DMEA Form 7
(12-56)

OFFICIAL FILE C

Date	Surname	C

March 8, 1958

Memorandum

To: Wingfield Chamberlain, Statistics Branch
Division of Operation Contract and Statistics

From: Director, Division of Base Metals

Subject: Report of Semi-Annual Reports of Certified Projects for the Period July 1, 1957 thru December 31, 1957.

The following projects were inactive during the cited period.

Docket No.	Contract No.	Name
DM-66	Idm-404	Ely Valley Mines Company
DM-110	Idm-[illegible]	Callahan Zinc Lead Company, Inc.
DM-270	Idm-261	Montana Mining & Development Co.
DM-371	Idm-567	Peru Mining Company
DM-470	Idm-410	Bristol Silver Mines Company
DM-487	Idm-326	Silver Bay Mines, Inc.
DM-606	Idm-229	U. S. Metals Corporation
DM-1203	Idm-114	Pomonette Mining & Milling Company
DM-1219	Idm-167	The Glidden Company
DM-1243	Idm-286	Bachelor Development Company
DM-1303	Idm-371	Yuma Metals, Inc.
DM-1315	Idm-178	J. E. and Lulu Miller
DM-1325	Idm-237	U. S. Smelting, Refining & Mining Co.
DM-1525	Idm-[illegible]	Moreno Uranium Corporation
DM-1560	Idm-42	Ledgeville Mining Company
DM-1561	Idm-167	Ledgeville Mining Company
DM-1801	Idm-315	Reed and Reed
DM-1870	Idm-309	U. S. Metals Corporation
DM-1948	Idm-302	United Minerals Corporation
DM-1949	Idm-322	United Minerals Corporation

[illegible] H. Grinwold

DEFENSE MINERALS EXPLORATION ADMINISTRATION

For the Period January 1 to June 30, 1957

Base Metals Division Date August 14, 1957

Semi-Annual Report - Certified Project Date June 30, 1957

DMEA No. 1219X Operator The Glidden Company Contract No. Idm-E 187

Ore Reserves

Ore Estimates	Tons	Analysis
Original (DMEA)	96,000	2% Cu., 10.1% Zn., 5.5 oz. Ag., 0.16 oz. Au.
Increase (Operator)	9,000	1.9% Cu., 3.1% Zn., 3.1 oz. Ag., 0.08 oz. Au.
Total		
Decrease (Production)	None	
Net Available	105,000	

Investment

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

Facilities

Mine Plant		Mill		Roads	
Description	Cost	Description	Cost	Description	Cost

Remarks

J. W. Ard.

ACTION ON INTERIM
FINAL FIELD TEAM REPORT

Date 2/4

Referred to:

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

7500

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - - - - -

Action taken by Division:

Robert E. Adams

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

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

Operator The Glidden Company

Mine Name Bully Hill Property

County and State Shasta County, California

Docket Number and Commodity DMA-1219X (Zinc-Copper)

Contract Number Idm-E 187

DMEA
RECEIVED FEB 3 1958

DATE	INITIALS	CODE
2/4	C	220
2/6	alt	500

Date of Contract 10/18/51 4/30/53 (Amended)

Date of Certification 10/19/56

Expiration Date of Royalty Payments

Total Amount of Contract

Total Expenditures under Contract

Amount of Government Participation at %

NO CHANGE

Royalty Payments this Period

Previous Royalty Payments

Total Royalty Payments to Date

Percent Government Participation Repaid

Royalty Due on Production to Date

NO CHANGE

Royalty Remarks:

DMEA-1219X Idm-E 187

	Tons	Analysis
Original Estimate of DMEA Reserves (Field Team Final Report) Mines ☐ Survey ☐ Joint ☐		
Revised Estimate of DMEA Reserves (Field Team) Mines ☐ Survey ☐ Joint ☐	NO CHANGE	
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)	NO CHANGE	
(Previous)		
(To date)		

Percent Revised Reserves mined _____

Investment Data

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

NO CHANGE

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

Facilities

Mine Plant		Mill		Roads	
Description	Cost	Description	Cost	Description	Cost

Remarks

NO CHANGE

Signed [signature] (Engineer)
For: J. D. Warne

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 8/7

Referred to:

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

Note comments in report regarding:

1.

2. Certification is dated 10/19/56

3.

4.

and take appropriate action.

- - - - - - - - -

Action taken by Division:

Robert E. Adams

SEMI-ANNUAL REPORTS OF CERTIFIED PROJECTS

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

Operator The Glidden Company

Mine Name Bully Hill Property

County and State Shasta County, California

Docket Number and Commodity DMA-1219X (Zinc-Copper)

Contract Number Idm-E 187

Date of Contract 10/18/51 4/30/53 (Amended)

Date of Certification 9/19/56 ?

Expiration Date of Royalty Payments 4/30/64

Total Amount of Contract $256,343.98

Total Expenditures under Contract $254,514.98

Amount of Government Participation at 50% $127,257.49

Royalty Payments this Period None

Previous Royalty Payments None

Total Royalty Payments to Date None

Percent Government Participation Repaid None

Royalty Due on Production to Date None

OFFICIAL FILE COPY
DMEA
RECEIVED AUG 5 1957

DATE	INITIALS	CODE
8/8	Com	100

Royalty Remarks: DMEA exploration work was completed on December 31, 1955. The Bully Hill mine exploration work was discontinued on August 20, 1956, and all facilities, buildings, and mine plant equipment were dismantled and removed from the property.

DMA-1219X Idm[illegible] 187 The Glidden Company [illegible]

				Tons	Analysis
Original Estimate of DMEA Reserves (Field Team Final Report)				96,000	2.0%Cu. 10.1%Zn. 5.5oz.Ag. 0.16oz.Au.
Mines [ ]	Survey [X]	Joint [ ]		9,000	1.9% Cu. 3.1% Zn. 3.1oz.Ag. 0.08 oz.Au.
Revised Estimate of DMEA Reserves (Field Team)				No change	
Mines [ ]	Survey [ ]	Joint [ ]			

Increase of Reserves by work performed subsequent to DMEA project work		None	
Production DMEA ore	(This period)	None	
	(Previous)	None	
	(To date)	None	
Operator's ore found subsequent to DMEA work	(This period)	None	
	(Previous)	None	
	(To date)	None	

Percent Revised Reserves mined None

Investment Data

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

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

Facilities

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

Remarks

No production made during or after completion of DMEA project.

Signed B. H. Shuaban (Engineer)
for John D. Warne

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, 1955 Docket No. DMEA 1219X Amended Contract No. Klug

Operator's Name The Glidden Company Minerals Betty

Address Cleveland, Ohio

Contract Amount, $ Government Participation: 50 % Amount, $ 1453.50

323 ft. at 50% of 09.00 per foot (323 ft. @ 04.50 ft.)

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	2,907.00	33,093.00	36,000.00	✓		
Deepening: 500 Adit	-	14,315.00	14,315.00	✓		
Bulldozing:						
Crosscutting: Taylor, 670 Level	-	112,500.00	112,500.00	✓		
Robb, 670 Level	-	12,656.00	12,656.00	✓		
Drifting: Unwatering Shaft	-	31,350.00	31,350.00	✓		
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						12/18/56 J.W.A.
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$2,907.00	$205,914.00	$206,821.00			

RECEIVED DEC 10 1956 D.M.E.A.

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

Date Jan. 12, 1956 *Payee THE GLIDDEN COMPANY

Per Alvin L. Hazlett Title MANAGER OF MINES

*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:

$1453.50

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-18

(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-5187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 1/16/56

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date 1/16/56

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED DEC 10 1956 DMEA

Month of December 1955 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	ft			89,842.47	627.0			
Rehab. 870 Level	ft			61,086.34	904.0			
Winzes								
Drilling: Core	ft	6837.28	847	41,736.66	4524.0 *		4000'	
Churn								
Auger								
Explor. 870 Level	ft			243,457.10	2776.8			
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit				34,899.14	1022.5			
Total Distributed Costs		6837.28	847	471,021.71				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		6837.28		471,021.71				

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 Jan. 12, 1956 Operator THE GLIDDEN COMPANY

Per Robert E. Eckton Title Manager of Mines

Remarks: Chargeable under DMEA Contract 323 ft. - Total 4000 ft.

→ 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) John A. Harne

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 872894

Month of December 1955

Docket No. DMRA
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

RECEIVED
DEC 10 1955

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 Level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 level to December 31, 1955	18,000.00
Total Government Participation to Date	$127,257.49

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole 872-814-H-1
CORE SAMPLES (CONTINUED)

Date	Distance	% Cu	% Fe
12/13/55	410.0 - 419.0	.14	14.05
	419.0 - 426.0	.71	19.20
	826.0 - 431.0	-	15.05
	436.0 - 446.0	-	16.20
	446.0 - 456.0	-	18.80
	456.0 - 463.0	.05	16.20
	463.0 - 466.0	-	8.50
	466.0 - 478.0	-	19.95
	478.0 - 488.0	.10	18.80
	488.0 - 498.0	.05	15.25
	498.0 - 506.0	-	19.50
	506.0 - 512.0	-	15.65
	512.0 - 523.0	Tr	15.90
	523.0 - 533.0	Tr	18.25
	533.0 - 543.0	.08	14.50
	543.0 - 553.0	-	12.90
	553.0 - 555.0	Tr	14.05
	555.0 - 565.0	.10	12.00
	565.0 - 571.0	.10	12.50
	571.0 - 578.0	.02	9.70

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE
Diamond Drill Hole: 872-11-L-1

CORE SAMPLES

Date	Distance	% Cu	% Fe
12/13/55	110.0 - 115.0	1.15	13.10
	115.0 - 121.0	-	7.85
	121.0 - 128.0	.05	14.20
	129.0 - 131.0	8.26	16.70
	131.0 - 137.0	5.18	11.80
	137.0 - 138.0	1.98	15.65
	138.0 - 147.0	.07	6.90
	147.0 - 150.0	.65	7.60
	152.0 - 158.0	.05	6.10
	158.0 - 166.0	.02	8.60
	166.0 - 171.0	.07	3.65
	171.0 - 176.0	.02	4.15
	182.0 - 188.0	.02	2.80
	188.0 - 198.0	.05	4.00
	198.0 - 207.0	.02	4.10
	207.0 - 217.0	.40	3.95
	217.0 - 225.0	.20	8.10
	225.0 - 232.0	.20	3.55
	232.0 - 234.0	.80	6.50
	234.0 - 238.0	.05	7.80
	238.0 - 244.0	1.55	7.85
	244.0 - 251.0	.40	9.90
	251.0 - 259.0	.35	6.90

GLIDDEN CONSOLIDATED S[illegible] MINES
BULLY HILL MINE
Diamond Drill Hole 872-11-L-1
Location: Breast 811 Crescent
Direction: S. 75° W., Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Fe
12/8/55	0.0 - 10.0	Tr	15.35
	10.0 - 20.0	Tr	10.70
	20.0 - 31.0	0	8.30
12/14/55	31.0 - 38.0	-	11.95
	38.0 - 48.0	.50	8.40
	48.0 - 54.0	.37	8.95
	54.0 - 64.0	.50	11.05
	64.0 - 74.0	.89	8.45
	74.0 - 84.0	.94	6.80
	85.0 - 95.0	.94	11.95
12/15/55	95.0 - 105.0	.48	12.80
	105.0 - 110.0	1.05	24.30
	110.0 - 121.0	.75	11.90
	121.0 - 131.0	1.45	11.95
	131.0 - 137.0	2.95	13.50
	137.0 - 147.0	.25	8.55
	147.0 - 158.0	.30	11.75
	168.0 - 171.0	.30	7.05
	176.0 - 182.0	.15	12.30
	182.0 - 188.0	.05	11.95
	188.0 - 198.0	.07	8.75
	198.0 - 207.0	Tr	4.35
	207.0 - 217.0	.15	13.10
	217.0 - 225.0	.25	12.00
	225.0 - 232.0	.20	5.95
	244.0 - 251.0	.50	11.85
	251.0 - 259.0	.25	8.75
	259.0 - 262.0	.30	7.30
	262.0 - 270.0	.30	10.25
	270.0 - 280.0	.10	6.85
	280.0 - 290.0	.40	13.20
	295.0 - 301.0	.25	7.25
	301.0 - 311.0	.30	13.10
	311.0 - 326.0	.60	7.20
	326.0 - 337.0	.60	6.90
	337.0 - 346.0	.55	12.35
	346.0 - 356.0	.75	11.00

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: #72-#10-J-1
Location: Breast #10 Crosscut
Direction: N. 80° W., Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Fe
Dec.	0.0 - 28.0	.85	9.10
	28.0 - 34.0	.10	4.90
	34.0 - 44.0	.15	5.90
	44.0 - 53.0	.20	8.70
	53.0 - 63.0	.75	12.65
	63.0 - 70.0	.05	10.60
	77.0 - 88.0	.02	5.85
	88.0 - 95.0	.15	12.70
	95.0 - 106.0	.10	6.60
	106.0 - 116.0	.05	5.60
	116.0 - 135.0	.05	7.85
	135.0 - 146.0	.02	15.10
	159.0 - 169.0	.05	6.70
	169.0 - 177.0	.07	9.60
	177.0 - 180.0	.10	11.95
	180.0 - 188.0	.10	7.85
	188.0 - 203.0	.15	7.85
	203.0 - 209.0	.07	3.75
	209.0 - 222.0	.02	7.20
	222.0 - 228.0	.40	7.05
	228.0 - 236.0	.60	7.65
	246.0 - 258.0	.15	8.35
	259.0 - 270.0	.10	6.30
	270.0 - 280.0	.10	4.90
	280.0 - 291.0	.05	5.50
	291.0 - 301.0	.05	9.60
	301.0 - 312.0	.20	6.45
	312.0 - 319.0	.15	11.55
	319.0 - 329.0	.15	12.20
	329.0 - 341.0	.02	7.25
	341.0 - 352.0	Tr	7.30
	352.0 - 362.0	.02	7.40
	362.0 - 372.0	.07	20.40
	372.0 - 388.0	.07	5.45
	388.0 - 400.0	.10	6.40
	400.0 - 410.0	.10	8.45
	410.0 - 416.0	.10	7.15
	416.0 - 426.0	.05	5.85
	426.0 - 436.0	.15	12.90
	436.0 - 446.0	.10	5.10
	446.0 - 453.0	.02	7.50
	453.0 - 463.0	.10	5.30
	463.0 - 473.0	.10	8.75
	473.0 - 483.0	.15	18.30
	483.0 - 493.0	.10	6.90
	493.0 - 503.0	.15	9.25
	503.0 - 510.0	.17	14.50

Subject: Diamond Drilling - 870 Level

Redding, California
January 12, 1956

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

We have the following progress on diamond drilling to report for the month of December 1955:

Diamond Drill Hole	NX	BX	AX	Total - Month	Total Depth
872-814-H-1			45	45 Ft.	578 ft.
872-811-I-1			356	356 Ft.	356 ft.
872-810-J-1	5	95	346	446 ft.	446 ft.
Total	5	95	747	847 ft.	

Diamond Drill Hole 872-811-I-1
Location: 872-811 Crosscut East
Direction: South 75° West, inclination plus 5°.

This hole was completed to a depth of 356 ft. and stopped at this point since all possibilities were fairly well covered here. Sludge samples on hole I-1 show copper for practically the entire length of the hole and are most interesting. Likewise, core samples from a point 131 ft. to 259 ft. show varying amounts of copper with some very good commercial ore.

Diamond Drill Hole 872-810-J-1
Location: Breast 810 Crosscut West.
Direction: North 80° west, inclination plus 5°.

This hole was started December 14th and has now reached a depth of 446 ft. Due to unprecedented rains in Northern California and the flooding of the 870 level, it has been necessary to discontinue work here for the present. However, this hole will be continued for some considerable distance. Sludge samples from this hole have shown a small amount of copper throughout. To date core samples have not been analyzed.

We are enclosing the following core and sludge analyses:

Core samples, Hole H-1	410.0 - 578.0 ft.
Sludge samples, Hole I-1	0.0 - 356.0 ft.
Core samples, Hole I-1	110.0 - 259.0 ft.
Sludge samples, Hole J-1	0.0 - 510.0 ft.

In our final report under this DMEA contract, we will compile sludge and core analyses.

Diamond Drilling, DMEA Contract - Docket No. 1219X Amended

Hole A-1	300 ft.
Hole B-1	251 ft.
Hole C-1	250 ft.
Hole D-1	508 ft.
Hole E-1	500 ft.
Hole F-1	636 ft.
Hole G-1	699 ft.
Hole H-1	578 ft.
Hole I-1	278 ft.
Total - DMEA Contract	4000 ft.

In addition to diamond drilling, the following drifting and crosscutting was done during the month of December:

772 - #4 Crosscut West. Advance for month: 56 ft. Heavy pyritic zone.

778 Drift North of #4 Crosscut East. Advance for month: 89 ft. Badly broken country with occasional bunches of copper ore.

778 Drift North-#6 Crosscut West. Advance for month: 32 ft. Unmineralized shear zone.

780 Drift South from #3 Crosscut West. Advance for month: 126. ft. This drift shows some very good copper and zinc ore and it now appears that this ore shoot will extend south for some considerable distance.

780 Drift North from #3 Crosscut West. Advance for month: 12 ft. This drift also shows some very good copper and zinc ore and undoubtedly will continue in ore until the northeast southwest fault is encountered.

We are enclosing 40 scale map of 770 level, brought up to date January 1st.

Just as soon as our analytical work on the balance of the drill holes has been completed, we will be happy to file a final brief report on the DMEA contract which has now been completed.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

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 1219X

Contract Idm-E 187

Commodity Copper-zinc

Operator - The Glidden Co.

Property - Bully Hill Mine, Shasta Co., Calif.

By John D. Warne

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-1219X (Copper-zinc) December 21, 1955

Contract No.: Idm-E187 (amended

Operator: The Glidden Company
E. L. Ralston, Mgr. of Mines
P O Box 430, Redding, Calif.

Property: Bully Hill Mine, Shasta County, Calif.

The Bully Hill mine was inspected December 13, 1955. Eight diamond drill holes Nos. 872-1 to 6 inclusive and 871-7 and 8 have been completed and hole No 871-9 was still in progress. Some copper-zinc mineralization has been encountered in all holes drilled west from the main north-south drift on the 870 level. Further drilling and crosscutting is planned by the company to investigate this parallel mineralized zone.

An aggregate of 3900 feet of diamond drilling by Boyles Bros. Drilling Company has been completed. Work performance and progress is satisfactory.

RECEIVED
DEC 30 1955

Analysis of cores and sludges by the Glidden Company are incomplete, however a wide zone of several hundred feet thickness shows considerable iron sulphide mineralization with occasional narrow intervals from 2 to 3 feet containing a maximum of about 1.5 percent copper content.

The operator is still engaged in rehabilitation and exploration work on his own account on the 770-foot level of the Bully Hill mine. He also plans to continue diamond drilling work in excess of the

DMEA contract amount.

John D. Warne
Mining Engineer

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

Budget Bureau No. 42-R1036.5

RECEIVED JAN 17 1956 JAN - 5 1956

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

Month of November, 1955 Docket No. DMEA 1219X Amended Contract No. E127

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

Contract Amount, 743 ft. @ 50% of 9.00 per foot (743 ft. @ 4.50 per ft.) Government Participation: 50 % Amount, $3343.50

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	6687.00	26,406.00	33,093.00			
Bulldozing, 300 Adit		14,315.00	14,315.00			
Crosscutting, 670 Level		112,500.00	112,500.00			
Drifting, 370 Level		12,656.00	12,656.00			
Unwatering Shaft		31,350.00	31,350.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	6687.00	197,227.00	203,914.00			

Approved Klugerchard Betty

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

Date 12/13/55 *Payee The Glidden Company

Per Edward F. Winston Title Manager of Mines

*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:

$3343.50

Signature (Authorized Certifying Officer)

Date 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-E187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 1/3/56

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer Date 1/3/56

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-R1151.2

RECEIVED
JAN 17 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1955 Docket No. DMEA 1219 Amended Contract No. _____
Operator's Name The Glidden Company Minerals _____
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	Ft	-	-	89,842.47	627.0			
Winzes Adit 870 Level	Ft	-	-	61,086.34	904.0			
Drilling: Core	Ft	6705.65	743.0	34,899.38	3677.0		4000'	9.00 per ft
Churn								
Auger								
Explor. 870 Level	Ft			243,457.10	2776.8			
Stripping								
Trenching								
Test Pits								
Roads and Trails Opening 300 Adit	Ft			34,899.14	1022.5			
Total Distributed Costs		6705.65	743.0	464,184.43				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~6705.65~~		~~464,184.43~~				

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 12/13/55 Operator The Glidden Company

Per Walter W. Walston Title Manager of Mines

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) John A Wayne

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 872894

Month of November 1955

Docket No. DMEA
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

RECEIVED
JAN 17 1956

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 Level to June 30, 1954	6,328.00
Government participation - exploration 870 Level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 Level to November 30, 1955	16,546.50
Total Government Participation to Date	$125,803.99

Subject: Diamond Drilling - 870 Level

Redding, California
December 13, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E187

We have the following progress on diamond drilling to report for the month of November 1955:

Diamond Drill Hole	NX	BX	AX	Total-Month	Total Depth
871-2-G-1			210	210 ft.	699 ft.
872-814-H-1	5	94	434	533 ft.	533 ft.
	5	94	644	743 ft.	

Total drilled - November: 743 ft.

Diamond Drill Hole 871-2-G-1
Thus far core analyses have not been made on hole G-1 but will be made just as soon as the laboratory completes the work now under way. Sludge samples show a very wide distribution of copper and probably are a better indication than the core samples will be since the hole drilled badly, due to broken ground, and a great deal of the cores were ground up.

Diamond Drill Hole 872-814-H-1
This hole has now been completed to a depth of 578 ft. and has been abandoned for the present at least. Near the bottom of the hold a water course was encountered and due to the heavy flow of water, and an abundance of very fine, fragmentary white quarts, the hole was completely filled with this material and for this reason it was decided to stop drilling. This hole was most important and has shown a very heavy mineralization throughout, the mineralization consisting largely of highly silicified material containing a high percentage of pyrite along with some chalcopyrite. Here again a very wide distribution of copper has been noted in this pyritic zone and it now appears that it will be necessary to continue 814 Crosscut West for at least 600 ft. to further prospect this country since it is quite probable that a copper ore shoot of some magnitude will be found within this pyritic zone.

Diamond Drill Hole 872-11-I-1
Location: 872-11 Crosscut East
Direction: South 75° West, inclination plus 5°.

This hole was started December 6th from the west side of 872 Drift, directly opposite #11 Crosscut, and is now approximately 300 ft. deep.

The first 125 ft. of the hole shows mostly basic dike. A very nice copper showing was encountered at 129 ft. and the hole continued in copper ore for a distance of 9 ft., and from this point on to the breast there is a very nice showing of chalcopyrite. While it is not one continuous ore body, yet it does show rather a wide distribution of copper.

Proposed Diamond Drilling
It is now planned to diamond drill that section of ground west of 872 Drift North and 871 Drift South from Diamond Drill Hole 872-11-I-1 on the north to the south end of 871 Drift South. While an attempt will be made to space these holes at 100 ft. centers, yet wherever possible the old crosscuts to the west will be used as drill headings. These holes will be at least 250 ft. deep and some of them should go out for 1000 ft. to thoroughly prospect the basic dike to the west. That section of territory lying

between Hole H-1 on the north and Hole G-1 on the south is very highly mineralised and the expenditure for this drilling is certainly justified. Furthermore our geologists feel that there may be a parallel lens of ore west of the old workings on both 770 and 870 levels.

We are enclosing the following core and sludge analyses:

Hole E-1: Core analyses, as follows:

244.0 - 247.0'
251.0 - 261.0
264.0 - 264.5
264.5 - 265.0
293.0 - 297.0
303.0 - 305.0
308.0 - 309.0
340.0 - 347.0
452.0 - 456.0

Hole F-1: Core analyses - 557.0 - 636.0'.
Hole G-1: Sludge analyses 425.0 - 699.0'.
Hole H-1: Sludge analyses 0.0 - 578.0'. Core analyses: 128.0 - 410.0'.

The balance of core and sludge analyses will be forwarded just as soon as completed.

774 Drift South: This heading advanced 84 ft. during the month, for a total distance of 217 ft. The ore continued very good up to a point 193 ft. south. Here the basic dike to the east was encountered and the balance of the drift was along the contact.

774 Drift South #2 Crosscut East: Advance for month - 20 ft. Reported in previous report.

774 Drift South #3 Crosscut West: Advance for month - 39 ft. Reported in previous report.

774 Drift North #1 Crosscut West: Advance for month - 45 ft. This crosscut penetrated the pyritic mineralization on the west and encountered occasional bunches of chalcopyrite.

774 Drift North #4 Crosscut East: This crosscut advanced 72 ft. during the month and cut the basic dike on the east. Occasional bunches of copper ore were found in this crosscut.

778 Drift North of #4 Crosscut: This drift advanced 52 ft. during the month. A few small bunches of good copper ore were encountered in this drift. However, the ground is very badly broken due to extensive shearing and geological conditions observed here appear quite similar to those on the level below. This heading will be continued into the solid country to the north.

We are enclosing 40 scale plan map of 870 level.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

RECEIVED
JAN 17 1956

Diamond Drill Hole: 872-822-E-1
Location: Breast 822 Crosscut
Direction: North 80° W Plus 5°

CORE SAMPLES

Date	Distance	% Cu	% Fe
11/22/55	244.0 - 247.0	3.72	22.40
	251.0 - 261.0	1.98	15.50
	264.0 - 264.5	.37	4.45
	264.5 - 265.0	.71	8.40
	293.0 - 297.0	.42	18.35
	303.0 - 305.0	.33	26.20
	308.0 - 309.0	.52	27.00
	340.0 - 347.0	-	18.60
	452.0 - 456.0	4.28	13.60

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole: 872-819-F-1
CORE SAMPLES

Date	Distance	% Cu	% Fe
	557.0 - 558.0	Tr	6.75
	558.0 - 564.0	.04	6.50
	564.0 - 566.0	.12	10.50
	566.0 - 570.0	.14	12.70
	570.0 - 575.0	.04	4.40
	575.0 - 582.0	.02	8.95
	582.0 - 587.0	.04	5.40
	587.0 - 591.0	.14	6.25
11/22/55	591.0 - 599.0	.09	8.20
	599.0 - 605.0	.42	15.05
	605.0 - 612.0	.04	11.15
	612.0 - 621.0	.04	15.25
	621.0 - 629.0	.24	13.49
	629.0 - 636.0	.09	12.10

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole 871-B-G-1
SLUDGE SAMPLES

Date	Distance	% Cu	% Fe
11/15/55	419.0 - 429.0	.02	10.00
	425.0 - 435.0	.09	8.30
	445.0 - 452.0	.04	4.75
	449.0 - 508.0	.04	4.70
	489.0 - 499.0	.04	6.35
	508.0 - 518.0	.04	4.45
	533.0 - 346.0	.02	3.25
	546.0 - 552.0	.02	3.90
	552.0 - 560.0	-	4.25
	560.0 - 570.0	-	5.05
11/16/55	570.0 - 580.0	.02	4.95
	580.0 - 386.0	.02	5.10
	586.0 - 589.0	.04	4.90
	589.0 - 599.0	-	8.75
	599.0 - 610.0	.09	8.35
	610.0 - 620.0	.04	7.00
	620.0 - 626.0	.04	11.40
	626.0 - 636.0	.07	6.25
	636.0 - 642.0	.04	9.40
	648.0 - 660.0	.04	8.25
12/18/55	660.0 - 673.0	.04	6.30
	673.0 - 676.0	.28	10.00
	676.0 - 683.0	.14	7.45
	683.0 - 693.0	.19	9.00
	693.0 - 699.0	.28	9.85

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole 872-814-H-1
Location: Breast 814 Crossout
Direction: S 70° W Plus 5°

RECEIVED
JAN 17 1956

SLUDGE SAMPLES

Date	Distance	% Cu	% Fe
11/18/55	0.0 - 16.0	None	8.20
	16.0 - 26.0	-	9.00
	26.0 - 33.0	-	9.65
11/22/55	33.0 - 43.0	-	13.50
	43.0 - 53.0	-	10.30
	53.0 - 64.0	-	5.60
	65.0 - 73.0	.09	5.35
	73.0 - 85.0	-	8.55
11/23/55	85.0 - 91.0	.04	4.70
	91.0 - 99.0	-	8.25
	99.0 - 108.0	.09	5.95
	108.0 - 118.0	-	5.80
	118.0 - 123.0	.04	5.10
	123.0 - 131.0	.07	7.00
	131.0 - 138.0	-	5.65
	138.0 - 152.0	.52	15.70
	152.0 - 163.0	.14	18.80
	163.0 - 172.0	.04	8.00
	172.0 - 180.0	.38	22.45
	180.0 - 190.0	-	15.15
	190.0 - 200.0	.19	26.60
	200.0 - 206.0	-	19.40
	206.0 - 216.0	.04	15.10
	216.0 - 224.0	-	11.50
	224.0 - 234.0	.09	13.90
	234.0 - 244.0	-	17.25
	244.0 - 255.0	-	13.75
	255.0 - 265.0	-	11.80
	265.0 - 275.0	-	10.35
	275.0 - 281.0	Tr	13.45
	281.0 - 290.0	-	7.05
	290.0 - 300.0	-	16.00
	300.0 - 310.0	-	8.90
	310.0 - 320.0	-	9.75
	320.0 - 330.0	Tr	15.50
	330.0 - 340.0	-	14.95
	340.0 - 350.0	-	8.50
	350.0 - 360.0	-	11.15
	360.0 - 370.0	-	14.05
	370.0 - 380.0	-	13.65
	380.0 - 390.0	-	13.80
	390.0 - 400.0	-	12.75
11/29/55	400.0 - 410.0	-	7.50
	410.0 - 417.0	-	8.60
11/30/55	417.0 - 426.0	Tr	9.65
	426.0 - 436.0	-	20.40
	436.0 - 446.0	-	13.35
	446.0 - 456.0	-	20.65
12/1/55	456.0 - 466.0	-	20.35
	468.0 - 478.0	-	14.85
	478.0 - 488.0	-	18.85

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole 872-814-H-1
Location: Breast 814 Crosscut
Direction: S 70° W Plus 5°

RECEIVED
JAN 17 1956

CORE SAMPLES

DATE	Distance	% Cu	% Fe
12/1/55	128.0 - 131.0	-	21.50
	131.0 - 134.0	.36	18.90
	134.0 - 138.0	.04	16.35
	138.0 - 142.0	.38	15.40
	142.0 - 152.0	-	14.15
	152.0 - 162.0	-	12.30
~~12/2/55~~	162.0 - 172.0	.05	19.95
	172.0 - 180.0	.26	17.00
	180.0 - 185.0	.28	16.00
	185.0 - 190.0	.75	20.80
12/7/55	190.0 - 195.0	.19	24.00
	195.0 - 200.0	.09	12.90
	200.0 - 206.0	.09	12.80
	206.0 - 216.0	Tr	12.30
	216.0 - 224.0	Tr	16.80
	224.0 - 234.0	.09	8.75
12/8/55	234.0 - 244.0	.04	16.45
	244.0 - 247.0	.04	18.70
	247.0 - 255.0	.70	16.65
	255.0 - 265.0	.70	12.15
	265.0 - 275.0	.04	8.40
	275.0 - 281.0	1.50 ✓	12.20
	281.0 - 290.0	Tr	10.65
	290.0 - 300.0	.09	12.40
	300.0 - 310.0	Tr	10.65
	300.0 - 310.0		
	310.0 - 320.0	-	11.40
	320.0 - 330.0	.09	9.55
	330.0 - 340.0	.04	10.25
	340.0 - 350.0	-	8.05
	350.0 - 360.0	.04	12.80
	360.0 - 370.0	.09	14.25
12/12/55	370.0 - 380.0	.04	10.20
	380.0 - 390.0	.94	16.85
	390.0 - 400.0	.70	19.90
	400.0 - 410.0	.09	16.90

RECEIVED
NOV 22 1955

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: 11/16/55

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 1219 X

Contract Idm-E 187

Commodity Copper - Zinc

Operator - The Glidden Co.

Property - Bully Hill Mine, Shasta County, Calif.

By John D. Warne

Dated 11/16/55

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

RECEIVED
NOV 28 1955

Docket No.: DMEA-1219X (Copper-zinc) November 16, 1955

Contract No.: Idm-E187 (amended)

Operator: The Glidden Co.,
E. L. Ralston, Mgr. of Mines
P. O. Box 430
Redding, California

Property: Bully Hill Mine, Shasta County, California

The Bully Hill mine project was inspected on November 3, 1955 by R. G. Reeves of the Geological Survey and J. D. Warne of the Bureau of Mines.

Six diamond drill holes, 872-1, 2, 3, 4, 5 and 6, have been completed and 871-7 was in progress. Some copper-zinc mineralization was encountered in a north-south zone, west and parallel to the 872 drift in holes Nos. 4, 5 and 6; two additional westerly holes are planned to further check this parallel mineralized zone as shown on the attached map.

Contract drilling work performance and progress is satisfactory.

A total of 2,945 feet of diamond drilling by the Boyles Bros. Drilling Company has been performed to date as follows:

Hole No.	Location	Length	Bearing	Dip
872-1 (A)	872 - 15 crosscut E	300'	N80°E	+5°
872-2 (B)	872-20 crosscut E	251'	East	+5°
872-3 (C)	872 - 17 crosscut W	250'	East	-45°
870-4 (D)	872 - 17 crosscut W	508'	West	+5°
872-5 (E)	872 - 22 crosscut W	500'	N80°W	+5°
872-6 (F)	872 - 19 crosscut W	636'	N80°W	+5°
871-7 (G)	871-2 crosscut W	500' *	N70°W	+5°
	Total drilled	2,945'		

*Still in progress.

Holes Nos. 872-4, 872-5, and 872-6 intercepted pyrite and some chalcopyrite mineralization. Mineralization averaging 0.4 to 2.4 percent copper was intercepted in hole 872-4 from 190.5 to 200 feet, and additional flat holes are planned to check continuation of this zone southward as shown on the attached map. Analysis of cores and sludges are incomplete.

The operator is still engaged in rehabilitation and exploration work on his own account on the 770-foot level of the Bully Hill mine. Some good grade copper-zinc ore is being explored with new drifts from 774 S. crosscut.

John D. Warne
Mining Engineer

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

Budget Bureau No. 42-R1036.5

RECEIVED
NOV 22 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S MONTHLY REPORT AND VOUCHER

RECEIVED NOV 17 1955

Month of October, 1955 Docket No. DMEA 129 [illegible] Contract No. E 127
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
Contract Amount, $ 1007 ft. 50 of 7.00 per foot (1007 ft. [illegible]) Government Participation: 50 % Amount, $ 4531.50

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:						11/29/55 J.W.A.
Drilling [illegible]	9063.00	17,343.00	26,406.00	✓		
Bulldozing [illegible]	-	14,315.00	14,315.00			
Crosscutting [illegible] level	-	112,500.00	112,500.00	✓		
Drifting [illegible] level	-	12,656.00	12,656.00	1/3/55 WAK		
Underground shaft	-	31,350.00	31,350.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Totals	9063.00	188,164.00	197,227.00			

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

Date Nov. 21, 1955 *Payee The Glidden Company

[illegible] Title Manager of Mines

*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:

$ 4531 50

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-18
(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. 10m-2187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 11/19/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature John D. Warne Title Executive Officer Date 11/19/55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

NOV 22 1955

Month of October 1955 Docket No. DMEA 1219 Amended Contract No. _____
Operator's Name The Glidden Company Minerals _____
Address Cleveland, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Sinking shaft	ft	—	—	39,842.47	627.0			
Winzes Incl. 670 Level	ft	—	—	61,066.34	904.0			
Drilling: Core Raised	ft	9228.75	1007.0	28,193.73	2934.0		4000'	
Churn								
Auger								
Stripping Exlor. 670 Level	ft	—	—	243,457.10	2776.8			
Trenching								
Test Pits								
Roads and Trails Opening 300 Cait	ft	—	—	34,677.14	1022.5			
TOTAL DISTRIBUTED COSTS		9228.75	1007.0	447,478.78				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		9228.75		447,478.78				

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.

Nov. 11, 1955 The Glidden Company
Date _____ Operator _____
Manager of Mines
Per [signature] Title _____

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)

John D Stone

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 872894

Month of October 1955

Docket No. DMSA
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 level to October 31, 1955	13,203.00
Total Government Participation to Date	$122,460.49

Subject: Diamond Drillin[illegible] 870 Level

Redding, California
November 12, 1955

DMEA Reference:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-2187

We have the following progress on diamond drilling to report for the month of October 1955:

Diamond Drill Hole	NX	BX	AX	Total-Month	Total Depth
872-819-F-1			518	518 ft.	636 ft.
871-2-G-1	5	96	388	489 ft.	489 ft.
	5	96	906	1007 ft.	

Total drilled during October: 1007 ft.

Diamond Drill Hole 872-819-F-1
This hole was completed during the month of October to a depth of 636 ft. The hole drilled very well and core recovery was good. A wide pyritic zone was encountered in this hole and while commercial ore was not cut, yet both sludge and core samples show a small amount of copper, this copper being in the form of chalcopyrite.

Diamond Drill Hole 871-2-G-1
Location: Breast 871-2 Crosscut W.
Direction: North 85° West, inclination plus 5°.

This hole has now been completed to a depth of 699 ft. Core recovery for the entire hole was very bad since the ground was badly broken. The country rock encountered here largely consisted of rhyolite and rhyolite porphyry. Sludge analyses to date show small percentages of copper, all of it being in the form of chalcopyrite. While nothing of any great importance has been found in this hole, yet it does prove copper bearing rock over a very wide area.

Proposed Drilling
Due to the copper occurrences in holes D-1 and F-1, and to a lesser degree in E-1, it has been decided to drill a hole from the breast of 814 Crosscut to a depth of at least 500 ft. Drilling here has been started. Later the drill holes will be spaced approximately 100 ft. apart and drilled from old 872 Drift North for a distance of about 250 ft., since there is a strong possibility of picking up a very good copper ore shoot behind these old stopes. Wherever possible existing crosscuts will be used for drill headings, thus eliminating the expense of cutting new drill headings. To date a total of 3144 ft. of diamond drilling has been completed.

We are enclosing core and sludge samples as follows:

D-1:	Core 0.0 - 508 ft.	Sludge: 36.0 - 76.0
E-1:	Sludge 60.0 - 489.0	
F-1:	Core 0.0 - 557.0	Sludge: 2.0 - 636.0
G-1:	Sludge 74.0 - 425.0	

The balance of sludge and core analyses will be forwarded when completed. Progress on diamond drilling during the month of October was considerably better, notwithstanding the fact that hole G-1 was very troublesome.

772 Drift North
This drift advanced 13 ft. during the month and was temporarily stopped in order to push the other work on 770 level. The breast shows very good pyritic mineralization and the western wall of this pyritic zone has not been reached.

774 Drift North
This Drift advanced 88 ft. during the month of October and has exposed a very wide shear zone with considerable faulting within the shear zone. Only occasional bunches of ore have been found here.

774 Drift North - #1 Crosscut Northwest
This crosscut, driven North 60° West from the breast of 774 Drift North, had a total length of 60 ft. The crosscut is in a pyritic zone consisting largely of quartz and pyrite with occasional bunches of very good chalcopyrite. It is a most encouraging prospect.

776 Drift Northeast of 772 Drift North
This drift advanced 46 ft. during the month in pyritic mineralization with occasional bunches of chalcopyrite.

774 Drift South of 772 Drift North
This drift advanced 133 ft. during October and now has a total depth of 148 ft. Here a very good grade of copper-zinc ore has been encountered.

774 Drift South - #2 Crosscut East
This crosscut has been driven east from a point 133 ft. south of 772 Drift North for a distance of 20 ft. For a distance of 17 ft. the crosscut is in ore, with the breast in basic dike.

774 Drift South - #3 Crosscut West
This crosscut has been driven west from the same point as No. 2 crosscut and now has a total length of 40 ft. Hence, the ore exposed in Nos. 2 and 3 crosscuts has a total width of 67 ft. The breast of No. 3 crosscut has encountered the pyritic zone exposed in 772 Drift North. This is a most important discovery and one which will afford considerable tonnage. Again extreme caution should be used in projecting this ore shoot south but should it continue for any distance, it will undoubtedly be found west of the old stopes on 770 level.

We are enclosing a map of 770 level showing this ore occurrence, also one set of assays of mine samples.

Respectfully submitted,

Edward L. Ralston

Edward L. Ralston - Manager of Mines

ELR:HM

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: 872-817-874-D-1
Location: Breast 874 Drift
Direction: West -- Plus 5°

CORE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
9/9/55	0.0 - 3.0	.28	1.70	9.48
	3.0 - 5.0	None	None	9.37
	5.0 - 6.5	.05	0.78	11.23
	6.5 - 7.5	None	0.98	12.57
	7.5 - 11.0	None	None	12.05
	11.0 - 20.0	.05	None	11.64
	20.0 - 21.0	.05	None	20.91
	21.0 - 24.0	.05	None	12.15
	24.0 - 28.0	1.58	None	17.41
	28.0 - 31.0	None	0.48	11.77
	31.0 - 32.0	None	None	4.12
	32.0 - 34.0	None	None	3.97
	34.0 - 36.0	None	None	4.38
	36.0 - 38.0	None	None	5.20
	38.0 - 42.0	None	None	9.68
	42.0 - 47.0	None	None	4.33
	47.0 - 52.0	Tr	None	14.42
	52.0 - 58.0	None	None	14.47
	58.0 - 61.0	None	None	12.77
	61.0 - 63.5	None	None	3.40
	61.0 - 65.5	None	0.48	11.77
	65.5 - 67.0	None	0.48	9.13
	68.0 - 69.0	None	1.90	14.71
	69.0 - 71.0	None	None	28.40
	71.0 - 73.0	Tr	None	20.13
	73.0 - 76.5	None	None	18.59
	76.5 - 79.0	None	None	15.90
	79.0 - 86.0	None	None	13.70
	86.0 - 90.0	None	0.95	11.00
	90.0 - 94.0	None	1.14	15.13
	94.0 - 100.0	Tr	None	12.38
	105.0 - 110.0	None	0.85	13.75
	110.0 - 112.5	Tr	None	16.12
	112.5 - 118.0	Tr	None	12.31
	118.0 - 123.5	None	None	9.25
	123.5 - 128.5	.10	None	12.75
	128.5 - 133.5	.35	None	13.90
	133.5 - 138.5	.05	None	11.20
	138.5 - 143.5	.25	None	11.25
	143.5 - 144.5	.50	None	10.72
10/14/55	144.5 - 149.5	.10	None	10.50
	149.5 - 154.5	.10	None	10.75
	154.5 - 159.5	.10	None	13.10
	159.5 - 164.5	.45	None	18.50
	164.5 - 169.5	.05	None	12.20
	169.5 - 174.5	None	None	11.90
	174.5 - 180.5	.05	None	9.90
	180.5 - 185.5	.07	None	13.30
	185.5 - 190.5	.55	None	18.90
	190.5 - 195.5	1.05	None	18.60
	195.5 - 200.5	2.40	None	18.25

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole: 872-817-874-D-1
CORE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
10/14/55	200.5 - 205.5	.40	None	19.90
	205.5 - 210.5	Tr	None	17.70
	210.5 - 216.0	Tr	None	14.80
	216.0 - 221.0	.50	None	14.55
	221.0 - 226.0	.05	None	14.15
	226.0 - 231.0	None	None	13.60
	231.0 - 236.5	.95	None	16.50
	236.5 - 241.5	None	None	9.25
	241.5 - 245.5	None	None	10.65
	245.5 - 251.5	None	None	15.95
	251.5 - 256.6	None	None	12.75
	256.6 - 262.5	None	None	9.55
	262.5 - 267.0	None	None	12.25
	267.0 - 272.0	None	None	14.40
	272.0 - 277.0	.20	None	15.55
	277.0 - 279.0	.05	None	19.65
	279.0 - 284.5	Tr	None	20.05
	284.5 - 289.5	None	None	14.00
	289.5 - 294.5	None	None	16.95
	294.5 - 299.5	Tr	None	8.90
	299.5 - 306.0	.65	None	15.50
10/22/55	306.0 - 311.0	None	None	18.10
	311.0 - 316.0	.05	None	8.25
	316.0 - 319.0	None	None	15.05
	319.0 - 324.0	None	None	19.40
	324.0 - 328.0	None	None	14.20
	328.0 - 330.0	.05	None	16.55
	330.0 - 334.0	None	None	12.60
	334.0 - 339.0	1.55	None	15.70
	339.0 - 344.0	None	None	11.40
	344.0 - 349.0	None	None	14.55
	349.0 - 354.0	None	None	12.25
	354.0 - 359.0	None	None	12.35
	359.0 - 364.0	None	None	8.90
	364.0 - 365.0	.85	None	21.20
	365.0 - 370.0	.30	None	10.10
	370.0 - 375.0	.20	None	8.35
	375.0 - 381.0	.20	None	9.20
	381.0 - 386.0	.05	None	13.40
	386.0 - 395.0	.30	None	12.85
	395.0 - 405.0	.10	None	11.90
	405.0 - 415.0	.05	None	13.70
	415.0 - 425.0	.15	None	13.80
	425.0 - 435.0	.30	None	16.85
	435.0 - 445.0	.05	None	11.70
	445.0 - 455.0	.10	None	13.55
	455.0 - 465.0	.05	None	16.00
	465.0 - 475.0	.40	None	16.70
	475.0 - 484.0	.15	None	12.70
	488.0 - 492.0	.20	None	14.10
	492.0 - 502.0	.25	None	14.35
	502.0 - 508.0	.07	None	15.00

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

RECEIVED
NOV 30 1955

Diamond Drill Hole 872-817-874-D-1
Location: Breast 874 Drift
Direction: West --- Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
8/24/55	36.0 - 52.0	None	None	4.24
	36.0 - 52.0	None	None	4.03
	36.0 - 52.0	Tr	None	3.77
	36.0 - 52.0	None	Tr	4.03
	36.0 - 52.0	Tr	None	3.69
	36.0 - 52.0	Tr	0.98	4.03
	76.0 - 90.0	Tr	None	10.96
	76.0 - 90.0	None	None	10.96
	76.0 - 90.0	None	None	10.60

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole 872-822-E-1
Location: Breast 822 Crosscut
Direction: North 80° West Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
9/7/55	60.0 - 67.0	None	None	3.15
	67.0 - 74.0	None	None	3.10
	74.0 - 78.0	None	None	2.74
	78.0 - 82.0	None	None	5.12
	82.0 - 86.0	None	None	4.91
	86.0 - 90.0	None	None	4.29
	90.0 - 95.0	None	None	4.19
	95.0 - 96.0	None	None	2.89
	101.0 - 126.0	None	None	5.20
	135.5 - 140.5	None	None	6.80
	140.0 - 153.0	None	None	4.33
	153.0 - 166.0	None	None	6.23
	166.0 - 180.0	None	None	3.66
	180.0 - 201.0	None	None	4.07
	201.0 - 209.5	None	None	5.56
	209.5 - 215.0	None	None	3.30
	215.0 - 220.0	None	None	4.07
	220.0 - 224.0	None	None	3.30
	229.0 - 232.0	None	None	3.08
	232.0 - 240.0	None	Tr	3.47
	240.0 - 247.0	None	Tr	3.52
	247.0 - 271.0	Tr	None	4.40
	271.0 - 273.0	Tr	None	3.47
	273.0 - 278.0	None	None	4.29
	278.0 - 286.0	None	None	4.40
	281.0 - 291.0	None	None	4.07
	292.0 - 302.0	None	None	3.74
	302.0 - 312.0	None	None	4.62
	312.0 - 319.0	None	None	4.95
	319.0 - 328.0	None	None	5.08
	329.0 - 339.0	None	None	4.62
	337.0 - 347.0	Tr	None	9.41
	347.0 - 354.0	None	None	7.70
	354.0 - 359.0	None	None	4.24
	359.0 - 369.0	None	None	3.63
	369.0 - 377.0	None	None	4.18
	377.0 - 381.0	None	None	3.52
	381.0 - 385.0	None	None	4.29
	385.0 - 391.0	None	None	5.78
	391.0 - 405.0	None	None	3.80
	405.0 - 410.0	None	None	5.39
	410.0 - 415.0	None	None	5.90
	425.0 - 437.0	None	None	6.40
	437.0 - 446.0	None	None	8.15
	446.0 - 450.0	None	None	7.75
	450.0 - 460.0	None	None	6.05
	460.0 - 469.0	None	None	7.20
	469.0 - 479.0	None	None	4.65
	479.0 - 489.0	None	None	6.15

GLIDDEN CONSOLIDATED ZI[illegible] MINES
BULLY HILL MINE

Diamond Drill Hole: 872-819-F-1
Location: Breast 819 Crosscut
Direction: North 80° W Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
10/5/55	2.0 - 5.0	None	None	25.00
	5.0 - 17.0	None	None	19.10
	17.0 - 25.0	None	None	19.20
	52.0 - 79.0	None	None	20.60
	72.00 -88.0	None	None	20.50
	98.0 - 108.0	None	None	19.40
	108.0 - 113.0	.05	None	51.50
	113.0 - 134.0	None	None	4.80
	124.0 - 133.0	None	None	13.40
	138.0 - 150.0	Tr	None	15.50
	150.0 - 155.0	None	None	11.55
	165.0 - 175.0	None	None	9.70
	175.0 - 185.0	Tr	None	17.40
	185.0 - 192.0	None	None	14.90
	192.0 - 199.0	None	None	15.70
	199.0 - 206.0	None	None	14.90
	206.0 - 212.0	None	None	20.95
	212.0 - 222.0	None	None	16.55
	222.0 - 235.0	None	None	10.70
	237.0 - 244.0	None	None	9.80
	243.0 - 251.0	.05	None	13.85
	251.0 - 257.0	.05	None	17.75
	258.0 - 269.0	.40	None	13.95
	269.0 - 279.0	.05	None	16.50
	279.0 - 289.0	Tr	None	20.40
	289.0 - 299.0	None	None	17.85
	299.0 - 309.0	Tr	None	18.80
	309.0 - 328.0	None	None	16.45
	328.0 - 338.0	.20	None	16.20
	338.0 - 348.0	.15	None	18.15
	348.0 - 358.0	.05	None	21.25
	378.0 - 388.0	.05	None	12.35
	388.0 - 398.0	.10	None	8.95
	398.0 - 408.0	Tr	None	15.25
	408.0 - 418.0	.05	None	13.15
	418.0 - 428.0	.05	None	14.00
	428.0 - 438.0	None	None	14.50
	438.0 - 448.0	.05	None	16.20
	448.0 - 458.0	.05	None	31.85
	458.0 - 468.0	.05	None	17.20
	468.0 - 478.0	.05	None	17.55
	478.0 - 488.0	None	None	17.90
	488.0 - 498.0	.20	None	13.00
	498.0 - 508.0	.12	None	16.00
	508.0 - 518.0	.12	None	19.40
	518.0 - 528.0	.15	None	20.40
	528.0 - 538.0	.05	None	17.25
	538.0 - 547.0	.15	None	14.70
	547.0 - 557.0	.10	None	16.30

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole: 872-819-F-1
SLUDGE SAMPLES

Date	Distance	% Cu	% Zn	% Fe
10/15/55	557.0 - 566.0	Tr	None	12.40
	566.0 - 578.0	Tr	None	14.65
	575.0 - 587.0	None	None	11.80
	587.0 - 599.0	None	None	10.55
	599.0 - 612.0	.10	None	13.85
	612.0 - 621.0	.05		8.15
	621.0 - 627.0	.10		7.85
	627.0 - 636.0	.10		13.95

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: 872-819-F-1
Location: Breast 819 Crosscut
Direction: North 80° W Plus 5°

CORE SAMPLES

Date	Distance	% Cu	% Fe
10/27/55	0.0 - 5.0	Tr	4.15
	5.0 - 10.0	Tr	10.95
	10.0 - 13.0	-	12.60
	13.0 - 15.0	Tr	17.00
	15.0 - 17.0	Tr	14.50
	17.0 - 20.0	-	7.20
	20.0 - 25.0	-	19.85
	25.0 - 27.0	-	14.50
	27.0 - 32.0	Tr	14.05
	32.0 - 37.0	-	15.70
	37.0 - 45.0	-	12.50
28	45.0 - 50.0	-	10.25
	50.0 - 52.0	-	15.20
	52.0 - 62.0	-	12.55
	62.0 - 72.0	-	15.90
	72.0 - 75.0	-	14.00
	75.0 - 79.0	-	15.15
	79.0 - 80.0	-	12.10
	80.0 - 83.0	-	12.10
	83.0 - 86.0	-	13.60
	86.0 - 96.0	-	10.00
29	75.0 - 100.0	.25	11.60
	100.0 - 108.0	.50	15.15
	108.0 - 110.0	.15	11.40
	110.0 - 113.0	.25	12.50
	113.0 - 118.0	.05	7.25
	118.0 - 124.0	Tr	6.95
	124.0 - 133.0	Tr	14.05
	133.0 - 138.0	.10	13.85
	138.0 - 143.0	.50	8.65
	143.0 - 150.0	.10	12.15
	150.0 - 156.0	.30	15.75
	156.0 - 165.0	.25	9.00
	165.0 - 175.0	Tr	12.00
	175.0 - 185.0	.05	10.15
	185.0 - 192.0	Tr	19.35
	193.0 - 199.0	-	16.65
	199.0 - 206.0	.05	12.10
	206.0 - 212.0	Tr	13.15
	212.0 - 223.0	.05	14.55
	223.0 - 224.0	-	8.25
	224.0 - 228.0	Tr	11.55
	228.0 - 230.0	-	9.40
	230.0 - 237.0	.05	8.40
	237.0 - 243.0	.03	8.45
	243.0 - 251.0	.51	12.40
	251.0 - 257.0	.05	13.60
	257.0 - 258.0	.05	19.80
	258.0 - 261.0	1.08	17.20
	261.0 - 269.0	.05	19.00
	269.0 - 273.0	.05	14.25

GLIDDEN CONSOLIDATED ZINC MINES
Diamond Drill Hole: [redacted]-819-R-1
CORE SAMPLES

Date	Distance	% Cu	% Fe
11/4/55	273.0 - 279.0	.04	10.70
	279.0 - 289.0	.09	17.50
	289.0 - 299.0	.02	9.95
	299.0 - 309.0	.04	10.50
	309.0 - 319.0	-	9.75
	319.0 - 328.0	.07	7.75
	328.0 - 338.0	.33	10.45
	338.0 - 348.0	.04	11.60
	348.0 - 358.0	.04	13.20
	358.0 - 368.0	.02	9.30
	368.0 - 373.0	.04	9.70
	378.0 - 388.0	-	10.30
	388.0 - 398.0	.14	10.60
	398.0 - 408.0	-	7.90
	408.0 - 418.0	.09	11.35
	418.0 - 428.0	-	8.45
	428.0 - 438.0	.09	7.70
	438.0 - 448.0	.04	9.80
	448.0 - 458.0	.02	8.45
	458.0 - 468.0	.04	8.35
	468.0 - 478.0	.04	15.40
	478.0 - 488.0	-	9.40
	488.0 - 498.0	.04	9.30
	498.0 - 508.0	.09	11.85
	508.0 - 518.0	.02	10.00
	518.0 - 528.0	Tr	7.35
	528.0 - 538.0	.14	11.90
	538.0 - 547.0	.09	11.45
	547.0 - 552.0	Tr	10.90
	552.0 - 557.0	Tr	9.15

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: 871-2-G-1
Location: Breast 871-2 Crosscut
Direction: North 85° W Plus 5°

SLUDGE SAMPLES

Date	Distance	% Cu	% Fe
11/9/55	74.0 - 84.0	.07	4.35
	84.0 - 93.0	.04	4.80
	93.0 - 97.0	.04	9.15
	97.0 - 101.0	.04	5.70
	97.0 - 107.0	.02	4.85
	101.0 - 107.0	.04	3.90
	107.0 - 117.0	.04	4.95
	117.0 - 126.0	.24	7.15
	116.0 - 126.0	.02	3.35
	126.0 - 133.0	.09	3.45
	133.0 - 138.0	.04	11.05
	138.0 - 141.0	.02	5.15
	141.0 - 151.0	.02	3.05
	151.0 - 161.0	.04	4.55
	161.0 - 171.0	.04	4.20
	171.0 - 181.0	.02	4.40
	171.0 - 181.0	.09	12.95
	181.0 - 187.0	.09	5.00
	207.0 - 211.0	.04	4.65
	211.0 - 216.0	.04	4.90
	226.0 - 236.0	.04	4.55
	236.0 - 246.0	.02	3.85
	246.0 - 255.0	.02	2.85
	255.0 - 265.0	.04	5.85
	265.0 - 272.0	.04	3.95
	272.0 - 280.0	.02	5.70
	280.0 - 292.0	.04	8.55
	290.0 - 299.0	-	7.80
	299.0 - 305.0	Tr	2.25
	305.0 - 312.0	Tr	6.85
	312.0 - 317.0	.02	4.85
	317.0 - 321.0	.04	4.85
	321.0 - 331.0	Tr	8.05
	331.0 - 343.0	-	4.40
	343.0 - 353.0	-	7.25
	353.0 - 363.0	Tr	4.05
	363.0 - 367.0	Tr	4.00
	370.0 - 372.0	Tr	5.30
	372.0 - 384.0	.09	7.25
	384.0 - 394.0	Tr	3.07
	394.0 - 404.0	-	4.05
	404.0 - 425.0	Tr	4.85

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 September, 1955 Docket No. DMEA 1219X Amended Contract No. E 152

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

Contract Amount, $ 618 ft. 50% of 49.00 per foot (618 ft @ 24.0) Government Participation: 50 % Amount, $ 2781.00

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:						11/21/55 J.W.L.
Drilling Diamond	5562.00	611,781.00	617,343.00	✓		
Bunbzing Reopening 300 Adit	-	14,315.00	14,315.00	✓		Betty
Crosscutting Exploration 870 Level	-	112,500.00	112,500.00	✓		
Rehab. 870 Level	-	12,656.00	12,656.00	✓		1/3/55 WPK
Unwatering Shaft	-	31,350.00	31,350.00	✓		
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	5562.00	$182,602.00	$188,164.00			

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

Date Oct. 12, 1955 *Payee THE GLIDDEN COMPANY

Per Edward L. Dalton Title Manager of Mines

*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:

$ 2781.00

Signature
(Authorized Certifying Officer)

Date 195 Vou. No. SF-DMCA-17

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-2187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 10/17/55

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date 10/17/55

S. Licker

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1955 Docket No. DMEA 1219X Amended Contract No. _____

Operator's Name The Glidden Company Minerals _____

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts: Unwatering Ad Shaft	Ft			89,842.47	627.0			
Rehab. 870 Level	Ft			61,086.34	904.0			
Winzes								
Drilling: Core	Ft	5512.29	618.0	18,964.98	1927.0		4000'	29.00 ft
Churn								
Auger								
Stripping: Exploration 870 Lev	Ft			243,457.10	2776.8			
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft			34,899.14	1022.5			
Total Distributed Costs		5512.29	618.0	448,250.03				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~5512.29~~	~~618.0~~	~~448,250.03~~				

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 Oct. 12, 1955 Operator THE GLIDDEN COMPANY

Edward L. Kinston Title Manager of Mines

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)

RECEIVED
NOV 14 1955

John D. Harne

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 872894

MONTH OF SEPTEMBER 1955

Docket No. DMEA
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 level to Sept. 30, 1955	8,671.50
Total Government Participation to Date	$117,928.99

Subject: Diamond Drilling 870 Level

Redding, California
October 12, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

We have the following progress on diamond drilling to report for the month of September 1955:

Diamond Drill Hole	NX	BX	AX	Total Depth of Hole
872-822-E-1	5	96	399	500 ft.
872-819-F-1	5	95	18	118 ft.
	10	191	417	618 ft.

Total depth drilled during September: 618 ft.

Diamond Drill Hole 872-817-874-C-1
This hole was drilled during the month of August. We are enclosing complete analyses on both sludge and cores for copper, zinc and iron. Thus far golds and silvers have not been determined but will be reported when completed.

Diamond Drill Hole 872-817-874-D-1
This hole also was completed in August, and while the analyses of the sludge samples have been completed, yet the cores are now being run in our laboratory. These results will be reported in our next report. This hole is consistently showing pyritic mineralization containing small amounts of copper, the copper being in the form of chalcopyrite. Some very interesting conditions have been brought to light here and on the strength of this unusually good showing, it was deemed advisable to drill an additional hole from the breast of 819 Crosscut.

Diamond Drill Hole 872-822-E-1
This hole was completed during the month of September and showed weak mineralization in Bully Hill rhyolite for approximately 250 ft. where pyritic mineralization was encountered. Here there were also occasional small amounts of chalcopyrite. Analyses of sludge samples have been complete but the core samples have not yet been run. This was a very troublesome hole with core recovery only fair, and due to this fact there are a great many samples to be analyzed. Results will be reported later.

Diamond Drill Hole 872-819-F-1
Location: Breast of 819 Crosscut West.
Direction: North 80° West
Inclination: Plus 5°.

This hole was started during the last week in September and has now been completed for a distance of 575 ft., it being our intention to complete at least 600 ft. This has been a highly mineralized hole within a pyritic zone, and has shown varying amounts of chalcopyrite, a most interesting condition. The hole has drilled well and core recovery has been very good.

Drilling progress during the month of September was unusually poor due largely to failure of equipment and inability to get repair parts promptly. Furthermore, the loss of one drill crew upset drilling progress for a matter of about ten days. These conditions have now been overcome and much better progress is being made. While it has been necessary to sectionalize a great many cores, for the purpose of analysis, yet core splitting has been very carefully done and the sections are retained here intact in our Bully Hill plant for inspection by your representatives. Diamond drilling will be continued during the present month and just as soon as hole F-1 has been completed,

the machine will be moved to the south side and a new hole started there. You will note from the core analyses on hole C-1 that the downward extension of the 870 ore shoot has been very well indicated and it appears quite logical that the ore deposit on 970 level will be somewhat larger than 870 level.

772 Drift North

Drifting operations were continued here during the month of September, the total advance amounting to 322 ft. Due to the very heavy ground encountered in reopening old 772 Drift North, it was decided to abandon this project when 772-9 crosscut was reached, and drive a new heading from this point into the country to the north with a view of picking up the upward extension of 870 ore shoot. Hence, the new work was actually started at 772-9 crosscut, and while this heading passed through 772-22 and 772-15 crosscuts, yet it really amounted to a new heading since there was a very marked difference in grade. The greater portion of this new heading was in basic dike with very little, if any, mineralization. The shear zone was cut approximately 295 ft. north of 772-9 crosscut. Here showing on the contact between the basic dike and the shear zone is 11 ft. of very good copper-zinc ore quite similar to the ore encountered on the level below but probably a little more on the copper side. From this point to the breast of the heading, a very good pyritic zone has been penetrated. While this zone largely consists of quartz and pyrite, yet there are occasional showings of chalcopyrite.

774 Drift North was started on ore exposed in 772 heading but has failed to show anything of importance, yet there is a bare possibility that it is too far to the east. 774 Drift South has now encountered the ore exposed in 772 heading and is a very important discovery since it shows a considerable width of good copper zinc ore with ore still in the west breast. The heading will gradually be turned south and a drift will be driven on the ore since it appears quite likely that this ore can be followed into the old workings north of 772-14 crosscut. While it is very difficult to project shear zone ore over any great distance, yet the old company had extensive stopes north of 772-14 crosscut and the old workings north of this point are too far to the west to encounter this ore providing it continues south.

776 Drift North has also been started from a point near the breast of 772 heading. At this point there is a very noticeable showing of small stringers of chalcopyrite through the iron zone and in this drift, which has just been started, the copper appears to be increasing as the heading advances. All that can be said for this drift is that it is a very good prospect and may lead to something of value.

I am enclosing a map of 770 level. We will indeed be happy to supply a plan map showing the assays of the ore encountered here just as soon as results are received from the laboratory.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: #72-817-874-C-1
Location: Breast #74 Drift
Direction: East Minus 45°

CORE SAMPLES

DATE 1955	DISTANCE	% CU	% ZN	% FE
9/28	0.0 - 2.0'	.10	None	6.24
	2.0 - 5.0	.80	1.20	15.50
	5.0 - 10.5	.35	None	12.95
	10.5 - 15.5	.35	None	6.05
	15.5 - 22.5	None	1.50	5.70
	22.5 - 28.5	.05	.75	8.00
	28.5 - 31.5	.70	None	11.75
	31.5 - 36.5	.15	None	6.05
	36.5 - 40.5	1.08	None	8.60
	40.5 - 43.5	.25	None	6.45
	43.5 - 48.5	.63	1.00	11.90
9/30	48.5 - 54.0	.07	Tr	7.75
	54.0 - 57.0	.35	Tr	13.10
	57.0 - 63.0	1.00	None	10.20
	63.0 - 68.0	.20	None	11.00
	68.0 - 74.0	.35	None	8.75
	74.0 - 79.0	.15	None	8.35
	79.0 - 84.0	.10	None	4.55
	84.0 - 89.0	.05	None	3.75
	89.0 - 92.0	.10	None	10.50
	92.0 - 96.0	.10	None	4.00
	96.0 - 97.0	.15	None	4.95
	97.0 - 104.0	.05	None	7.00
	104.0 - 109.0	.30	None	6.80
	109.0 - 114.0	.25	None	6.70
	114.0 - 119.0	None	None	6.70
	119.0 - 123.0	Tr	None	8.30
	123.0 - 126.0	.07	None	4.20
	126.0 - 128.0	Tr	None	3.85
	128.0 - 130.0	.45	None	5.95
	130.0 - 133.0	.10	None	4.00
	133.0 - 135.5	Tr	None	3.80
	135.5 - 139.0	None	None	8.05
	139.0 - 144.0	.05	None	7.50
	144.0 - 148.0	None	None	7.40
	148.0 - 150.5	None	None	8.60
	150.0 - 152.5	None	None	3.70
	152.5 - 157.5	None	None	12.20
	157.5 - 160.0	None	None	5.30
	160.0 - 163.0	None	None	8.55
	163.0 - 166.0	None	None	3.65
	166.0 - 168.0	Tr	None	3.30
10/8	168.0 - 170.0	.20	None	8.20
	170.0 - 171.5	None	None	7.20
	171.5 - 173.5	.75	None	9.40
	173.5 - 176.0	.10	None	7.45
	176.0 - 179.5	.05	None	6.55
	179.5 - 183.0	None	None	5.00

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE
Diamond Drill Hole: 872-817-874-C-1
Core Samples

Date	DISTANCE	% CU	% ZN	% FE
10/8	183.0 - 186.5	None	None	8.35
	186.5 - 189.5	.05	None	8.80
	189.5 - 192.0	1.50	None	20.10
	192.0 - 193.5	2.05	9.65	8.10
	193.5 - 196.0	3.05	11.25	21.50
	196.0 - 200.0	5.25	11.20	25.50
	200.0 - 204.0	2.15	15.40	9.45
	204.0 - 209.0	.10	1.30	7.10
	209.0 - 213.0	.05	None	7.10
	213.0 - 215.0	1.15	None	9.85
	215.0 - 216.0	.05	None	8.95
	216.0 - 217.5	.95	4.00	7.90
	217.5 - 218.0	2.50	3.45	11.70
	218.0 - 221.0	.65	.50	7.20
	221.0 - 224.5	.10	None	15.50
	224.5 - 227.0	Tr	None	5.55
	227.0 - 231.0	Tr	None	11.10
	231.0 - 232.0	.40	Tr	10.70
	232.0 - 237.0	Tr	None	10.45
	237.0 - 241.0	1.30	8.50	15.70
	241.0 - 246.0	.85	7.75	12.45
	246.0 - 247.0	.25	.80	4.95
	247.0 - 250.0	.75	None	16.00

GLIDDEN CONSOLIDATED ZINC MINES
BULLY HILL MINE

Diamond Drill Hole: 872-817-874-C-1
Location: Breast 874 Drift
Direction: East Minus 45°

SLUDGE SAMPLES

Date 1955	DISTANCE	% CU	% ZN	% FE
8/9	85.0 - 89.0	None	None	2.43
	89.0 - 92.0	None	None	3.92
	92.0 - 97.0	.05	None	4.20
	97.0 - 119.0	Tr	None	4.96
	119.0 - 123.0	Tr	None	5.12
	123.0 - 126.0	Tr	None	3.65
	126.0 - 128.0	.40	None	4.08
	128.0 - 130.0	Tr	None	4.25
	130.0 - 133.0	Tr	None	4.74
	133.0 - 139.0	.05	None	3.54
	139.0 - 144.0	.05	None	3.91
	144.0 - 149.0	Tr	None	4.41
	149.0 - 157.5	None	None	4.96
	157.5 - 163.0	None	None	3.65
	163.0 - 170.0	None	None	3.65
	171.0 - 176.0	None	None	4.47
	176.0 - 179.0	.05	None	5.12
	179.5 - 183.0	None	None	5.45
	183.0 - 186.5	.05	None	2.56
	186.5 - 189.5	None	None	5.34
	189.5 - 192.0	1.00	None	5.23
	192.0 - 193.5	.05	None	4.80
	193.5 - 196.0	.50	3.65	6.21
	196.0 - 200.0	1.30	3.25	5.23
	200.0 - 204.0	.08	2.00	5.83
	204.0 - 209.0	.25	1.50	6.76
	204.0 - 209.0 b	.20	1.50	6.98
	209.0 - 215.0	.30	Tr	7.14
	209.0 - 215.0 b	.30	Tr	6.65
	218.0 - 224.5	.10	None	6.76
	218.0 - 224.5 b	.05	None	7.25
	224.5 - 231.0	.10	None	7.08
	224.5 - 231.0 b	.15	None	7.08
	231.0 - 237.0	.20	None	6.38
	237.0 - 241.0	.25	None	9.05
	241.0 - 246.0	.10	None	7.56
	246.0 - 250.0	.15	None	6.36

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 August, 1955 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
Contract Amount, $ 777 ft. @ 50% of $9.00 per foot -- 777 ft. @ $4.50 Government Participation 50 % Amount, $ 3496.50

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	6993.00	4,788.00	11,781.00	9/24/55 OK		
Bulldozing: Reopening 300 Adit	-	14,315.00	14,315.00			
Crosscutting: Exploration 870 Lev.	-	112,500.00	112,500.00			
Drifting: Rehab. 870 Level	-	12,656.00	12,656.00			
Unwatering Shaft	-	31,350.00	31,350.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$6993.00	$175,609.00	$182,602.00			

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

Date Sept. 13, 1955 *Payee THE GLIDDEN COMPANY

Per Edward L. Halston Title Manager of Mines

*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:

$ 3496.50

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-11

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idn-2187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 9/14/55

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature G. Ricker Title Executive Officer DMEA Field Team Region II Date 9/14/55

G. 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 ME-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED

Month of August 1955 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts: Unwatering	Ft	-	-	89,042.47	627.0			
Rehab. 870 Level	Ft	-	-	61,066.34	904.0			
Winzes	Ft	6998.92	777	13,452.69	1309.0		4000	79.00
Drilling: Core								
Churn								
Auger								
Exploration 870 Lev	Ft	-	-	243,457.10	2776.8			
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-	-	34,699.14	1022.5			
Total Distributed Costs		6998.92	777	442,737.74				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		6998.92		442,737.74				

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. 13, 1955 Operator THE GLIDDEN COMPANY

By Edward L. Salsten Title Manager of Mines

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)

Costs shown above are Operator's actual costs — costs authorized by contract are shown on ME-104.

John D. Harne

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 872894

MONTH OF AUGUST 1955

Docket No. DMEA

1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 level to August 31, 1955	5,890.50
Total Government Participation to Date	$115,147.99

SUBJECT: DIAMOND DRILL[illegible] 870 Level

Redding, California
September 13, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc - Copper
IDM - K187

We have the following progress on diamond drilling to report for the month of August, 1955:

Diamond Drill Hole	NX	BX	AX	Total Depth of Hole
872-820-B-1			19	251 ft.
872-817-874-C-1	2	4	244	250 ft.
872-817-874-D-1	5	195	308	508 ft.
	7	199	571	

Total depth drilled August: 777 ft.

Diamond Drill Hole 872-820-B-1
Location: Breast 820 Crescent Northeast
Direction: East. Inclination: + 5°
August: 232 ft. to 251 ft.
Core recovery: Fair.
Basic dike.

Diamond Drill Hole 872-817-874-C-1
Location: Breast of 874 Drift.
Direction: East. Inclination: - 45°.
August: 0 - 250 ft.
Core recovery: Good.

Mineralized shear zone-encountered copper zinc ore at 186.5 ft., indicated ore downward extension of 870 ore shoot.

Diamond Drill Hole 872-817-874-D-1
Location: Breast of 874 Drift.
Direction: West. Inclination: + 5°.
August: 0 - 508 ft.
Core recovery: Good.

This hole shows pyritic mineralization throughout, with varying amounts of chalcopyrite for the entire distance. The hole should have been drilled to a greater depth. However, some little difficulty was encountered beyond the 500 ft. point and the machine in use seemed to be just a little bit too light for greater depth.

Diamond Drill Hole 872-822-B-1
Location: North breast of 872 Drift at intersection with 822 Crescent.
Direction: North 80° West. Inclination + 5°.

This hole was started September first and has now reached a depth of 286 ft. Thus far the hole has been troublesome and core recovery has not been good. The first 247 ft. shows Bully Hill rhyolite with very little mineralization. Pyritic mineralization was encountered at a depth of 247 ft. and a small amount of chalcopyrite has also been noted beyond this point. The hole will be continued to a depth of 500 ft.

SUBJECT: DIAMOND DRILLING 870 Level (2)

Due to the fact that some little difficulty has been experienced in keeping 872 Drift North open, it has been decided to drill from the west breast of 819 Crosscut before going to the south side. Here a very intense mineralization has been exposed both in 819 Crosscut and 880 Drift Northwest. Furthermore a hole at this point will roughly bisect the distance between Holes D-1 and E-1, and is a most worthwhile exploration project. The hole will be driven North 80° West with an inclination of + 5°.

Analyses of the mineralized sections of these various drill holes have already been started and the results will be reported when completed.

772 Drift North

The reopening and rehabilitation of 772 Drift North has been completed and drifting operations along the Bully Hill shear zone have already been started from the north breast of the old workings. There is evidence of very extensive steping on 770 level on the north end of the property and apparently all of it has not been mapped. In addition to this, remnants of very fine copper and zinc ore have been found here. It is highly probable that zinc ore bodies of considerable tonnage have been left in these old stopes and this means the reopening of some of them when mining operations are started. Our present plans call for the drifting along the Bully Hill shear zone with the idea of exploring the upward extension of 870 ore shoot. Hence, it is purely a matter of drifting north for approximately 150 ft. and then crosscutting both east and west. This work is now well under way.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

R M E A

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 3 1 1955

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

8/29/55

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- 1219X

Contract No. Idm-E 187 amended

Commodity Zinc-copper

Operator The Glidden Co.

Property Bully Hill Mine, Shasta Co., Calif.

By John D. Warne

Dated 8/25/55

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 31 9 01 AM '55

INTERIM REPORT

RECEIVED
AUG 31 1955

Docket No.: DMEA-1219X (Zinc-copper) August 25, 1955

Name and address of operator: The Glidden Co.
E. L. Ralston, Mgr. of Mines
P. O. Box 430
Redding, Calif.

Name and location of property: Bully Hill Mine, about 30 miles northeast of Redding, Shasta County, California

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Bully Hill mine was inspected on August 19, 1955.

Three diamond drill holes Nos. 870-1, 2, and 3 have been completed, and hole No. 870-4 was in progress.

Copper-zinc mineralization of about 12 feet thick was encountered in hole No. 870-3 at about 135 feet below the 870 level, and hole No. 870-4 has encountered some iron and copper sulphides. Analysis of cores and sludges are incomplete.

Contract work performance and progress is satisfactory.

WORK COMPLETED

A total of 950 feet of diamond drilling has been performed to date as follows:

Hole No.	Location*	Length	Bearing	Dip
870-1	872-15 Crosscut E	300'	N 80° E	+5°
870-2	872-20 Crosscut E	250'	East	+5°
870-3	872-17 Crosscut W	250'	East	-45°
870-4	872-17 Crosscut W	150'**	West	+5°

*Hole shown in map attached to Interim Report dated May 26, 1955.

**Hole still in progress, planned length 500 feet.

Diamond drilling work was begun on July 13, 1955 under an independent contract with Boyles Bros. Drilling Co., Salt Lake City, Utah.

COMMENTS

Hole No. 870-3 intercepted copper-zinc mineralization from 189.5 to 209.0 feet. Sludges averaged from 0.5 to 1.30 percent Cu from 189.5 to 196.0 feet, and 1.50 to 3.65 percent Zn from 192.0 to 209.0 feet along the hole. Core analysis are incomplete. Hole No. 870-4 intercepted considerable iron and some copper sulphides.

After completing DMEA drifting and crosscutting work on the 870 level, the operator has been engaged in reopening the 770 level with the regular mine crew.

John D. Warne
Mining Engineer

Form M3-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED AUG 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1955 Docket No. DMEA 1219X Amended Contract No. E 187

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

Contract Amount, $ Government Participation: 50 % Amount, $ 2394.00

532 ft. @ 50% of $9.00 per ft. (532 ft. @ $4.50)

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	4,788.00	-	4,788.00	9/13/55		
Sinking Reopening 300 Adit	-	14,315.00	14,315.00			
Crosscutting Exploration 870 Lev.	-	112,500.00	112,500.00			
Diamond Rehab. 870 Level	-	12,656.00	12,656.00			
Unwatering shaft	-	31,350.00	31,350.00			8/20/55 J.W.A.
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	4,788.00	170,821.00	175,609.00			

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

Date Aug. 12, 1955 Payee THE GLIDDEN COMPANY

By Edward L. [illegible] Title MANAGER OF MINES

*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:

$ 2394 00

Lloyd T. Blanden
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date AUG 18 1955 Vou. No. 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. Idm-E187 in accordance with the terms of the contract.

Signature Henry W. Jones for John D. Farne Title Mining Engineer Date August 15, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Executive Officer
DMEA Field Team

Signature [illegible] G. Rieker Title Region II Date August 15, 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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1955 Docket No. DMEA 1219X Amended Contract No.

Operator's Name THE GLIDDEN COMPANY Minerals

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts: Unwatering	Ft	-		89,842.47	627.0			
Winzes: Rehab. 870 Level	Ft	-		61,086.34	904.0			
Drilling: Core: Diamond	Ft	6453.77	532.0	6,453.77	532.0		4000.0	
Churn								
Auger								
Stripping: Exploration 870 Lev.	Ft	-		243,457.10	2776.8			
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-		34,899.14	1022.5			
Total Distributed Costs		6453.77	532.0	435,738.82				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~6453.77~~		~~435,738.82~~				

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. 12, 1955 Operator THE GLIDDEN COMPANY

Per Edward L. Ralston Title Manager of Mines

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)

Henry W. Jones for
John P. Wayne

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 872894

MONTH OF JULY 1955

Docket No. DMEA

1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Government participation - diamond drilling 870 level to July 31, 1955	2,394.00
Total Government Participation to Date	$111,651.49

SUBJECT: DIAMOND DRILLING 870 Level

Redding, California
August 12, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E187

The contract for doing the diamond drilling on 870 Level was awarded to Boyles Bros. Drilling Co. of Salt Lake City, Utah. Under the terms of this contract, Boyles Bros. are to furnish all labor and machinery necessary to perform the work. The Glidden Co. is to cut adequate drill headings, supply air and water for drilling, handle all crews and equipment within the mine and furnish transportation for Boyles Bros. personnel across Shasta Lake. Drilling rates are as follows:

	AX	BX	NX
0 - 250 ft.	$4.60	$5.20	$5.80
250 - 500 ft.	5.20	5.80	
500 - 750 ft.	5.80		
750 -1000 ft.	6.40		

Reaming
For AX casing - $2.30
For BX casing - $2.60

Cementing
$9.00 per hour plus cost of cement and cement substitutes

Actual drilling operations were started July 13, 1955, with one shift per day. The second shift was added July 19. Thus far results have been good.

Diamond Drill Hole 872-815-A-1
Location: Breast 815 Crosscut East,
Direction: North 80° East
Inclination: + 5°

BX	6 lin. ft.
AX	294 lin. ft.
Total depth Drilled	300 lin. ft.

Core recovery: Good
This hole encountered basic dike throughout.

Diamond Drill Hole 872-820 - B-1
Location: Breast 820 Crosscut Northeast
Direction: East
Inclination: + 5°

BX	3 lin. ft.
AX	229 lin. ft.
Total Depth Drilled July	232 lin. ft.

Core recovery: Fair
This hole encountered basic dike with stringers of quartz. The hole was completed 8/1/55.

Diamond Drill Hole 872-817-874-C-1
This hole was started August 3 and has now been completed to a depth of 250 ft. Analys

of sludge samples and sectionalized cores will be submitted in the August report.

Diamond Drill Hole 872-817-874-D-1
This hole was started today.

All exploration work, other than diamond drilling on 870 level, has been discontinued until diamond drilling can be completed. The rehabilitation and reopening of 772 drift north is well under way and should be completed within the next two weeks. It is then planned to drift in a northerly direction to explore the ore shoot exposed in 872 Drift North. The reopening of 772 drift north has exposed some very good ore and it appears quite logical that a considerable tonnage of high grade zinc ore has been left on this level.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JUL 25 1955

Memorandum

1605 ~~Evans~~ Avenue
Reno, Nevada

Date: July 21, 1955

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 reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E187 DMEA-1219X	The Glidden Co.	7/14/55	June 1955
Idm-E713 DMEA-3194	Wm. C. Morrison & Sons	6/30/55	June 1955
Idm-E747 DMEA-3407	Helmke, Thomas & Janssen	7/1/55	June 1955
Idm-E750 DMEA-3347	Idaho Maryland Mines Corp.	7/1/55	June 1955
Idm-E774 DMEA-3428	Mt. Wheeler Mines, Inc.	7/9/55	June 1955
Idm-E788 DMEA-3637	El Capitan Mining Co.	7/7/55	June 1955

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: H. C. Miller
R. M. Smith
File

MF 104 June

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 June, 1955 Docket No. DMEA 1219 Amended Contract No.
Operator's Name The Glade Company Minerals
Address Cleveland, Ohio

RECEIVED JUL 25 1955

Contract Amount, $ Government Participation 25 % Amount, $

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	—	$14,315.00	$14,315.00	7/28/55	W.P.K.	
Bulldozing	—	31,350.00	31,350.00			
Crosscutting	[illegible]	48,906.00	48,906.00			
Drifting	[illegible]	63,594.00	63,594.00			
Rehabilitation	—	12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	[illegible]	$170,021.00	$170,021.00			

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

Date July 14, 1955 *Payee The Glade Company

Per [signature] Title Manager of Mine

*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:

$ —0—

Signature
(Authorized Certifying Officer)

Date Vou. No.
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. TAM-E187 in accordance with the terms of the contract.

Signature John D Moore Title Mining Engineer Date 7/18/55

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date 7/18/55

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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of June 1955 Docket No. DMEA 1219 Amended Contract No. _____

Operator's Name THE GLIDDEN COMPANY Minerals _____

Address Cleveland, Ohio

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		No Government participation for month of June 1955						
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs				$429,285.05				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs				$429,285.05				

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 July 14, 1955 Operator THE GLIDDEN COMPANY

Per [signature] Title Manager of Mines

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)

John A Warne

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 872894

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 May, 1955 Docket No. DMEA 1219X Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
RECEIVED JUN 29 1955
Contract Amount $ 13.2 ft. @ $22.50 (50% of $45.00 per ft) Government Participation: 50 % Amount, $ 297.00

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:						
Unwatering shaft		31,350.00	31,350.00	7/11/55		
Reopening Adit		14,315.00	14,315.00			
Bulldozing		48,906.00	48,906.00			
Crosscutting						
Drifting 13.2 ft.	594.00	63,000.00	63,594.00			
Rehabilitation 870		12,656.00	12,656.00			7/20/55
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$594.00	$170,227.00	$170,821.00			

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

Date 6/11/55 *Payee The Glidden Company

By Edward L. Carlston Title Manager of Mines

*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:

$ 297.00

Signature (Authorized Certifying Officer)

Date Vou. No. SF-DMCA-35

(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-E187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date 6/21/55

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Executive Officer
DMEA Field Team

Signature [illegible] Title Region II Date 6/21/55

J. 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.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
JUN 29 1955

Month of May 1955 Docket No. DMEA 1219X Amended Contract No. _____
Operator's Name The Glidden Company Minerals _____
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	Ft			$89,842.47	627.0			
Winzes Rehab. 870 Level	Ft			61,086.34	904.0			
Drilling: Core Explor. 870 Level	Ft	23282.03		243,457.10	2776.8			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft			34,899.14	1022.5			
Total Distributed Costs		$23282.03		$429,285.05				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$23282.03		$429,285.05				

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 6/11/55 Operator The Glidden Company

Per Edward L. Ralston Title Manager of Mines

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)

John S Moore

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 872894

MONTH OF MAY 1955

Docket No.

1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

RECEIVED
JUN 29 1955

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.60
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to May 31, 1955	56,250.00
Total Government Participation to Date	$109,257.49 OK

SUBJECT: EXPLORATION 870 Level

Redding, California
June 11, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

RECEIVED
JUN 29 1955

Advances for May

819 Crosscut West	93 ft.
880 Drift	36 ft.
821 Crosscut West	6 ft.
872 Drift North of 815 Crosscut	69 ft.
822 Crosscut East	86 ft.

819 Crosscut West
This crosscut continued in very broken shear zone material to a point 150 ft. west of 872 Drift. Here strong pyritic mineralization was encountered, and the heading continued in this material to the breast. This mineralization consisted largely of pyrite and quartz, with small amounts of chalcopyrite, and thus far sphalerite has not been found. Due to the extreme hardness and the difficulty in drilling this heading, it was stopped and 880 Drift northwest of 819 crosscut was started.

880 Drift Northwest from 819 Crosscut
This drift, driven on a small shear zone from a point 145 ft. west of 872 drift north, and roughly N 20° West, advanced 36 ft. during the month and is now 69 ft. west of 819 crosscut. A very dense pyritic mineralization has been encountered in this drift, the iron content varying from 3.5% to 24%. To date only a very small amount of copper has been found and zinc, with one exception, has been negligible. However, it is an exceptionally strong mineralized zone and probably a mantle for a copper-zinc ore shoot to the west. While progress has been very slow here due to the extremely hard ground and the difficulty of drilling it, this heading will be continued with the idea of ultimately breaking through and prospecting the country to the west for a zinc ore body indicated in drill hole No. 5.

Drill Hole No. 5
This drill hole has been picked up in 880 Drift Northwest. The coordinates of this hole projected to the 870 level, as reported by Mayer G. Hansen of the Longyear Co., were 20120 north and 18822 east, whereas the true location of the hole is 20170 north and 18840 east. Due to the length of the hole and the difficulty in drilling it, we consider this very good work on the part of the Longyear people.

821 Crosscut West
Only one round was blasted in this crosscut during the month and work here has been abandoned since 880 Drift from 819 Crosscut will pass within 30 ft. of the breast of this crosscut. There is a bad water condition here and it is far better not to disturb it.

872 Drift North
This drift advanced 69 ft. during the month. Considerable faulting was encountered here and also a few stringers of aphanitic andesite were cut, yet the drift failed to show any ore with the exception of a small amount of drag ore in one of the cross faults. Drifting here was temporarily discontinued in order to start 822 Crosscut East.

822 Crosscut East
This crosscut, driven N 85° East from the breast of 872 drift North, advanced 86 ft. in May and is now 154 ft. east of the drift. Here a very badly broken country rock, highly silicified rhyolite, has been encountered. The purpose of driving this drift was to locate the basic dyke on the east since practically all ore occurrences are in shear zo near the contact of the andesite and the rhyolite porphyry. Thus far only a few small

SUBJECT: EXPLORATION 870 Level

stringers of andesite have been cut in the crosscut but near the breast of the crosscut a heavy shear zone has been encountered, and it now appears that the andesite to the east is very close. This crosscut will be continued until the basic dyke is reached.

772 Drift North

The reopening of this old drift has been continued during May and the work has progressed to a point 135 ft. north of 770 crosscut. The zinc ore showing on the west wall has been continuous, thus affording a very nice prospect for a zinc ore body. It is now planned to mechanize this level and step up progress while diamond drilling is under way on the 870 level.

The total lineal footage of drifting and crosscutting left under our DMEA contract amounted to 13.2 ft. Hence, this part of the contract is now complete and there only remains the diamond drilling on the 870 level. We hope to have this drilling under way in the very near future.

We are enclosing maps of the 870 level which were brought up to date June first.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 31 1955

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: May 26, 1955

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 1219X

Contract Idm-E 187 (amended)

Commodity Zinc-Copper

Operator - The Glidden Co.

Property - The Bully Hill Mine, Shasta County, Calif.

By John D. Warne

Dated May 26, 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

BUREAU OF MINES
WASHINGTON, D. C.
MAY 31 10 38 AM '55

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 3 1 1955

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-Copper) May 26, 1955

Name and address of operator: The Glidden Co.,
Edward L. Ralston, Mgr. of Mines
P. O. Box 430
Redding, Calif.

Name and location of property: Bully Hill mine, about 30 miles northeast of Redding, Shasta County, Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine exploration project was inspected May 9, 1955 by J. D. Warne of the Bureau of Mines and J. F. Robertson and H. K. Stager of the Geological Survey.

Planning of 4,000 feet of diamond drilling, provided in the DMEA contract, was jointly done by the DMEA field team and Mr. E. L. Ralston, manager of mines for the Glidden Company.

The total 2,500 feet of drifting and crosscutting work on the 870 level, provided under the contract, was completed early in May.

WORK COMPLETED

During April, 289.8 feet of drifting and crosscutting work was done north of the Bully Hill shaft on the 870 level; and early in May this phase of the exploration work was completed.

The operator is continuing exploration operations on his own account. The quantity and Government's share of this DMEA contract costs follows:

Description	Feet	Cost
Stage I - Diamond drilling	5,299.3	$23,846.99
Stage II - Rehabilitate 300 level adit	1,022.5	7,157.50
Unwater Bully Hill shaft	627.0	15,675.00
Rehabilitate 870 level, drifts and crosscuts	904.0	6,328.00
Drifts and crosscuts, 870 level	2,486.8	55,953.00
Total cost as of 4/31/55		$108,960.49
Drifts and crosscuts, 870 level (during May 1955)	13.2*	297.00
Total cost to date		$109,257.49

*Completes 2500 feet allowed under contract.

COMMENTS

The operator is continuing drifting and crosscutting operations on the 870 level beyond the 2500 feet allowed by the DMEA contract. The 872-19 W crosscut and the 872 N drift were being advanced at the time of this inspection.

Five diamond drill holes aggregating 2300 feet in length were selected during this inspection. The balance of footage allowed under the contract (1700 feet) is tentatively planned to be expended to further explore the most favorable areas indicated by the initial drilling. Proposed diamond drill

holes and drifting and crosscutting progress during April 1955 are shown on a map accompanying this report. The following diamond drilling work was planned (see attached map):

Hole No.	Location	Length	Bearing	Dip
1	872-15 Crosscut E	300'	N 70 W	+5°
2	872-20 Crosscut E	250'	East	+5°
3	872-17 Crosscut W	250'	East	-45°
4	872-17 Crosscut W	500'	West	+5°
5	872 Drift N (?)	500'	N 75 W	+5°
6	871 Drift S	500'	N 70 W	+5°
(Diamond drilling to be planned later)				
		1,700'		
		4,000'		

John D. Warne
Mining Engineer

R m E a

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAY 31 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Memorandum

1605 Evans Avenue
Reno, Nevada

Date: May 25, 1955

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 reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E187 DMEA-1219X	The Glidden Company	5/12/55	April, 1955
Idm-E680 DMEA-3273	Lory M. Free	5/4/55	April, 1955
Idm-E747 DMEA-3407	Helmke, Thomas & Janssen	5/4/55	April, 1955
Idm-E750 DMEA-3347	Idaho Maryland Mines Corp.	5/3/55	April, 1955
Idm-E767 DMEA-3629	Combined Metals Reduction Co.	5/9/55	April, 1955
Idm-E774 DMEA-3428	Mt. Wheeler Mine	5/10/55	March-April, 1955

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: H. C. Miller
R. M. Smith
File

BUREAU OF MINES
WASHINGTON, D. C.
MAY 31 9 25 AM '55

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
REC'D

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April 1955 Docket No. DMEA 1219X Amended Contract No. Idm-1187

Operator's Name The Glidden Company Minerals Zinc-Copper

Address Cleveland, Ohio

Contract Amount $ 289.8 ft. @ 50% of $45 per ft. or 289.8 ft. @ $22.50 Government Participation: 50 % Amount, $ 6520.50

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:						
Reopening 300 Adit		$14,315.00	$14,315.00			
Unwatering Shaft		31,350.00	31,350.00			
Bulldozing						
Crosscutting 147.8 ft.	6,651.00	42,255.00	48,906.00			
Drifting 142 ft.	6,390.00	56,610.00	63,000.00			
Rehabilitation 870		12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$13,041.00	$157,186.00	$170,227.00			

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

Date May 12, 1955 *Payee THE GLIDDEN COMPANY

By Edward S. Hanson Title MANAGER OF MINES

*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:

$6520 50

Lloyd H. Sjolander
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date MAY 23 1955 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. Idm-E187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date May 16, 1955

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: Executive Officer DMEA Field Team

Signature S. Ricker Title Region II Date May 16, 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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

MAY 31 1955

Month of April 1955 Docket No. DMEA 1219X Amended Contract No. X Idm-E187

Operator's Name THE GLIDDEN COMPANY Minerals Zinc-Copper

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering Shaft	Ft	-	-	89,842.47	627.0	50.00	650	50.00
Winzes Rehab. 870 Level	Ft	-	-	61,086.34	904.0	14.00	1000	14.00
Drifting: Core Exploration 870 Level	Ft	22102.06	289.8	220,175.07	2486.8	88.50	2500	85.00
Churn								
Auger								
Stripping						9.00	[illegible]	9.00
Trenching						9.00	4000	9.00
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-	-	34,899.14	1022.5	14.00	995	14.00
Total Distributed Costs		$22102.06	289.8	$406,003.02				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$22102.06		$406,003.02				

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 12, 1955 Operator THE GLIDDEN COMPANY

Per Edward L. Walston Title MANAGER OF MINES

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)

The cost of reopening the 300 adit exceeds contract amount by this fr or $665.00. However sufficient balance on other items will cover this excess.

John S Thorne

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 872894

MONTH OF APRIL 1955

Docket No.
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to April 30, 1955	55,953.00
Total Government Participation to Date	$108,960.49

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

Redding, California
May 12, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E187

Advances for April	Month	Total Distance
819 Crosscut west	12 ft.	101 ft.
821 Crosscut West	135.8 ft.	145.8 ft.
872 Drift North	142 ft.	436 ft.
Previously reported North Side		1486.8 ft.
Balance due under DMEA Contract		13.2 ft.

819 Crosscut West
89 - 101 ft. Advance for the month: 12 ft. Crosscutting was resumed here the last week in the month. The water had then drained out sufficiently so that our pumping equipment was not overtaxed. The crosscut continued in a very badly broken shear zone where iron and quartz with a small sprinkling of chalcopyrite was encountered.

821 Crosscut West
10 - 145.8 ft. Advance for the month: 135.8 ft. This crosscut, driven roughly N 15° W, shows a very badly broken, highly altered shear zone in the first 100 ft. From this point to the breast of the crosscut, a considerable amount of pyrite and quartz was encountered, also a very heavy flow of water near the breast, thus necessitating suspension of operations here until the water could drain out. As soon as possible, operations will be resumed here and the crosscut will be continued until the low grade copper found in the breast of 819 Crosscut is cut. Drifting to the northwest on this ore will then be undertaken and work in 819 Crosscut will be abandoned for the present.

872 Drift North of 815 Crosscut
This drift had a total advance of 142 ft. during the month. Here a very heavy unmineralized shear zone was penetrated with the idea of picking up the contact between the basic dike and the alaskite porphyry on the west. Nothing of any great importance was encountered in this portion of the drift. However, it is necessary to continue this heading in a general northerly direction for at least another 100 ft. When this point is reached, it is planned to drive a crosscut in a due westerly direction to prospect the copper ore exposed in drill hole No. 4.

772 Drift North
Work of reopening this old drift has continued during the month. Here a small amount of very good zinc ore has been found on the west wall of the drift. This old heading is very badly caved, resulting in very slow progress.

We are enclosing maps of the 870 Level which were brought up to date May first.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 2 - 1955

Office of
Executive Officer
DMEA Field Team
Region II

1605 Evans Avenue
Reno, Nevada

April 29, 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- 1219

Contract No. Idm-E 187

Commodity Zinc-copper

Operator The Glidden Company

Property Bully Hill Mine, Shasta County, Calif.

By J. F. Robertson, Geologist, USGS

Dated April 26, 1955

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.
MAY 2 9 28 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
Bureau Mineral Administration
RECEIVED
MAY 2 - 1955

April 26, 1955

Memorandum

To: DMEA Field Team, Region II

From: J. F. Robertson, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-1219 (Zinc-copper), The Glidden Company, Bully Hill Mine, Shasta County, California
Contract No. Idm-E187
Interim Inspection Report

INTRODUCTION

Underground workings at the Bully Hill mine, Shasta Co., California were inspected and mapped during the week of April 4 to 8, in connection with DMEA docket 1219, contract Idm-E187. The accompanying maps (figures 1 & 2) show the approximately 1,275 feet of new workings driven by the Glidden Co. from the north end of the 870 level as of April 8, in accordance with provisions of the DMEA contract. About 1,100 feet had been driven since December 7, 1954, the date of the last geologic inspection.

The northward extension of the Bully Hill shear zone was located and explored by drifting for a distance in excess of 400 feet. Ore was developed for 320 feet along the shear zone, which forms a fault contact between chloritized diabase dike rock to east and porphyritic soda rhyolite to west. Closely spaced samples in the mineralized zone taken and assayed by the Glidden Company are plotted on the assay map (figure 2). Analysis of ore mineral distribution shows that, in a mining sense, 2 bodies are outlined; lens A contains 27,782 tons of measured ore averaging 2% copper, 10.1% zinc, 5.5 oz. silver, and 0.16 oz. gold, and lens B contains 4,263 tons of measured ore averaging 1.9% copper, 3.1% zinc, 3.1 oz. silver and 0.08 oz. gold per ton.

ANALYSIS OF WORK ACCOMPLISHED

Underground workings driven under the DMEA contract to explore north of the pre-existing workings of the 870 level begin

from survey point 45, and extend west and north of that point (see figs 1 & 2). Survey point 45 is 700 feet north of the "shaft" crosscut (refer to the map of the 870 level accompanying report of March 3, 1953). From point 45, drift 872 was driven northwest toward the inferred piercing point of DDH A1-2, in which ore minerals had been cored. The drift was driven in metamorphosed diabase for considerable distance without encountering favorable mineralized ground as expected. The increased thickness of metadiabase and the northwesterly strike of shears caused speculation that the trend of the mineralized Bully Hill shear zone had turned northwesterly or had been offset to the west. It was suspected also that DDH A1-2 had flattened more than a plot of its survey indicated so that its piercing point was probably farther to the west. The decision was made, therefore, to crosscut westward in order to pass as directly as possible out of the metadiabase, and to locate the northern extension of the ore-bearing Bully Hill shear zone.

At 76 feet west from the 872 drift and survey point 46, the 872-14 crosscut passed through the main shear zone that forms the contact between metadiabase and porphyritic soda rhyolite. Subsequent drifting northward along the mineralized Bully Hill shear zone from the 872-14 crosscut disclosed that if the 872 drift had been continued along its northwest bearing from point 47, it would have encountered an ore body within 40 to 50 feet, but at the time such was not surmised.

Copper-zinc minerals at the shear zone contact in the 872-14 crosscut were encouraging, but hardly of commercial value. The crosscut was continued westward to explore a cross section of the porphyritic soda rhyolite partly in search of mineralized shears more or less parallel to the main one and partly to test the concentration of disseminated sulfides in the porphyritic soda rhyolite. Sulfide showings were followed but did not develop into significant concentrations. The 872-16 drift, driven south from the 872-14 crosscut followed mineralized shears, but developed only minor concentrations though the wall rock is highly pyritic and altered. The pyritization suggests, however, that ore might be developed farther to the south along the shear zone.

Drifting northward from the 872-14 crosscut along the main shear zone encountered progressively increasing amounts of sulfides. At 82 feet of advance the west side of the Bully Hill shear zone was reached in barren wall rock, so the 872-15 crosscut was driven northeast to explore back thru the ore bearing shear zone. Massive sphalerite was developed for a width of about 25 feet in the crosscut, and then drifting was continued northward in massive ore, paralleling closely the sheared contact with metadiabase to the east. Massive ore was developed for another 190 feet along the north trending drift.

872-17 crosscut explored the area near the intersection of DDH A1-3 with the 870 level, below which some copper values had

been obtained in the drill hole. Some thin seams of chalcopyrite were developed but nothing of significant value was found.

872-19 crosscut was started northwest toward the point where DDH A1-5 intersects the level, but so much water came in, with a flow estimated at better than 40 cubic feet per second, that this crosscut was abandoned. There is nothing in DDH A1-5 to encourage further exploration now in this direction, but the open condition of the ground shown by the high flow of water is indicative of faults or shears that may be ore bearing.

Drifting was continued northward from the north end of the ore lens.

At the north end of the workings shown on the maps, wide, northwest-trending shears were cut. 872-20 crosscut northeast was driven to search for ore in the shears and to find the metadiabase, which, in a general way, has delimited the ore-bearing zone on the east side. The crosscut was stopped when the metadiabase was encountered. Some chalcopyrite and pyrite concentrations were found in the shears but are of no consequence. The rock in this area is intensely sheared and altered, a favorable condition for ore bodies, for which exploration is being continued to the north.

ORE RESERVES

The assay figures appearing on the assay map were obtained from the Glidden Company and are considered to be reliable. Systematic sampling has been carried out by Mr. E. L. Ralston, mine manager, and assays were done by Mr. Harrington, the company assayer. The distribution of assay values, along with geologic factors, outline an ore shoot in the Bully Hill shear zone that may be conveniently divided into two bodies or lenses, A and B. Lens B is contiguous to lens A but contains marginal ore values. Both are shown on the assay map.

Lens A is well exposed by the 872 drift where it is 230 feet long and ranges in thickness from 25 feet to less than 5 feet and averages about 15 feet thick. Most of the ore bodies in the Bully Hill mine are nearly vertical and have heights nearly as great as their lengths, so for purposes of estimating measured and indicated reserves a height equal to two-thirds the length, or 153 feet for lens A, is considered to be a safe assumption. Of this height half is arbitrarily assumed to extend above the level and half below. Drill hole A1-3 passes over the ore zone too high to affect consideration of this ore body. Thus, measured ore reserves are described in a block of ground, dipyramidal in outline, the base of which is 230 feet long at the 870 level by 15 feet thick, and the vertical axis of which is 153 feet high. Assuming 9.5 cubic feet of ore to the ton, lens A contains 27,782 tons of measured ore reserves with a weighted average value of 2.0% copper, 10.1% zinc, 5.5 oz. silver, and 0.16 oz. gold.

Lens B, in a block similar in shape to lens A, but 90 feet long by 15 feet thick by 60 feet high, contains 4,263 tons of measured ore with a weighted average assay of 1.9% copper, 3.1% zinc, 3.1 oz. silver, and 0.08 oz. gold.

Indicated ore reserves equal to the measured reserves lie within blocks of rectangular outline encompassing lenses A and B, using the same dimensions as stated above but subtracting the measured ore fractions.

Lenses A and B may extend vertically as much as 150 feet below the 870 level, but upward the sparsity of ore in DDH A1-3 suggests that the lenses end in less than 150 feet. These lenses, however, were discovered farther north than any other workings in the mine. The block of ground above and below the exploratory 872 drift, therefore, may be inferred to contain ore bodies comparable in size, shape, and number to those developed in the mine farther south. Furthermore, the grade of ore in bodies in this block should compare favorably with the grade of the measured reserves. Other possibilities for ore bodies are discussed under the section on diamond drilling exploration.

The 871 drift, driven under the DMEA contract south of the shaft crosscut (not shown on the accompanying maps, please refer to map with Interim Inspection Report of October 20, 1954 by J. D. Warne), contains scattered copper sulfides, as noted from assays of numerous, closely spaced, breast channel samples. Random spots run as high as 7.5% copper, but values are not sufficiently bunched nor high enough to constitute ore. Zinc assays average probably less than 0.5% throughout. One interval of 64 feet in the drift between 340 and 404 feet south of the shaft crosscut contains sulfides with a weighted average assay of 1.25% copper. Measured reserves of this grade of cupiferous rock, having a specific volume of 10 cubic feet per ton, in a block of dipyramidal outline 64 feet long by 7 feet average width by 40 feet vertical dimension (20 feet above the level and 20 feet below) amount to 1,792 tons. Indicated reserves of this same grade equal another 1,792 tons.

Inasmuch as the 871 drift in this area was driven mainly along the footwall of the mineralized Bully Hill shear zone, the possibility exists that rock of ore grade may occur east of the drift. From the abundance of sulfides close to the shear zone, one may infer that concentrations of ore occur above and below the 871 south drift in and near the Bully Hill shear zone that are comparable in size and grade to ore that occurs in other parts of the mine.

GEOLOGIC CONSIDERATIONS IN REGARD TO UNDERGROUND DIAMOND DRILLING

Inasmuch as only about 208 feet of exploratory workings remain to be driven under Stage II item 4 of the contract, some general recommendations are in order with respect to the 4,000 feet of underground diamond drilling to be undertaken next as specified in Stage II item 5 of the contract.

To date, in the Bully Hill mine almost all the ore bodies have been developed in or close to the north striking Bully Hill shear zone in porphyritic soda rhyolite. Significantly many of them lie next to the metadiabase, as though it had exerted some control over sulfide deposition. Therefore, in laying out holes to be drilled consideration should be given to some exploration in those areas where the Bully Hill shear zone and/or the metadiabase contact are inferred or can be projected, such as south of the 872-16 drift or east and south of the 871 south drift.

Although crosscuts 872-14, 17, and 19 did not cut ore the area west of the Bully Hill shear zone in the porphyritic soda rhyolite has never been explored very far. Mineralized ground is suspected from surface indications, so some relatively long flat holes are justified to the west of the 870 level workings, both from the south and north drifts. In this connection DDH A1-4 penetrated some concentrations of copper sulfides west of the main shear zone (see map of 870 level accompanying report of March 3, 1953).

The metadiabase dike pinches and swells and envelops masses of rhyolite along its strike. By itself the metadiabase does not seem to be mineralized, but one large ore body was discovered east of the Bully Hill shear zone on the 570 level, apparently within the metadiabase, but actually occurring as replacement of a large mass of included silicified rhyolite. Other similar mineralized masses of rhyolite within the metadiabase may occur on the 870 level. A lead of this sort is the jasperoid containing sulfides within the metadiabase in the 872 drift around survey point 46. Short diamond drill holes to the east from the 872 drift might be worthwhile.

A critical area in the geologic structure has been reached in the north end of the 872 workings. At the surface, the contact between rhyolite and barren sediments swings northeast from a generally northerly trend and passes south of the collar of DDH A1-3. The contact is approaching the nose of a tight syncline that plunges south. What effect this trend has upon the mineralized Bully Hill shear zone is a question that should be answered by drilling. Also, it is suspected that strong faults parallel or transect the axis of the syncline, which could seriously disrupt the well defined north trending Bully Hill shear zone as the locus of ore shoots. Strongly developed northwest trending shears, as shown at the north end of the 872 drift suggest such a possibility. The metadiabase, a

favorable ore indicator, may depart from its northerly trend to intrude the area farther to east along the nose of the syncline. Therefore, some drilling in this critical area to east and north of the north end of the 872 workings is necessary to determine the trend of the metadiabase and the trend of ore forming structures.

RECOMMENDATIONS

The underground drifting and crosscutting at the north end of the 870 level under the terms of the DMEA contract, Stage II, item 4 were successful in developing ore. A certificate of discovery is warranted, therefore, at this time.

The underground diamond drilling phase of the exploration program is considered important to further explore for ore shoots and mineralized structures. A conference at an early date with the operator is recommended to arrive at some mutually agreeable program of diamond drilling under Stage II, item 5 of the contract. The specific layout of drill holes should take into consideration the views expressed in this report.

J. F. Robertson

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

R m Ea

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 25 1955

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: April 21, 1955

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 1219X

Contract Idm-E 187 amended

Commodity Zinc-Copper

Operator - The Glidden Co., Redding, Calif.

Property - Bully Hill mine, Shasta County, Calif.

By John D. Warne

Dated April 21, 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

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
APR 25 1955

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-Copper) April 21, 1955

Name and address of operator: The Glidden Co.,
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill mine, about 30 miles northeast of Redding, Shasta County, California

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine exploration project was inspected on March 31, 1955. Drifting and crosscutting work on the 870 level is 88 percent complete, and this phase of the program should be finished during May 1955.

A copper-zinc mineralized zone of about 300 feet in length near the northern extremity of the 870-level has been explored by numerous drifts and crosscuts. The extent and grade of this zone will be determined after numerous samples are averaged and some diamond drilling work is done. The operator plans to continue exploration northward on this level.

The operator stated that he will request that a joint conference be held soon between Glidden Company officials and Government representatives to lay out the 4,000 feet of diamond drilling provided in the contract.

WORK COMPLETED

The quantity and Government's share of the cost of work completed under this DMEA contract are as follows:

Stage I:	
Diamond drilling, 5,299.3 feet	$23,846.99
StageII:	
Rehabilitate 300 level adit, 1,022.5 feet @ $7/ft.	7,157.50
Unwater and rehabilitate the vertical Bully Hill shaft, 627 feet @ $25.00/ft.	15,675.00
Rehabilitate 870-level drifts and crosscuts, 904 feet @ $7.00/ft.	6,328.00
Drift and crosscut 1,000 feet* south of Bully Hill shaft, and 1,197 feet north of Bully Hill shaft	49,432.50
	$102,439.99

*Actually performed 1,017 feet of drifting, but charged for 1,000 feet to conform with contract.

Progress on work north of the Bully Hill shaft (as of March 31, 1955) is shown on the attached map.

COMMENTS

Drifts and crosscuts north of the 872-14 crosscut west along the 19,800 N. coordinate line (shown on attached map) encountered mineralized shear zones for a distance of about 300 feet, but mineralization has been discontinuous in the general area north of the 20,100 N. coordinate. Crosscuts Nos. 872-19 northwest and 820 northeast were driven to determine the quality and width of spotty zinc-copper mineralized zones. The operator plans to continue the 872 drift northward

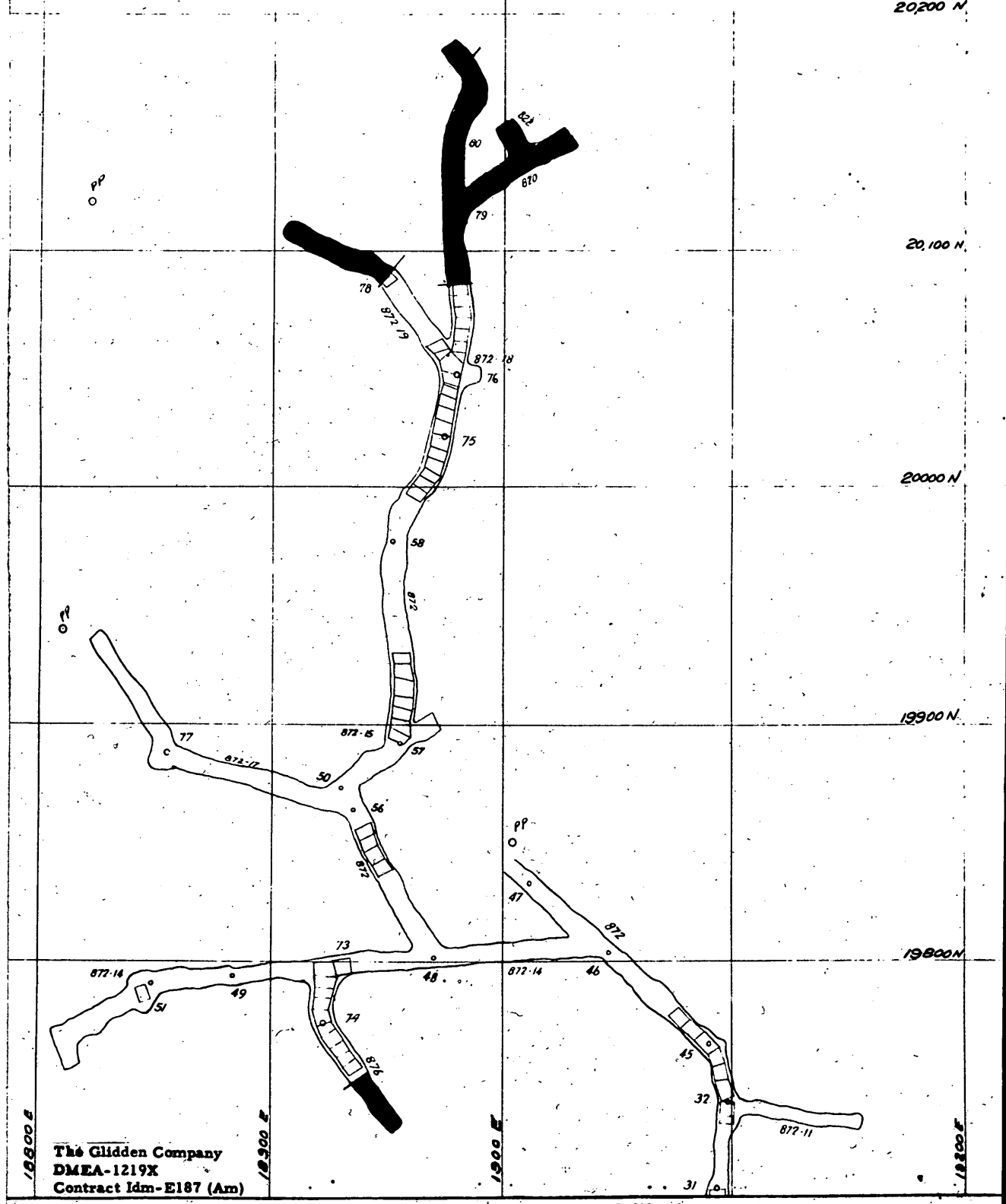
with the balance of footage allowed under the contract. He is also reopening old workings on the 770 level on his own account above the mineralized area mentioned above for sampling purposes to determine the quantity of ore available for future mining.

Averaging of numerous samples and perhaps some diamond drilling (provided in contract) will be required along the 300 ore zone to determine general widths, grade and quantities of ore discovered.

Drifting and crosscutting work on the 870 level should be completed during May 1955. Mr. Edward L. Ralston, Manager of Mines, for the Glidden Company has suggested that a conference be held between officers of his company and representatives of the Government.

Government participation of $22.50 per foot for drifting and crosscutting work on the 870 level has been only about 25 percent of actual costs of the work as reported by the operator. Although cost of exploration appears high, the contract work has been performed in a workman like and satisfactory manner.

John D. Warne
Mining Engineer



BULLY HILL MINE; Shasta County, California
(Progress of exploration work on 870 level north of Bully Hill shaft as of 3/31/55)

Form DMF-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

Amended

Month of March, 1955 Docket No. DMEA [illegible] Contract No. Idm-E187
Operator's Name [illegible] Minerals Zinc-copper
Address [illegible]
Contract Amount, $ [illegible] Government Participation: 50 % Amount, $ 5557.50

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						
Drilling [illegible] 300 [illegible]		14,315.00	14,315.00	5/4/55 DRK		~~Betty~~
Sinking shaft		11,350.00	11,350.00			~~[illegible]~~
Bulldozing						
Crosscutting 112 ft.	5000.00	37,215.00	42,215.00			Betty
Drifting 135 ft.	6075.00	50,535.00	56,610.00			
[illegible] 870 Level		12,650.00	12,650.00			5/4/55 J.W.A.
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	11115.00	126,671.00	137,786.00			

I certify that the above bill is correct and just and that payment therefor has not been received. [illegible], 1955 The [illegible] Company
Date Payee
Per [illegible] Title Manager of Mine

*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:

$ 5557.50

Signature (Authorized Certifying Officer)

Date Vou. No. SF-DMEA-20

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E187 Amended in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date April 14, 1955

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer DMEA Field Team Region II Date April 14, 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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Amended

Month of March 1955 Docket No. DMEA 1298 Amended Contract No. Idm-E187

Operator's Name The Glidden Company Minerals Zinc-copper

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Underreaming	ft			89,842.47	627'	143.29	156	32,500.00
Winze Below 270 Level	ft			61,066.34	931'	67.89	1000	16,000.00
Drilling: Core Exploration 270 Level	ft	21,080.66	247'	198,073.01	2197'	90.16	2500	112,500.00
Churn								
Diamond Drilling Auger								
Stripping Stope 2							8840.33	49,190.98
Trenching Stope 22							4000	36,000.00
Test Pits								
Roads and Trails Rehabilitation 300 Unit	ft			34,899.14	1022.5'	24.13	975	13,650.00
Total Distributed Costs		21,080.66	247'	383,900.96				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		21,080.66		383,900.96				

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

Date April 12, 1955 Operator The Glidden Company

Per [signature] Title Manager of Mines

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)

Costs as submitted by operator are actual operating costs. His unit actual costs, and authorized contract units and costs are inserted in pencil.

John S Warne

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 872894

MONTH OF: MARCH 1955

Docket No.
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to March 31, 1955	49,432.50
Total Government Participation to Date	$ 102,439.99

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

Redding, California
April 12, 1955

DMEA Reference:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

Advances for March	Month	Total Distance
819 Crosscut West	49 ft.	89 ft.
820 Crosscut Northeast	53 ft.	53 ft.
821 Crosscut West	10 ft.	10 ft.
872 Drift North	96 ft.	292 ft.
876 Drift South	27 ft.	74 ft.
878 Drift North	12 ft.	12 ft.
Total for month	247 ft.	

819 Crosscut West
40 - 89 ft. This crosscut advanced 49 ft. during the month of March, making the total length of the crosscut 89 ft. The ground encountered was very badly broken, showing considerable quartz and iron, with a very small amount of zinc. Due to a very heavy flow of water, it was necessary to discontinue work here for a period of one week in order to let the water drain out. Crosscutting will be resumed here in the very near future.

820 Crosscut Northeast
0 - 53 ft. This crosscut, driven in a northeasterly direction from a point 227 ft. north of 815 crosscut was in typical shear zone material throughout. The basic dike on the east shows in the breast of the crosscut. The only thing of importance encountered here was 8 ft. of copper and zinc ore showing on the north side of the crosscut, approximately 35 ft. east of the drift. Later developments proved that this ore was an inclusion and was not continuous.

821 Crosscut West
0 - 10 ft. This crosscut was started from a point roughly 290 ft. north of 815 crosscut East and during the month of March advanced 10 ft., showing shear zone throughout. Nothing of importance was encountered here but the crosscut will be continued well into the country to the west until the solid alaskite porphyry is cut.

872 Drift North of 815 Crosscut East
196 - 292 ft. This drift advanced 96 ft. during the month, making a total of 292 ft. north of the crosscut. The drift was driven in a roughly northerly direction, showing shear zone throughout. This shear zone is highly altered and is badly cut with faulting. No ore was encountered in this portion of the drift. The present plan is to drive the drift north until the basic dike is cut and then to drift on the contact between the dike and the shear zone.

876 Drift South
47 - 74 ft. This drift was continued during the month but since it failed to show any ore of importance, work here was discontinued and the heading abandoned.

878 Drift North
0 - 12 ft. This drift was started on the ore exposed in 820 crosscut northeast, it being our idea to determine whether or not this ore was continuous or just a little bunch of ore in the shear zone. The ore only continued a short distance north of the drift and was completely cut out so the heading was abandoned.

This north country presents rather a complex problem and one which will take a little time to solve since it is necessary to get out sufficient headings to determine the extent of the shearing in this locality. It now appears that the shear zone, is very much larger here than it was farther south, and while it has shown very little mineralization thus far,

yet it is highly altered and badly faulted. No.4 drill hole, approximately 200 ft. to the north, showed a sulphide zone at a slightly higher elevation and for this reason it is quite necessary to continue 872 drift in this north country.

772 Crosscut East

The reopening of this crosscut has been completed to 772 drift north and work is now under way on the rehabilitation of the drift. The pump station on 770 level has also been retimbered and the pump now in use on 770 station will be installed in the pump station, thus providing more room for the handling of cars on 770 station. This work is not part of our DMEA contract but is carried entirely by The Glidden Company.

We are enclosing maps of 870 level which were brought up to date April 3rd. We are also enclosing complete assays for 872 Drift North of 814 Crosscut West. The missing gold and silver assays are included in this statement.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

MAR 31 1955

1605 Evans Avenue
Reno, Nevada

March 28, 1955

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 reports received from the operator as listed below. These reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E187 DMEA-1219X	The Glidden Company	3/12/55	February 1955
Idm-E369 DMEA-2478	New Idria Mining & Chemical Company	3/5/55	January 1955
Idm-E744 DMEA-3393	Schaff, Bednar, Jones, & Reinmiller	2/14/55	January 1955
"	"	2/28/55	February 1955
Idm-E747 DMEA-3407	Helmke, Thomas & Janssen	3/1/55	February 1955
Idm-E750 DMEA-3347	Idaho Maryland Mines Corp.	3/7/55	February 1955

S. Ricker

Attac hments

SRicker:gh
cc: H. C. Miller
R. M. Smith
File

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

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
R 31 1955

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of February 1955 Docket No. DMEA 1219X Amended Contract No. Dm E 187
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
Contract Amount $ 200 ft. @ 45.00 per ft. $12,000.00 Government Participation: 50 % Amount $ 6030.00
2021 268 ft. @ 22.57

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:						
Short Form Drilling						
Reopening 300 Adit		14,315.00	14,315.00			4/4/55 J.W.L.
Unwatering Shaft		31,350.00	31,350.00			
Bulldozing 75 ft.	3,375.00	33,840.00	37,215.00			
Crosscutting 193 ft.	8,635.00	41,850.00	50,535.00			
Drifting						
Rehab. 370 Level		12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	12,060.00	134,011.00	146,071.00			

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

Date March 12, 1955 *Payee The Glidden Company

Edward L. Walston Title Manager of Mines

*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:

$6030.00

Signature
(Authorized Certifying Officer)

Date MAR 22 1955 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-E187 in accordance with the terms of the contract.

Signature John D. Warne Title Mining Engineer Date March 16, 1955

John D. Warne

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature S. Ricker Title Executive Officer DMEA Field Team Region II Date March 18, 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.

GPO 872893

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

MAR 31 1955

Month of February 1955 Docket No. DMEA1219X Amended Contract No. .....
Operator's Name The Glidden Company Minerals .....
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Unwatering Shafts	Ft			89,842.47	627'			
Rehab. 870 Level Winzes	Ft			61,086.34	904'			
Exploration 870 " Drilling: Core	Ft	21414.00	268'	176,592.35	1950'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft			34,899.14	1022.5			
Total Distributed Costs		21414.00	268'	362,420.30				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		21414.00		362,420.30				

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

Date March 12, 1955 Operator The Glidden Company

Per Edward L. Kaiser Title Manager of Mines

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 872894

MONTH OF: FEBRUARY 1955

Docket No.
1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to February 28, 1955	43,875.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$96,882.49

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

Redding, California
March 12, 1955

DMEA REFERENCE
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

Advances for the month of February	Month	Total Distance
817 Crosscut West	26 ft.	87 ft.
818 Crosscut East	9 ft.	9 ft.
819 Crosscut West	40 ft.	40 ft.
872 Drift North of 815 Crosscut East	86.5 ft.	195.50 ft.
874 Drift Northwest	59 ft.	59 ft.
876 Drift South	47.5 ft.	47.50 ft.
Total - February	268.0 ft.	

817 Crosscut West
61 - 87 ft. - advance 26 ft. This portion of the crosscut continued to show very low grade copper and zinc ore with nothing of any great importance. Near the breast of the crosscut there was a rather encouraging showing so it was decided to drift to the northwest on this stringer. The breast of this crosscut offers a very good location for a diamond drill hole for some considerable distance to the west.

874 Drift Northwest of 817 Crosscut
0 - 59 ft. This drift was driven to the northwest for a total distance of 59 ft. and showed some low grade copper and zinc ore the entire distance. Copper assays varied from .05% to 1.3%, and zinc assays from .27% to 1.20%. However, the ore failed to improve as the drift advances so it was abandoned. It is interesting to note that this drift is within 15 ft. of the projection of one of the diamond drill holes and judging by the water encountered here, it is quite apparent that the diamond drill hole is actually close at hand.

818 Crosscut East of 872 Drift North.
0 - 9 ft. This crosscut was driven into the footwall of the ore shoot from a point 165 ft. north of 815 crosscut for the purpose of prospecting hanging wall stringers. Nothing of importance was encountered here so the crosscut was abandoned.

819 Crosscut West of 872 Drift North. 0 - 40 ft.
This crosscut was also driven in a northwesterly direction from a point approximately 165 ft. north of 815 crosscut east for the purpose of providing a car pocket to expedite tramming and also to prospect the adjacent territory. Some low grade copper and zinc ore has been found but it is too low to be of any great importance. This crosscut will be continued due west from the present breast since it is more than 200 ft. north of 817 crosscut and this territory should be fully explored. By extending this crosscut west 120 ft. it will be very close to diamond drill hole No. 3. Considerable water has been encountered here but thus far it has not caused any difficulty in drifting operations.

872 Drift North of 815 Crosscut East.
86.5 ft. - 195.50 ft. This drift continued on ore for the entire distance showing some exceptionally good copper-zinc ore. From 819 crosscut north to the breast, the ore was very badly broken and considerable faulting has been encountered here. The total length of the ore shoot from 814 crosscut north is approximately 300 ft. The drift is now passing through a very badly broken up section of ground but it appears that the heading has now been driven far enough north so that crosscuts can be driven both east and west to pick up the extension of the ore shoot north of the faulting. This work is now well under way.

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

876 Drift South of 814 Crosscut West
0 - 47.5 ft. This drift was started from a point roughly 40 ft. west of 872 drift north and was driven in a southerly direction from 814 crosscut west. The breast is now 69 ft. south of the crosscut. A few bunches of good copper-zinc ore were found yet the ore was not continuous and did not improve as the work advanced, so drifting here has been abandoned.

572 Drift North of 570 Station
The work of reopening this old drift was continued during the month and the drift is now open to the north breast. It is now planned to reopen one of the old crosscuts in order to sample an exposure of zinc ore reported at this point. Our findings to date are that the old company had sorted out a considerable amount of zinc ore and left it in the gobs during the copper mining days and the old reports outlining zinc ore bodies on this level have been somewhat verified. This is not part of our DMEA contract but the work is carried entirely by The Glidden Company.

770 Crosscut South
The reopening of 770 Crosscut South and 772 drift North has been started since it is our plan to reopen the old drift for a distance of 750 ft. to the north breast, and then attempt to pick up the ore shoot exposed in 872 drift north on the 770 level. This will mean drifting to the northwest for a distance of approximately 200 ft. to get directly under the 872 ore body. However, the ore shoot exposed in 872 Drift north is dipping to the north and should this dip continue up to the 770 level, the new work will be much less. This is also not part of the DMEA contract but is for the account of The Glidden Company.

We are enclosing maps of the 870 Level which were brought up to date March 6.

We are also including assays results which are complete up to 149 ft. north of 815 crosscut and copper and zinc assays from this point to a point 206 ft. north. The missing gold and silver assays will be reported in our next monthly report.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 14 1955

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, California

Date: February 10, 1955

Memorandum

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

From: Executive Officer, DMEA Field Team, Region ~~III~~ II

Subject: Interim Inspection Report

Attached are four copies of Interim Report on -
Docket DMEA - 1219X

Contract Idm-E 187 (Amended)

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine
Shasta County, California

By John D. Warne, Mining Engineer

Dated February 8, 1955

Executive Officer,
DMEA Field Team, Region ~~III~~ II

Attachments

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 14 1955

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-copper) February 8, 1955

Name and address of operator: The Glidden Co.,
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, Calif.

Name and location of property: Bully Hill mine, about 30 miles northeast of Redding, Shasta Co., Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine exploration project was inspected on Feb. 2, 1955. A total of 1,609 feet of drifting and crosscutting work under the DMEA contract had been completed on the 870 level; this work is now 65% complete.

A copper-zinc mineralized zone was followed for 97 feet along the 872 Drift north of the 872-14 Crosscut west; and a 20 foot mineralized zone was encountered in the 872-15 Crosscut east.

The operator plans to continue the 872 Drift North with occasional crosscuts east and west to the various mineralized shear zones.

STATEMENT OF WORK COMPLETED

The quantity and Government's share of the cost of work completed under this DMEA contract is as follows:

Stage I:

Diamond drilling 5,299.3 feet	$23,846.99

Stage II:

1. Rehabilitate 300-level adit - 1,022.5 feet @ $7.00/ft.	7,157.50
2. Unwater and rehabilitate the vertical Bully Hill shaft - 627 feet @ $25.00/ft.	15,675.00
3. Rehabilitate 870-level drifts and crosscuts - 904 feet @ $7.00/ft.	6,328.00
4. Drift and crosscut 1,000 feet* from south end and 409 feet** from north end of old workings on the 870 level - 1,409 feet @ $22.50/ft.	31,702.50
	$84,709.99

*Actually performed 1,017 feet of drifting and crosscutting, but charged for 1,000 feet to conform with contract.

**Consists of 214 feet of drifting and 195 feet of crosscutting performed by December 31, 1954.

During January 1955, the operator advanced the 872 drifts north of the 872-14 crosscut west about 150 feet and drove the 872-15 crosscut east from this drift 50 feet. Surveying and mapping of progress for this period is incomplete. Drifting and crosscutting work on the 870 level is now 65% complete. A total of 891 feet of drifting and crosscutting work and 4,000 feet of diamond drilling work remain incomplete at this time.

COMMENTS

The 872 Drift North of the 872-14 Crosscut West followed a mineralized shear zone for a distance of 97 feet. Continuous breast samples by the company showed copper content from 1.66% to 4.66% and zinc from 4.28% to 13.58%. In the 872-15 Crosscut East from this drift, a 20-foot zone contained 2.84% copper and 10.26% zinc. Complete sampling and assay data is promised by the operator when gold and silver analysis of samples previously taken are obtained.

Progress maps prepared by the company are included with the operator's monthly report.

SAMPLING

Three samples were taken from the mineralized structures explored by new drifts and crosscuts on the 870-foot level north of the Bully Hill shaft. Analysis of these samples will be given in the next interim report.

John D. Warne
Mining Engineer

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

FEB 28 1955

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

February 23, 1955

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 reports received from the operators as listed below. These reports have been audited and passed to the Treasury for payment.

Contract No.	Operator	Report Dated	Period Covered
Idm-E187 DMA-1219X	The Clidden Co.	February 11, 1955	January 1955
Idm-E369 DMEA-2478	New Idria Mining and Chemical Company	February 10, 1955	December 1954

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: Roscoe Smith, USGS

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

RECEIVED

Month of January, 1955 Docket No. DMEA1219X Amended Contract No.
Operator's Name The Gildon Company Minerals
Address Cleveland, Ohio
Contract Amount, $ 273 ft. x $45 per foot = $12,285.00. 50% (22.50 per ft.) Government Participation: 50 % Amount, $ 6142.50 $6142.50

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:						
Reopening 300 Adit		14,315.00	14,315.00			
Unwatering shaft		31,350.00	31,350.00			
Crosscutting 164 ft.	7380.00	26,460.00	33,840.00			3/1/55 J.W.A.
Drifting 109 ft.	4905.00	36,945.00	41,850.00			
Rehabilitation		12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	12,285.00	121,726.00	134,011.00			

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

Date Feb. 11, 1955 Payee THE GILDON COMPANY

Per [illegible] Title Manager of Mines

*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:

$ 6142.50

Lloyd H. Sylander
Authorized Certifying Officer

Signature (Authorized Certifying Officer)

Date Vou. No. SF-DMEA-21

(See other side)

Mail placed in envelope.

(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]-R187 in accordance with the terms of the contract.

Signature [illegible] Johnson Title Supervising Mining Engineer Date Feb. 15, 1955.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] S. Rieker Title Executive Officer DMEA Field Team Region II Date February 17, 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-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of January 195 3 Docket No. DMEA 1219X Amended Contract No.

Operator's Name THE GLOBE COMPANY Minerals

Address CLEVELAND, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	Ft			89,842.47	627'			
Rehab. 870 Level	Ft			61,086.34	904'			
Exploration 870 Lev.	Ft	22903.18	273'	155,178.35	1662'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Deepening 300 Adit	Ft			34,899.14	1022.5'			
Total Distributed Costs		22903.18	273'	341,006.30				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$22903.18		$341,006.30				

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

Date Feb. 11, 1955 Operator THE GLOBE COMPANY

Per Edward L. Halston Title Manager of Mines

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 872894

MONTH OF JANUARY 1955

Docket No.
1219X Amended

Operator: THE GLIDDEN COMPANY
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to January 31, 1955	37,845.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$90,852.49

SUBJECT: EXPLORATION 872 Level
Bully Hill Mine

Redding, California
February 11, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E 187

Advances for the month of January	Month	Total Distance
872-14 Crosscut West of 872 Drift North	47 ft.	242 ft.
817 Crosscut West of 872 Drift North	61 ft.	61 ft.
815 Crosscut East	44 ft.	44 ft.
816 Crosscut South	12 ft.	12 ft.
872 Drift North of 815 Crosscut East	109 ft.	109 ft.
Total - January	273 ft.	

872-14 Crosscut West from 872 Drift North
195 ft. - 242 ft. From a point 202 ft. south where a mineralized fault was encountered, the direction of the crosscut was changed from South 85° West to roughly S 65° West in order to follow this mineralization. There was no appreciable increase in the amount of copper and zinc encountered here, the copper assaying from 0.10% to 0.50%, the zinc from 0.07% to 1.00%, with gold at .01 oz. and silver about .20 oz. Work here was discontinued in the early part of the month in order to start 817 crosscut but should be resumed at a later date since there is a possibility of encountering a parallel ore shoot within the alaskite porphyry. This is a very good heading for diamond drilling since it is of utmost importance to explore the contiguous ground to the west.

817 Crosscut West of 872 Drift North
0 - 61 ft. This crosscut was started from a point in 872 drift north, roughly 80 ft. from 814 crosscut and was driven in a general direction of North 75° West. The purpose of the crosscut was to prospect the ground directly west of the heavy pyritic mineralization encountered in 872 drift north. With the exception of a small stringer of copper ore showing on the south side of the crosscut, a short distance west of 872 drift, little of importance has been encountered here notwithstanding the fact that this shear zone does show some copper and zinc throughout. A drift on low grade copper-zinc ore has now been started from the breast of the crosscut and this will be continued to the north for some little distance.

815 Crosscut East from 872 Drift North of 872-14 Crosscut West
0 - 44 ft. This crosscut was driven in the early part of January and was fully discussed in our narrative of January 12.

816 Crosscut South
0 - 12 ft. This crosscut was driven in a southeasterly direction for a distance of 12 ft. southeast of 814 crosscut. Only hard, barren quartz and iron was encountered here, so the crosscut has been abandoned.

872 Drift North of 815 Crosscut East
0 - 109 ft. This drift, driven in a northerly direction from 815 crosscut, has uncovered some very good copper and zinc ore and, as a matter of fact, we consider it the most important discovery in the Bully Hill area since 1910. This is virgin territory and it appears quite logical that an ore body of some magnitude has been found. The breast of the drift is now 149 ft. north of the crosscut and the breast is in very good ore. While very low grade spots have been encountered in our drifting operations, due to the fact that the work was carried too far to the west, yet the ore from 814 crosscut north is continuous and is now 250 ft. long. Considerable faulting has been encountered here, and while the displacements have not been great, yet it has resulted in rather a hazardous heading, requiring very close timbering, since the open ground very quickly air slakes, resulting in the falling

of large slabs of ore and waste. Crosscuts will immediately be started from the breast of this drift to prospect the surrounding contiguous ground since it has not been possible in drifting operations at all times to break the full width of the ore.

Rehabilitation and reopening of 572 Drift North has been continued and has now reached a point 200 ft. east of 570 station. To date some very good zinc ore has been found and it is quite apparent that the old company in the mining of copper sorted out and gobbed the zinc ore, and made no attempt to mine zinc ore which did not contain copper. It is now planned to reopen the 770 level to the north with the idea of continuing 772 drift north into the country directly above the ore deposit in 872 drift north.

We are enclosing maps showing the new work on the north side of 870 level. Also, one copy of all samples analyzed to date from 872 drift north, 814 crosscut, 815 crosscut and 817 crosscut. Copper and zinc determinations were made here in our laboratory and silver and gold determinations by Abbot A. Hanks, San Francisco. The latter are not complete but the balance of the samples are now being sent to San Francisco for gold and silver determinations and will be presented as soon as received. While the silver values are quite characteristic of typical Bully Hill ore, yet gold values in this area have been exceptionally high. In discussing the matter with your Mr. Warne, he said it would be a very easy matter to make copies of these assay reports so we will depend on you to make sufficient copies to accompany the enclosed maps.

Respectfully submitted,

Edward L. Ralston, Manager of Mines

ELR:HM

BULLY HILL, CALIFORNIA Feb. 5 1955

GLIDDEN CONSOLIDATED ZINC MINES

Following are the principal advances made in the different mine workings during

Period ending 195

LOCATION	FROM		ADVANCE	width	CU %	ZN %	AG Oz	AU Oz
872 Drift North	872-15 Cross cut East							
	1/10/55	Breast east	0 - 5'	5.00'	2.20	18.62	5.03	.37
	1/10/55	Breast next west	5.00'	5.00'	3.20	13.50	3.98	.22
	1/11/55	Breast east	10.00'	7.20'	2.75	16.28	3.32	.48
	1/11/55	Breast next west	10.00'	4.00'	2.20	12.20		
	1/12/55	Breast east	20.00'	2.00'	1.85	8.20	4.51	.09
	1/12/55	Breast next west	20.00'	3.80'	4.70	8.38	4.27	.53
	1/12/55	Breast next west	20.00'	2.00'	.75	1.60	.53	.07
	1/12/55	Breast next west	20.00'	1.25'	1.20	10.48	4.20	.20
	1/13/55	Breast next west	24.00'	2.00	2.85	6.45	5.30	.10
	1/13/55	Breast next west	24.00'	1.00'	1.75	4.50	2.10	.10
	1/13/55	Breast next west	24.00'	1.66'	2.15	6.85	3.40	.19
	1/13/55	Breast next west	24.00'	1.25'	6.20	7.50	2.67	.13
	1/14/55	Breast east - waste	30.00'	1.80'	.75	1.05	.95	.05
	1/14/55	Breast next west - waste	30.00'	3.20'	.10	1.15	.63	.07
	1/14/55	Breast next west	30.00'	1.70'	1.85	16.18	2.47	.23
	1/14/55	Breast next west	30.00'	2.30'	1.25	16.75	2.06	.14
	1/15/55	Breast east - waste	35.00'	2.75'	-	1.40		
	1/15/55	Breast next west	35.00'	.83'	.15	.75		
	1/15/55	Breast next west	35.00'	3.30'	2.30	19.62		
	1/15/55	Breast next west	35.00'	3.17'	.90	15.85		
	1/16/55	Breast East - waste	39.00'	2.00'	.30	15.87	3.00	.18
	1/16/55	Breast next west	39.00'	2.66'	2.45	19.75	2.42	.18
	1/16/55	Breast next west	39.00'	1.75'	.80	16.70	3.00	.20
	1/17/55	Breast East	45.00'	2.00'	1.60	15.70	2.29	.31
	1/17/55	Breast next west	45.00'	3.00'	.65	20.58	2.49	.11
	1/17/55	Breast next west	45.00'	1.50'	1.20	15.72	3.29	.11
	1/17/55	Breast next west	45.00'	2.40'	.30	10.65	14.28	.32
	1/18/55	Breast east	50.00'	3.00'	.30	14.80		
	1/18/55	Breast next west	50.00'	1.33'	.50	16.82		
	1/18/55	Breast next west	50.00'	2.33'	.50	15.90		
	1/18/55	Breast next west	50.00'	3.00'	4.20'	15.00		
	1/19/55	Breast east	56.00'	2.20'	.70	4.35		
	1/19/55	Breast next west	56.00'	2.60'	3.35	15.88		
	1/19/55	Breast next west	56.00'	1.75'	1.35	15.25		
	1/19/55	Breast next west	56.00'	1.50'	.20	14.55		
	1/20/55	Breast east	62.00'	1.20'	.65	15.28		
	1/20/55	Breast next west	62.00'	4.00'	2.05	13.45		
	1/20/55	Breast next west	62.00'	1.75'	.80	11.63		
	1/20/55	Breast next west	62.00'	1.50'	1.25	1.25		
	1/23/55	Breast east	66.00'	1.50'	3.30	15.30		
	1/23/55	Breast next west	66.00'	2.00'	1.67	16.15		
	1/23/55	Breast next west	66.00'	3.00'	1.95	7.78		
	~~1/23/55~~	~~Breast next west~~	~~66.00'~~	~~3.00'~~	~~2.55~~	~~1.20~~		

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 28 1955

BULLY HILL, CALIFORNIA Feb. 5 1955

GLIDDEN CONSOLIDATED ZINC MINES

Following are the principal advances made in the different mine workings during

Period ending 195

LOCATION	FROM		ADVANCE	Width TOTAL	CU %	ZN %	AG OZ	AU OZ
872 Drift North of 872-15 Crosscut E								
	1/24/55	Breast east	72.00'	1.75'	2.40	1.05		
	1/24/55	Breast next west	72.00'	2.60'	.35	4.00		
	1/24/55	Breast next west	72.00'	2.80'	—	15.20		
	1/24/55	Breast next west	72.00'	2.00'	3.75	2.37		
	1/25/55	Breast east	76.00'	1.25'	1.00	11.60		
	1/25/55	Breast next west	76.00'	2.50'	.75	1.50		
	1/25/55	Breast next west	76.00'	1.25'	1.15	1.10		
	1/25/55	Breast next west	76.00'	2.00'	.85	.42		
	1/26/55	Breast east	82.50'	2.50'	.30	2.70		
	1/26/55	Breast next west	82.50'	2.00'	.20	.72		
	1/26/55	Breast next west	82.50'	2.00'	.10	.40		
	1/26/55	Breast next west	82.50'	1.75'	.10	.25		
	1/27/55	Breast east	87.00'	1.17'	.15	15.95		
	1/27/55	Breast next west	87.00'	1.00'	.35	6.37		
	1/27/55	Breast next west	87.00'	1.00'	.25	2.95		
	1/27/55	Breast next west	87.00'	2.50'	.25	--		
	1/29/55	Breast east	92.00'	1.00'	.25	1.90		
	1/29/55	Breast next west	92.00'	1.00'	.30	12.60		
	1/29/55	Breast next west	92.00'	4.00'	.20	1.12		
	1/29/55	Breast next west	92.00'	3.00'	.05	1.00		
	1/30/55	Breast east	98.00'	1.50'	.15	13.00		
	1/30/55	Breast next west	98.00'	3.00	—	.75		
	1/30/55	Breast next west	98.00'	1.50'	.10	.42		
	1/30/55	Breast next west	98.00'	1.33'	.10	.42		
	1/31/55	Breast east	103.50'	1.80'	1.15	2.12		
	1/31/55	Breast next west	103.50'	3.33'	.65	4.98		
	1/31/55	Breast next west	103.50'	1.25'	.10	1.05		
	1/31/55	Breast next west	103.50'	1.75'	—	.25		
	2/1/55	Breast east	109.00'	1.00'	3.25	8.48		
	2/1/55	Breast next west	109.00'	2.20'	1.60	6.28		
	2/1/55	Breast next west	109.00'	.50'	2.45	13.38		
	2/1/55	Breast next west	109.00'	2.00'	.95	5.95		
	2/3/55	Breast east	109.00'	1.00'	3.30	17.20		
	2/3/55	Breast next west	109.00'	2.83'	1.80	18.48		
	2/3/55	Breast east	109.00'	1.00'	1.75	11.78		
	2/3/55	South side	109.00'	4.00'	1.95	16.60		
	2/5/55	Breast east	120.00'	1.50'	2.55	20.38		
	2/5/55	Breast next west	120.00'	2.00'	1.45	11.05		
	2/5/55	Breast next west	120.00'	2.00'	1.60	11.65		
	2/5/55	Breast next west	120.00'	2.20'	3.45	14.62		
	2/5/55	Breast next west	120.00'	5.00'	2.20	13.12		
	2/5/55	Breast next west	120.00'	1.50	1.15	1.52		

BULLY HILL, CALIFORNIA Feb. 5 1955

GLIDDEN CONSOLIDATED ZINC MINES

Following are the principal advances made in the different mine workings during

Period ending 195

LOCATION	FROM		ADVANCE	TOTAL Width	CU %	ZN %	AG Oz	AU Oz
872 Drift North of 872-15 Crosscut E.								
	2/6/55	Breast east	127.00'	2.00'	.45	3.15		
	2/6/55	Breast next west	127.00'	1.50'	1.85	11.50		
	2/6/55	Breast next west	127.00'	1.00'	2.00	10.92		
	2/6/55	Breast next west	127.00'	2.50'	1.90	13.45		
	2/6/55	Breast next west	127.00'	2.50'	1.55	19.08		
	2/6/55	West ore left on wall	121.00'	1.80'	3.00	9.20		

BULLY HILL, CALIFORNIA Feb. 5 1955

GLIDDEN CONSOLIDATED ZINC MINES

Following are the principal advances made in the different mine workings during

Period ending 195

LOCATION	FROM		ADVANCE	TOTAL Width	CU %	ZN %	AG Oz	AU Oz
[illegible]	872 Drift N							
	1/24/55	South side	7.5-12.5	5.00'	.80	1.32		
	1/24/55	South side	12.5-17.5	5.00'	.15	.37		
	1/24/55	South side	17.5-22.5	5.00'	.10	—		
	1/24/55	South side	22.5-27.5	5.00'	.15	—		
	1/25/55	South side	27.5-32.5	5.00'	1.75	.30		
	1/25/55	South side	32.5-34.0	1.50'	4.00	1.30		
	1/26/55	North side	40.5-42.0	1.50'	.05	.25		
	1/26/55	South side	34.0-39.0	5.00'	.00	—		
	1/29/55	South side	39.0-44.0	5.00'	—	—		
	1/29/55	South side	44.0-49.0	5.00'	—	.20		
	1/30/55	South side	49.0-54.0	5.00'	—	.50		
	1/30/55	South side	54.0-59.0	5.00'	—	.30		
	1/31/55	South side	59.0-64.0	5.00'	.05	.42		
	2/2/55	South side	64.0-69.0	5.00'	.30	.80		
	2/2/55	South side	69.0-74.0	5.00'	—	.50		
	2/2/55	North side	69.0-70.0	1.00'	—	—		
	2/6/55	South side	74.0-79.0	5.00'	.30	.80		
	2/6/55	South side	79.0-84.0	5.00'	—	.40		
	2/6/55	South side	84.0-89.0	5.00'	—	.22		
	2/6/55	South side	89.0-94.0	5.00'	—	.20		

OF THE INTERIOR
Mineral Administration
FEB 28 1955

672 Drift North of 672-14 Crosscut	Drifting along east side of Shear Zone						
12/13/54	Breast east	10.0'	2.00'	1.56	2.55	4.09	.11
12/13/54	Breast next west	10.0	2.00'	1.00	2.92	5.50	.10
12/13/54	Breast next west	10.0	3.30'	.90	4.56	10.47	.23
12/14/54	Breast east	18.0'	1.75'	.14	.42		
12/14/54	Breast next west	18.0'	2.30'	3.99	.37	.47	.03
12/14/54	Breast next west	18.0'	3.50'	—	.45		
12/15/54	Breast east	23.0'	3.00	3.57	—		
12/15/54	Breast next west	23.0'	1.50'	—	—		
12/15/54	Breast next west	23.0'	2.20'	.09	—		
12/15/54	Breast next west	23.0'	2.00'	—	—		
12/17/54	Breast east	32.0'	1.20'	.42	2.42	1.75	.05
12/17/54	Breast next west	32.0'	1.20'	.85	1.00	.96	.04
12/17/54	Breast next west	32.0'	3.00'	.14	2.42	.76	.04
12/17/54	Back	32.0'	1.50'	.47	3.90	1.32	.08
12/18/54	Breast east	39.0'	2.50'	.86	5.66	2.87	.13
12/18/54	Breast next west	39.0'	1.20'	.52	.95	.96	.04
12/18/54	Breast next west	39.0'	1.50'	.23	1.50	.96	.04
12/18/54	Breast next west	39.0'	1.50'	.81	2.20	1.55	.05
12/18/54	Back	39.0'	1.20'	.48	6.60	2.10	.10
12/19/54	Stringer across drift	36.0'	4.00'	1.09	3.52	2.36	.04
12/19/54	Breast east	46.0'	2.66'	.67	2.92	1.55	.05
12/19/54	Breast next west	46.0'	2.00'	2.33	2.20	15.60	.14
12/19/54	Breast next west	46.0'	1.00'	3.00	4.85	1.16	.04
12/20/54	Breast east	51.0'	2.50'	1.14	4.25	2.66	.14
12/20/54	Breast next west	51.0'	2.00'	4.52	8.35		
12/20/54	Breast	51.0'	2.00'	5.23	3.15		
12/20/54	Breast next west	51.0'	2.20'	2.67	3.97		
12/20/54	East side stringer	45.0'	3.00'	.33	1.60		
12/21/54	Breast	58.0'	1.50'	3.52	2.15	5.22	.18
12/21/54	Breast next west	58.0'	1.30'	1.76	1.80	1.59	.21
12/21/54	Breast next west	58.0'	1.40'	6.18	1.88	5.71	.09
12/21/54	Breast next west	58.0'	2.50'	1.85	1.75	3.91	.09
12/21/54	West side - talc	55.0'	2.50'	.33	1.15		
12/22/54	Breast	64.0'	5.33'	.48	1.12		
12/22/54	West side	62.0'	2.00'	1.28	1.25		
12/22/54	East side	62-64'	2.00'	2.19	1.52	5.14	.06
12/22/54	East side	60.5-62	1.50'	9.84'	2.25	8.74	.06
12/22/54	East side	57-60.5	3.50'	4.33	1.50	2.35	.05
12/22/54	East side	55-57.0	2.00'	.38	1.10	13.21	.19
12/23/54	Offset east - breast	65.0'	1.50'	2.23	1.02		
12/23/54	Offset east	65.0'	1.70'	6.42	6.12		
12/23/54	Offset east	65.0'	1.50'	6.42	17.30		

			ADVANCE	TOTAL	%	%	AG oz	AU oz
~~872 Drift North of 872-14~~								
	Crosscut							
	12/26/54	West side	68-70'	2.00'	4.66	12.72	9.08	.12
	12/26/54	West side	70-72.5	2.50'	10.70	5.92	2.71	.09
	12/26/54	Breast	72.5	7.00'	1.66	5.72	2.13	.07
	12/26/54	East side	70.5-71.5	1.00'	3.56	13.58	6.23	.17
	12/26/54	East side	66.7-70.5	3.80'	2.85	4.28	10.94	.26
	12/27/54	Breast east	76.0	2.00'	0.71	.75		
	12/27/54	Breast next west	76.0	3.30'	.14	—		
	12/28/54	Breast east	82.0'	5.33'	.14	—		
	12/28/54	Stringer - east side	73.0'	2.50'	.29	.25		
	12/29/54	Breast east	88.6'	1.50'	.85	--		
	12/29/54	Breast next west	88.6'	2.0'	4.03	--		
	12/29/54	Breast next west	88.6'	2.00'	.45	—		
	12/29/54	Breast next west	88.6'	5.00'	Waste			
	12/30/54	Breast east	93.7'	2.20'	.05	—		
	12/30/54	Breast next west	93.7'	2.50'	.15	—		
	12/30/54	East side	89.7-93.8	4.00'	1.30	.50	Tr	.01
	12/31/54	Breast east	97.0'	1.75'	—	—		
	12/31/54	Breast next west	97.0'	3.66'	.80	.60		
	12/31/54	Breast next west	97.0'	1.00'	.35	.50		
	12/31/54	Breast next west	97.0'	2.00'	.55	—		
	12/31/54	East side	93.6-97.1	3.50'	.30	—		
815 Crosscut East	872 Drift N							
	1/2/55	North side	0 - 4'	4.00'	.30	—		
	1/2/55	Breast	4.0'	4.33'	—	—		
	1/2/55	Breast next south	4.00'	2.00'	—	—		
	1/3/55	Breast	12.00	7.00'	.05	—		
	1/4/55	Breast	16.00	7.00'	.35	.75	.39	.01
	1/5/55	Breast - stringer across	22.50'	9.00'	3.90	14.90	10.15	.25
	1/6/55	North side	24.3-28.0	3.66'	4.80	18.40	6.15	.45
	1/6/55	South side	21.5-28.0	6.50'	3.30	8.10	13.25	.15
	1/7/55	North side	14 -19	5.00'	.65	.13	.58	.02
	1/7/55	North side	19 - 24	5.00'	.50	1.15	.38	.02
	1/7/55	North side	24 - 29	5.00'	4.85	16.50	4.81	.35
	1/7/55	North side	29 - 34	5.00'	4.50	21.80	5.61	.19
	1/7/55	North side	34 - 39	5.00'	1.50	1.60	.57	.03
	1/7/55	South side	9 - 14	5.00'	.30	.70		
	1/7/55	South side	14 - 19	5.00'	.30	.65		
	1/7/55	South side	19 - 24	5.00'	2.50	9.42		
	1/7/55	South side	24 - 29	5.00'	2.40	9.25		
	1/7/55	South side	29 - 34	5.00'	3.55	16.30		
	1/7/55	South side	34 - 39	5.00'	2.85	15.05		
	1/8/55	South side	39-42.5	3.50'	4.35	15.70		
	~~1/8/55~~	~~North side~~	~~39 - 43~~	~~4.00'~~	~~4.55~~	~~14.95~~	~~5.19~~	~~.61~~
	1/9/55	North side	43 - 48	5.00'	2.00	9.00	2.87	.17
	1/9/55	Breast	48 - 49.2	1.3'	1.30	12.98	2.59	.19

DEPARTMENT OF THE INTERIOR
Minerals Administration
FEB 28 1955

BULLY HILL, CALIFORNIA Feb. 5 1955

GLIDDEN CONSOLIDATED ZINC MINES

Following are the principal advances made in the different mine workings during

Period ending 195

LOCATION	FROM		ADVANCE	Width	CU %	ZN %	AG Oz	AU Oz
872 Drift N of Shaft								
	11/23/54	Picked sample - breast	799.6'	—	2.25	3.92	2.82	.38
	24	Stringer southwest side	801.0'	1.20'	4.23	3.62	6.16	1.24
872-14 Crosscut W		Crosscutting due west 88 ft.	74-79'	5.00'	.86	3.33	4.34	.06
		NW of 872-11 Crosscut	79-84	5.00'	.38	3.25	1.56	.04
	12/11/54	Mineralized shear zone north	84-89	5.00'	.19	.35		
		side of crosscut, belt	89-94	5.00'	.24	—		
		samples.	94-99	5.00'	—	2.20	Tr	None
			99-104	5.00'	—	.25	—	—
			104-109	5.00'	—	—		
	12/14/54		109-114	5.00'	.14	—		
			114-119	5.00'	.05	.75	Tr	Tr
			119-124	5.00'	—	2.00		
	12/18/54		124-129	5.00'	.09	1.05	Tr	.03
	12/27/54	Breast	177	7.00'	.14	—		
	1/3/55	Breast south	202	3.40'	—	—		
	1/4/55	South side	189-194'	5.00'	—	—		
	1/4/55	South side	194-199'	5.00	.45	—		
	1/4/55	South side	199-207'	8.00'	—	—		
	1/5/55	Offset south breast	191	7.00'	—	.42		
	1/7/55	Breast 10 ft. south of original breast	202	2.00	.25	.82	.19	.01
	1/8/55	Breast	206	4.00'	.10	.75		
	1/10/55	Breast	209	5.60'	.40	.92		
	1/12/55	Breast	214.5	6.50'	.40	1.10	.20	.01
	1/12/55	Breast	219.5	6.00'	.10	1.13		
	1/12/55	Breast	226	6.90'	.15	.07		
	1/14/55	Breast north	229	4.00'	.10	.48	.19	.01
	1/14/55	Breast next south	229	3.40'	.10	—		
	1/15/55	Breast	234	7.00'	.20	.50		
	1/16/55	Breast	238	5.40'	.50	1.00		
	1/17/55	Breast	242	5.50'	—	.50		

FEB 28 1966
CONTRACTS

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

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

January 11, 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 four copies of Interim Report on -

Docket DMEA-1219

Contract No. Idm-E 187 (Amended)

Commodity Zinc-copper

Operator - The Glidden Company

Property - Bully Hill Mine
Shasta County, California

By Jacques Robertson, Geologist

Dated January 7, 1955

S. Ricker
Executive Officer
DMEA Field Team, Region III

Attachments

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Mineral Deposits Branch
4 Homewood Place
Menlo Park, California

January 7, 1955

Memorandum

To: R. M. Smith

From: Jacques Robertson

Subject: DMEA-1219, Idm-E187, Bully Hill Mine, Shasta Co., Calif.
Interim report

The Bully Hill mine, Shasta Co., California was visited four days between November 15 and 20 and again for 8 days between November 28 and December 7, 1954. During this time the underground work accomplished by the Glidden Company under their DMEA contract was inspected, and geology in all accessible workings was mapped on a scale of 1" = 40'. The Glidden Company made available maps of the 300 and 870 levels that had been accurately surveyed recently by J. X. Murphy of Redding, California.

On the 870 level the 1017 feet of drifting and crosscutting south of the shaft, as called for under Stage II item 4, Exhibit "A" amended, of the contract was completed and drifting was begun at the north end of the 870 level at the end of November. The south drift follows along the main Bully Hill shear zone, which has an average strike of S 15° W on this part of the mine. Toward the south the shear zone turns gradually to S 30° W. At 530 feet south of the initial point, the heading was driven S 70° W for about 65 feet on a well defined fault that was thought to be the continuation of the main shear zone. I am of the opinion that this fault represents a departure from the main shear zone, at best a subsidiary sliver of the main zone. At this advance a cross fault striking N 27° W and dipping 45° SW was encountered that appears to cut out the SW-trending "sliver" fault. The operator then drove a crosscut, following the crossfault, for about 50 feet. Abundant pyrite with a sprinkling of chalcopyrite was broken into at 30 feet and continued to the face. About 7 feet was driven to right from the face and about 15 feet to the left to explore the pyritic zone, and to see if any higher values might be found. The sulfide minerals proved to be mainly pyrite, and exploration then ceased at this point.

In this zone coarsely crystalline pyrite has replaced porphyritic rhyolite country rock (completely in places) along NW-trending fractures. Chalcopyrite is admixed in small amounts with the pyrite and was noted in a few thin veinlets and in bunches, surrounded by pyrite. No sphalerite was seen at this point. Coarsely crystalline pyrite is not considered to be a good indicator of ore values in the Bully Hill mine area, but this theory has not been thoroughly tested.

The Bully Hill shear zone averages 8 feet wide and dips steeply east, although in places it dips vertical or steeply west. It cuts silicified and altered porphyritic rhyolite, close to the steep north trending contact of this rock with aphanitic rhyolite to the east. A very fine grained metadiabase has invaded the rocks near the contact and is also cut by the Bully Hill shear zone.

Hydrothermal gypsum and anhydrite replace rhyolite and probably diabase adjacent to, but east of, the Bully Hill shear zone for a thickness that ranges from 5 to 25 feet. The shear zone in the south drift is mineralized, containing pyrite, chalcopyrite, and sphalerite, in order of decreasing abundance, and minor galena, along with white quartz, calcite, gypsum, and possibly barite. The minerals occur as fine grained replacements of sheared material in fairly consistent streaks and bands 1 inch to a foot wide. Some of this material is undoubtedly of ore grade, but not enough is present in the drift to constitute an ore body. From the known bodies of rich copper and zinc ore within the shear zone at other places in the mine, however, this showing of ore may indicate possible lenses of minable ore above or below the 870 level.

Two crosscuts were driven westward from the south drift: 871-1 crosscut from 103 feet south of the initial point and extending 94 feet; and 871-2 crosscut from 210 feet, and extending 150 feet. They both penetrate massive, siliceous, porphyritic rhyolite that contains numerous, small fractures and shears, many of which are mineralized with pyrite and chalcopyrite. The rhyolite contains, practically everywhere, disseminated pyrite and to a much lesser extent chalcopyrite and sphalerite, with scattered concentrations of ore minerals in seams, pods, and veinlets, as seen in the crosscuts and in the drift south of crosscut 871-3. Admittedly, such mineralization is of low grade, but some attention should be focused on the possibilities of developing large tonnages of disseminated, low grade ore. The company has collected samples rather comprehensively, so the assays, when they become available, should tell whether or not further investigation of the low grade ore is worth while.

Crosscut 871-3 extends 89 feet east from the south drift, 345 feet south of the initial point of the drift, into a strongly sheared zone that contains altered rhyolite (some of it feldspathic),

metadiabase, and gypsum. Ore minerals are absent, which gives no encouragement to further exploration east of the Bully Hill shear zone in this sector of the mine.

The rehabilitated portion of the 870 level consists, in part, of a drift that extends 725 feet north from the shaft crosscut, and passes through metadiabase, and porphyritic and aphanitic rhyolite. It follows north-trending shears that only locally are mineralized and by-passes the stoped areas on the west, through which the main shear zone extends. My impression is strong from observations in the north drift that the aphanitic rhyolite and metadiabase are not important host rocks for ore minerals. Exploration should be concentrated along the main shear zone and the areas west of it in the porphyritic rhyolite and in other possible shear zones.

New exploration work north of the rehabilitated 870 level workings, at the time of this inspection, consisted of 110 feet of drifting N 48° W and 64 feet of crosscutting from the drift. The crosscut bears N 80° W and starts at a point 60 feet along the drift. The drift passed through diabase containing an inclusion or screen of altered, silicified, and mineralized rhyolite. The crosscut was driven at my instigation in order to pass more directly out of the diabase and to explore for the northward extension of the main shear zone. For a distance of 64 feet the crosscut is in diabase.

By letter of December 14, 1954, Mr. Ralston, manager at the mine, informed me that in driving the west crosscut they had encountered the Bully Hill shear zone at 74 feet, and had penetrated it for 40 feet without picking up the footwall. Although the rock is well mineralized with pyrite, chalcopyrite, and sphalerite, commercial ore had not been found in mining quantities. Strike of the shear zone is N 10° W and the hanging wall dips 70° east.

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 1 1955

Month of December, 1954 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
Contract Amount, $ Government Participation: 50 % Amount, $6165.00
274 ft. 50% of $45.00 per ft. or 274 ft. $22.50 ft.

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:						
Reopening 300 Adit		14,315.00	14,315.00			
Unwatering Bit Shaft		31,350.00	31,350.00			
Crosscutting 169 ft.	7605.00	18,855.00	26,460.00			
Drifting 105 ft.	4725.00	32,220.00	36,945.00			
Rehabilitation 870		12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$12,330.00	109,396.00	$121,726.00			

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

Date Jan. 12, 1955 Payee THE GLIDDEN COMPANY

Per Title MANAGER OF MINES
Lawrence E. Hanson

*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:

$ 6165 00

Lloyd H. Sjolander
Authorized Certifying Officer
Signature
(Authorized Certifying Officer)

Date JAN 26 1955 Vou. No. SF-DMEA-19

(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 C. C. Johnson Title Mining Engineer Date Jan. 17, 1959.

C. C. Johnson

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer DMA Field Team Region II Date January 20, 1955

C. Hicks

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-R1551.1
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 - 1 1955

Month of December 1954 Docket No. DMEA 1219X Amended Contract No. _____
Operator's Name The Glidden Company Minerals _____
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering BH	Ft			$89,842.47	627'			
Winzes Rehabilitation 870	Ft			61,086.34	904'			
Drilling: Core Exploration 870 Level	Ft	21979.65	274'	132,275.17	1409'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft			34,899.14	1022.5'			
Total Distributed Costs		21979.65	274'	318,103.12				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$21979.65		$318,103.12				

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

Date Jan. 12, 1955 Operator The Glidden Company

By Edward L. Ralston Title Manager of Mines

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

MONTH OF DECEMBER 1954

Docket No.
DMEA 1219X Amended

DEPARTMENT OF THE INTERIOR
Lease Minerals Administration
RECEIVED
FEB 1 1955

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to December 31, 1954	31,702.50
TOTAL GOVERNMENT PARTICIPATION TO DATE	$84,709.99

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

Redding, California
January 12, 1955

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

Advances for the month of December:	Month	Total Distance
872 Drift North of 870 Station	8 ft.	845 ft.
872-14 Crosscut West from 872 Drift North	169 ft.	195 ft.
872 Drift North of 872-14 Crosscut West	97 ft.	97 ft.
Total - December	274 ft.	

872 Drift North of 870 Station
837 ft. - 845 ft. Drift in basic dike (aphanitic andesite). Nothing of importance was encountered here and drifting was discontinued the first week in December.

872-14 Crosscut West from 872 Drift North
26 ft. - 195 ft. This crosscut continued in basic dike up to a point 74 ft. west of the drift where the shear zone was encountered. The crosscut passed through 55 ft. of shearing and then penetrated alaskite porphyry, and continued in this material for the remaining distance. The shear zone was slightly mineralized, showing very small amounts of copper and some zinc. The first ten feet on the north side of the crosscut analyzing 0.62% copper and 3.29% zinc. Silver and gold assays have not been made but will be determined later. This crosscut has been continued west to a point 202 ft. west of 872 drift where a slightly mineralized fault zone was encountered. At this point the crosscut was turned slightly to the southwest to follow the fault zone and the breast is now 229 ft. south of the drift. The material encountered here shows considerable quartz, some pyrite and full width breast samples analyzed from .10 to .40% copper and 0.75 to 1.13% zinc.

The alaskite porphyry has not been prospected for a distance of approximately 500 ft. north of the shaft and it is highly essential that a heading be run out here for some considerable distance. The finding of this slightly mineralized material is important and may lead to a highly mineralized zone. This heading will be continued.

872 Drift North of 872-14 Crosscut West
0 - 97 ft. This drift was started on the hanging wall of the shear zone from a point 74 ft. west of 872 drift north of 870 station, and driven roughly North 25° West for 85 ft. The hanging wall (basic dike) at this point bears North 10° West, thus the drift as it advanced was leaving the basic dike. Some very good copper and zinc ore was encountered in the drift and the drift continued in ore to a point approximately 66 ft. northwest of the crosscut. From this point to the breast, a very dense mineralized zone was encountered, the mineralization consisting largely of quartz and pyrite but showing very small percentages of copper and zinc. In the very near future a crosscut will be started from the breast of this drift in a due westerly direction to prospect the shear zone to the west of the pyritic zone. Copper assays for this ore vary from 1.66% to 4.66%, and zinc assays from 4.28% to 13.58%.

872-15 Crosscut East from 872 Drift North of 872-14 Crosscut West
This crosscut was started in a general North 30° East direction from a point 93 ft. north of 872-14 crosscut during the first week in January and is now 50 ft. long. The west 22 ft. of the crosscut is in very hard material consisting largely of quartz and pyrite with very low percentages of copper and zinc. From a point 22 ft. east to the breast of the crosscut, some very fine copper and zinc ore was encountered, the north side of the crosscut showing ore throughout. On the south side of the crosscut, the basic dike was encountered 49 ft. east. The north side of the crosscut shows 20 ft. of ore which analyzes 2.84% copper and 10.26% zinc. A width of 10 ft. included in this 20 ft. b[illegible] analyzes 4.67% copper and 19.15% zinc. This ore is typical fault ore and there is [illegible]nsiderable

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

evidence of strike faulting. Drifting to the north has already been started but has not advanced far enough to make an accurate determination of the character or size of this ore deposit. Hence, before a definite statement can be made, considerable drifting to the north should be done, and since this discovery is in virgin territory, 772 drift north should be reopened and continued on into this territory and an upraise should be driven between the two levels. While this discovery is very important, yet in a fault zone of this type good engineering practice does not permit the projection of the ore above or below 870 sill.

The rehabilitation and reopening of old 572 drift north has been started since there is very strong evidence at hand that a zinc ore body of some magnitude was uncovered there in the early operating days of the Bully Hill Mining and Smelting Co. While this is not a part of the DMEA contract, yet we feel that the matter should be called to your attention.

We are enclosing plan maps of the north end of 870 level. An attempt has been made to follow out the old numbering system established around the turn of the century by the old Bully Hill Mining and Smelting Co., yet due to so much crosscutting, this system is becoming somewhat ambiguous and future work may necessitate the changing of this system.

Respectfully submitted,

Edward L. Ralston -- Manager of Mines

ELR:HM

C

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 4 1955

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, California

Date: December 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 -1219X

Contract Idm-E 187(Amended)

Commodity Zinc-
Copper-

Operator - The Glidden Company

Property - Bully Hill Mine
Shasta County, California

By John D. Warne

Dated December 29, 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
Defense Minerals Administration
RECEIVED
JAN 4 1955

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-copper) December 29, 1954

Name and address of operator: The Glidden Co.,
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill mine, about 30 miles northeast of Redding, Shasta Co., Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine exploration project was inspected on December 9, 1954. A total of 1,209 feet of drifting and crosscutting work under the DMEA contract had been completed on the 870 level. Drifting and crosscutting work on this level is 48 percent complete.

Slight chalcopyrite and sphalerite mineralization was encountered in the 872-14 crosscut west in a shear zone intercepted at a point 74 feet from the 870 drift north.

The operator plans to continue the 872-14 crosscut west until the footwall of the shear zone is reached; and to continue the 870 drift north with occasional crosscuts west to explore the mineralized shear zone.

STATEMENT OF WORK COMPLETED

The operator has completed drifting and crosscutting work south of the Bully Hill shaft on the 870 level. A total of 1,017 feet of exploration work was allowed and claimed under the DMEA contract. The following work was completed south of the Bully Hill shaft during November 1954:

871 drift south	607 feet
871-1 Crosscut west	94 feet
871-2 crosscut west	150 feet
871-3 crosscut east	89 feet
871-4 crosscut northwest	54 feet
871-4-1 crosscut northeast	12 feet
871-4-2 crosscut northwest	11 feet
Total	1,017 feet

Work was begun during November north of the shaft. At the time of this inspection, the following work was done in this direction:

872 drift north	109 feet
872-14 crosscut west	100 feet
Total	209 feet

Under the contract, a total of 1,500 feet of drifting and crosscutting work is allowed north of the Bully Hill shaft.

COMMENTS

A shear zone showing some mineralization was encountered in the 872-14 crosscut west at a point 74 feet from the 872 drift north. This zone shows some pyrite, and slight chalcopyrite and sphalerite mineralization. The operator plans to continue the 872-14 crosscut west until the footwall of the shear zone has been reached. He also plans to continue the 872 drift north and drive occasional crosscuts westward to ex-

plore the shear zone.

An assay office has been installed at the mine and complete sampling and analysis will be supplied by the operator. Systematic channel sampling is planned along all of the new crosscuts and drifts which show mineralization.

Progress maps prepared by the company are included with the operators monthly report.

John D. Warne
Mining Engineer

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

Defense Minerals Administration
RECEIVED
DEC 30 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1954 Docket No. DMEA 1219 Amended Contract No. F-187
Operator's Name [illegible] Minerals Zinc-Copper
Address [illegible]
Contract Amount, $ 212 ft. 50% of $45. per ft. (212 ft. $22.50) Government Participation: 50 % Amount, $ 4770.00

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:						
Sinking 300 Adit		$14,315.00	$14,315.00			
Sinking Shaft		31,350.00	31,350.00			
Crosscutting 86 ft.	3,870.00	14,985.00	18,855.00			
Drifting 126 ft.	5,670.00	26,550.00	32,220.00			
[illegible] 670 Level		12,656.00	12,656.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	$9,540.00	$99,856.00	$109,396.00			

I certify that the above bill is correct and just and that payment therefor has not been received. Dec. 13, 1954 Date *Payee [illegible]
Per Edward [illegible] Title Manager of Mines

*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:

$ 4770 00

Lloyd [illegible]
Authorized Certifying Officer
Signature (Authorized Certifying Officer)

Date DEC 27 1954 Vou. No. SF-DMEA-16
(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]107 in accordance with the terms of the contract.

Signature [illegible] Johnson Title Chief, Mining Div. Date Dec. 16, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date 12/17/54

MONTHLY REPORT OF OPERATOR

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GPO 83-38476

Form MF-10-A
(April 1952)

Department of the Interior
Defense Minerals Administration

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

RECEIVED
DEC 30 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of November 1954 Docket No. DMEA 1219 Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering on	Ft			89,842.47	627'			
Winzes Ext. chan. 870 Level	Ft.			61,086.34	904'			
Drilling: Core Exploration 870 "	Ft.	19732.30	212'	110,295.52	1135'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Reopening 300 adit	Ft			34,899.14	1022.5'			
Total Distributed Costs		19732.30	212'	$296,123.47				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		~~19732.30~~		~~$296,123.47~~				

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

Date Dec. 13, 1954 Operator THE GLIDDEN COMPANY

Per Grant L. Easton Title Manager of Mines

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

MONTH OF NOVEMBER 1954

Docket No.
DMEA 1219X Amended

Minerals Administration
RECEIVED
DEC 30 1954

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - expleration 870 level to November 30, 1954	25,537.50
TOTAL GOVERNMENT PARTICIPATION TO DATE	$78,544.99

SUBJECT: EXPLORATION 870 Level
Bully Hill Mine

Redding, California
December 13, 1954

Defense Minerals Administration
RECEIVED
DEC 30 1954

DMEA REFERENCE:
Docket No. 1219x Amended
Commodity: Zinc-Copper
IDM-K187

871 Drift South of 870 Crosscut
590 ft. - 607 ft. This portion of the drift, which is along the shear zone, shows very little mineralization. It appears that there has been a splitting up of the shear zone in this locality since there is a very abrupt change in the strike of the drift, that is, from slightly northwest to North 40° West. On resumption of operations here, it will be necessary to crosscut to the southwest.

871-4 Crosscut NW
0 - 54 ft. This crosscut was driven from a point 600 ft. south of 870 crosscut and was driven for the purpose of exploring a heavily mineralized zone. The breast shows a parallel shear zone across the crosscut. The mineralization encountered here consisted largely of quartz and iron, with a very small amount of chalcopyrite. At a later date, this crosscut will be continued on through the shear zone showing in the breast of the crosscut.

871-4-1 Crosscut NE
0 - 12 ft. This crosscut was driven from a point 40 ft. northeast of 871 drift south and was driven in a southeasterly direction for a distance of 12 ft. to prospect stringers of quartz and iron showing in 871-4 crosscut. Nothing of any great importance was encountered here.

871-4-2 Crosscut NW
0 - 11 ft. This crosscut was driven from a point 40 ft. northeast of 871 drift south, directly opposite 871-4-1 crosscut. Rather a dense mineralization was encountered in the crosscut, yet it was mostly quartz and iron with very little copper.

Exploration work south side of 870 Level
Since July first, when this work was undertaken, the following advances have been made:

871 drift south	607 ft.
871-1 Crosscut West	94 ft.
871-2 Crosscut West	150 ft.
871-3 Crosscut East	89 ft.
871-4 Crosscut NW	54 ft.
871-4-1 Crosscut NE	12 ft.
871-4-2 Crosscut NW	11 ft.
Total	1017 ft.

Under our DMEA contract, 1000 ft. of work was authorized on the south side of 870 level. This work was undertaken July first and the following advances have been reported under the DMEA Contract:

July	209 ft.
August	237 ft.
September	250 ft.
October	227 ft.
November	77 ft.
Total charged under DMEA Contract 1219X	1000 ft.

While our total advance on the south side was actually 94 ft. for the month of November, only 77 ft. is charged.

SUBJECT: EXPLORATI[illegible] 870 [illegible]el
Bully Hill Mine

870 Drift North from 870 Crosscut

728 ft. - 837 ft. Drifting operations were resumed here the first week in November, from the breast of the old drift which was then 728 ft. north of 870 crosscut. The old company had followed in on a very small shear zone which, in our opinion, was much too far to the east in order to explore the shear zone on which the old copper stope occurred. Hence, in our drifting operations, the drift was gradually turned in a general North 50° West direction. This drift first penetrated a very hard, cherty porphyry for approximately 25 ft. and then into basic dike. The drift was continued within a few feet of the projection of A1-2 drill hole, and while the drill hole was not found, yet there is evidence, due to a flow of water, that it is very close at hand. Drifting operations were discontinued here in the early part of December. The footage of drift reported during November amounted to 109 ft.

872-14 Crosscut West

0 - 26 ft. This crosscut was driven South 85° West from a point 88 ft. north of 872-11 crosscut East. The crosscut was driven for the purpose of cutting the shear zone. At this date (12/13/54) it has been driven 115 ft. The shear zone was cut 74 ft. west of the drift and to date the crosscut has not reached the footwall of the shear zone which has now been penetrated for a distance of 41 ft. At this point the shear zone is very well mineralized, showing quartz, some gypsum, pyrite, with some chalcopyrite and sphalerite. Drifting along the hanging wall of the shear zone has already been started. For the various headings driven during the month of November, the following are included in the form MF 104:

871 drift south and crosscuts	77 ft.
872 drift north	109 ft.
872-14 crosscut West	26 ft.
Total advance November	212 ft.

It is our plan to do sufficient repair work on the south side of 870 level, where the ground is exceptionally heavy, to keep the workings open and in good condition so that diamond drilling can be undertaken here. On the north side, 872 drift north of 872-14 crosscut west will be continued along the hanging wall of the shear zone, with occasional crosscuts into the shear zone. 872-14 crosscut west will be continued until the footwall of the shear zone has been reached.

We are enclosing plan map showing the 870 level brought up to date December 5th.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

M

Form [illegible] (Rev. April 1952)

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

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

Month of October 1954 Docket No. DMEA 1219 Amended Contract No. [illegible]
Operator's Name [illegible] Minerals
Address [illegible], Ohio
Contract Amount, $ 227 ft. 50% of [illegible].00 per foot Government Participation: 50 % Amount, $ 5107.50

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:						Total Cost
Short Form						$10,215.00
Reopening Adit		14,315.00	14,315.00			Gov. Participation
Drilling						
Unwatering shaft		31,350.00	31,350.00			$5,107.50
Bulldozing						
37' Crosscutting 871-3 D	1665.00	13,320.00	14,985.00			
190' Drifting 871 Drift D	8550.00	18,000.00	26,550.00			
Rehabilitation 870		12,656.00	12,656.00			12/8/54. J.W.A.
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	10,215.00	89,641.00	99,856.00			

I certify that the above bill is correct and just and that payment therefor has not been [illegible]
Date 12/1/54 *Payee [illegible] Company
Per [illegible] Title Manager of Mines

*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:

$5107.50

Signature Lloyd W. Sieberg
(Authorized Certifying Officer) Supervising 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 [illegible] Title [illegible] Date [illegible]

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title [illegible] Date November 16, 195[illegible]

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 Exploration Administration
NOV 16
DEC - 6 1954

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1954 Docket No. DMEA 1219 Amended Contract No. _____

Operator's Name THE GARDEN COMPANY Minerals _____

Address CLEVELAND, OHIO

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT: Units	AUTHORIZED BY CONTRACT: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	Ft			89,042.47	627'			
Rehabilitation 870	Ft			61,086.34	904'			
Winzes Exploration 870 Level	Ft	22,638.72	227'	90,563.22	923'			
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft			34,899.14	1022.5'			
TOTAL DISTRIBUTED COSTS		$22,638.72	227	$276,391.17				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		$22,638.72		$276,391.17				

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 11/11/54 Operator THE GARDEN COMPANY

Per Edward L. Ralston Title Manager of Mines

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

MONTH OF OCTOBER 1954

Docket No.
DMEA 1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - Exploration 870 level to October 31, 1954	20,767.50
TOTAL GOVERNMENT PARTICIPATION TO DATE	$73,774.99

SUBJECT: EXPLORATION #70 Level
Bally Hill Mine

Redding, California
November 11, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

#71 Drift South of #70 Crosscut
400 ft. to 590 ft.

Advance for October: 190 ft. This drift has been driven along the hanging wall shear zone, the general direction being slightly southwest, with the exception of the southern portion which bears off very sharply to the southwest. A considerable portion of this drift has shown very nice mineralization, consisting largely of quartz, pyrite, with varying amounts of chalcopyrite. Very little sphalerite has been noted. Daily breast samples have been taken for the entire distance and are now being analyzed in our laboratory. Results will be reported at a later date when an assay plan map will be filed. Near the south breast of the drift a very heavy mineralized zone has been encountered, and also some cross fractures. A crosscut from a point 600 ft. south of #70 crosscut has been started in a northwesterly direction to explore this mineralized zone, and this is now well under way.

#71-1 Crosscut East of #71 Drift South
52 ft. to 89 ft.

Advance for October - 37 ft. This crosscut was continued well into the hanging wall of the shear zone. Nothing of importance was encountered here, the crosscut having passed through the alaskite porphyry into what appears to be quartzite. The meta basalt encountered north of #70 crosscut has not been found here. All possibilities of uncovering an additional ore shoot to the east of #71 drift south have been pretty well covered. However, the crosscut does provide a very nice cross-section of this country and will be valuable in mapping the geology.

#72 Drift North of #70 Crosscut.
Drifting operations were resumed here on November first with the idea of exploring the country exposed in drill hole A1-2 and other drill holes to the north and west of this drift. The drift has been turned slightly to the northwest with the idea of cutting the shear zone exposed in the old copper stope. When these shear zones are encountered the drift will be driven along the hanging wall shear zone since nearly all ore shoots thus far worked in the mine have been along this shear zone.

Appended maps show the work done on the #70 level up to November seventh.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:MM

OCT 25 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: October 20, 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 -1219X

Contract Idm-E 187

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine
Shasta County, California

By John D. Warne, Mining Engineer

Dated October 18, 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-1219X (Zinc-Copper) October 18, 1954

Name and address of operator: The Glidden Company
Edward L. Ralston,
Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill Mine, about 30 miles northeast of Redding, Shasta County, California.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine project was inspected on October 5, 1954. A total of 696 feet of drifting and crosscutting has been completed on the 870-level south of the Bully Hill shaft. Drifting and crosscutting work on this level is 28 percent complete.

Some visible chalcopyrite mineralization is being followed in the 870 Drift at 400 feet south of the 870 crosscut from the Bully Hill Shaft; and the better grade of copper ore is being stockpiled for future recovery.

Complete sampling of the drifts and crosscuts and geologic mapping is planned by the operator.

Work is being performed in accordance with good mining practices.

No recommendations are made at this time.

STATEMENT OF WORK COMPLETED

The quantity and Government's cost of work completed under this DMEA contract to date is as follows:

Stage I:

Diamond drilling 5,299.3 feet	$23,846.99

Stage II:

Item 1.	Rehabilitate 300-level adit - 1,022.5 feet @ $7.00/ft.	7,157.50
" 2.	Unwater and rehabilitate the vertical Bully Hill Shaft - 627 feet @ $25.00/ft.	15,675.00
" 3.	Rehabilitate 870-level drifts and crosscuts - 904 feet @ $7.00/ft.	6,328.00
" 4.	871-Drift South - total advance 400 feet @ $22.50/ft.	9,000.00
	871-1 crosscut west - total advance 94 feet @ $22.50/ft.	2,115.00
	871-2 crosscut west - total advance 150 feet @ $22.50/ft.	3,375.00
	871-3 crosscut east - advance to date 52 feet @ $22.50/ft.	1,170.00
		$68,685.49

A total of 696 feet of drifting and crosscutting on the 870-level has been done, or 28 percent of this work (Stage II, Item 4) has been completed. During September, 250 feet of drifting and crosscutting work was done.

COMMENTS

Chalcopyrite mineralization is being followed in the 870 drift south. Simultaneously, a crosscut eastward is being driven from the 350 foot point south of the 870 crosscut to explore for parallel mineralized structures in the hanging wall.

Underground surveys for the Glidden Company by J. X. Murphy have been completed. Copies of the 870-level map showing progress to the latter part of September are attached.

Mineralized material resulting from drifting southward along the 871 Drift is being stockpiled at the surface for later recovery of the copper.

Timber supports along most of the 871 Drift South are required.

SAMPLING

A sample of the mineralized portion of the 871 Drift South face, and a specimen sample of the chalcopyrite mineralized stockpile material were taken during this inspection. Analysis will be reported after completion in the next interim report.

The operator is taking daily breast samples from the drifts and crosscuts; the results will be reported by him when obtained. An assay laboratory is being installed at the Bully Hill Mine. Systematic channel samples of the new drifts and crosscuts and geologic mapping are also planned by the operator.

John D. Warne
Mining Engineer

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

OCT 26 1954

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

October 22, 1954

all
Betty

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-E187 DMEA-1219X (Amended)	The Glidden Company	October 13, 1954	September 1954
Idm-E240 DMEA-2082	Mt. Wheeler Mines, Inc.	October 11, 1954	September 1954
Idm-E625 DMEA-3103	Caviglia and Parodi	October 6, 1954	September 1954
Idm-E680 DMEA-3273	Rory M. Free Y. Z. Mining Co.	October 2, 1954	September 1954
Idm-E681 DMEA-3253	Incline Mining Company	October 4, 1954	September 1954

H. C. MILLER

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

Attachments

Copy to: Roscoe Smith, USGS

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 September, 1954 Docket No. DMEA 1219X Amended Contract No. OCT 26 1954

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

Contract Amount $ 50% of $45.00 per ft. 250 ft. $22.50 Government Participation: ____% Amount, $625.00

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:						11/2/54 J.W.G.
EXPLORATION 870 Level						
Drilling						
871-2 Crosscut W 82 ft	3,690.00	7,290.00	10,980.00			
871-3 Crosscut E 52 ft	2,340.00	-	2,340.00			
871 Drift 116 ft	5,220.00	12,780.00	18,000.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	11,250.00	20,070.00	31,320.00			

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

Date Oct. 13, 1954 *Payee THE GLIDDEN COMPANY

Edward L. Harrison Title Manager of Mines

*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:

$ 5625.00

Lloyd H. Spencer
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date OCT 20 1954 Vou. No. SF-DMEA-9

(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-E187 in accordance with the terms of the contract.

Signature R. C. Johnson Title Chief, Mining Div. Region III Date October 14, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. G. Miller Title Executive Officer DMEA Field Team Region III Date October 15, 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
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 1954 Docket No. DMEA 1219X Amended Contract No. _____
Operator's Name THE GLIDDEN COMPANY Minerals _____
Address Cleveland, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts: Unwatering Hi Shaft	Ft	-	-	89,842.47	627'			
Winzes: Rehabilitation 870	Ft	-	-	61,086.34	904'			
Drifting: Exploration 870 Level	Ft	21,511.21	250'	67,924.50	696'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-	-	34,899.14	1022.5'			
TOTAL DISTRIBUTED COSTS		21,511.21	250'	253,752.45				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		21,511.21	250	253,752.45				

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 Oct. 13, 1954 Operator THE GLIDDEN COMPANY

By Edward L. Ralston Title Manager of Mines

REMARKS: Form MF 104 has been corrected in accordance with Mr. H. C. Miller's letter of Sept. 28, 1954.

→ 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

MONTH OF SEPTEMBER 1954

Docket No.
DMEA 1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1951 - December 1952	$23,846.99
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill Shaft to March 1954	15,675.00
Government participation - rehabilitation 870 Level to June 30, 1954	6,328.00
Government participation - Exploration 870 Level to September 30, 1954	15,660.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$68,667.49

SUBJECT: EXPLORATION #70 Level
Bully Hill Mine

Redding, California
October 13, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

#71 Drift South of #70 Crosscut
284 ft. to 400 ft.

Advance September: 116 ft. This drift has continued along the hanging wall shear zone, the general direction being South 15° West. A very nice mineralized zone was exposed for the entire distance, the mineralization consisting largely of quartz, pyrite, and chalcopyrite, with some very good showings of chalcopyrite. Daily breast samples have been taken and results will be reported just as soon as they can be analyzed. Drifting south will be continued during the month of October.

#71-2 Crosscut West of #71 Drift South
68 ft. to 150 ft.

September advance: 82 ft. This crosscut continued to show some mineralization up to a point 130 ft. west of #71 drift. Mineralization consisted largely of quartz, pyrite and stringers of chalcopyrite. From a point 130 ft. west to the breast of the crosscut there is very little mineralization, the countryrock consisting largely of alaskite porphyry. All possibility of uncovering a parallel ore shoot to the ore exposed in #71 drift south was very well covered and crosscutting here was stopped Sept. 20th.

#71-3 Crosscut East of #71 Drift South
0 - 52 ft.

This crosscut driven in a southeasterly direction from a point 350 ft. south of #70 crosscut advanced 52 ft. during the month. The crosscut first penetrated the talc on the hanging wall side of #71 drift and through a body of gypsum approximately 20 ft. wide, the balance being alaskite porphyry. Nothing of importance was cut here during the month other than the same geological structure.

Underground Mapping
The underground surveys were completed during the month and maps of the 300 adit level and the #70 level are attached. The geology will be mapped in the very near future.

Chemical Laboratory
The work on the chemical laboratory has just about been completed and should go into service within the next week. All samples will then be analyzed and the reports brought up to date.

Method of Reporting
Mr. Miller, Executive Officer of DMEA Field Team, Region III, has asked us to change our method of reporting, which we are doing on this report. We were advised at Washington to show total advances on our DMEA reports, on which there would be an allowance of $22.50 per foot for crosscutting and drifting. However, Mr. Miller feels that we should turn the footage in at $45 per linear feet and show 50% of this amount as government participation. We are compiling this report and all future reports as requested. However, we do wish to call attention to the fact that $45 is not the true cost of either the crosscutting or the drifting since it is far in excess of $45 per foot.

Mr. Miller has also called to our attention the fact that we were reporting government participation on diamond drilling in the amount of $21,924.10, whereas it should be $23,846.99. A check of our records confirmed the amount of $23,846.99 as reported by

SUBJECT: EXPLORATION 87[illegible] Level
Bully Hill Mine

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E187

Mr. Miller and this figure will be used on all future reports of government participation on diamond drilling.

To date (10/13) a total of 802 ft. of crosscutting and drifting has been done on the south side of 870 level. Under our DMEA contract of 1000 ft. on the south side, there remains 198 ft. to be driven, which will be completed in the early part of November. No more crosscutting is planned on the south side but 871 drift will be extended to a point approximately 667 ft. south of 870 crosscut. When this has been completed, work on 872 drift north can be undertaken and diamond drilling can also be started on the south side.

Respectfully submitted,

Edward L. Ralston - Manager of Mines.

ELR:HM

Form MF-164 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 4 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of August 1954 Docket No. DMEA 1219-X Amended Contract No.
Operator's Name THE GLIDDEN COMPANY Minerals
Address CLEVELAND, OHIO
Contract Amount, $ @ 237 ft. @ $22.50 per foot Government Participation: % Amount, $ 5,332.50

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:						10/7/54 J.W. Lee
Drilling						
Bulldozing						
Crosscutting 871-2 W 68'	1,530.00	2,115.00	3,645.00			
Drifting 871 S 169'	3,802.50	2,587.50	6,390.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):		Gov. Participation				
TOTALS	$5,332.50	$4,702.50	$10,035.00			

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

Date Sept. 13, 1954 *Payee THE GLIDDEN COMPANY

Per Leonard L. Nelson Title Manager of Mines

*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:

$ 5332 50

Signature
(Authorized Certifying Officer)

Date Vou. No. SF-DMEA-7
(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. 10m-E187 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engineer Date Sept. 17, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date September 20, 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 MR-104A
(April 1952)

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

Defense Minerals Administration
RECEIVED
OCT - 4 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of August 1954 Docket No. DMEA 1219X Amended Contract No. _____
Operator's Name THE GLIDDEN COMPANY Minerals _____
Address CLEVELAND, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering	Ft	-	-	89,842.47	627'			
Winzes Rehab. 870 Level	Ft	-		61,086.34	904'			
Drilling: Core Exploration 870 Level	Ft	20,352.89	237'	46,413.29	446'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Reopening 300 Adit	Ft	-	-	34,899.14	1022.5'			
TOTAL DISTRIBUTED COSTS		20,352.89	237'	232,241.24				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		20,352.89		232,241.24				

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. 13, 1954 Operator THE GLIDDEN COMPANY

By Edward L. Ralston Title Manager of Mines

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

MONTH OF AUGUST 1954

Docket No. DMEA 1219X A

Operator: The Glidden Company
Cleveland, Ohio

Government participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill Shaft to March 1954	15,675.00
Government participation - rehabilitation 870 level to June 30, 1954	6,328.00
Government participation - exploration 870 level to August 31, 1954	10,035.00
Total Government Participation to Date	$61,119.60

SUBJECT: EXPLORATION 870 LEVEL
BULLY HILL MINE

Redding, California
September 13, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

871 Drift South of 870 Crosscut
115 ft. to 284 ft.

Advance, August, 169 ft. This drift was continued along the shear zone and shows some mineralization for the entire distance, the minerals consisting largely of pyrite, with varying amounts of sphalerite and chalcopyrite, with some very good showings of chalcopyrite. The ground to the south is getting much harder and the mineralized area appears to be getting wider as the drift advances. There is also a noticeable increase in the width of talc along the hanging wall side of the drift.

871 drift south today (9/13) looks most encouraging and shows about 5 ft. of ore. This ore is a very high sulphide ore, with pyrite predominating, yet showing a considerable amount of copper in the form of chalcopyrite.

871-2 Crosscut West of 871 Drift South.
0 - 68 ft.

This crosscut, driven in a general westerly direction from a point 205 ft. west of 870 crosscut, advanced 68 ft. during the month and showed some mineralization throughout. Stringers of pyrite and quartz were very common, with some very good stringers of chalcopyrite. It is now possible to map the geology exposed in Nos. 1 and 2 crosscuts and definitely correlate the mineralization encountered here, thus making it possible to do better planning on exploration work to the south.

Underground Mapping
The underground survey has been completed and the maps are now being compiled. In the future, maps will be brought up to date on the first of the month and copies mailed to you.

Chemical Analyses
The old mill laboratory has been rehabilitated and will be used as a chemical laboratory. J. F. Harrigan, formerly with Coronado Copper and Zinc Co., will be in charge of all analytical work, thus making it possible to compile weekly progress reports showing the advances and the character of ore encountered.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

SEP - 3 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: 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 - 1219X

Contract Idm-E 187

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine, Shasta County, California

By George H. Holmes, Jr., Mining Engineer

Dated August 25, 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)

INTERIN REPORT

Docket No.: DMEA-1219X (Zinc-Copper) August 25, 1954

Name and address of operator: The Glidden Company
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill Mine, about 30 miles northeast of Redding, Shasta County, Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Bully Hill mine was visited on August 11, 1954 to inspect progress under the DMEA exploration project. Work comprised the completion of 904 feet of 870-foot level drift rehabilitation; driving the 871 drift south a distance of 185 feet; and advancing the 871-1 crosscut west a distance of 94 feet.

The 871 drift south was driven along a heavily mineralized shear zone containing abundant pyrite and small amounts of chalcopyrite and sphalerite. The heavy, broken ground required timbering along the entire length of the drift.

The 871-1 crosscut west was driven to explore the ground between the hanging wall and footwall of the shear zone. Mineralization was encountered along the entire length of the crosscut consisting mainly of pyrite and occasional narrow stringers and bunches of chalcopyrite and sphalerite. The objective of the crosscut, the footwall quartzite, was not reached; however, the crosscut will be continued at a later date.

Work is being done in accordance with good mining practices. The mineralization encountered in the new workings is encouraging.

No recommendations are suggested at this time.

STATEMENT OF WORK COMPLETED

Since the last inspection on June 24, the operator completed 172 feet of 870-level drift rehabilitation for a total of 904 feet. Close timbering and spiling was required. At a point 91.5 feet south of the Bully Hill shaft, the 871 drift south was started and driven a distance of 185 feet.

The 871-1 crosscut west was started from the 100-foot point of the 871 drift south and driven 94 feet.

The amount and costs to the Government of work completed under the DMEA contract are:

Stage I:	
Diamond drilling 5,299.3 feet	$21,924.10
Stage II:	
Rehabilitate 300-level adit - 1,022.5 feet @ $7.00/ft.	7,157.50
Unwater and rehabilitate the vertical Bully Hill shaft - 627 feet @ $25.00/ft.	15,675.00
Rehabilitate 870 level drifts and crosscuts - 904 feet @ $7.00/ft.	6,328.00
871 Drift South - advance 185 feet @ $22.50	4,162.50
871-1 crosscut West - advance 94 feet @ $22.50	2,115.00
	$57,362.10

COMMENTS

The mineralization encountered by the 871 drift south in the shear zone is encouraging and continuance of this drift is planned. The 871-1 crosscut west encountered low-grade copper-zinc mineralization which may be sufficient to make a commercial grade ore body. The operator plans to have a transit survey and a geologic map made of the 870-level workings. Systematic channel samples will be cut from the new drifts and crosscuts and assay data will be furnished the Mining Division. The operator plans also to start taking regular car samples from the new headings.

The 871-1 crosscut west will eventually be extended to the footwall quartzite, and the 871-2 crosscut west, 100 feet south of 871-1 crosscut west, will be started and driven across the shear zone to the quartzite.

Comment should be made on the good job done of rehabilitation and timbering on the 300- and 870-foot levels and in the shaft and the all around efficiency of operations. Tramming on the 870-level will be speeded up when the compressed air locomotive is placed in operation.

George H. Holmes, Jr.,
Mining Engineer

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

ACCOUNTS AUG 19 1954 DEPARTMENT OF THE INTERIOR Defense Minerals Administration

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July, 1954 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio OCT - 4 1954
Contract Amount, $ 209 Ft. @ $22.50 per foot Government Participation: % Amount, $ 4702.50

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: Short Form Exploration 870 Level						10/7/54 J.W. All.
Drilling						
Bulldozing						
871-1 Crosscut West Crosscutting 54'	2,115.00	-	2,115.00			
871 Drift So. 115' Drifting	2,587.50	-	2,587.50			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):		Gov. Participation.				
TOTALS	4,702.50	-	4,702.50			

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

Date Aug. 12, 1954 *Payee THE GLIDDEN COMPANY

Per Joseph L. Watson Title Manager of Mines

*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:

$ 4702.50

Signature (Authorized Certifying Officer)

Date SEP 28 1954 Vou. No. SE-DMEA-7

(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-E187 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Region III Date August 17, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date August 19, 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 AUG 19 1954
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July 1954 Docket No. DMEA 1219X Amended Contract No. 6 7 4 1954

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering Sh	Ft	-	-	89,342.47	627'			
Winzes Rehab. 870 Level	Ft	-	-	61,086.34	904'			
Exploration 870 Level	Ft	19,011.39	209'	26,060.40	209'			
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-	-	34,899.14	1022.5'			
Total Distributed Costs		19011.39	209'	211,888.35				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
Total Costs		19011.39		211,888.35				

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. 13, 1954 Operator THE GLIDDEN COMPANY

By [signature] Manager of Mines

Address Cleveland, Ohio

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

Month of July 1954

Docket No. DMEA 1219X Amended

Operator: The Glidden Company
Cleveland, Ohio

Minerals Administration
RECEIVED
OCT 4 1954

Government participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill Shaft to March 1954	15,675.00
Government participation - rehabilitation 870 Level to June 30, 1954	6,328.00
Government participation - exploration 870 level to July 31, 1954	4,702.50
Total Government Participation to Date	$55,787.10

SUBJECT: EXPLORATION 870 Lev[illegible] - Bully Hill Mine

Redding, California
August 13, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-E187

EXPLORATION - 870 Level
871 Drift South of 870 Crosscut: 0 - 115 ft.

This drift was started from a point 91.5 ft. south of the shaft and advanced 115 ft. during the month of July. The drift was purposely started in gypsum since the ground was much harder at this point, thus facilitating the starting of a new heading. A short distance south, the gypsum cut out and the drift went into a typical shear zone. This drift, south of the gypsum, has shown heavy mineralization, consisting largely of pyrite with small amounts of chalcopyrite and sphalerite. The ground is badly broken and blocky, requiring timbering throughout. This is an encouraging prospect.

871-1 Crosscut West of 871 Drift South
Advance: 0 - 94 ft.

This crosscut, driven in a general westerly direction from a point 100 ft. south of 870 crosscut, advanced 94 ft. during the month of July. The crosscut was driven for the purpose of prospecting the ground between the hanging wall and the footwall of the shear zone and it was planned to continue the crosscut until the quartzite exposed in the shaft was encountered. The whole crosscut shows mineralization, largely consisting of quartz and pyrite with inclusions of chalcopyrite and small amounts of sphalerite. While the ore is not continuous, yet the work done to date has exposed a heavy mineralized zone, and a very good cross-section of this country has been provided. This crosscut was stopped in order to resume operations on 871 drift south but should be taken up at a later date.

871 Drift South has been advanced an additional 100 ft. since the first of August and 871-2 Crosscut West will be started this week. This will provide two crosscuts into the shear zone from which accurate geological mapping can be done. Thus far the hanging wall has not been crosscut but will be in the very near future since there is a possibility of an ore occurrence on the contact between the basalt and the porphyry on the shear zone.

UNDERGROUND MAPPING
Due to the fact that this mine has been closed down since 1918, there are very few records available regarding the original surveys, and in addition to this, very few rock points have been located underground. Hence, it will be necessary to immediately have an underground survey made and this will be started next week. Since virgin territory is also being opened, it will be necessary to have the geology brought up to date. Consequently we plan on having a reliable part time geologist do this work. In the future, geological maps will be submitted with monthly reports.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

Defense Minerals Administration
RECEIVED
JUL 13 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 6, 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 - 1219X

Contract Idm-E 187

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine
Shasta County, California

By John D. Warne

Dated July 1, 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)

Defense Minerals Administration
RECEIVED
JUL 13 1954

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-Copper) July 1, 1954

Name and address of operator: The Glidden Company
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, Calif.

Name and location of property Bully Hill Mine, about 30 miles northeast of Redding, Shasta County, Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This exploration project was visited on June 24, 1954. The operator is still engaged in rehabilitating the 872 drift northward on the 870-foot level of the Bully Hill Mine. After rehabilitating the 870 crosscut a distance of 132 feet southeast of the shaft, he has reopened the 872 drift northward a distance of 600 feet to date.

Considerable heavy ground was encountered along the 872 drift in the vicinity of the old 872 stope. Spiling was required along most of the drift reopened to date.

The operator anticipates completing rehabilitation work on this level and beginning the driving of new drifts both north and south early in July.

No recommendations are made at this time.

STATEMENT OF WORK COMPLETED

A total of 732 feet of the allowed 1,000 feet of rehabilitation work on the 870 level of the Bully Hill mine has been completed to date. The quantity and costs of work done under DMEA contract on this project follow:

Stage I:	
Diamond drilling 5,299.33 feet	$21,924.10
Stage II:	
Rehabilitate 300-level adit - 1,022.5 feet @ $7.00/ft.	7,157.50
Unwater and rehabilitate the vertical Bully Hill shaft - 627 feet @ $25.00/ft.	15,675.00
Rehabilitate 870 level drifts and crosscuts - 732 feet @ $7.00/ft.	5,124.00
	$49,880.60

COMMENTS

The operator anticipates completion of rehabilitation work on the 870-level early in July. He will then extend the 872 drift northward to further explore favorable formation previously indicated by diamond drilling; and drifting southward along the mineralized structure is planned simultaneously.

Some strong mineralization of copper and zinc sulphides was encountered in the vicinity of the old 872 stope, but insufficient mineralized zones have been reopened to sample and evaluate.

John D. Warne
Mining Engineer

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 June 1954 Docket No. DMEA 1219 Awarded Contract No. [illegible]
Operator's Name The Glouden Company Minerals [illegible]
Address Cleveland, Ohio
Contract Amount, $ 290 ft. @ 7.00 per ft. Government Participation: ____% Amount, $ 2072.00 [redacted] O.K. J.W.L.

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						
Bulldozing						
Crosscutting						
Drifting [redacted] For 870 Level						8/12/54 J.W.L.
(2) Labor and Supervision:	11,441.55	88,756.87	100,198.42			
Labor	525.00	7,120.00	7,645.00			
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:	1,536.51	14,935.69	16,472.20			
Timber	65.54	91.50	157.04			
Explosives	339.18	5,400.88	5,740.06			
Pipe	629.08	1,319.89	1,948.97			
Track						
Motor, misc. supplies Diesel fuel, oil, etc	3,098.69	24,736.33	27,835.02			
(4) Operating Equipment:	403.47	4,744.16	5,147.63			
Rental	4,064.90	10,863.44	14,928.34			
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	1,447.02	11,357.26	12,804.28			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	23,550.94	169,326.02	192,876.96			

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

Date 8/12/54 *Payee The Glouden Company

Robert A. Fulton Title Manager of Mines

*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:

$ 2072 00

Signature [illegible]
(Authorized Certifying Officer)

Date [illegible] 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 [illegible] Title [illegible] Date July 20, 195[illegible]

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer DMEA Field Team Region III Date July 21, 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

RECEIVED
AUG 16 1954

Month of June 195 4 Docket No. DMEA 1219 Amended Contract No.
Operator's Name [illegible] Minerals
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								
Crosscutting								
Raising								
Unwatering [illegible] Shaft	ft	-	-	89,842.47	627'	(143.23/ft)		
Rehab. 870 Level	ft.	16,501.93	296'	61,086.34	904	(67.57/ft)		
Winzes								
Drilling: Core								
Churn								
Exploration 870 Strip level - rolling rk	ft.	7,049.01	-	7,049.01	-			
Trenching								
Test Pits								
Reopend Trail 500 adit	ft.	-	-	34,899.14	1022.5'	(34.13/ft)		
Total Distributed Costs		23,550.94	296'	192,876.96				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		23,550.94		192,876.96				

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 7/12/54 Operator The Calumet Company

Richard E. Hanson Title Manager of Mines

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

Month of June 1954

Docket No. DMEA 1219X Amended

Operator: THE GLIDDEN COMPANY
Cleveland, Ohio

Government Participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government Participation - reopening 300 Adit to July 31, 1953	7,157.50
Government Participation - unwatering Bully Hill Shaft to March 1954	15,675.00
Government Participation - Rehabilitation 870 Level to June 30, 1954	6,328.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$51,084.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT
REHABILITATION 870 LEVEL
EXPLORATION 870 LEVEL

Redding, California
July 12, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

REHABILITATION - 870 Level
872 Drift North from 870 Crosscut: 476 ft. to 732 ft.

811 Crosscut East: 0 - 40 ft.

Total Advance for month: 296 ft.

The work in connection with the rehabilitation of the 870 level was completed on June 30th. 872 Drift north was reopened, retimbered where necessary, and track laid to the north breast. 811 Crosscut East, from a point approximately 30 ft. south of the north breast was rehabilitated for a distance of 40 ft. This crosscut is to be used for car storage when drifting operations are resumed from the north breast of 872 drift. This completes the rehabilitation of the 870 level. Under our DMEA Contract 1219X, the maximum footage allowed on rehabilitation of the 870 level was 1000 lin. ft. Hence, the actual job of 904 lin. ft. was considerably less than the 1000 lin. ft. allowed.

The north section of the old drift, while showing a very strong shear zone, was not heavily mineralized. However, there is small mineralization in the various crosscuts worthy of future development.

Exploration Work - 870 level - more particularly 871 drift south, was started July 1st. This work has progressed far enough now so that drifting operations on 872 drift north can be resumed at any time, and as a matter of fact, it is our intention to resume drifting operations here just as soon as an air locomotive can be delivered from Salt Lake since the distance is too great for hand tramming. Hence, 871 drift south and 872 drift north will be driven simultaneously.

The other work done during the month of June was the reopening of 302 drift north from the adit level to provide a second exit from the mine. The work on this level has been completed and 472 drift north from 470 level is now being reopened and retimbered. This work will be continued until No. 5 raise is reached and then the raise will be reopened to the adit level above. This work has no connection whatever with the DMEA contract but is necessary since a second exit is required in California.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

Form MF-167 (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 May, 1954 Docket No. DMEA1219X Amended Contract No. E-187
Operator's Name The Glidden Company Minerals Zinc & Copper
Address Cleveland, Ohio
Contract Amount, $ 235 ft. @ $7.00 per ft. Government Participation: ____% Amount, $1645.00

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						
Bulldozing						
Crosscutting						
Drifting						
Rehabilitation 870 Level						
(2) Labor and Supervision:						
Labor	11,945.98	76,810.89	88,756.87			
Supervision	525.00	6,595.00	7,120.00			
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	1,681.95	13,253.74	14,935.69			
Explosives	20.84	70.66	91.50			
Pipe	1,255.94	4,144.94	5,400.88			
Track	638.43	681.46	1,319.89			
Power, Elec. Line Up.						
Gasoline, Diesel	2,077.44	22,658.89	24,736.33			
(4) Operating Equipment:						
Rental	253.47	4,490.69	4,744.16			
Purchase		10,863.44	10,863.44			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	1,480.27	9,876.99	11,357.26			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	19,879.92	149,446.70	169,326.02			

Betty
7/1/54. Amount of Gov. Participating $1645.00 approved J.W. Alt.

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

Date June 12, 1954 *Payee The Glidden Company

Per Edward J. Eriksson Title Manager of Mines

*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:

$ 1645 00

Lloyd H. Sjolander
Authorized Certifying Officer

Signature _____ (Authorized Certifying Officer)

Date JUN 21 1954 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. Idm-E187 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Date June 16, 1954

A. C. Johnson Region III

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Executive Officer

Signature S. Micker for H. C. Miller Title DMEA Field Team Date June 17, 1954

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 May 1954 Docket No. DMEA 1219X Amended Contract No. E-187

Operator's Name The Glidden Company Minerals Zinc & Copper

Address Cleveland, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Unwatering BH Shaft	Ft	-	-	89,842.47	627			
Rehabilitation 870 Level	Ft	19,879.32	235	44,584.41	608			
Reopening 300 Adit	Ft	-	-	34,899.14	1022.5			
TOTAL DISTRIBUTED COSTS		19,879.32	235	169,326.02				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		19,879.32		169,326.02				

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 12, 1954 Operator THE GLIDDEN COMPANY

Per Edward L. Hamilton Title Manager of Mines

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

MONTH OF MAY 1954

Docket No. DMEA 1219X Amended

Operator: THE GLIDDEN COMPANY
Cleveland, Ohio

Government Participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government Participation - reopening 300 Adit to July 31, 1953	7,157.50
Government Participation - unwatering Bully Hill Shaft to March 1954	13,675.00
Government Participation - rehabilitation 870 Level to May 31, 1954	4,256.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$49,012.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT
REHABILITATION 870 LEVEL

Redding, California
June 12, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
LIM-M187

REHABILITATION - 870 LEVEL

872 Drift North of 870 Crosscut
241 ft. to 476 ft.

This retimbering job advanced 235 ft. for the month of May. Some very heavy ground was encountered in the north section of this drift, especially around old 872 stope. This required spiling practically the entire distance. It is very apparent that the former operators experienced considerable difficulty in holding the ground since in many instances solid timber supporting bulkheads were encountered, and as a matter of fact, practically all of the timbering was quite heavy.

Some very good ore, mostly remnants from the former operation, was found in these old workings, the ore largely consisting of Chalcopyrite, Pyrite, with small amounts of Bornite and Barite. Also some very good sphalerite was found in these old workings.

This work has now reached a point north of the old 872 stope and the remaining distance to the north breast should not be difficult to reopen. Drifting south from 870 crosscut will also be started immediately.

Respectfully submitted,

Edward L. Ralston - Manager of Mines

ELR:HM

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 MAY 20 1954

OPERATOR'S MONTHLY REPORT AND VOUCHER

Defense Minerals Administration

Month of April, 1954 Docket No. DMEA 1219X Amended Contract No.

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

RECEIVED JUN 7 1954

Contract Amount, $ Government Participation: 329 Ft. @ $7.00 per foot Government Participation, % Amount, $ 2303.00

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						
Bulldozing						
Crosscutting						
Drifting						
Rehabilitation 870 Level						
(2) Labor and Supervision:						
Labor	10,224.69	66,586.20	76,810.89			
Supervision	525.00	6,070.00	6,595.00			
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	974.47	12,279.27	13,253.74			
Explosives	26.11	44.55	70.66			
Pipe	479.74	3,665.20	4,144.94			
Track	223.64	457.82	681.46			
Power, Misc.Supplies, Gasoline, Diesel, etc.	2978.88	19,680.01	22,658.89			
(4) Operating Equipment:						
Rental	353.47	4,137.22	4,490.69			
Purchase	731.89	10,131.55	10,863.44			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	1,246.62	8,630.37	9,876.99			
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	17,764.51	131,682.19	149,446.70			

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

Date May 12, 1954 *Payee THE GLIDDEN COMPANY

By Edward L. Raisler Title Manager of Mines

*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:

$2303.00

Signature Lloyd H. Slielander
Authorized Certifying Officer
(Authorized Certifying Officer)

Date 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-E187 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div. Region III Date May 17, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date May 20, 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-194A
(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 April 1954 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering Mt Whitney Mine Shaft	Ft.	—	—	89,842.47	627'			
Drilling: Core								
Rehab. 870 Level Churn	Ft.	17,764.51	329'	24,705.09	373'			
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Reopening 300 Adit	Ft.	—	—	34,899.14	1022.5'			
TOTAL DISTRIBUTED COSTS		17,764.51	329'	149,446.70				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc								
TOTAL COSTS		17,764.51		149,446.70				

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 12, 1954 Operator THE GLIDDEN COMPANY

Edward L. Ralston Title Manager of Mines

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

MONTH OF APRIL 1954

Docket No. DMEA 1219X Amended

Operator: THE GLIDDEN COMPANY
Cleveland, Ohio

Government Participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government Participation - reopening 300 Adit to July 31, 1953	7,157.50
Government Participation - Rehabilitation 870 Level to April 30, 1954	2,611.00
Government Participation - unwatering Bully Hill Shaft to March 1954	15,675.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$47,367.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT
REHABILITATION 870 LEVEL

Redding, California
May 12, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc Copper
IDM-EL87

REHABILITATION - 870 Level

870 Crosscut South of Shaft
44 ft. to 132 ft.

The reopening and retimbering of this crosscut was completed during the month. Ground encountered here was quite heavy, most of it requiring careful timbering. The south end of the crosscut is in basic dike and is very hard.

872 Drift North of 870 Crosscut
0 - 241 ft. north.

Reopening and retimbering of this old drift from 870 crosscut was completed for a distance of 241 ft. The south portion of the drift was in exceptionally hard rock requiring no timber. The drift penetrated a shear zone about 120 ft. north of the crosscut, where the ground was found to be very blocky and the back somewhat dangerous. From this point the remaining distance had to be timbered. Much of this country is open, yet the old working, undoubtedly driven for a haulage way, was too small to accommodate a mucking machine, which made it necessary to enlarge to accommodate this type of equipment. 872-2 crosscut west is only open for a very short distance. It is planned to continue along the east drift rather than to attempt to reopen the old drifts to the north along the shear zone since it should be much easier to clean up and retimber here rather than farther west due to the fact that a great deal of this drift is in the harder dike material. However, the geological sheets compiled by Hansen, which were largely taken from the old maps, have been found to be somewhat inaccurate since a great portion of this drift is in shear zone and not in the basic dike.

Respectfully submitted,

Edward L. Halsten - Manager of Mines

ELR:HM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 3 - 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: April 27, 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 - 1219X

Contract Idm-E 187 (Amended)

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine, Shasta County, California

By John D. Warne, Mining Engineer

Dated April 21, 1954

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)
Roscoe Smith

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 3 - 1954

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-copper) April 21, 1954

Name and address of operator: The Glidden Company
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill Mine, about 30 miles northeast of Redding, Shasta County, Calif.

Contract No.: Idm-E187 (amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This exploration project was inspected on April 6, 1954. The operator had completed rehabilitating 1,022.5 feet of the 300 level adit, unwatered and rehabilitated 627 feet of the Bully Hill vertical underground shaft, and had reopened 65 feet of the 870 level.

Shaft rehabilitation work has been completed in a satisfactory manner, and water is still being pumped from it at a rate of about 150 g.p.m.

The eastward crosscut from the Bully Hill shaft on the 870 level is being reopened at a satisfactory rate of progress.

No recommendations are made at this time.

STATEMENT OF WORK COMPLETED

Unwatering and rehabilitating the Bully Hill shaft (Stage II, item 2) has been completed, which required 627 feet of work. The operator is now engaged in reopening the 870 level crosscut leading eastward from the shaft toward the 872 drift (Stage II, item 3) - 65 feet of progress had

been made. The quantity and costs of work done to date under this contract are as follows:

Stage I:

Diamond drilling 5,299.33 feet	$21,924.10

Stage II:

Rehabilitate 300-level adit - 1,022.5 feet @ $7.00/ft.*	7,157.50
Unwater and rehabilitate the vertical Bully Hill shaft, 627 feet @ $25.00/ft.*	15,675.00
Rehabilitate 870-level crosscut 65 feet eastward from shaft @ $7.00/ft.*	455.00
Total Govt. participation to date	$45,211.60

*Maximum allowable Govt. participation.

COMMENTS

Unwatering and rehabilitation of the vertical Bully Hill shaft was completed on March 19, with a total footage of 627 feet required. This shaft is now in good condition.

Rehabilitation of the 870 level workings has progressed to 65 feet from the shaft. A total of about 100 feet of eastward crosscut will have to be reopened to reach the main north-south 872 drift which will be reopened.

A complete surface mine plant has been constructed. The work appears to be well managed and properly executed.

No mineralized zones have yet been reopened to sample and evaluate.

John D. Warne

John D. Warne
Mining Engineer

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No.
Approval expires 6-30

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of MARCH, 1954 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio
Contract Amount, $ Government Participation: % Amount, $ TOTAL: $2108.00
~~72 ft. @ $25.00 per ft. $1800.00, 44 ft. @ $7.00 per ft. $308.00~~

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						
Bulldozing						
Crosscutting						
Drifting						
Unwatering D.H. Mine Shaft & Rehabilitating 870 Level						
(2) Labor and Supervision:						
Labor	8,236.24	58,349.96	66,586.20			
Supervision	525.00	5,545.00	6,070.00			
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	136.13	12,143.14	12,279.27			
Explosives		44.55	44.55			
Pipe	88.31	3,576.89	3,665.20			
Track		457.82	457.82			
Power, Gas, Diesel & Mis. Supplies	2,296.62	17,383.39	19,680.01			
(4) Operating Equipment:						
Rental	375.00	3,762.22	4,137.22			
Purchase	2,869.29	7,262.26	10,131.55			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	1,050.14	7,580.23	8,630.37			
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	15,576.73	116,105.46	131,682.19			

Cathy 5/14/54 J.W.L.

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

Date 4/13/54 *Payee THE GLIDDEN COMPANY

Per EDWARD L. BRADSON Title Manager of Mines

*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:

$ 2108.00

Lloyd W. Sjolander
Authorized Certifying Officer

Signature
(Authorized Certifying Officer)

Date MAY 4 1954 Vou. No. SE-DMEA-39

(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-E187 in accordance with the terms of the contract.

Signature A. C. Johnson Title Chief, Mining Div., Region III Date April 23, 1954.

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title ~~DMEA Field Team~~ Executive Officer Region III Date April 26, 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
Approval expires

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of March 1954 Docket No. DMEA 1219X Amended Contract No.
Operator's Name The Glidden Company Minerals
Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts: Unwatering D.H.								
~~xxxx~~ Mine Shaft	Ft	8,636.15	72	89,842.47	627	$50		
Winzes								
Rehabilitation								
Drilling: Core								
~~xxxx~~ 870 Level Churn	Ft	6,940.58	44	6,940.58	44	$145		
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Reopening 300 Adit	Ft	-	-	34,099.14	1022.5			
Total Distributed Costs		15,576.73	116	131,682.19				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		15,576.73		131,682.19				

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 4/13/54 Operator The Glidden Company

Per Edward L. Ralston Title Manager of Mines

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

MONTH OF MARCH 1954

Docket No. DMEA 1219X Amended

Operator: THE GLIDDEN COMPANY
Cleveland, Ohio

Government Participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government Participation - reopening 300 Adit to July 31, 1953	7,157.50
Government Participation - unwatering Bully Hill Shaft to March 1954	15,675.00
Government Participation - Rehabilitation 870 Level to March 1954	308.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$ 45,064.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT
REHABILITATION 870 LEVEL

Redding, California
April 13, 1954

DMEA REFERENCE
Docket No. 1219X Amended
Commodity: Zinc Copper
1956-1957

UNWATERING BULLY HILL MINE SHAFT
915 ft. to 587 ft. below 300 sill
627 ft. from back of shaft above 300 station.

The unwatering job was completed March 19th, total progress for March being 72 ft. This provided the 30 ft. sump below the 870 level. Hence, the total footage charged to the government for the completed job amounted to 627, the distance from the back of the station to the bottom of the sump. The estimated footage under the DMEA contract was 650 ft.

REHABILITATION - 870 LEVEL
870 Crosscut southeast of shaft. The retimbering of the 870 station and the reopening of 870 crosscut south from the station was started on completion of the unwatering job and had reached a point 44 ft. south of the shaft as of April 1st. Considerable retimbering was found necessary here since the crosscut in places was completely filled due to caving. Some spiling ground was encountered in this reopening. At this time there remains approximately 35 ft. of repair work, all heavy ground, to be completed before 872 drift is reached. To date three separate shear zones have been uncovered and a considerable amount of gypsum has been found in the crosscut.

PRESENT OPERATIONS
At the present time two shifts are employed in rehabilitation on the 870 level. While there has been a marked decrease in the amount of water handled, yet it is necessary to keep one pump on the 770 running 24 hours per day to handle the water coming from the 670 level. On the graveyard shift all pumps are operated for 8 hours. Now that the end of the rainy season is close at hand, little difficulty is expected in keeping the water out of the mine, and as a matter of fact, there should be a marked decrease in the gallonage handled. All available maps of the 870 level indicate that 872 drift is largely in dike material and granting this to be the case, the greater portion of this level should be open and rehabilitation should be an easy job providing the drift is not on shear zones. In order to complete the job as quickly as possible, it has been decided not to open any of the old crosscuts in the shear zones and to confine rehabilitation operations to the east drift on the 870 level.

Respectfully submitted,

Edward L. Ralston, Manager of Mines.

ELR:HM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 15 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 10, 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 -1219X

Contract Idm-E 187 (Amended)

Commodity Zinc-Copper

Operator - The Glidden Company

Property - Bully Hill Mine, Shasta County, California

By John D. Warne, Mining Engineer

Dated March 4, 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

INTERIM REPORT

Docket No.: DMEA-1219X (Zinc-Copper) March 4, 1954

Name and address of operator: The Glidden Company
Edward L. Ralston, Manager of Mines
P. O. Box 430
Redding, California

Name and location of property: Bully Hill Mine, located about 30 miles northeast of Redding, Shasta County, California

Contract No.: Idm-E187 (Amended)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This exploration project was visited on Feb. 22, 1954. The operator has completed rehabilitating 1,022.5 feet of the 300-level adit and unwatered and rehabilitated 535 feet of Bully Hill vertical underground shaft under Stage II of the contract.

Shaft unwatering and rehabilitation work is progressing at a satisfactory rate. However, this operation has been slow due to the great quantity of water to pump. Water is now being removed at an estimated rate of 150 g.p.m.

No recommendations for improving the project work can be made at this time.

STATEMENT OF WORK COMPLETED

Unwatering and rehabilitating the Bully Hill shaft (Stage II, item 2) is still in progress. According to the operator, the unwatering work has reached a point 495 feet below the 300 level sill; and an additional 40 feet of the shaft collar and guides to the back above the

300-level was rehabilitated.

The quantity and costs of work done to date under the contract are as follows:

Stage I:

Diamond drilling 5,299.33 feet	$21,924.10

Stage II:

(1) Rehabilitate 300-level adit - 3/53-7/53 1,022.5 feet @ $7.00/ft.*	7,157.50
(2) Unwater and rehabilitate the vertical Bully Hill shaft, 535 feet @ $25.00/ft.*	13,125.00
Total Government participation to date	$42,206.60

*Maximum allowable Government participation.

COMMENTS

The operator has installed additional pumping facilities in the shaft and is now removing water from the shaft at an estimated rate of 150 g.p.m.

To rehabilitate the vertical shaft, it was necessary to repair and rehabilitate the shaft and headframe a distance of 40 feet above the 300-level sill or collar of the shaft. These units of work (40 feet) have been reported by the operator on his cost vouchers and progress reports. This matter was discussed with Mr. E. L. Ralston, Manager of Mines, for The Glidden Company, during this inspection; and he stated that the exact footage of shaft to be rehabilitated is unknown, and

that old records and maps do not disclose the depth of shaft below the 300-level adit to the 870-level. In the event that more footage of rehabilitation is necessary than is provided in the contract, his company plans to bear the entire additional cost of pumping and shaft rehabilitation work necessary to reach the 870-foot level. The contract provides for unwatering and rehabilitating 650 feet of shaft from the 300-level to the 870-level, which should be ample including the 40 feet from the collar of the shaft to the back, above the track on the 300-foot level.

SAMPLING

No sampling has been done to date. When the 870-foot level is reached, the company plans to begin sampling of the mineralized zones along the Bully Hill mine deposit. Check sampling and analysis by the Bureau of Mines is planned at that time.

John D. Warne

John D. Warne
Mining Engineer

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 February, 1954 Docket No. DMEA1219X Amended Contract No. [illegible]

Operator's Name The Glidden Company Minerals [illegible]

Address Cleveland, Ohio

Contract Amount, $ 46 ft. @ $25.00 per ft. Government Participation: ____% Amount, $ 1150.00

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						
Bulldozing						
Crosscutting						
Drifting						
Unwatering Bully Hill Shaft						
(2) Labor and Supervision:						
Labor	7,510.01	50,839.95	58,349.96			
Supervision	525.00	5,020.00	5,545.00			
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	34.64	12,108.50	12,143.14			
Explosives		44.55	44.55			
Pipe	305.60	3,271.29	3,576.89			
Track		457.82	457.82			
Oil, Diesel, Grease Gasoline, Misc. Sup.	2,322.60	15,060.79	17,383.39			
(4) Operating Equipment:						
Rental		3,762.22	3,762.22			
Purchase	1,236.00	6,026.26	7,262.26			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes	963.63	6,616.60	7,580.23			
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	12,897.48	103,207.98	116,105.46			

~~Betty~~ 4/1/54. 46' @ $50/ft approved J.W.A.

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

Date March 12, 1954 *Payee THE GLIDDEN COMPANY

By Edward L. Ogleton Title Manager of Mines

*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:

$1150.00

Signature Lloyd H. Sjolander, Authorized Certifying Officer (Authorized Certifying Officer)

Date MAR 22 [illegible] Vou. No. SF-DMEA-34

(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-E187 in accordance with the terms of the contract.

Signature George H. Holmes, Jr. Title Mining Methods Research Engr. Date March 16, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date March 17, 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
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of February 195 4 Docket No. DMEA 1219X Amended Contract No.

Operator's Name The Glidden Company Minerals

Address Cleveland, Ohio

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Unwatering Bit Mine								
Jack 1 Shaft	Ft	12,897.48	46	81 206.32	555			
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Reopening 300 Adit	Ft	-	-	34 899.14	1022.5			
TOTAL DISTRIBUTED COSTS		12,897.48	46	116 105.46				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		12,897.48		116 105.46				

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

Date March 12, 1954 Operator THE GLIDDEN COMPANY

Per Edward L. Hilston Title Manager of Mines

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

MONTH OF FEBRUARY 1954

Docket No. DMEA 1219X Amended

OPERATOR: THE GLIDDEN COMPANY
CLEVELAND, OHIO

Government participation - diamond drilling December 1950 to December 31, 1952	$21,924.10
Government participation - reopening 300 adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill Shaft to February 28, 1954	13,875.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$42,956.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT

Redding, California
March 12, 1954

DMRA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
IDM-K187

UNWATERING BULLY HILL MINE SHAFT
469 ft. to 515 ft. below 300 sill
555 ft. from back of shaft above 300 station

Progress on unwatering operations during the month of February was considerably better than the previous month, the total advance being 46 ft. The weather was somewhat better with considerably less surface waters to handle. The water at this time stands 15 ft. above the 670 level and the unwatering job should be completed within the next 15 days.

The rearrangement of pumping equipment gave very satisfactory results. The 14-7-13 Cameron was left in the shaft at the 770 station and is handling water from the sump on the 770 to the 300 adit. An additional Cameron station pump has also been installed on this station and is handling water from the sump. The small duplex pump was installed in the south end of the station to pump water coming from the south drifts on the 770 into the sump on this level. The #7 Cameron sinking pump is delivering water from the bottom of the shaft to the 770 sump and is lowered as the water goes down. There is still a heavy flow of water coming from the 670 level. No difficulties are anticipated in completing the unwatering job with this equipment.

The shaft continues in good condition, with the ground very good.

Respectfully submitted,

Edward L. Ralston, Manager of Mines

ELR:HH

Form MT-124 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.1
Approval Expires 6-30-52.

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

Month of January, 1954 Docket No. DMEA 1219X Amended Contract No. Idm R 187

Operator's Name The Gladden Company Minerals Zinc & Copper

Address Cleveland, Ohio

Contract Amount, $ Government Participation: % Amount, $175.00

7 ft. @ 25.00 per foot

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						
Bulldozing						
Crosscutting						
Drifting						
UNDERGROUND MINE DEVELOPMENT						
(2) Labor and Supervision:						
Labor	8,274.99	42,564.96	50,839.95			
Supervision	525.00	4,495.00	5,020.00			
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber	3.55	12,104.95	12,108.50			
Explosives		44.55	44.55			
Pipe	523.97	2,747.32	3,271.29			
Track		457.82	457.82			
Power, Gasoline, Oil Diesel, Misc. Sup.	2,108.11	12,952.68	15,060.79			
(4) Operating Equipment:						
Rental	729.17	3,033.05	3,762.22			
Purchase		6,026.26	6,026.26			
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis	1,001.32	5,615.28	6,616.60			
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	13,166.11	90,041.87	103,207.98			

Betty
3/12/54 Jul. acct.
Total Cost
month 250

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

Date 2/12/54 *Payee The Gladden Company

Per Edward L. Kalston Title Manager of Mines

*When the payee is signed 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:

$175.00

Lloyd H. Sjolander
Signature Authorized Certifying Officer
(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. Idm-E187 in accordance with the terms of the contract.

Signature A. C. Johnson Title A. C. Johnson, Chief, Mining Division, Region III Date Feb. 15, 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature H. C. Miller Title Executive Officer DMEA Field Team Region III Date February 17, 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-R1
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 1219X Amended Contract No.

Operator's Name THE GLIDDEN COMPANY Minerals

Address Cleveland, Ohio

OPERATION	Unit	Costs This Month	Units This Month	Costs to Date	Units to Date	Unit Costs to Date	Authorized by Contract: Units	Authorized by Contract: Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts Sinking, Dully Hill Mine	Ft	13,166.11	7'	68,308.84	509'			
Winzes Chart								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails Logging, 300 Adit	-	—	-	34,899.14	1022.5'			
Total Distributed Costs		$13,166.11		$103,207.98				Total Costs Authorized by Contract
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs		$13,166.11		$103,207.98				

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 2/12/54 Operator THE GLIDDEN COMPANY

By Edward L. Nelson Title Manager of Mines

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

MONTH: JANUARY 1954

Docket No. DMEA 1219X Amended

OPERATOR: THE GLIDDEN COMPANY
Cleveland, Ohio

Government participation - diamond drilling December 1950 to December 31, 1952	$21,984.10
Government participation - reopening 300 Adit to July 31, 1953	7,157.50
Government participation - unwatering Bully Hill Shaft to January 31, 1954	12,725.00
TOTAL GOVERNMENT PARTICIPATION TO DATE	$41,806.60

SUBJECT: REHABILITATION BULLY HILL MINE
UNWATERING BULLY HILL MINE SHAFT

Redding, California
February 12, 1954

DMEA REFERENCE:
Docket No. 1219X Amended
Commodity: Zinc-Copper
LDM-R187

UNWATERING BULLY HILL MINE SHAFT
442 ft. to 469 ft. below 300 sill
992 ft. from back of shaft above 300 station.

Progress on unwatering operations during the month of January was exceptionally slow due to the necessity of unwatering very extensive workings on the 770 level. In addition to this, the very heavy rains in Northern California resulted in heavy surface flows coming in from the old workings from the grass roots down, it not being possible to capture any of this water except a small amount on the 300 adit, which was open. Hence, there was a very heavy flow coming in from the 670 level.

This additional water necessitated the installation of another sinking pump. At this time the 770 has been completely unwatered and the shaft between the 770 and 870 is slowly being pumped out.

The 770 station was found to be in fair condition, also the pump station and sump to the east. However, drifts 771 and 772, off 770 station, are caved. There is an appreciable flow of water coming out of these old drifts on the 770 level.

It is now planned to leave the larger sinking pump at the 770 and the Cameron sinking pump will also be installed on this station. All water coming from the levels above will be caught here and piped into the sump below the 770 level, and the two pumps left on the 770 station will handle all water from the 770 and above. The balance of the unwatering will be done with a No. 7 Cameron pump, which, under this low head, should make very good progress. Some little difficulty has been encountered with power failures due to heavy storms and this has resulted in keeping two standby diesel compressors ready for service on very short notice.

NEW EQUIPMENT
The only new equipment added during the month was one No. 7 Cameron (12-5-13) sinking pump. It is quite obvious that the equipment on the job will unwater the mine to the 870 level, and this should not be a big job providing February and March are not too wet. However, surface waters are a serious consideration since it is not possible to pick up any of this water above the 770 due to the fact that all of these old drifts are closed, and in addition, the 670 station is caved.

Generally speaking, the shaft was found to be in very good condition.

Respectfully submitted,

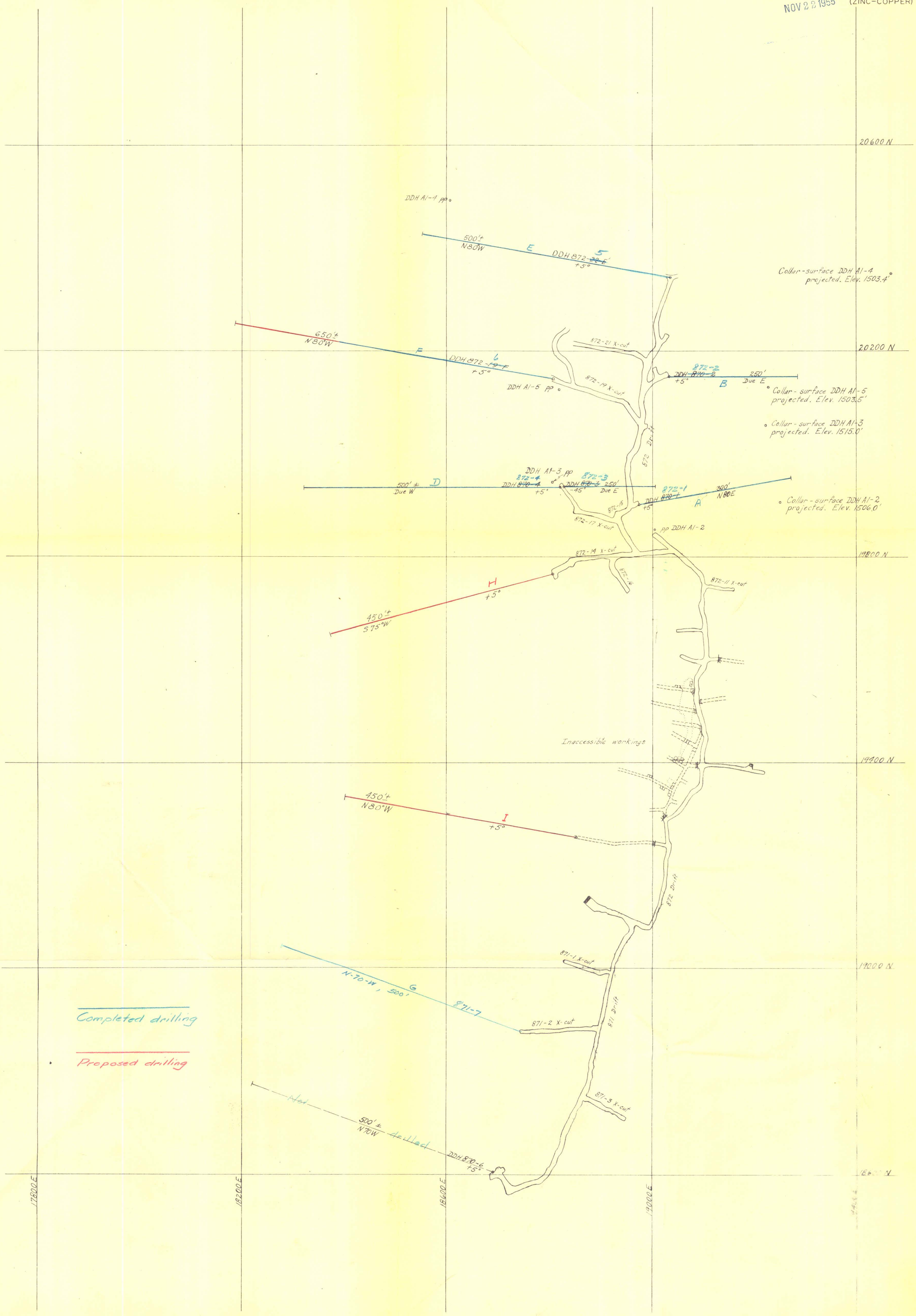
Edward L. Ralston - Manager of Mines

ELR:HM

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

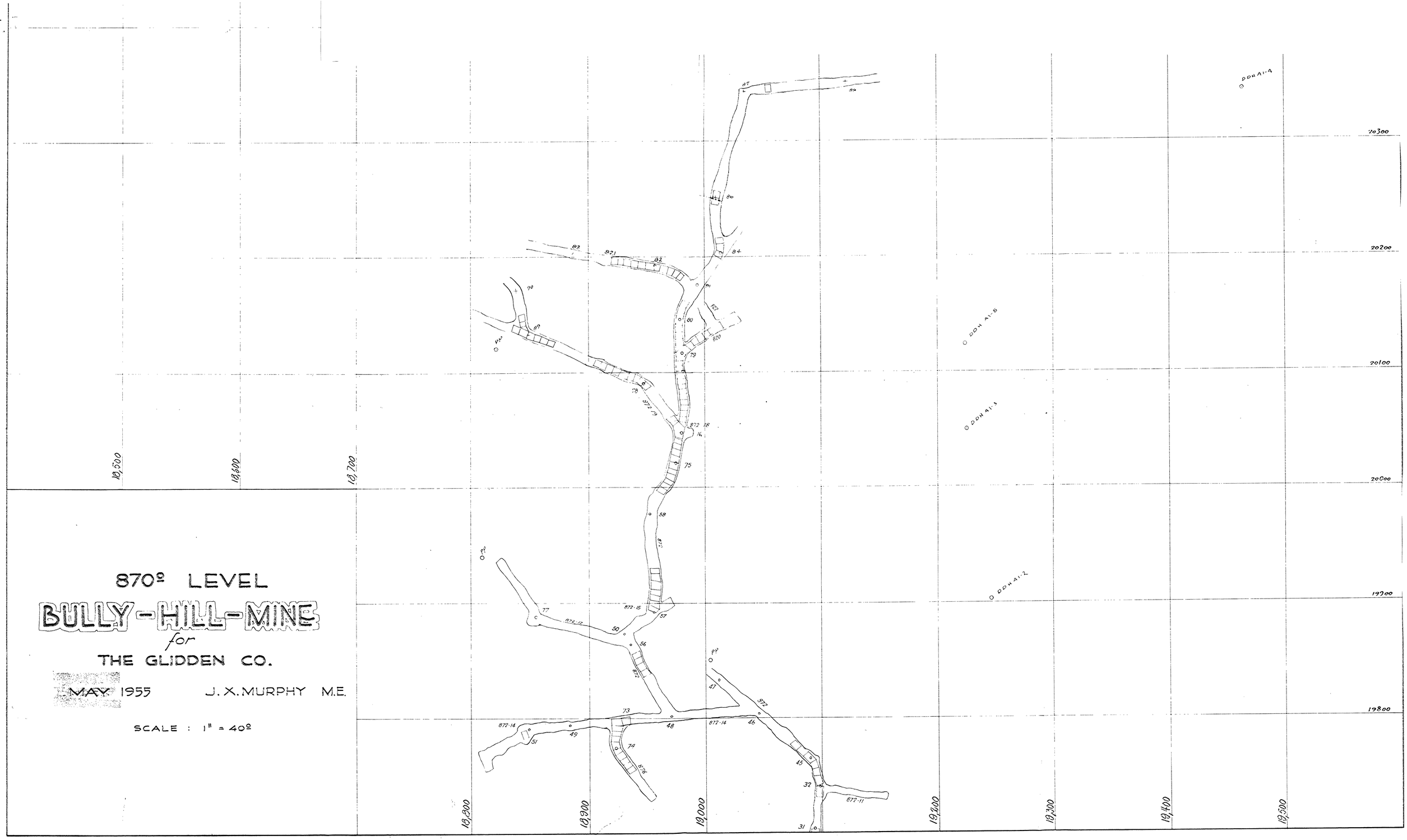
RECEIVED
NOV 22 1955

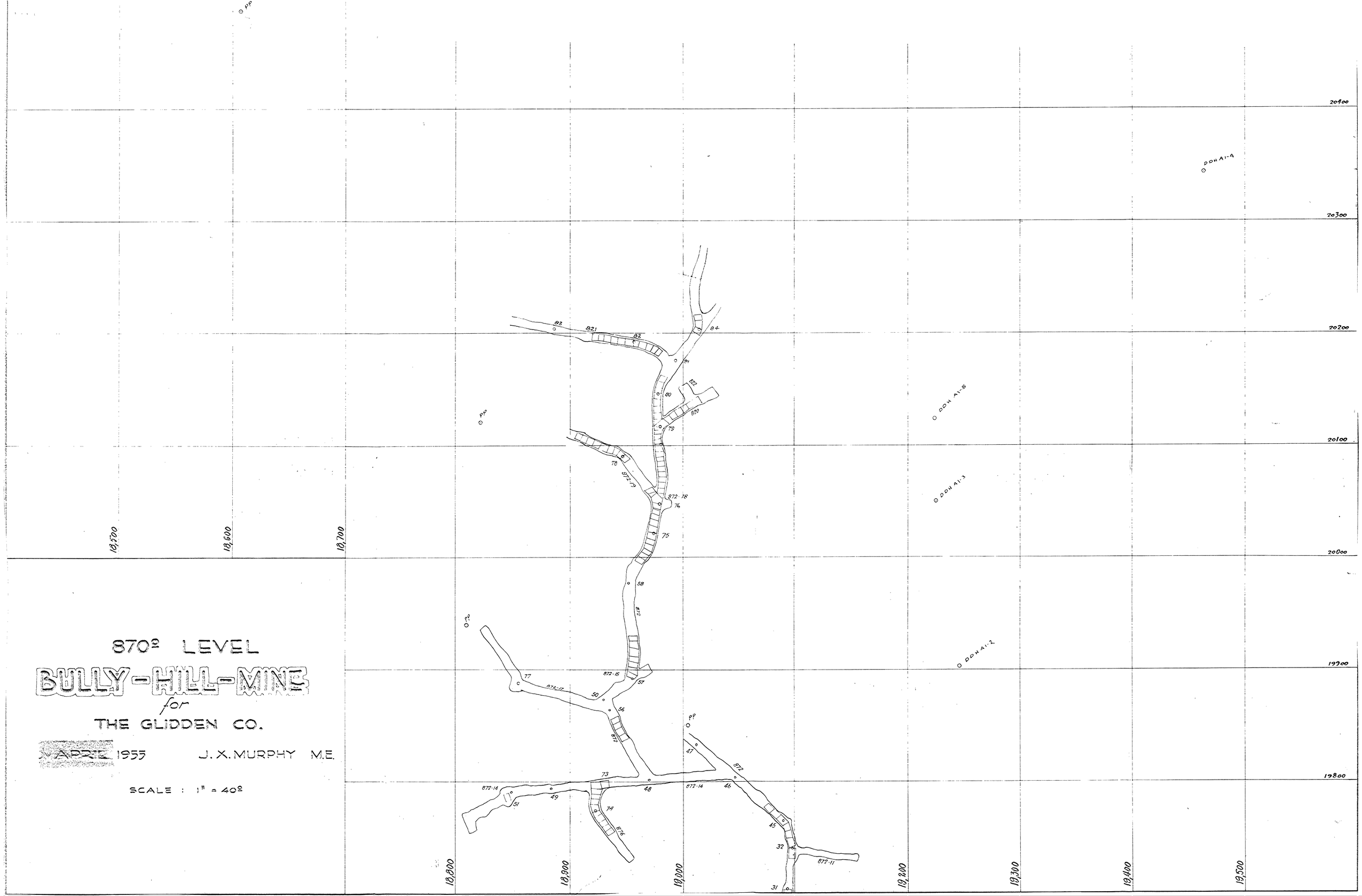
DMEA—1219
Idm E 187
(ZINC-COPPER)



PROPOSED DIAMOND DRILL HOLES ON 870 LEVEL, BULLY HILL MINE, SHASTA COUNTY, CALIFORNIA

0 100 200 300 400 500 Feet


870º LEVEL
BULLY-HILL-MINE
for
THE GLIDDEN CO.
MAY 1955
J. X. MURPHY M.E.
SCALE : 1" = 40º
DDH A1-4
DDH A1-5
DDH A1-3
DDH A1-2
20300
20200
20100
20000
19900
19800
18,500
18,600
18,700
18,800
18,900
19,000
19,200
19,300
19,400
19,500



870º LEVEL

BULLY-HILL-MINE

for

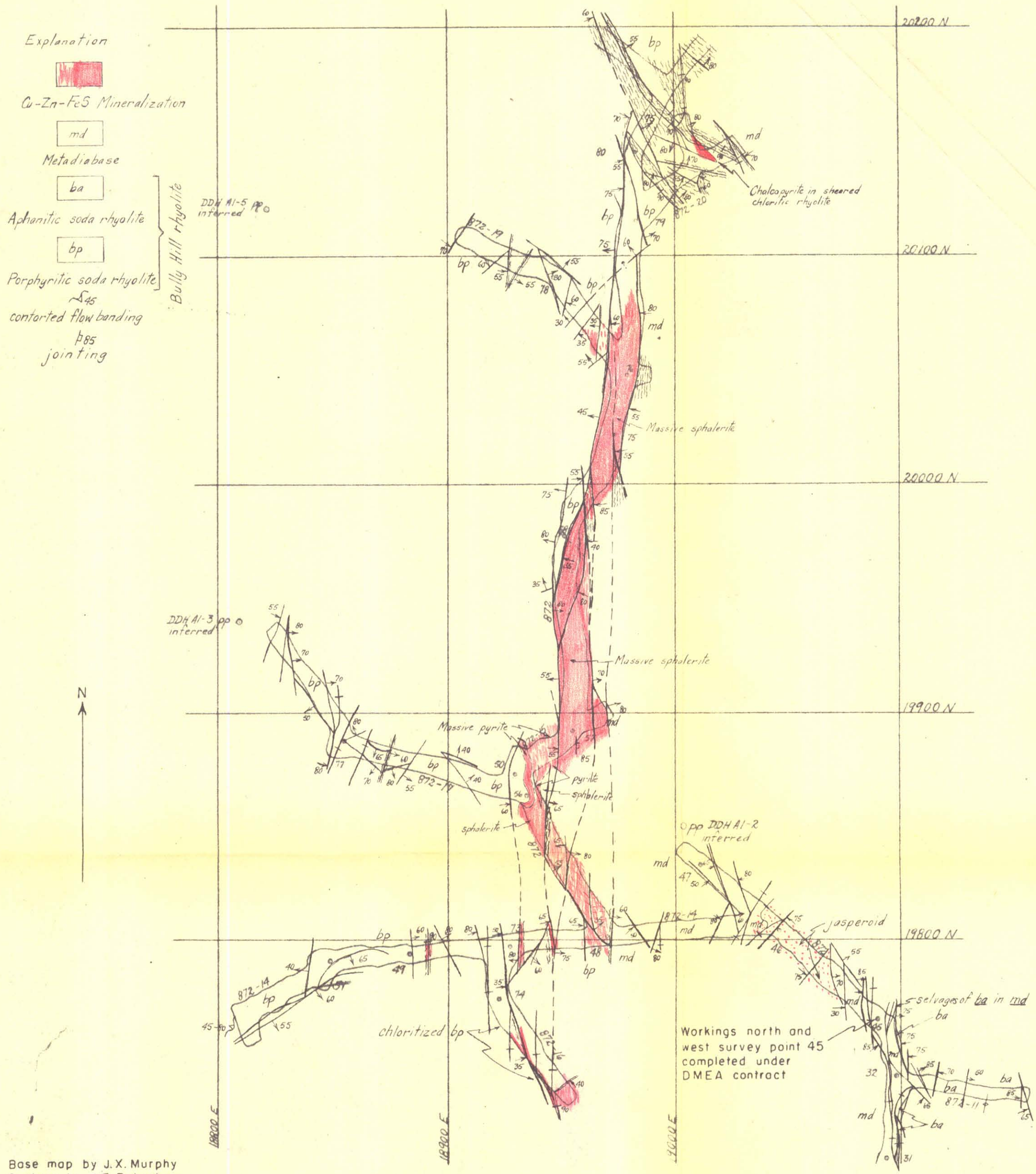
THE GLIDDEN CO.

APRIL 1955 J. X. MURPHY M.E.

SCALE : 1" = 40º

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 1219
Idm E 187



Base map by J.X. Murphy
Geology by J.F. Robertson

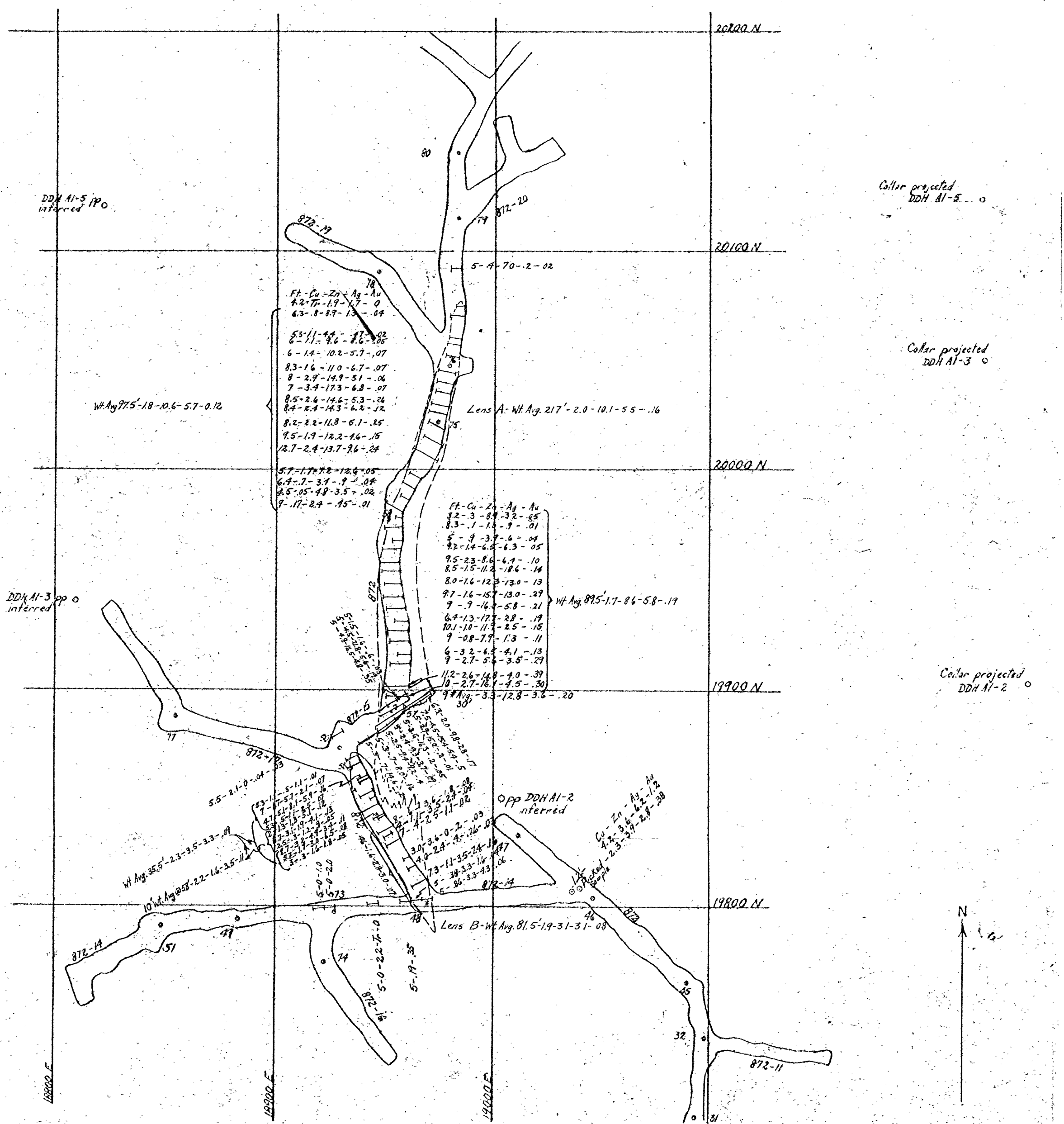
GEOLOGIC MAP OF THE NORTH WORKINGS OF THE 870 LEVEL
BULLY HILL MINE, SHASTA COUNTY, CALIFORNIA

40 0 40 80 Feet

Figure 1

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 1219
Idm E187



Base map by J.X. Murphy
Assays by the Glidden Company
Compilation by J. F. Robertson

ASSAY MAP OF THE NORTH WORKINGS OF THE 870 LEVEL
BULLY HILL MINE, SHASTA COUNTY, CALIFORNIA

40 0 40 80 Feet

Figure 2

870² LEVEL

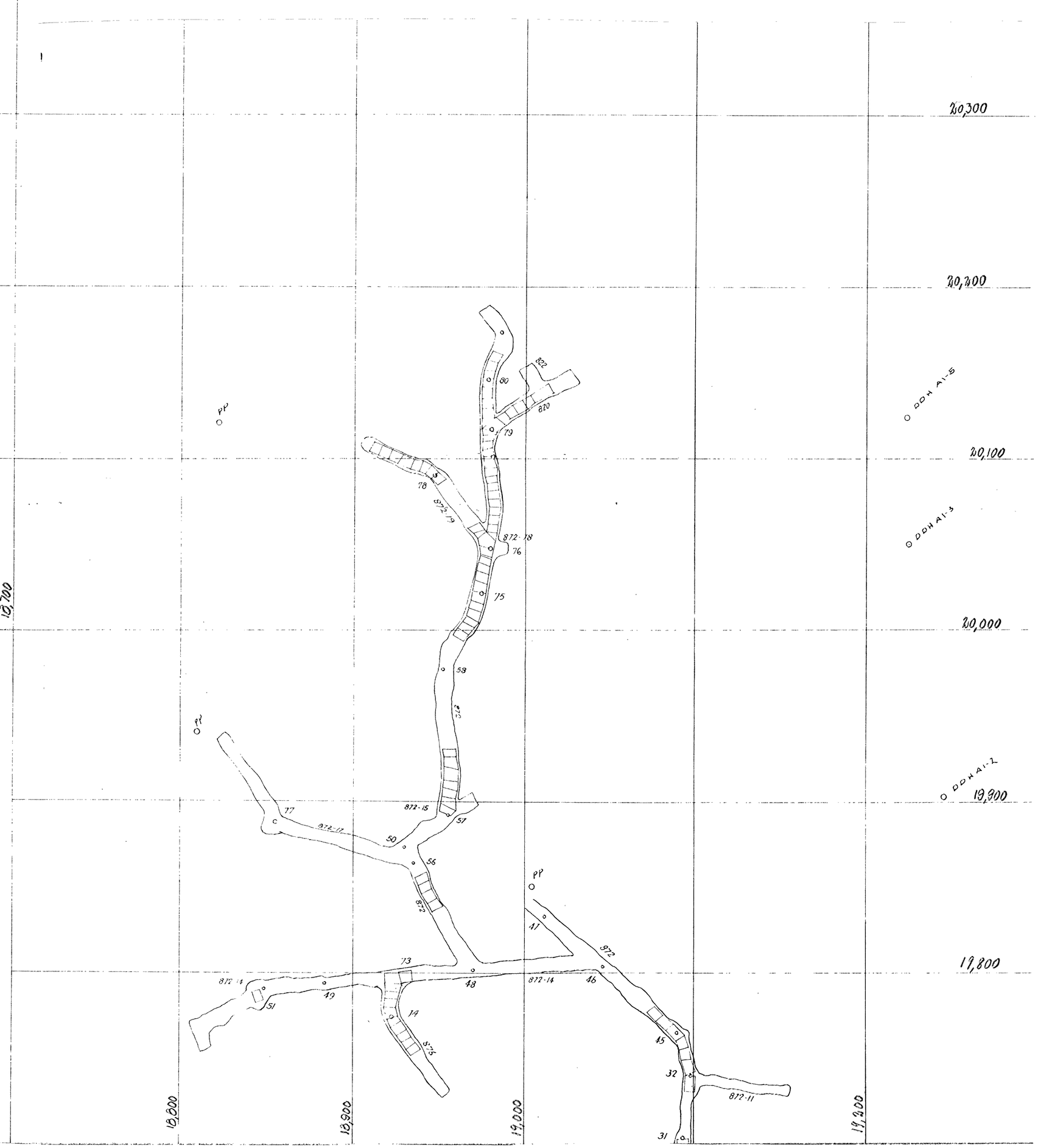
BULLY-HILL-MINE

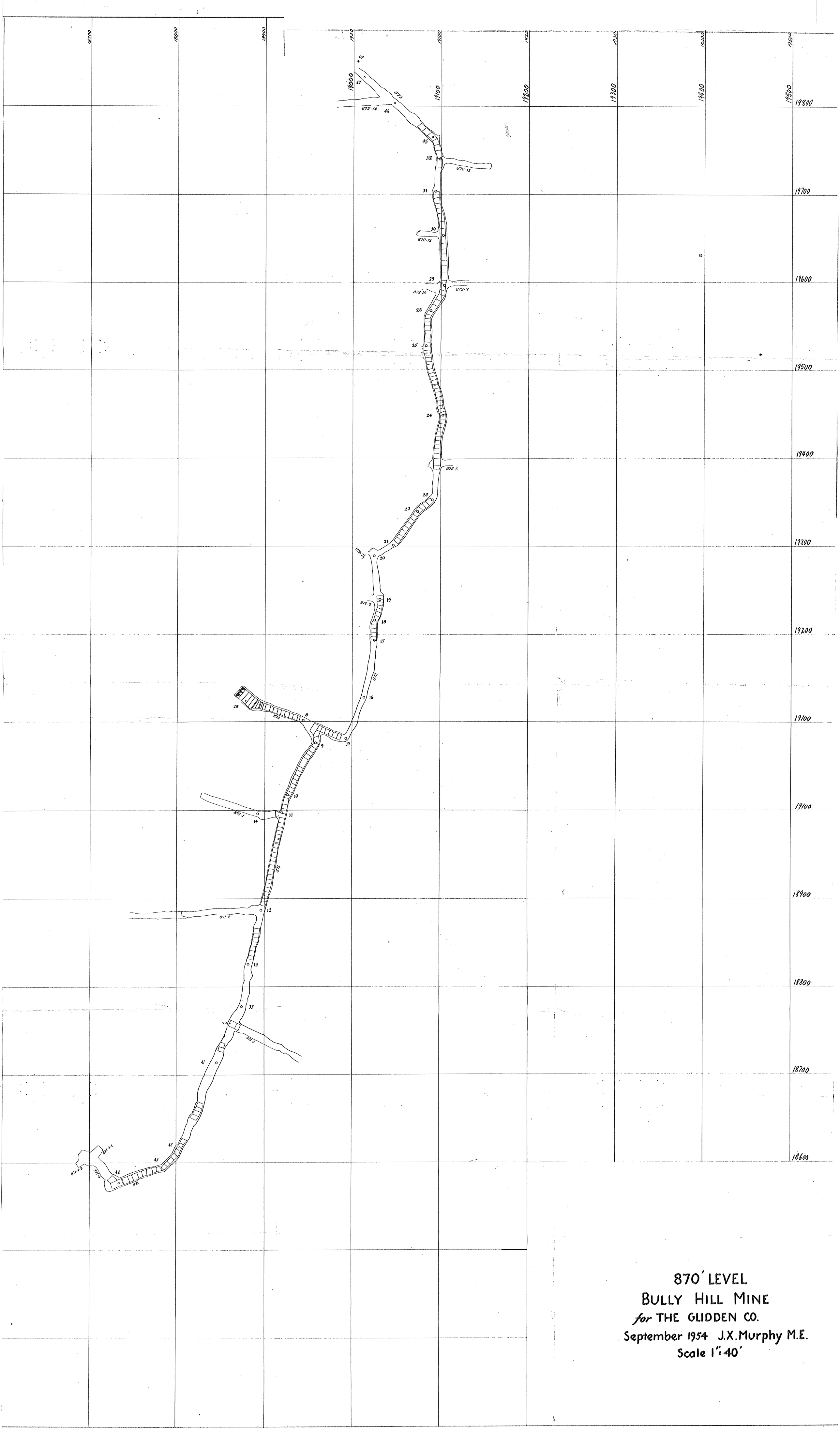
for

THE GLIDDEN CO.

MARCH 1955 J. X. MURPHY M.E.

SCALE : 1" = 40²

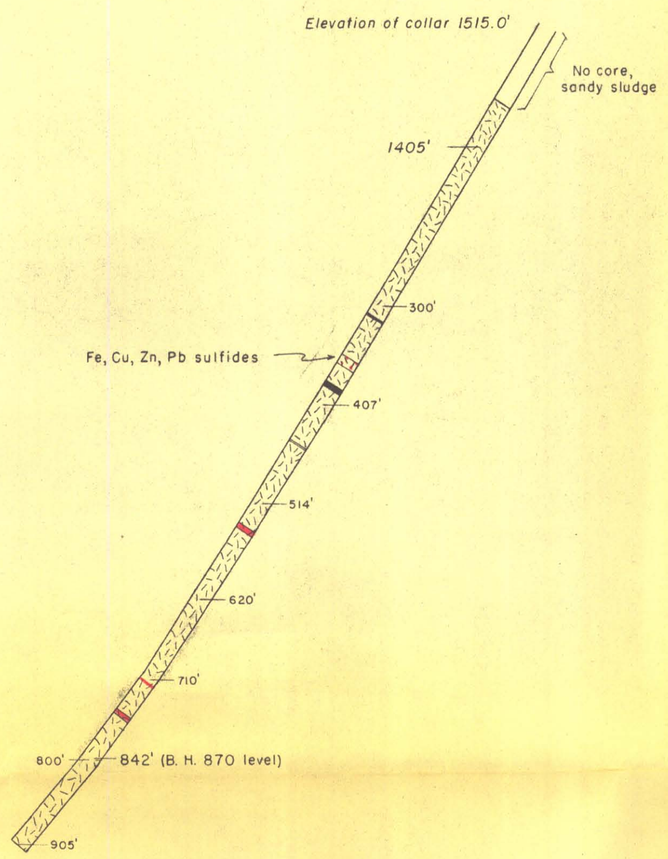




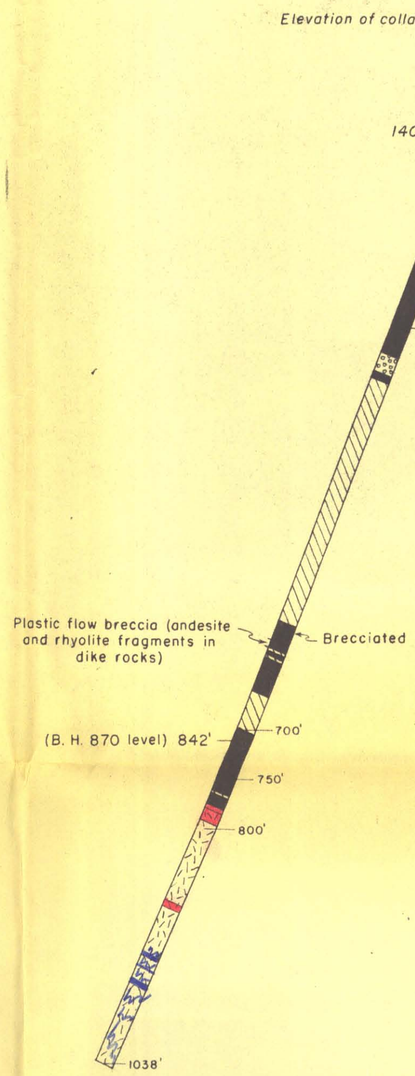
870' LEVEL
BULLY HILL MINE
for THE GLIDDEN CO.
September 1954 J.X.Murphy M.E.
Scale 1":40'

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

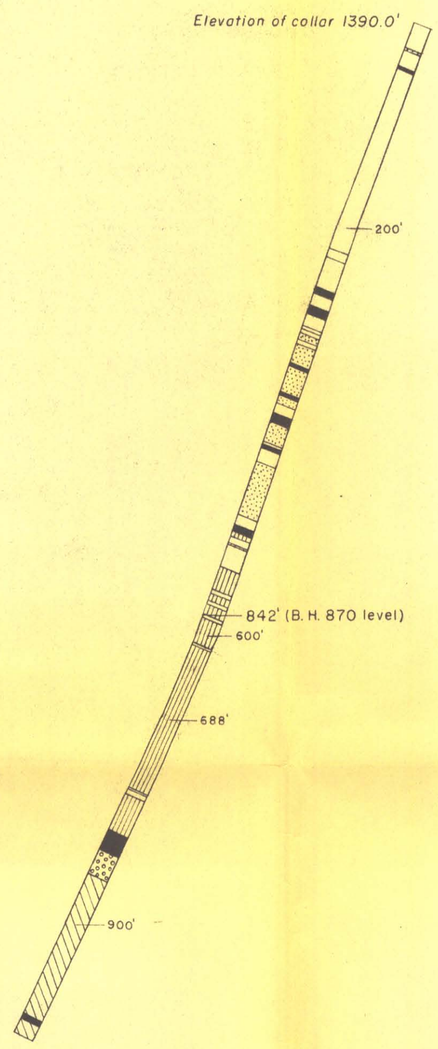
DMEA 1219
Idm E187
(Copper-zinc)



DDH AI-3



DDH AI-2



DDH AI-1

EXPLANATION

INTRUSIVE ROCKS

Diabase

Feldspathic rhyolite

JURASSIC (?)

Rhyolitic tuff

Mudstone

Andesitic tuff

PIT FORMATION

Aphanitic rhyolite

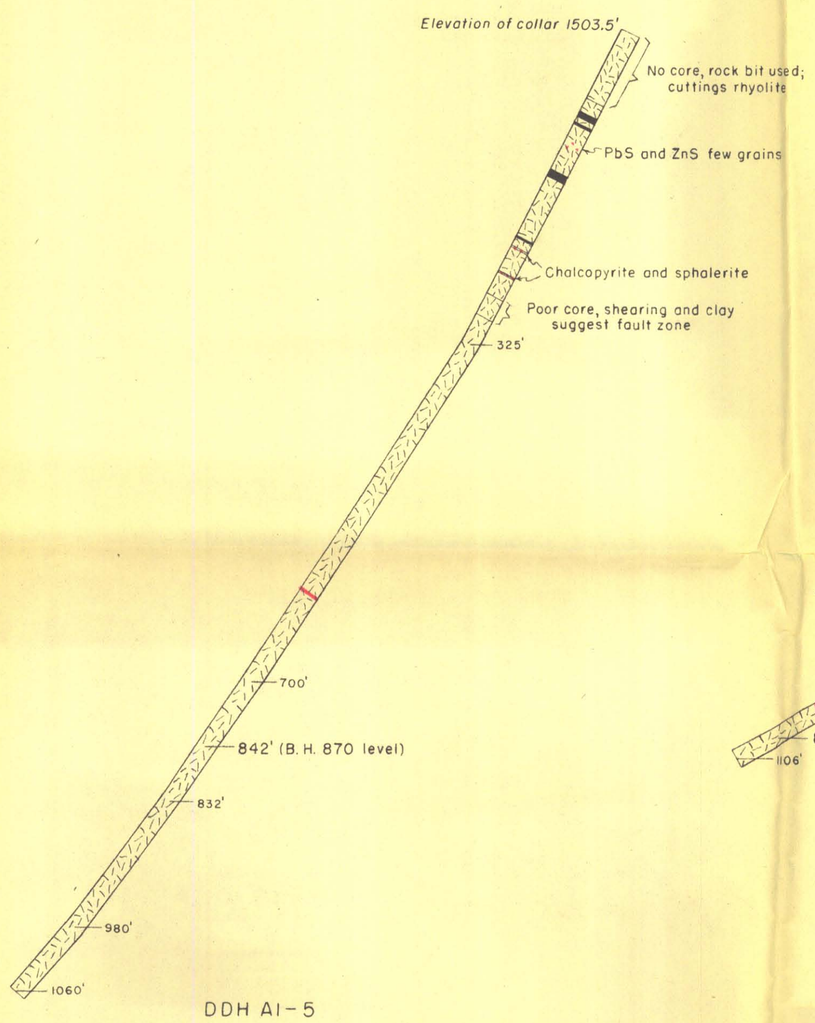
Porphyritic rhyolite flow breccias and tuffs

BULLY HILL RHYOLITE

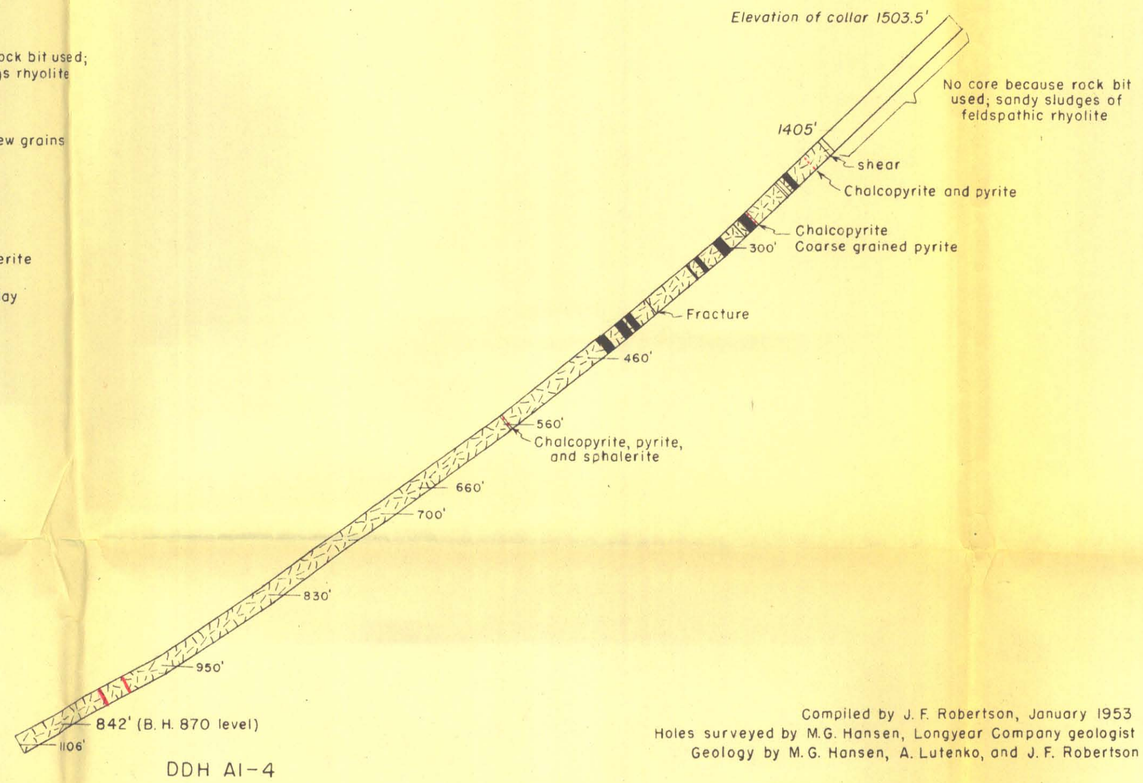
TRIASSIC

Copper-Zinc mineralization (dotted where low grade)

Gypsum (partial replacement)



DDH AI-5



DDH AI-4

Compiled by J. F. Robertson, January 1953
Holes surveyed by M.G. Hansen, Longyear Company geologist
Geology by M.G. Hansen, A. Lutenko, and J. F. Robertson

GRAPHIC LOGS OF DIAMOND DRILL HOLES IN AREA I, SHOWING TRUE LENGTH AND INCLINATION
BULLY HILL MINE, SHASTA COUNTY, CALIFORNIA

100 0 100 200 FEET

Figure 2