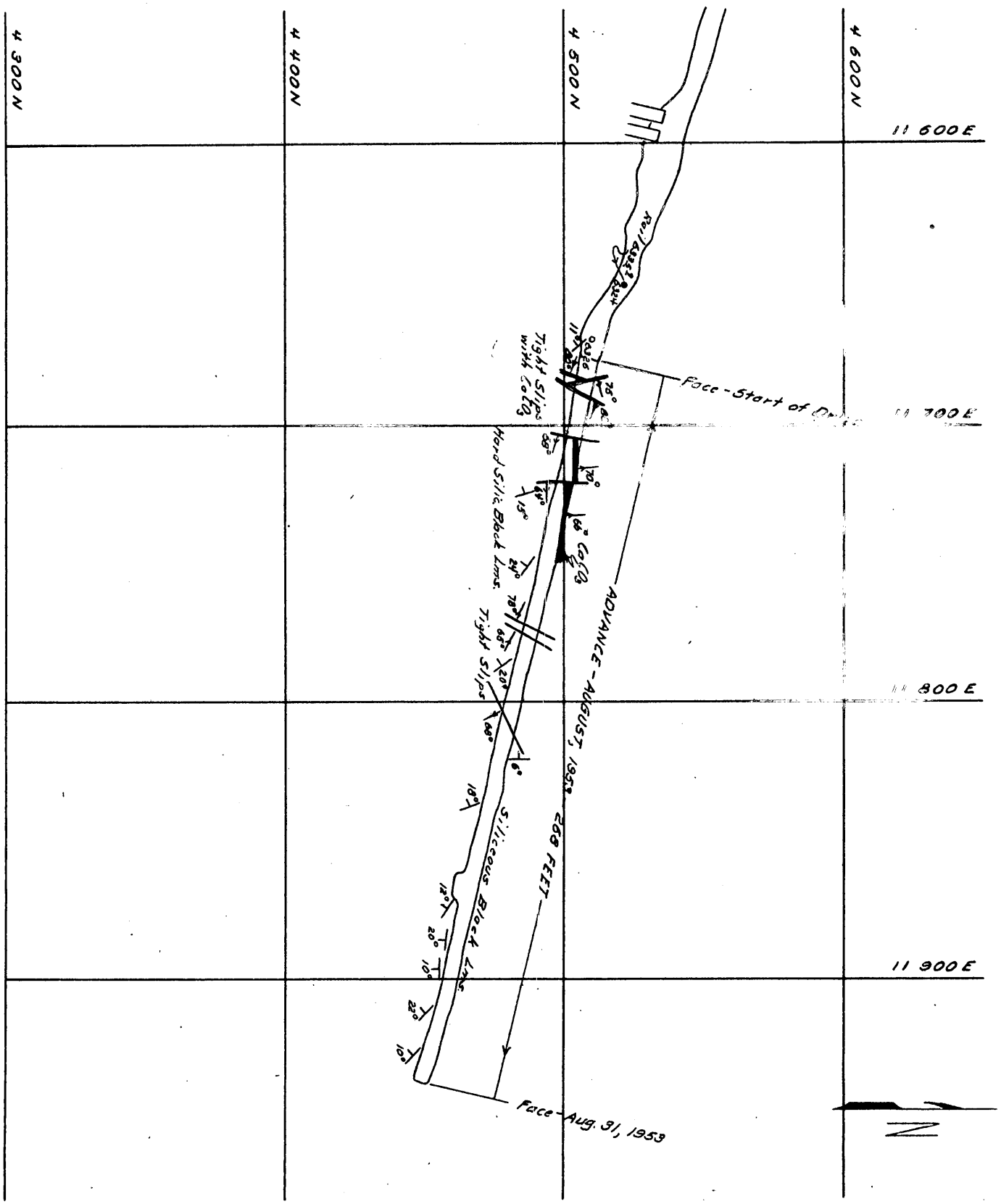
MADE BY R.H. GODBE

ISSUED BY

CHECKED BY

SCALE 1" = 50'

DOCKET No. D.M.E.A. 2688
CONTRACT No. 1DM-E 481



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REFERENCES

COMBINED METALS REDUCTION CO.

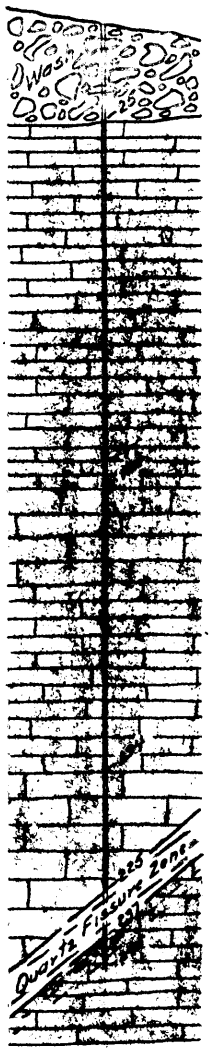
19

MADE BY

TRACED BY

CHECKED BY

SCALE



Form MJS-204 (Rev.)
(April 1952)

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

ACCOUNTS SEP 14 195

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

Month of July, 1953 Docket No. DMEA 2688 Contract No. DMA-2 481
Operator's Name U. I. A. Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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	915.00	2,458.50	3,373.50			
Straightening & Widen Adit.	1,800.00		1,800.00			
Crosscutting						
Drifting						
Lay Track, Air, & Water Lines	1,053.75	371.25	1,425.00			
(2) Labor and Supervision:						
Labor						
Supervision	360.00	640.00	1,000.00			
Technical Services	150.00	395.00	545.00			
(3) Operating Mat'ls. and Supplies:						
Timber (Ties)	52.50		52.50			
Vent Tubing	326.40		326.40			
Pipe	88.07	133.96	222.03			
Track		4,095.00	4,095.00			
Power Diesel Fuel	864.50	183.92	1,048.42			
Misc. Supplies	105.42	108.31	213.73			
(4) Operating Equipment:						
Rental Bulldozer & Trans.		545.12	545.12			
Purchase						
Depreciation	297.00		297.00			
(5) Initial Rehabilitation and Repairs	1,464.29	820.17	2,284.46			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment	110.13		110.13			
Sampling and Analysis	32.40	16.80	49.20			
Payroll Taxes	14.28	56.58	70.86			
Liability Insurance	25.50	101.06	126.56			
Pick-up Trans.	201.60	378.80	580.40			
Haulage	375.00	253.89	628.89			
(8) Contingencies (specify):						
TOTALS	8,235.84	13,874.23	22,110.07			

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

Date Aug. 31, 1953 *Payee U. I. A. Mines Company

ORIGINAL SIGNED BY
Per O. F. BURTON Title 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:

$ 6176 88

Lloyd W. Sjolander
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date SEP 14 1953 Vou. No. SF-DMEA-N

(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. [illegible] in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Region III Date Sept. 11, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker for H. C. Miller Title Executive Officer DMEA Field Team Region III Date September 14, 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.

GPO 83-38476

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

ACCOUNTS SEP 14 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1953 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name M. I. A. Mines Company Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah

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		1,572.02		5,890.59				
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn		915.00	183	3,373.50	674.7	5.00		
Auger								
~~Supply~~ Depreciation		297.00		297.00				
~~Equipment~~ Misc. Supplies		7.40		24.20				
~~Equipment~~ Taxes & Ins.		39.78		197.42				
Roads and Trails				545.12				
Supervision & Technical		510.00		1,545.00				
TOTAL DISTRIBUTED COSTS		3,341.20		11,872.83				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs		4,318.04		5,712.08				
New Buildings, Improvements, etc.				3,315.96				
Transportation Men &		576.60		1,209.20				
TOTAL COSTS Supplies		8,235.84		22,110.07				

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 Aug. 31, 1953 Operator M. I. A. Mines Company

Per ORIGINAL SIGNED BY O. E. DUNAN Title Treasurer

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

Minerva Tungsten Property Narrative - July, 1953

August 10, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. DMEA 2688
Contract No IDM-E 481

Dear Paul:

During the month of July, progress under the Exploration Project Contract with the Defense Minerals Exploration Adminstration was as follows:

Churn Drilling

As noted in the June report, Minerva C.D.H. #3 was bottomed on July 8th at 127 feet and still within the quartz fissure zone. Minerva C.D.H. #4 (coordinates N. 4,313.1 E. 12,122.0; collar elevation 6,736.0) was collared on July 10 and was at a depth of 180 feet at the end of the month. This hole was designed to penetrate the hanging wall of the quartz fissure at about 250 feet. The hole thus far has drilled through 25 feet of wash and the balance limestone.

REHABILITATION - SCHEELITE CHIEF ADIT

The Centennial Development Company very nearly completed the rehabilitation of the Scheelite Chief adit during the month. Work included widening and straightening of the adit together with installation of 24" gauge track, water and air lines. A total of 4,020 cubic feet of rock in place was removed. The original estimate and "allowable" slabbing was for 3,000 cubic feet. The excess required was largely due to modification from 18" to 24" gauge track together with excavation for a battery charging station. Drift advance in the main heading was under way in early August.

Distribution of costs for July, as shown on the Operator's Monthly Report and Voucher follows:

Independent Contracts			Overage
Churn Drilling 183 feet @ $5.00	$915.00		
Rehabilitate Scheelite Chief Adit (straighten and widen)			
- allowable max 3,000 cu ft @ 60¢	1,800.00		
- excess overallowable 1,020 cubic feet @ 60¢			$ 612.00
(track, air water lines)			
- to allowable max 1,405 @ 75¢	1,053.75		
- excess over max 135 @ 75¢			101.25
		$3,768.75	

Labor and Supervision

Supervision	360.00	
Technical Services	150.00	
		$ 510.00

Operating Materials and Supplies

(Mine track (max. previously exceeded)			106.18
2½" neoprene hose 126 ft @ .699	88.07		
12" flexible vent tubing 400 ft @ .816	326.40		
Pipe Fittings	55.96		
Ties 70 @ $.75	52.50		
Diesel fuel 1,080 gal @ .184	198.72		
1,005 gal @ .189	189.95		
Electric switches & transformer	146.58		
#10 3 cond. wire 250 ft @ .337	84.25		
#8 3 cond wire 490 ft @ .500	245.00		
Tools and misc. supplies	49.46		
		1,436.89	

Operating Equipment

Battery trammer complete with two 20 cell batteries, control panel & MG set (1/60 x $6,900)	113.00	
Compressor (1/60 x $7,146)	119.00	
10 Mine cars (1/10 x $120 x 10)	20.00	
15 KW Diesel-Electric Gen. (1/60 x $2,400)	40.00	
Water pressure tank	5.00	
		297.00

Rehabilitation and Repairs

3" pipe 908 ft @ .764	693.31	
Ties 260 .750	195.00	
2½" Neoprene hose 824 ft @ .699	575.98	
		1,464.29

Miscellaneous

Repair parts	110.13
Sampling & analysis (sample sacks	7.40

Miscellaneous (continued)

Assays 50 @ .50	25.00		
Pickup truck 2,240 @ .09	201.60		
Custom Haulage	75.00		
Water haulage *			
60 loads @ $5.00	300.00		
Payroll Taxes	14.28		
Liability Insurance	25.50		
		$758.91	
Totals		$ 8,235.84	$ 819.43

*Contracted @ $5.00/800 gal load delivered to tank in lieu of ½ top man wages & mileage @ 14¢/mile in Co furnished water truck as per original estimate.

Very truly yours,

R. H. Godbe

R. H. Godbe

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

ACCOUNTS AUG 25 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of June, 1953 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name M. I. A. MINES COMPANY Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah
Contract Amount, $171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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	670.00	1,788.50	2,458.50			
Bulldozing						
Crosscutting						
Drifting						
Lay track, air & water	371.25		371.25			
(2) Labor and Supervision:						
Labor						
Supervision	200.00	440.00	640.00			
Technical Services	75.00	320.00	395.00			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe		133.96	133.96			
Track		4,095.00	4,095.00			
Power - Diesel fuel	183.92		183.92			
Misc. Supplies	18.70	89.61	108.31			
(4) Operating Equipment:						
Rental Bull dozer & transp.		545.12	545.12			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs	597.86	222.31	820.17			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	9.40	7.40	16.80			
Payroll Taxes	7.70	48.88	56.58			
Liability Insurance	13.75	87.31	101.06			
Pick-up Transp.	90.80	288.00	378.80			
Haulage	94.80	159.00	253.80			
(8) Contingencies (specify):						
TOTALS	2,333.18	11,541.05	13,874.23			

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

Date Aug. 10, 1953 *Payee M. I. A. MINES COMPANY

Per ORIGINAL SIGNED BY O. F. BURTON Title 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:

$ 1,749.88

Signature Lloyd H. Sjolander
Authorized Certifying Officer
(Authorized Certifying Officer)

Date AUG 25 1953 Vou. No. SF DMEA-8

(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. Ion-181 in accordance with the terms of the contract.

Signature R. G. Johnson Title Chief, Mining Div. Region III Date August 21, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date August 24, 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.

GPO 83-38476

Form MF-104A
(April 1952)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR

ACCOUNTS AUG 25 1953

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1953 Docket No. DMEA 2688 Contract No. IDM-E 481
Operator's Name M. I. A. MINES COMPANY Minerals Tungsten
Address 218 Felt Building, Salt Lake City, Utah

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				4,318.57				
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn		670.00	134.0	2,458.50	491.7	5.00		
Auger								
Stripping								
~~Trucking~~ Misc. Supplies		9.40		16.80				
~~Truck~~ Taxes & Ins.		21.45		157.64				
Roads and Trails				545.12				
Supervision & Technical		275.00		1,035.00				
TOTAL DISTRIBUTED COSTS		975.85		8,531.63				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs		1,171.73		1,394.04				
New Buildings, Improvements, etc.				3,315.96				
Transportation, Men & Supplies		185.60		632.60				
TOTAL COSTS		2,333.18		13,874.23				

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 Aug. 10, 1953 Operator M. I. A. Mines Company

ORIGINAL SIGNED BY

Per O. E. BURTON Title Treasurer

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

Minerva Tungsten Property Narrative - June, 1953

August 2, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. DMEA 2688
Contract No. IDM-E 481

Dear Paul:

During the month of June, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Churn Drilling

Minerva C.D.H. #2 was completed on June 2nd at a depth of 90 feet. A Scheelite bearing mineralized zone was penetrated between 65 and 85 feet. Drill cuttings in this zone showed mostly blue gray limestone with some quartz and calcite. Definite scheelite mineralization was noted by mineral lamp observation, however assays for WO_3 content were all in the order of 0.1%. The complete log of the hole with assays is appended.

Minerva C.D.H. #2 was started on June 2nd. This hole was drilled through 67 feet of wash, 13 feet of limestone, and encountered the quartz fissure zone at 80 feet on June 13. At the end of the month, the bottom was at 124 feet and still drilling in hard quartz. The hole was later bottomed (July 8) at a depth of 127 feet after progress in the quartz zone came to a standstill. Scheelite mineralization occurred throughout the zone. One five foot run (85' - 90') assayed 0.76% WO_3. The next run (90' - 95') assayed 0.29% WO_3. All other assays were in the order of 0.10 or less. A complete log of this hole with assays is appended.

A triangulation net-work has been completed and accurate ties to the churn drill holes made. Approximate coordinates and collar elevation for C.D.H. #1 were previously forwarded. The correct coordinates and collar elevation for this hole are as follows:

	Coordinates	Collar Elevation
Minerva C.D.H. #1	N. 4,253.8 E.11,856.7	6,714.4

Independent Contracts

A contract agreement was completed with the Centenial Development Company, Eureka, Utah; and they commenced operations on June 22. At the end of the month a total of 495 feet of track, air and water line had been installed.

Distribution for costs for June, as shown in the Operator's Monthly Report and Voucher follows:

			Average
Independent Contracts			
Churn Drilling 134 feet @ $5.00	$670.00		
Rehabilitate Scheelite Chief Adit (track, air, water lines) 495 ft @ $0.75	371.25		
		$1,041.25	
Labor and Supervision			
Supervision	200.00		
Technical Services	75.00		
		275.00	
Operating Materials & Supplies			
Diesel fuel (1005 gal)	183.92		
Track (max. previously exceeded)			$ 36.25
Misc. supplies	18.70		
		202.62	
Operating Equipment			
None			
Initial Rehabilitation & Repairs			
Ties 500 @ $0.75	375.00		
Pipe 3" 168 feet @ $ .859	144.31		
Pipe fittings	78.55		
		597.86	
New Buildings, Improvements etc.			
None			
Miscellaneous			
Pickup truck 1120 miles @ $0.09	90.80		
Company truck (haulage) 320 miles @ $0.14	44.80		
Custom haulage	50.00		
Sampling & analysis	9.40		
Payroll taxes	7.70		
Liability Ins.	13.75		
		216.45	
Totals		$ 2,333.18	$ 36.25

Very truly yours,

R. H. Godbe

RHG:zw

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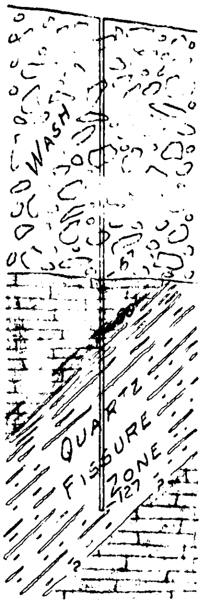

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REFERENCES

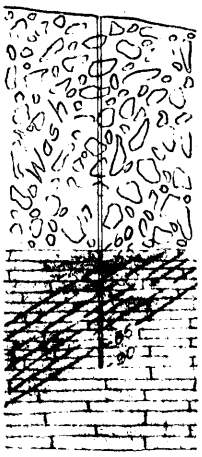
COMBINED METALS REDUCTION CO.

MADE BY

TRACED BY

CHECKED BY.

SCALE



Form MF-[illegible] (Rev.)
(April 1952)

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

4 ae

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

ACCOUNTS JUL 14 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1953 Docket No. DMEA 2688 Contract No. Idm S 431
Operator's Name MIA MINES COMPANY Minerals Tungsten
Address P. O. Box 150, Salt Lake City 8, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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	1,688.50	100.00	1,788.50			WSM
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision	140.00	300.00	440.00			
Technical Services	50.00	270.00	320.00			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe		133.96	133.96			
Track		4,095.00	4,095.00			
Misc. Supplies		89.61	89.61			
(4) Operating Equipment:						
Rental Dozer & Transp.		545.12	545.12			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs		222.31	222.31			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis		7.40	7.40			
Payroll Taxes	5.32	43.56	48.88			
Liability Insurance	9.50	77.81	87.31			
Pickup Transportation	43.20	244.80	288.00			
Haulage		159.00	159.00			
(8) Contingencies (specify):						
TOTALS	1,936.52	9,604.53	11,541.05			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date June 25, 1953 Payee MIA MINES COMPANY
Per [signature] Title 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:

$ 1452 39

Signature
(Authorized Certifying Officer)
Date JUL 22 1953 Vou. No. SF-DMEA-3

(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. [illegible] in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Section [illegible] Date July 9, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature N. C. Miller Title Executive Officer DMEA Field Team Region III Date July 10, 1953

N. C. Miller

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.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1953 Docket No. DMEA 2688 Contract No. Idm E 481

Operator's Name MIA MINES COMPANY Minerals Tungsten

Address P. O. Box 150, Salt Lake City 10, Utah

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				4,318.57				
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	Feet	1,688.50	337.7	1,788.50	357.7	5.00		
Auger								
Stripping								
~~xxxxx~~ Misc. Supplies				7.40				
~~xxxxx~~ Taxes & Ins.		14.82		136.19				
Roads and Trails				545.12				
Supervision & Technical		190.00		760.00				
TOTAL DISTRIBUTED COSTS		1,893.32		7,555.78				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				222.31				
New Buildings, Improvements, etc.				3,315.96				
Trans. Men & Supplies		43.20		447.00				
TOTAL COSTS		1,936.52		11,541.05				

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 June 25, 1953 Operator MIA MINES COMPANY

Per [signature] Title Treasurer

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

Minerva Tungsten Property, Narrative - May, 1953

June 10, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. DMEA 2688
Contract No. IDM-E 481

Dear Paul:

During the month of May, progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Churn Drilling

Minerva C.D.H. #1 was completed on May 22nd at a depth of 277.7 feet. Advance during April totaled 20 feet and the balance of 257.7 feet was drilled during May. A hard quartz rib of 6" to 1' thickness was encountered at 25 feet. The assay of cuttings from 25' to 30' give 0.24% WO_3 indicating a well mineralized thin quartz rib at 25' to 26'. The "Chief" quartz fissure was not encountered in this hole. The complete log of the hole is appended.

Minerva C.D.H. #2, located S 18° E a distance of 80 feet from C.D.H. #1, was designated to intersect the fissure at shallow depth. The hole penetrated 60 feet of wash, 5 feet of blue limestone, and the quartz fissure at 65 feet. At the end of the month, the hole was at 80 feet and still within the fissure zone. Drill cuttings were taken at 2½ foot intervals from 70 to 80 feet, and all of the sludge was saved. Inspection of the washed sludge particles under a mineral lamp indicated definite scheelite mineralization throughout the fissure zone. Our assays for WO_3 content are as follows: 65' to 70' 0.10%, 70' to 72½' 0.10%, 72½' to 75' 0.08%, 75' to 77½' 0.11%, 77½' to 80' (assay not completed).

Distribution of costs for the month, as shown on the Operator's Monthly Report and Voucher follows:

Independent Contracts		
Churn Drilling	- 337.7 Ft. @ $5.00/ft.	$ 1,688.50
Labor and Supervision		
Supervision and Technical Services		190.00
Operating Materials and Supplies		
None		--

Initial Rehabilitation and Repairs		
None		—
New Bldgs, Improvements, etc.		—
None		
Miscellaneous		
Payroll Taxes	$5.32	
Liability Insurance	9.50	
Pickup Transportation	43.20	58.02
	Total	$1,936.52

Very truly yours,

R. H. Godbe

RHG:zw

A 1509

REFERENCED C - 1107

COMBINED METALS REDUCTION CO.

Minerva Churn Drill Hole No. 1

Objective Areas 2 and 3

Docket No. DMMA 2688 Contract No IDM-L-481

June 15, 1953

MADE BY R. I. Gonzo

TRACED BY

CHECKED BY

SCALE 1" = 50'

MINERVA C.D.H. #1

Coordinates:
N 4,308 Approx.
E 11,835 "

Collar Elev: 6717 Approx.
Started: 4-30-53
Finished: 5-22-53
Driller: [illegible] Schuh
Depth: 27 '
Size of Hole: 4 3/4"

[illegible]

0 - 25 Wash

25 - 30 Hard quartz layer at 25' [illegible] disseminated scheelite noted in cuttings. Assay of 1' [illegible] .25% WO3. Probable 6" to 1' mineralized quartz rib [illegible] in limestone.

30 - 45 Gray [illegible] much calcite [illegible] quartz. Scheelite [illegible] light. [illegible] of three 1' [illegible] gave three [illegible]. Probable [illegible] in [illegible] limestone rib of quartz.

45 - 70 Gray limestone [illegible]

70 - 157 Dark gray limestone.

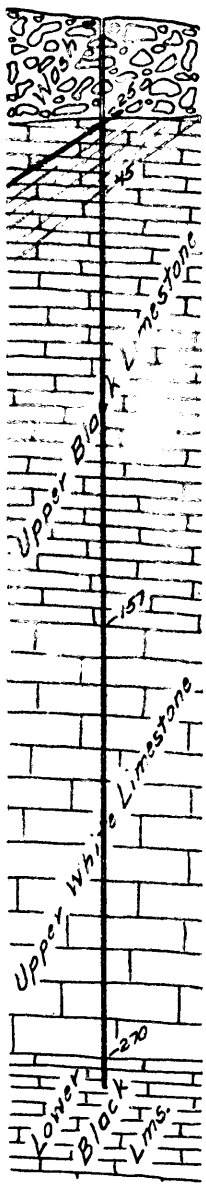
157 - 175 White to light gray limestone with pinkish cast.

175 - 270 Light [illegible] [illegible] 24'-250'

270 - 278 Dark gray limestone.

[illegible] Zones

"Upper Black Limestone" 25' - 157'
"Upper White Limestone" 157' - 270'
"Lower Black Limestone" 270' - 278'



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.

ACCOUNTS JUN 11 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1953 Docket No. DMEA 2608 Contract No. Idm E 481
Operator's Name MIA Mines Company Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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	100.00		100.00			W 4/M
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision	100.00	200.00	300.00			
Technical Services		270.00	270.00			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe		133.96	133.96			
Track		4,095.00	4,095.00			
Misc. Supplies	89.61		89.61			
(4) Operating Equipment:						
Rental Dozer & Trans.	123.49	421.63	545.12			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs		222.31	222.31			
(6) New Bldgs., Improvements, etc.		3,315.96	3,315.96			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	7.40		7.40			
Payroll Taxes	2.80	40.76	43.56			
Liability Insurance	5.00	72.81	77.81			
Pick-up Trans.	43.20	201.60	244.80			
Haulage		159.00	159.00			
(8) Contingencies (specify):						
TOTALS	471.50	9,133.03	9,604.53			

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

Date May 27, 1953 *Payee MIA Mines Company

By [signature] Title Treasurer

*If voucher is signed or receipted in the name of a company or corporation, the name of the person writing for the corporate name, as well as the capacity in which he signs, must appear. For example: "John Smith, 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:

$ 353.63

Signature Lloyd H. Sjolander, Authorized Certifying Officer
(Authorized Certifying Officer)

Date JUN 17 1953 Vou. No. 2F-DMEA-45

(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-2401 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Region III Date June 8, 1953.

APPROVAL BY REGIONAL EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Date June 11, 1953

H. C. Miller

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.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

ACCOUNTS JUN 11 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of April 1953 Docket No. DMEA 2688 Contract No. Idm 2 431
Operator's Name MIA Mines Company Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah

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		89.61		4,313.57				
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn	Feet	100.00	20	100.00	20	5.00		
Auger								
Stripping								
Trenching ~~Misc. Supplies~~		7.40		7.40				
Test Pits ~~Taxes & Ins.~~		7.50		121.37				
Roads and Trails		123.49		545.12				
Supervision & Technical		100.00		570.00				
TOTAL DISTRIBUTED COSTS		428.30		5,662.46				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs				222.31				
New Buildings, Improvements, etc.				3,313.96				
Trans. Men & Supplies		43.20		405.30				
TOTAL COSTS		471.50		9,604.53				

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 May 27, 1953 Operator MIA Mines Company

Per [signature] Title Treasurer

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property, Narrative - April, 1953

May 12, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Docket No. DMEA 2688
Contract No. DMEA 481

Dear Paul:

During the month of April progress under the Exploration Project Contract with the Defense Minerals Exploration Administration was as follows:

Churn Drilling

Hole No.	Location	Advance	Log
Minerva CDH #1	Objective Areas 2&3	20 ft.	Nash

Bulldozer No. 4 was trucked back to Carson from Minerva on April 2, 1953.

Field work was completed detailing the present drift outline of the Schulite Chief adit. Maps were prepared outlining the proposed modifications to widen and straighten the adit, in accordance with the provisions of the contract.

Items of material furnished included 90 feet of 1 1/8 inch round drill steel and 100 small sample bags for churn drill cuttings.

Distribution of costs for the month, as shown on the Operator's Monthly Report and Voucher is as follows:

Independent Contracts	
Churn Drilling - 20 ft. @ $5.00/ft.	$ 100.00
Labor and Supervision	
Supervision	100.00
Operating Materials and Supplies	
Drill Steel	89.61
Operating Equipment	
Rental Bulldozer and Transportation	123.49

FORM 25

COMBINED METALS REDUCTION COMPANY

Initial Rehabilitation and Repairs
None

New Buildings, Improvements, etc.
None

Miscellaneous

Sample Sacks	$ 7.40	
Payroll Taxes	2.80	
Liability Insurance	5.00	
Pick-up Transportation	43.20	$ 58.40
	Total	$ 471.50

Very truly yours,

R. H. Godbe

RHG/plh

COPY

Form MF-10 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

ACCOUNTS JUN 10 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of March, 1953 Docket No. DMEA 2688 Contract No. Idm E 481
Operator's Name MIA Mines Company Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah
Contract Amount, $ 171,400.00 Government Participation: 75 % Amount, $ 128,550.00

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:						WSM
Drilling						
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision	200.00		200.00			
Technical Services	270.00		270.00			
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe	133.96		133.96			
Track	4,095.00		4,095.00			
(4) Operating Equipment:						
Rental Bulldozer & Trans.	421.63		421.63			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs	222.31		222.31			
(6) New Bldgs., Improvements, etc.	3,315.96		3,315.96			
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	40.76		40.76			
Liability Insurance	72.81		72.81			
Pick-up Transportation	201.60		201.60			
Haulage	159.00		159.00			
(8) Contingencies (specify):						
TOTALS	9,133.03		9,133.03			

I certify that the above bill is correct and just and that payment therefor has not been received.
Date May 27, 1953 *Payee MIA Mines Company
Per [signature] Title 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:
$ 6849.77

Signature Lloyd H. Sjolander
Authorized Certifying Officer
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-45
(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. [illegible] in accordance with the terms of the contract.

Signature [illegible] Johnson Title Chief, Mining Div., Region III Date June 8, 1953.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] H. C. Miller Title Executive Officer DMEA Field Team Region III Date June 10, 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.

GPO 83-38476

Form MF-101A
(April 1952)

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

ACCOUNTS JUN 10 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1953 Docket No. DMEA 2688 Contract No. Ida E 481
Operator's Name MIA Mines Company Minerals Tungsten
Address P. O. Box 150, Salt Lake City, Utah

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		4,228.96		4,228.96				
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
~~Test Pits~~ Taxes & Ins.		113.57		113.57				
Roads and Trails		421.63		421.63				
Supervision & Technical		470.00		470.00				
TOTAL DISTRIBUTED COSTS		5,234.16		5,234.16				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs		222.31		222.31				
New Buildings, Improvements, etc.		3,315.96		3,315.96				
Trans. Mch and Supplies		360.60		360.60				
TOTAL COSTS		9,133.03		9,133.03				

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 May 27, 1953 Operator MIA Mines Company

Per [signature] Title Treasurer

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

COMBINED METALS REDUCTION COMPANY

Minerva Tungsten Property, Narrative - March, 1953

May 21, 1953

Paul Gemmill, General Supt. Nevada Mines

R. H. Godbe

Dear Paul:

Formal approval of Exploration Project Contract No. IDM-E 481 with the Defense Minerals Exploration Administration was received. Approved estimated costs total $171,400. Government participation (75%) amounts to $128,550.

During the month the following items of preliminary work were completed:

1. The 18' x 24' compressor building was set on a cement foundation and partitioned for a small warehouse in one end.

2. A 360 cubic foot compressor unit Ingersoll-Rand Mod. 75, driven by G.M.C. Diesel Motor Mod. 4021 C was installed complete with air receiver and 3" air line to portal.

3. Water tank was installed complete with pipe, buried for winter weather.

4. Fuel tank was installed complete with lines for gravity flow to compressor engine and diesel power unit.

5. Fan house was installed complete with cement floor over churn drill hole to be used for mine ventilation.

6. Access roads were bulldozed to churn drill sites for drilling to Objective Areas 2,3, and 6.

Major items of operating materials and supplies delivered to the site include:

30 ton 30# rail (including splice bars and bolts)
3,045 feet 1" black pipe.

The following cost distribution is submitted for itemizing costs of supplies and work completed at Minerva during March, 1953, as shown on the Operator's Monthly Report and Voucher prepared for D.M.E.A.

COPY

In accordance with provisions of the Exploration Project Contract, an allowable maximum has been established for each specific catogory. Where this maximum has been exceeded, the amount is carried as an "overage" in the following detail.

			Overage
Independent Contracts			
None			
Labor and Supervision			
Supervision	200.00		
Technical Services	270.00		
		470.00	
Operating Materials and Supplies			
Pipe:			
1145 ft. 1 inch pipe	133.96	133.96	
Track:			
30 tons - 30 lb. rail	4,221.93		
Transportation rail	139.50		
	4,361.43		
Maximum allowable for rails	4,095.00	4,095.00	
Expended over maximum	266.43		266.43
Operating Equipment			
Rental Bulldozer and Transportation		421.63	
Initial Rehabilitation and Repairs			
Pipe - 1900 ft. 1 in.		222.31	
New Bldgs., Improvements, etc.			
Labor	1,349.88		
Supplies	841.08		
Compressor Bldg. & Water Tank	525.00		
Fuel Tank	600.00		
		3,315.96	
Miscellaneous			
Payroll Taxes	40.76		
Liability Insurance	72.81		
Pickup Transportation	201.60		
Haulage	159.00		
		474.17	
Totals		$9,133.03	$266.43

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Very truly yours,

R. H. Godbe

RHG/plh

FORM 25