JUL 19 1955

Mr. Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N. W.
Washington 5, D. C.

Re: Docket No. DMEA 3797 - Manganese
Compton Mine or Dry Run Mine
Page County, Virginia

Dear Mr. McHugh:

Your application for aid for an exploration project and other data available to us in Washington relating to the above noted property have been carefully reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgement, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that, although there is some scattered manganese mineralization within the subject area, the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, therefore, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:fec
7-15-55
cc to: Docket
Code 400
Adm. Read. File
Oper. Comm.
FT. REG. V
Messrs. DeHuff, USBM
Kiilsgaard, USGS

July 15, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of application for exploration assistant in the amount of $25,226.44
Docket No. DMEA 3797 - Manganese
Compton Manganese Corporation
Rileyville, Virginia
Compton or Dry Run mine
Page County, Virginia

Denial of the subject application is recommended by this Division and is based on the following information:

1. The applicant, the Compton Manganese Corporation, Mr. Donald P. McHugh, Secretary, 821 Fifteenth Street, N. W. Washington 5, D. C., requested exploration assistance to the amount of $25,226.44 for road construction, drill sites and churn drilling to explore for manganese ore.

2. The property is owned by the Compton Manganese Corporation by a quitclaim deed* from Einar V. Bulow and wife and Carl J. Langmark and wife. The property consists of 4 tracts with a total of 222 acres, located in Page County, Virginia.
(*) dated April 26, 1955.

3. The country rocks consist of early Cambrian dolomite, quartzite, shale and sandstone. Oxidized manganese ores, chiefly as the mineral psilomelane, occur in fractured zones of the sandstone and quartzite. The minerals occur in pods and veinlets and scattered through the area.

4. Most of the production from this property occured during and after World War I. While there is no dependable production record, it is estimated that from 20 to 25 cars of ore were shipped, averaging 43 to 48 percent manganese. The ore was crushed and washed to bring it up to grade. Most of the ore was mined from an open cut through a tunnel and raise which are now caved and under water.

5. The applicants have bulldozed 7 trenches about 250 feet long, 10 feet wide and 5 feet deep. These trenches show little mineralization. The applicant proposes to drill about 20 churn drill holes to an average depth of 250 feet. No measurable tonnage of ore was located by the trenches.

6. The Field Team concludes that there is little probability of making a significant discovery and recommends that the application for exploration assistance be denied. The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the denial.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

TLChapman:foc
8-18-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.

402

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
JUN 23 1955

June 21, 1955

Memorandum

WSM

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

From: DMEA Field Team, Region V, Knoxville Tennessee

Subject: Field Examination Report - DMEA-3797 (Manganese)
Compton Manganese Corporation, Rileyville, Page County,
Virginia - Compton Mine

Enclosed are four copies of subject examination report.

We are in agreement with the examiners' recommendation that the application should not be approved.

V. J. Lynch
Acting Executive Officer
DMEA Field Team, Region V

D. H. Amos, Geologist
U. S. Geological Survey

VJL:mj
Attachments 4
cc - Lynch
Millar
Pavlides
Files
Operating Committee (1)

RECEIVED
JUN 23 1955

Field Team Report on Examination of Property

by
G. L. Neumann and Louis Pavlides 1/

DMEA Docket No. 3797 - (Manganese)
Applicant: Compton Manganese Corporation
Mileyville, Page County, Virginia

Summary

The object of this application is to increase the Nation's reserves of strategic manganese by exploring the old Compton or Dry Run mine property for extensions of the deposit, sporadically worked from 1916 to 1923, either along the strike or down the dip.

The mine produced some ore in this active period. The quality and quantity are indefinite.

The applicant recently bulldozed seven trenches across the strike of an Erwin quartzite zone presumed to contain recoverable manganese oxides.

The ore, manganese oxide, occurs as filling and partial replacement material, chiefly in fractures and breccia zones in the Erwin quartzite.

The proposed work program consists of contract churn drilling of twenty holes to an average depth of 250 feet. No definite hole locations were indicated in the application and only a vague program was outlined to the Field Team by Mr. W. D. Glenn.

Conclusion

No appreciable evidence of hard recoverable manganese oxides, other than remnants of past operations and scattered manganese stains were visible

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1/ G. L. Neumann, engineer, Bureau of Mines and Louis Pavlides, geologist, U. S. Geological Survey.

at the time of the examination either in the old open pit or the recently dug trenches.

The proposed work program is decidedly unbalanced. The size of the deposit as indicated by its history does not warrant such an extensive program. Churn drilling is not the best method of exploration. The program costs are badly distorted: Contract churn drilling at $2.30 a foot (this would include sampling); $1.00 a foot for sample analyses; and $1.75 a foot for locating and plotting the holes.

Recommendation

The Field Team recommends denial of this application.

Time Spent on Property

The Compton or Dry Run property was examined on May 18, 1955 by the Field Team composed of G. L. Neumann, Bureau of Mines, Louis Pavlides, U. S. Geological Survey, accompanied by V. J. Lynch, Bureau of Mines Member of the DMEA Field Team, Region V, Mr. E. V. Bulow, Vice President of Compton Manganese Corporation and Mr. Walter D. Glenn, Assistant Secretary and Superintendent of Operations for the Compton Manganese Corporation.

Name and Location of Property

Compton or Dry Run mine is located in Page County, Virginia (see fig. 1), 1.2 miles southeast of Compton, Virginia, by Va. Highway 662. Compton lies 2.5 miles north of Rileyville on U. S. Highway 340.

Accessibility to Property

Va. Highway 662 is a dirt road along Dry Run and could be inaccessible at times. U. S. Highway 340 is a good all-weather road between Luray, Virginia, 10 miles to the south and Front Royal, Virginia, 12 miles to the north.

Competency of Applicant and Operating Personnel

Officers of the Compton Manganese Corporation:

Carl J. Langnack, president, of Plainfield, New Jersey is a business executive engaged in the manufacture of electrical supplies and has had very little contact with mining.

E. V. Bulow, vice president, of Washington D. C. appears to be the leading light of the operation. Admits he knows nothing about manganese mining but has had considerable experience in mechanical lines.

Gordon Greyson, treasurer, of Washington, D. C, is employed by the Government and has no mining background.

Donald P. McHugh, secretary, of Washington, D. C, is a practicing corporation lawyer. He has represented mining companies at various times.

Walter D. Glenn, assistant secretary and superintendent of operations, of Rileyville, Virginia appears to have had considerable experience in manganese mining and milling.

Carson Adkerson, president of the American Manganese Producers Association and stockholder of the Corporation, is a licensed practicing mining engineer and is experienced in Virginia manganese. He has written a letter regarding this property for the application.

Mr. Adkerson, after observing the Compton operation throughout the development and mining stages, would have definite knowledge of the size, grade, and character of the ore body and yet he speaks only in generalities.

Mr. Cloyd Smith, consulting engineer, of Washington, D. C., although not mentioned in the application, is to be retained as the consulting engineer on this project by the Compton Manganese Corporation. Mr. Smith is a practicing consultant and is very well qualified for the job. To date he has not been

active with the Compton Corporation.

No designation has been made as to identity of the geological consultant mentioned in the application.

Mr. Alvin Robinson, drilling contractor, of Waterlick, Virginia has been delegated to handle the churn drilling program at the Compton mine. He is a well-driller and his experience in prospect drilling is probably very limited.

The Compton Manganese Corporation have assured the Field Team that they are thoroughly capable of paying their share of the exploration costs.

Applicant's Property Rights

The Compton or Dry Run mine property was purchased in fee simple by Messrs. C. J. Langnack and E. V. Bulow and then deeded to the applicant, Compton Manganese Corporation.

Description of the Property

The old Compton mine is located in a steep ellipitical shaped spur of Broadus Mountain, which rises some 500 feet above the valley floor. This ridge widens from a point, where one mine adit was located, to a width of probably 1,000 feet at the top. The crest has a trend of N. 30° E. A pit about 100 feet in diameter and 40 feet deep on the west side of this ridge represents the opencut operation. Remnants of the old crushing and washing plant are still discernible. The seven recently dug bulldozer trenches are normal to the axis of the ridge. The mine workings are at present inaccessible on account of the portals of both adits having caved. No samples were taken.

Geology and Ore Reserves

The geology of the region within which the applicant's property lies has been described by Stose, Miser, Katz, and Hewett 2/. Since the time of

2/ Stose, G. W., Miser, H. D., Katz, F. J., and Hewett, D. F., 1919, Manganese deposits of the west foot of the Blue Ridge, Va.: Va. Geol. Survey Bull. XVII.

their studies, the Early Paleozoic and pre-Cambrian rocks that crop out in this area have been more thoroughly studied and more highly subdivided in nearby areas along the regional strike; e. g., King (1950) 3/. For the purpose of this report, however, the stratigraphic section and geologic names employed by Stose, et al., are adequate.

The Early Cambrian rocks, which underly the foothills on the west side of the Blue Ridge mountains in the vicinity of the applicant's property, i. e., Compton mine, are in the order of increasing age

Shady dolomite

Erwin quartzite

Hampton shale

Unicoi sandstone.

Within this area, "The Erwin quartzite outcrops in a narrow belt, forming a low outer line of foothill ridges along the whole [Blue Ridge] mountain front. The quartzite dips steeply to the northwest under the limestones of the valley, or is overturned so as to dip steeply to the southeast. At the northwest base of the foothill ridges the valley floor is well developed as a gently sloping wash-covered bench about 900 feet in elevation. * * *
The quartzite of the front ridge is much crushed in places, and has been cemented and partly replaced by iron and manganese oxides. Several prospects have been located in such deposits and one of them, which has been extensively worked [is] * * * the Dry Run or Compton mine.

"The Dry Run or Compton mine is on the south side of Dry Run between the two outer foothill ridges of the mountains. * * * The workings include an opencut at the top of a small ridge or spur on the east side of the Erwin

3/ King, P. B., 1950, Geology of the Elkton area: U.S. Geol. Survey Prof. Paper 230.

quartzite ridge and a tunnel 300 feet long which enters from the floor of the valley between the ridge and intersects the shaft [see fig. 3].

"At the tunnel mouth, hard vitreous quartzite strikes N. 25° E. and dips 75° SE. At the opencut, the rock is much crushed and disintegrated to a soft buff sandstone which crumples readily. Between the layers of clean sandstone are thin layers or partings of dark sandy shale which has weathered largely to clay. The ore, as seen in the surface cut, is a good grade of psilomelane containing some crystalline manganite in concentric layers, the needle-like crystals of which are transverse to the botryoidal surface of the ore. The ore fills cracks and spaces between the fragments of brecciated sandstone and penetrates along joints and bedding planes in thin sheets which taper to paper thinness at their extremities. In places the sandstone is replaced by the ore and all gradations occur from thin seams of ore along the bedding and joint planes to replacement of nearly a whole block of sandstone between such planes, leaving only a central core of unchanged sandstone. More commonly veins an inch or more in thickness are to be seen in the present workings, but there are some pockets which yield masses of ore weighing over 100 pounds. The zone which contains the ore is said to be 100 feet in the tunnel, but in the opencut the zone of workable ore did not seem to be more than 20 feet wide. An incline formerly carried the ore from the opencut to the mill, but [when] the tunnel [was] completed, the ore [was] dumped into the shaft and carried by mine cars out through the tunnel [see fig. 3].

"The rock in the mine [was] broken down by blasting and the ore [was] thus largely loosened from the sandstone. It [was] further crushed at the mill, washed, concentrated and hand-picked. The product [was] mostly small particles as the ore [was] crushed rather fine to remove the included sandstones. * * * Shipments [contained] 43 to 48 percent manganese, 1 percent iron, and

8 to 11 percent silica." (Stose, et al., idem, p. 61-63).

At present the adit leading to the raise under the pit floor is caved and inaccessible. Mr. Walter D. Glenn considers the northern of the two caved openings he pointed out to the Field Team, as being the old tunnel entrance (see fig. 2).

A small vertical fault cuts the heavy-bedded Erwin quartzite exposed in the northeast corner of the old pit. Drag along the walls of the fault suggests that the south side is downthrown. The trace of the fault on the pit face nearly intersects the presumed position of the old raise in the quarry floor as located by Mr. Glenn. It may be that the fault and old tunnel are coincident in strike; the tunnel having been driven along the brecciated fault zone where the fracturing had localized the manganese oxides. There is no evidence of a fault of this presumed strike and attitude (see fig. 2) cutting the south wall of the pit, although manganese oxide stains and veinlets less than 1/4-inch thick with psilomelane-type manganese oxides are present in parts of the Erwin quartzite on the south wall of the pit. Such films and veinlets, however, are also present along the east wall. On the whole, hard manganese oxide-bearing veinlets are very sparse and even oxide stains are relatively minor in the exposures of Erwin quartzite available within the pit.

The applicant has cut seven bulldozer trenches along the strike of the Erwin quartzite. Two of these are north of the Compton mine and five are to the south of it (see fig. 2). The trenches are mostly filled with blocky Erwin quartzite rubble and in only a few places have they exposed bedrock of Erwin quartzite. Bedrock is exposed wherever bedding symbols are shown along the trenches (idem). The Erwin quartzite uncovered in the trenches is mostly a heavy bedded white quartzite occasionally containing clay

parting up to six inches thick. These clay layers represent weathered shale interbeds.

Hard manganese oxides in veinlets or fracture fillings are not present in any of the bedrock exposures, and only a superficial manganese oxide stain was noted in trenches 3 and 7 as indicated in figure 2. Manganese oxides in veinlets and fracture fillings in Erwin quartzite boulders are present in the west end of trench 2, but these represent dump material from a crusher that operated in the immediate vicinity of this trench.

Wherever observed on the applicant's property, the Erwin quartzite dips steeply eastward and must be overturned to the west in this area since the older rocks lie to the east (see fig. 3).

Mr. Glenn, in discussing his plan for exploration, indicated that he wishes to set a line of vertical drill holes on the east side of the Compton pit. These holes would be located approximately on a line between the two caved adit entrances shown on figure 2. This exploration is designed to test at depth a favorable horizon or layer of Erwin quartzite believed to contain manganese oxide veinlets and fracture fillings. This layer is assumed to be the one containing manganese oxides which is exposed in the south wall of the pit as mentioned earlier. The trenches were evidently placed so as to test this presumably favorable layer or horizon along the strike. The applicant's trenching does not indicate that such a favorable layer or horizon is present in the Erwin quartzite in this area. The small amount of sparse staining present in trench 3, which broadly coincides with the strike projection of the manganese showings on the south wall of the pit, are not continuous in the trenches further south nor in the trenches to the north of the pit.

The applicant's hypothesis that the "ore" is stratigraphically localized is not supported either by the Field Team's observations nor those of the earlier investigations by Stose, et al.; namely, the manganese oxides appear to be localized in fractured or brecciated places.

The sparse showings of hard oxides in the Erwin quartzite in the area investigated suggest that only a small amount, if any, of hard manganese oxides are present in the immediate vicinity of the Compton pit. It is unlikely that a drilling program such as suggested by the applicant could test for such small and randomly dispersed targets. Furthermore, it is very unlikely that low grade "ore" of this type could be economically mined and milled even under the price incentive of the present domestic "carload lot" purchase program.

Past Operation

The production figures, as regards tonnage and grade, are mostly from hearsay and not very consistent. The Virginia Geological Survey Bulletin XVII, 1919, states "recent shipments contain 43 to 48 percent manganese, 1 percent iron, and 8 to 11 percent silica." "The mine has been operated intermittently since 1916." Mr. Adkerson states the mine was closed down in 1922-23 and has not been operated since that time.

Availability of Manpower, Materials, Supplies, etc.

Unskilled labor is probably easily obtainable in this district. Skilled miners for underground work would be hard to get. Materials, supplies, and equipment would be available at Luray, 10 miles distant, Front Royal, 12 miles distant, and Winchester, 32 miles distant. Some water is available at times in Dry Run, other times it would have to be brought in from the South Fork of the Shenandoah River, 1-1/2 miles distant. Electric power is available on the property.

Statement of Applicant's Proposal

The proposed program consists of churn drilling 20 holes to an average depth of 250 feet. Three widely variant bids were quoted, $2.30 to $6.00 a feet, none from known prospect drilling contractors. All appear to be local well-drillers with meager, if any, experience in prospect drilling and sampling. No definite hole locations were given; "the first holes will be drilled in the approximate vicinity of the outcropping at the lower left hand corner of the opencut where the high recordings on the M-scope were first registered." The M-scope used, so far as could be determined in conversation with Mr. Glenn, is a type of mine detector. Mr. Glenn advised the Field Team that they dug at two of these high recordings of the M-scope and found a piece of water pipe at the first and a piece of mine rail at the other one.

During the Field Team examination Mr. Glenn modified his drilling proposal to a line of holes between the two caved adit portals shown on figure 2. The number of such holes to be drilled would be contingent upon the findings of the initial holes.

The drilling of churn drill holes 250 feet deep from the top of the hill seems unrealistic to explore a rather thin zone of Erwin quartzite.

G. L. Neumann, Mine Examination
and Exploration Engineer
Eastern Experiment Station

Louis Pavlides, Geologist
U. S. Geological Survey

College Park, Md.
June 14, 1955

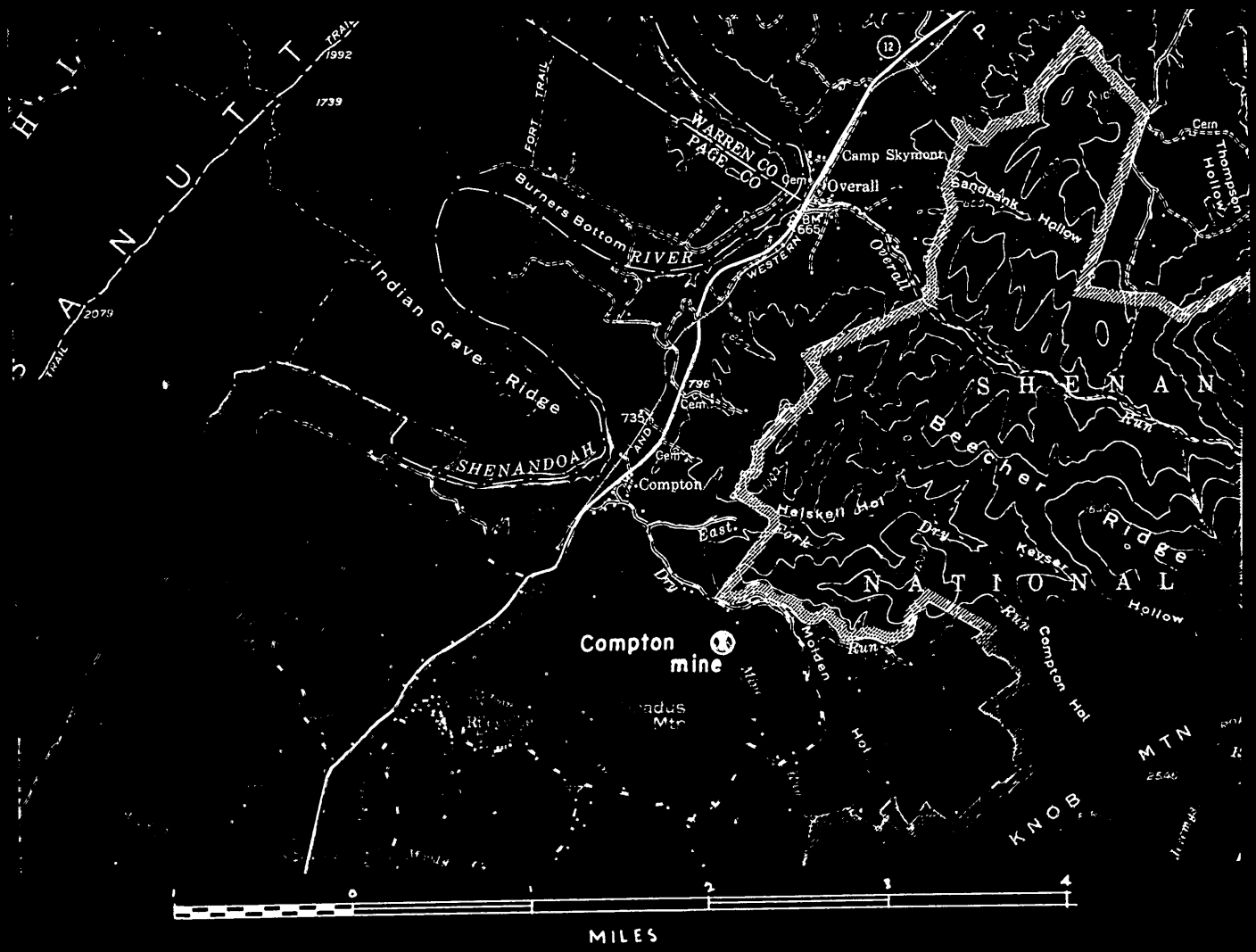

Figure 1.— Location map of Compton mine. Base map is Strasburg Quadrangle, U.S.G.S.

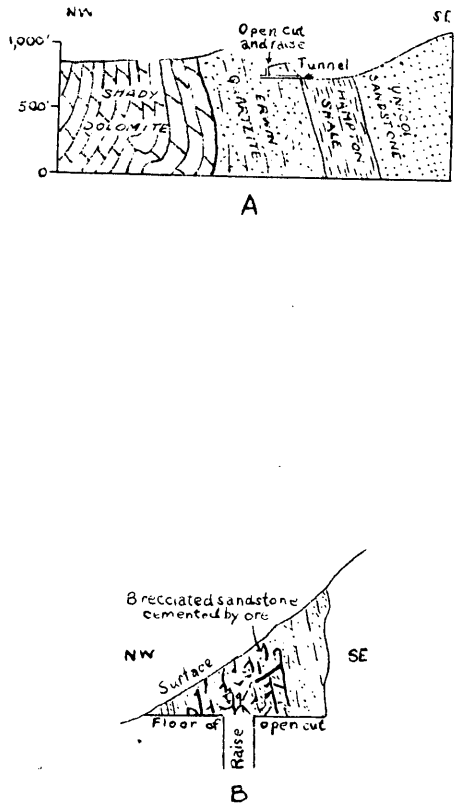

Figure 3 - A: Cross-section through the Compton mine. B: Detailed section of the open cut and raise showing ore which has cemented brecciated Erwin quartzite and partly replaced it. After Stose, Miser, Katz and Hewett, 1919, Fig. 5, p.50.

IN REPLY REFER TO:

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL - 7 1955

July 6, 1955

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Thor N. Kiilsgaard, U. S. Geological Survey

Subject: Review of Field Team report, Compton Manganese Corp., Page County, Virginia, DMEA Docket 3797.

Field examiners describe the applicant's property as a manganese oxide deposit occurring in a fractured and brecciated zone of the Erwin quartzite. The ore is of good grade but it forms only as films and fillings in the narrow cracks and fissures with occasional partial replacement of the quartzite. Both the fractures and the quartzite dip steeply; therefore, there is little chance of either mining the deposit from the surface or of exploring it by churn drilling.

Manganese oxide occurrences along fracture zones in the Erwin quartzite are fairly common in Virginia and Tennessee, although there are few instances where such deposits are worth mining. The present deposit apparently is no exception and the Field Team has therefore recommended denial.

I concur with the Field Team and recommend denial, this recommendation being based on the improbability of making a worthwhile discovery.

Thor N. Kiilsgaard

TNKiilsgaard:iml
G-7/6/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeRuff, 3521

400

MAY 1 1 1955

Mr. Robert A. Lawrence, Executive Officer
DMEA Field Team, Region V
Room 13, Post Office Building
Knoxville 2, Tennessee

Re: Docket No. DMEA 3797 - Manganese
Compton Manganese Corporation
Compton mine
Page County, Virginia

Dear Mr. Lawrence:

The subject application for exploration assistance is being referred to your office for a field examination of the property.

Two copies of a relevant memorandum dated May 4, 1955, by H. E. Malsen, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosure

FARutledge:foc 5-10-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. V
Messrs. DeHuff, USBM
Kiilsgaard, USGS

APPROVED:

/s/ C. H. Johnson
Director, Bureau of Mines

Thor H. Kiilsgaard
Director, Geological Survey

MAY 11 1955

Compton Manganese Corporation
Riley Ville, Virginia

Re: Docket No. DMEA 3797 - Manganese
Compton mine
Page County, Virginia

Gentlemen:

The above-docketed application for exploration assistance for manganese has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee, for a field examination of the property.

Any assistance that you can render the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:fcc
5-10-55
cc to: Docket
Code 400
Adm. Reading File
Oper. Comm.
FT. REG. V
Messrs. DeRuff, USBM
Killingsard, USGS
Donald P. McHugh, Secretary
Compton Manganese Corp.
Washington 5, D. C.

IN REPLY REFER TO:

400

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
Defense Minerals Administration
RECEIVED
MAY 5 - 1955

May 4, 1955

Re: DMEA-3797
Compton Manganese
Corp.
Rileyville, Pope Co.,
Virginia
$25,226.44
Manganese

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

This application concerns the rehabilitation of an old manganese mine near Compton, on the west side of the Blue Ridge in Virginia.

Few data are given in the application concerning this one time operation, and the report in Bulletin No. XVII, Manganese Deposits of the West Foot of the Blue Ridge, Virginia, gives only a general description of the workings and the ore occurrence. Of ore conditions in the tunnel and raise little or nothing is said and it may be inferred that the ore occurs only in the brecciated and weathered edges of sandstone beds in the upturned Erwin quartzite and not in the fresher rock. By reopening the tunnel the matter could be determined. (If the relationship of tunnel and raise is as shown, it is unlikely there is water in the raise.)

If there is no or little ore in the fresh quartzite the face and floor of the open cut should afford a fair idea as to possible extensions of this pocket. Exhibit G of the application indicates ore can be seen in 4 places in the open cut. If the widths shown are relative and there is so little ore in the floor and none in the tunnel and raise the pocket would seem to have been worked out.

That there are other such occurrences appears probable, but they may be hard to find. The one worked upon as shown in Exhibit A is in and near the floor of the ravine so the open cuts 1-6 are not well placed.

Inasmuch as the Field Team will probably be examining another western Virginia manganese prospect sometime in May, a visit to this enroute prospect could easily be made. If, in the meantime, the tunnel can be opened a more thorough and telling examination should result.

Large tonnage possibilities rest on depth and/or extension up the ravine. A trench to bedrock in the floor of the ravine should be revealing. The program outlined in the application is disproportionate to the production history and the ore showings which can now be seen.

An inspection by the Field Team is recommended.

N. E. Nelson

NENelson:hlm
G-5/4/55

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
Gilbert DeMuff, 3523 Interior

DOCKET
SURNAME
400 Chapman
Martin
DeHuff
Guhen
Kilogaard
Johnson

JUL 19 1955

Mr. Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N. W.
Washington 5, D. C.

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Page County, Virginia

Dear Mr. McHugh:

Your application for aid for an exploration project and other data available to us in Washington relating to the above noted property have been carefully reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgement, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that, although there is some scattered manganese mineralization within the subject area, the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, therefore, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:foc
7-15-55
cc to: Docket
Code 400
Adm. Read. File
Oper. Comm.
FT. REG. V
Messrs. DeHuff, USBM
Kiilsgaard, USGS

R.C.L.

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

July 15, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of application for exploration assistant in the amount of $25,226.44
Docket No. DMEA 3797 - Manganese
Compton Manganese Corporation
Rileyville, Virginia
Compton or Dry Run mine
Page County, Virginia

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1. The applicant, the Compton Manganese Corporation, Mr. Donald P. McHugh, Secretary, 821 Fifteenth Street, N. W. Washington 5, D. C., requested exploration assistance to the amount of $25,226.44 for road construction, drill sites and churn drilling to explore for manganese ore.

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(*) dated April 26, 1955.

3. The country rocks consist of early Cambrian dolomite, quartzite, shale and sandstone. Oxidized manganese ores, chiefly as the mineral psilomelane, occur in fractured zones of the sandstone and quartzite. The minerals occur in pods and veinlets and scattered throughout the area.

4. Most of the production from this property occurred during and after World War I. While there is no dependable production record, it is estimated that from 20 to 25 cars of ore were shipped, averaging 43 to 48 percent manganese. The ore was crushed and washed to bring it up to grade. Most of the ore was mined from an open cut through a tunnel and raise which are now caved and under water.

5. The applicants have bulldozed 7 trenches about 250 feet long, 10 feet wide and 5 feet deep. These trenches show little mineralization. The applicant proposes to drill about 20 churn drill holes to an average depth of 250 feet. No measurable tonnage of ore was located by the trenches.

6. The Field Team concludes that there is little probability of making a significant discovery and recommends that the application for exploration assistance be denied. The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the denial.

W S Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

DOCKET
SURNAME
Chapman
Martin
Deffeff

July 15, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

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Denial of the subject application is recommended by this Division and is based on the following information:

1. The applicant, the Compton Manganese Corporation, Mr. Donald P. McHugh, Secretary, 821 Fifteenth Street, N. W. Washington 5, D. C., requested exploration assistance to the amount of $25,226.44 for road construction, drill sites and churn drilling to explore for manganese ore.

2. The property is owned by the Compton Manganese Corporation by a quitclaim deed* from Einar V. Bulow and wife and Carl J. Langmark and wife. The property consists of 4 tracts with a total of 222 acres, located in Page County, Virginia.
(*) dated April 26, 1955.

3. The country rocks consist of early Cambrian dolomite, quartzite, shale and sandstone. Oxidized manganese ores, chiefly as the mineral psilomelane, occur in fractured zones of the sandstone and quartzite. The minerals occur in pods and veinlets and scattered through the area.

4. Most of the production from this property occured during and after World War I. While there is no dependable production record, it is estimated that from 20 to 25 cars of ore were shipped, averaging 43 to 48 percent manganese. The ore was crushed and washed to bring it up to grade. Most of the ore was mined from an open cut through a tunnel and raise which are now caved and under water.

5. The applicants have bulldozed 7 trenches about 250 feet long, 10 feet wide and 5 feet deep. These trenches show little mineralization. The applicant proposes to drill about 20 churn drill holes to an average depth of 250 feet. No measurable tonnage of ore was located by the trenches.

6. The Field Team concludes that there is little probability of making a significant discovery and recommends that the application for exploration assistance be denied. The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the denial.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

TLChapman:foc
8-18-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.

IN REPLY REFER TO:

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL - 7 1955

July 6, 1955

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: Thor H. Kiilsgaard, U. S. Geological Survey

Subject: Review of Field Team report, Compton Manganese Corp., Page County, Virginia, DMEA Docket 3797.

Field examiners describe the applicant's property as a manganese oxide deposit occurring in a fractured and brecciated zone of the Erwin quartzite. The ore is of good grade but it forms only as films and fillings in the narrow cracks and fissures with occasional partial replacement of the quartzite. Both the fractures and the quartzite dip steeply; therefore, there is little chance of either mining the deposit from the surface or of exploring it by churn drilling.

Manganese oxide occurrences along fracture zones in the Erwin quartzite are fairly common in Virginia and Tennessee, although there are few instances where such deposits are worth mining. The present deposit apparently is no exception and the Field Team has therefore recommended denial.

I concur with the Field Team and recommend denial, this recommendation being based on the improbability of making a worthwhile discovery.

Thor H. Kiilsgaard

Thor H. Kiilsgaard

Copy retained 400

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

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Thor N. Kiilsgaard

TNKiilsgaard:iml
G-7/6/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeRuff, 3521

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
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TNKiilsgaard:iml
G-7/6/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeBuff, 3521

Marked

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
JUN 23 1955

June 21, 1955 WSM

Memorandum

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

From: DMEA Field Team, Region V, Knoxville, Tennessee

Subject: Field Examination Report - DMEA-3797 (Manganese)
Compton Manganese Corporation, Rileyville, Page County, Virginia - Compton Mine

Enclosed are four copies of subject examination report.

We are in agreement with the examiners' recommendation that the application should not be approved.

V. J. Lynch
Acting Executive Officer
DMEA Field Team, Region V

D. H. Amos

D. H. Amos, Geologist
U. S. Geological Survey

Attachments 4

Reviewed by
DMEA OPERATING COMMITTEE
6-29-55
(date)

RECEIVED
JUN 23 1955

Field Team Report on Examination of Property

by
G. L. Neumann and Louis Pavlides 1/

DMEA Docket No. 3797 - (Manganese)
Applicant: Compton Manganese Corporation
Rileyville, Page County, Virginia

Summary

The object of this application is to increase the Nation's reserves of strategic manganese by exploring the old Compton or Dry Run mine property for extensions of the deposit, sporadically worked from 1916 to 1923, either along the strike or down the dip.

The mine produced some ore in this active period. The quality and quantity are indefinite.

The applicant recently bulldozed seven trenches across the strike of an Erwin quartzite zone presumed to contain recoverable manganese oxides.

The ore, manganese oxide, occurs as filling and partial replacement material, chiefly in fractures and breccia zones in the Erwin quartzite.

The proposed work program consists of contract churn drilling of twenty holes to an average depth of 250 feet. No definite hole locations were indicated in the application and only a vague program was outlined to the Field Team by Mr. H. D. Glenn.

Conclusion

No appreciable evidence of hard recoverable manganese oxides, other than remnants of past operations and scattered manganese stains were visible

---

1/ G. L. Neumann, engineer, Bureau of Mines and Louis Pavlides, geologist, U. S. Geological Survey.

Reviewed by
DMEA OPERATING COMMITTEE
6-29-55
(date)

at the time of the examination either in the old open pit or the recently dug trenches.

The proposed work program is decidedly unbalanced. The size of the deposit as indicated by its history does not warrant such an extensive program. Churn drilling is not the best method of exploration. The program costs are badly distorted: Contract churn drilling at $2.30 a foot (this would include sampling); $1.00 a foot for sample analyses; and $1.75 a foot for locating and plotting the holes.

Recommendation

The Field Team recommends denial of this application.

Time Spent on Property

The Compton or Dry Run property was examined on May 18, 1955 by the Field Team composed of G. L. Neumann, Bureau of Mines, Louis Pavlides, U. S. Geological Survey, accompanied by V. J. Lynch, Bureau of Mines Member of the DMEA Field Team, Region V, Mr. E. V. Bulow, Vice President of Compton Manganese Corporation and Mr. Walter D. Glenn, Assistant Secretary and Superintendent of Operations for the Compton Manganese Corporation.

Name and Location of Property

Compton or Dry Run mine is located in Page County, Virginia (see fig. 1), 1.2 miles southeast of Compton, Virginia, by Va. Highway 662. Compton lies 2.5 miles north of Rileyville on U. S. Highway 340.

Accessibility to Property

Va. Highway 662 is a dirt road along Dry Run and could be inaccessible at times. U. S. Highway 340 is a good all-weather road between Luray, Virginia, 10 miles to the south and Front Royal, Virginia, 12 miles to the north.

Competency of Applicant and Operating Personnel

Officers of the Compton Manganese Corporation:

Carl J. Langnack, president, of Plainfield, New Jersey is a business executive engaged in the manufacture of electrical supplies and has had very little contact with mining.

E. V. Bulow, vice president, of Washington D. C. appears to be the leading light of the operation. Admits he knows nothing about manganese mining but has had considerable experience in mechanical lines.

Gordon Grayson, treasurer, of Washington, D. C, is employed by the Government and has no mining background.

Donald P. McHugh, secretary, of Washington, D. C, is a practicing corporation lawyer. He has represented mining companies at various times.

Walter D. Glenn, assistant secretary and superintendent of operations, of Rileyville, Virginia appears to have had considerable experience in manganese mining and milling.

Carson Adkerson, president of the American Manganese Producers Association and stockholder of the Corporation, is a licensed practicing mining engineer and is experienced in Virginia manganese. He has written a letter regarding this property for the application.

Mr. Adkerson, after observing the Compton operation throughout the development and mining stages, would have definite knowledge of the size, grade, and character of the ore body and yet he speaks only in generalities.

Mr. Cloyd Smith, consulting engineer, of Washington, D. C., although not mentioned in the application, is to be retained as the consulting engineer on this project by the Compton Manganese Corporation. Mr. Smith is a practicing consultant and is very well qualified for the job. To date he has not been

active with the Compton Corporation.

No designation has been made as to identity of the geological consultant mentioned in the application.

Mr. Alvin Robinson, drilling contractor, of Waterlick, Virginia has been delegated to handle the churn drilling program at the Compton mine. He is a well-driller and his experience in prospect drilling is probably very limited.

The Compton Manganese Corporation have assured the Field Team that they are thoroughly capable of paying their share of the exploration costs.

Applicant's Property Rights

The Compton or Dry Run mine property was purchased in fee simple by Messrs. C. J. Langnack and E. V. Bulow and then deeded to the applicant, Compton Manganese Corporation.

Description of the Property

The old Compton mine is located in a steep ellipitical shaped spur of Broadus Mountain, which rises some 500 feet above the valley floor. This ridge widens from a point, where one mine adit was located, to a width of probably 1,000 feet at the top. The crest has a trend of N. 30° E. A pit about 100 feet in diameter and 40 feet deep on the west side of this ridge represents the opencut operation. Remnants of the old crushing and washing plant are still discernible. The seven recently dug bulldozer trenches are normal to the axis of the ridge. The mine workings are at present inaccessible on account of the portals of both adits having caved. No samples were taken.

Geology and Ore Reserves

The geology of the region within which the applicant's property lies has been described by Stose, Miser, Katz, and Hewett 2/. Since the time of

2/ Stose, G. W., Miser, H. D., Katz, F. J., and Hewett, D. F., 1919, Manganese deposits of the west foot of the Blue Ridge, Va.: Va. Geol. Survey Bull. XVII.

their studies, the Early Paleozoic and pre-Cambrian rocks that crop out in this area have been more thoroughly studied and more highly subdivided in nearby areas along the regional strike; e. g., King (1950) 3/. For the purpose of this report, however, the stratigraphic section and geologic names employed by Stose, et al., are adequate.

The Early Cambrian rocks, which underly the foothills on the west side of the Blue Ridge mountains in the vicinity of the applicant's property, i. e., Compton mine, are in the order of increasing age

Shady dolomite

Erwin quartzite

Hampton shale

Unicoi sandstone.

Within this area, "The Erwin quartzite outcrops in a narrow belt, forming a low outer line of foothill ridges along the whole [Blue Ridge] mountain front. The quartzite dips steeply to the northwest under the limestones of the valley, or is overturned so as to dip steeply to the southeast. At the northwest base of the foothill ridges the valley floor is well developed as a gently sloping wash-covered bench about 900 feet in elevation. * * *
The quartzite of the front ridge is much crushed in places, and has been cemented and partly replaced by iron and manganese oxides. Several prospects have been located in such deposits and one of them, which has been extensively worked [is] * * * the Dry Run or Compton mine.

"The Dry Run or Compton mine is on the south side of Dry Run between the two outer foothill ridges of the mountains. * * * The workings include an opencut at the top of a small ridge or spur on the east side of the Erwin

3/ King, P. D., 1950, Geology of the Elkton area: U.S. Geol. Survey Prof. Paper 230.

quartzite ridge and a tunnel 300 feet long which enters from the floor of the valley between the ridge and intersects the shaft [see fig. 3].

"At the tunnel mouth, hard vitreous quartzite strikes N. 25° E. and dips 75° SE. At the opencut, the rock is much crushed and disintegrated to a soft buff sandstone which crumples readily. Between the layers of clean sandstone are thin layers or partings of dark sandy shale which has weathered largely to clay. The ore, as seen in the surface cut, is a good grade of psilomelane containing same crystalline manganite in concentric layers, the needle-like crystals of which are transverse to the botryoidal surface of the ore. The ore fills cracks and spaces between the fragments of brecciated sandstone and penetrates along joints and bedding planes in thin sheets which taper to paper thinness at their extremities. In places the sandstone is replaced by the ore and all gradations occur from thin seams of ore along the bedding and joint planes to replacement of nearly a whole block of sandstone between such planes, leaving only a central core of unchanged sandstone. More commonly veins an inch or more in thickness are to be seen in the present workings, but there are some pockets which yield masses of ore weighing over 100 pounds. The zone which contains the ore is said to be 100 feet in the tunnel, but in the opencut the zone of workable ore did not seem to be more than 20 feet wide. An incline formerly carried the ore from the opencut to the mill, but [when] the tunnel [was] completed, the ore [was] dumped into the shaft and carried by mine cars out through the tunnel [see fig. 3].

"The rock in the mine [was] broken down by blasting and the ore [was] thus largely loosened from the sandstone. It [was] further crushed at the mill, washed, concentrated and hand-picked. The product [was] mostly small particles as the ore [was] crushed rather fine to remove the included sandstones. * * * Shipments [contained] 43 to 48 percent manganese, 1 percent iron, and

8 to 11 percent silica." (Stose, et al., idem, p. 61-63).

At present the adit leading to the raise under the pit floor is caved and inaccessible. Mr. Walter D. Glenn considers the northern of the two caved openings he pointed out to the Field Team, as being the old tunnel entrance (see fig. 2).

A small vertical fault cuts the heavy-bedded Erwin quartzite exposed in the northeast corner of the old pit. Drag along the walls of the fault suggests that the south side is downthrown. The trace of the fault on the pit face nearly intersects the presumed position of the old raise in the quarry floor as located by Mr. Glenn. It may be that the fault and old tunnel are coincident in strike; the tunnel having been driven along the brecciated fault zone where the fracturing had localized the manganese oxides. There is no evidence of a fault of this presumed strike and attitude (see fig. 2) cutting the south wall of the pit, although manganese oxide stains and veinlets less than 1/4-inch thick with psilomelane-type manganese oxides are present in parts of the Erwin quartzite on the south wall of the pit. Such films and veinlets, however, are also present along the east wall. On the whole, hard manganese oxide-bearing veinlets are very sparse and even oxide stains are relatively minor in the exposures of Erwin quartzite available within the pit.

The applicant has cut seven bulldozer trenches along the strike of the Erwin quartzite. Two of these are north of the Compton mine and five are to the south of it (see fig. 2). The trenches are mostly filled with blocky Erwin quartzite rubble and in only a few places have they exposed bedrock of Erwin quartzite. Bedrock is exposed wherever bedding symbols are shown along the trenches (idem). The Erwin quartzite uncovered in the trenches is mostly a heavy bedded white quartzite occasionally containing clay

parting up to six inches thick. These clay layers represent weathered shale interbeds.

Hard manganese oxides in veinlets or fracture fillings are not present in any of the bedrock exposures, and only a superficial manganese oxide stain was noted in trenches 3 and 7 as indicated in figure 2. Manganese oxides in veinlets and fracture fillings in Erwin quartzite boulders are present in the west end of trench 2, but these represent dump material from a crusher that operated in the immediate vicinity of this trench.

Wherever observed on the applicant's property, the Erwin quartzite dips steeply eastward and must be overturned to the west in this area since the older rocks lie to the east (see fig. 3).

Mr. Glenn, in discussing his plan for exploration, indicated that he wishes to set a line of vertical drill holes on the east side of the Compton pit. These holes would be located approximately on a line between the two caved adit entrances shown on figure 2. This exploration is designed to test at depth a favorable horizon or layer of Erwin quartzite believed to contain manganese oxide veinlets and fracture fillings. This layer is assumed to be the one containing manganese oxides which is exposed in the south wall of the pit as mentioned earlier. The trenches were evidently placed so as to test this presumably favorable layer or horizon along the strike. The applicant's trenching does not indicate that such a favorable layer or horizon is present in the Erwin quartzite in this area. The small amount of sparse staining present in trench 3, which broadly coincides with the strike projection of the manganese showings on the south wall of the pit, are not continuous in the trenches further south nor in the trenches to the north of the pit.

The applicant's hypothesis that the "ore" is stratigraphically localized is not supported either by the Field Team's observations nor those of the earlier investigations by Stose, et al.; namely, the manganese oxides appear to be localized in fractured or brecciated places.

The sparse showings of hard ozides in the Erwin quartzite in the area investigated suggest that only a small amount, if any, of hard manganese oxides are present in the immediate vicinity of the Compton pit. It is unlikely that a drilling program such as suggested by the applicant could test for such small and randomly dispersed targets. Furthermore, it is very unlikely that low grade "ore" of this type could be economically mined and milled even under the price incentive of the present domestic "carload lot" purchase program.

Past Operation

The production figures, as regards tonnage and grade, are mostly from hearsay and not very consistent. The Virginia Geological Survey Bulletin XVII, 1919, states "recent shipments contain 43 to 48 percent manganese, 1 percent iron, and 8 to 11 percent silica." "The mine has been operated intermittently since 1916." Mr. Adkerson states the mine was closed down in 1922-23 and has not been operated since that time.

Availability of Manpower, Materials, Supplies, etc.

Unskilled labor is probably easily obtainable in this district. Skilled miners for underground work would be hard to get. Materials, supplies, and equipment would be available at Luray, 10 miles distant, Front Royal, 12 miles distant, and Winchester, 32 miles distant. Some water is available at times in Dry Run, other times it would have to be brought in from the South Fork of the Shenandoah River, 1-1/2 miles distant. Electric power is available on the property.

Statement of Applicant's Proposal

The proposed program consists of churn drilling 20 holes to an average depth of 250 feet. Three widely variant bids were quoted, $2.30 to $6.00 a foot, none from known prospect drilling contractors. All appear to be local well-drillers with meager, if any, experience in prospect drilling and sampling. No definite hole locations were given; "the first holes will be drilled in the approximate vicinity of the outcropping at the lower left hand corner of the opencut where the high recordings on the M-scope were first registered." The M-scope used, so far as could be determined in conversation with Mr. Glenn, is a type of mine detector. Mr. Glenn advised the Field Team that they dug at two of these high recordings of the M-scope and found a piece of water pipe at the first and a piece of mine rail at the other one.

During the Field Team examination Mr. Glenn modified his drilling proposal to a line of holes between the two caved adit portals shown on figure 2. The number of such holes to be drilled would be contingent upon the findings of the initial holes.

The drilling of churn drill holes 250 feet deep from the top of the hill seems unrealistic to explore a rather thin zone of Erwin quartzite.

G. L. Neumann, Mine Examination
and Exploration Engineer
Eastern Experiment Station

Louis Pavlides, Geologist
U. S. Geological Survey

College Park, Md.
June 14, 1955

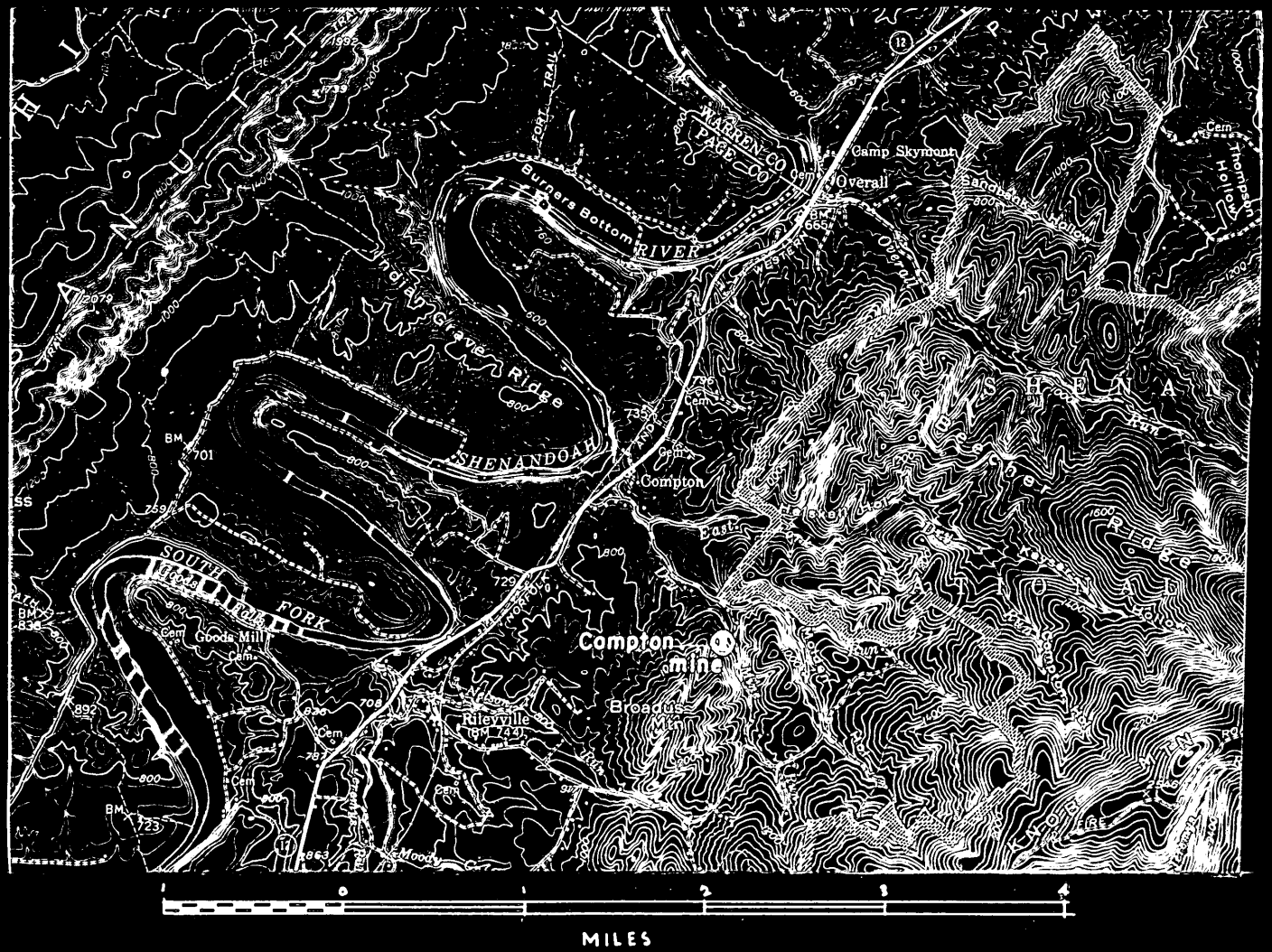
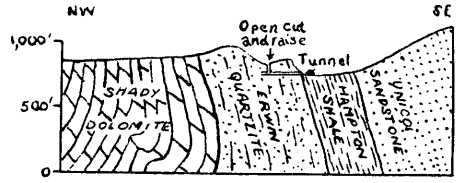


Figure 1.— Location map of Compton mine. Base map is Strasburg Quadrangle, U.S.G.S.



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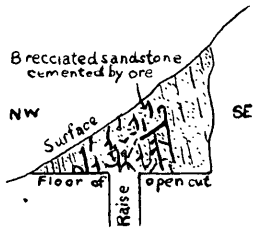

B

Figure 3 - A: Cross-section through the Compton mine. B: Detailed section of the open cut and raise showing ore which has cemented brecciated Erwin quartzite and partly replaced it. After Stose, Miser, Katz and Hewett, 1919, Fig. 5, p.50.

IN REPLY REFER TO:

Hachet

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 5 - 1955

May 4, 1955

Re: DMEA-3797
Compton Manganese Corp.
Rileyville, Pope Co., Virginia
$25,226.44
Manganese

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

This application concerns the rehabilitation of an old manganese mine near Compton, on the west side of the Blue Ridge in Virginia.

Few data are given in the application concerning this one time operation, and the report in Bulletin No. XVII, Manganese Deposits of the West Foot of the Blue Ridge, Virginia, gives only a general description of the workings and the ore occurrence. Of ore conditions in the tunnel and raise little or nothing is said and it may be inferred that the ore occurs only in the brecciated and weathered edges of sandstone beds in the upturned Ervin quartzite and not in the fresher rock. By reopening the tunnel the matter could be determined. (If the relationship of tunnel and raise is as shown, it is unlikely there is water in the raise.)

If there is no or little ore in the fresh quartzite the face and floor of the open cut should afford a fair idea as to possible extensions of this pocket. Exhibit G of the application indicates ore can be seen in 4 places in the open cut. If the widths shown are relative and there is so little ore in the floor and none in the tunnel and raise the pocket would seem to have been worked out.

That there are other such occurrences appears probable, but they may be hard to find. The one worked upon as shown in Exhibit A is in and near the floor of the ravine so the open cuts 1-6 are not well placed.

Inasmuch as the Field Team will probably be examining another western Virginia manganese prospect sometime in May, a visit to this enroute prospect could easily be made. If, in the meantime, the tunnel can be opened a more thorough and telling examination should result.

Copy retained 400

Large tonnage possibilities rest on depth and/or extension up the ravine. A trench to bedrock in the floor of the ravine should be revealing. The program outlined in the application is disproportionate to the production history and the ore showings which can now be seen.

An inspection by the Field Team is recommended.

N. E. Nelson

N. E. Nelson

DOCKET
SURNAME

400 Rutledge
DeHuff
Martin
~~John~~ Selfridge
Johnson

MAY 1 1 1955

Mr. Robert A. Lawrence, Executive Officer
DMEA Field Team, Region V
Room 13, Post Office Building
Knoxville 2, Tennessee

Re: Docket No. DMEA 3797 - Manganese
Compton Manganese Corporation
Compton mine
Page County, Virginia

Dear Mr. Lawrence:

The subject application for exploration assistance is being referred to your office for a field examination of the property.

Two copies of a relevant memorandum dated May 4, 1955, by H. E. Nelson, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Enclosure

FARutledge:foc 5-10-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. V
Messrs. DeHuff, USBM
Kiilsgaard, USGS

APPROVED:

/s/ C. H. Johnson (GHB)
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey (GHB)

R.C.L.

DOCKET
SURNAME

400

Rutledge
DeHuff
Martin
Kilsgaard
Selfridge
Johnson
Johnson

MAY 1 1 1955

Compton Manganese Corporation
Rileyville, Virginia

Re: Docket No. DMEA 3797 - Manganese
Compton mine
Page County, Virginia

Gentlemen:

The above-docketed application for exploration assistance for manganese has been reviewed by the Base and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville 2, Tennessee, for a field examination of the property.

Any assistance that you can render the members of the Field Team will be appreciated.

Sincerely yours,

B. O. Mittendorf

Administrator

FARutledge:foc
5-10-55
cc to: Docket
Code 400
Adm. Reading File
Oper. Comm.
FT. REG. V
Messrs. DeHuff, USBM
Kiilsgaard, USGS
Donald P. McHugh, Secretary
Compton Manganese Corp.
Washington 5, D. C.

R.C.B.

May 3, 1955
Subject: DMEA 3797
Re: Exploration Assistance
Compton or Dry Run Mine

Mr. Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D. C.

Dear Mr. McHugh:

The receipt of your application dated April 28, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3797 and referred to the Iron and Ferro-Alloys Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

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

CAROLAN AND McHUGH
ATTORNEYS AT LAW
BOWEN BUILDING
821 15TH STREET, N. W.
WASHINGTON 5, D. C.

THOMAS H. CAROLAN
DONALD P. McHUGH

TELEPHONE STERLING 3-3717
CABLE ADDRESS "HACAR"

April 28, 1955

Defense Minerals Exploration
Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

Enclosed herewith is an application in quadruplicate with attached exhibits for aid in an exploration project, pursuant to DMEA Order 1, under the Defense Production Act of 1950, as amended, filed on behalf of Comptom Manganese Corporation, Rileyville, Virginia.

I shall be happy to cooperate with your office in furnishing any additional information, or in any other way in processing of this application.

Thanking you for your cooperation and trusting that I will receive a reply as soon as possible, I remain

Very truly yours,

Donald P. McHugh

Donald P. McHugh

DPM:mla

Encls.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1085.2.

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

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3797
Metal or Mineral Manganese
Date Received 5-2-55
Estimated Cost $25,226.44
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Compton Manganese Corporation, Rileyville, Virginia

Answers to questions in this form are attached and made a part of this application

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

See Attached Sheet

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[X] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 28, 1955

COMPTON MANGANESE CORPORATION
(Applicant)

By Donald C. McHugh Sec.
821 15th St, N.W.
Washington, D.C.

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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Answers to MF-103

1. (a) and (b) Compton Manganese Corporation, a corporation organized under the laws of Virginia, whose mailing address is Rileyville, Virginia.

(c) Carl J. Langmack, President, R.D. 2, Plainfield, New Jersey.

E.V. Bulow, Vice President, 2229 Bancroft Place, N.W., Washington, D.C.

Gordon Grayson, Treasurer, 1835 Eye Street, N.W., Washington, D.C.

Donald P. McHugh, Secretary, 215 Newcomb Street, S.E., Washington, D.C.

Walter D. Glenn, Assistant Secretary, Rileyville, Virginia.

3. (a) The following description of the property is found in the deed from Einar V. Bulow and wife and Carl J. Langmack and wife to Compton Manganese Corporation, dated April 26, 1955:

(1) That certain tract containing forty (40) acres, more or less, which was conveyed to the Pittsburgh Manganese Corporation by Max Bruening, Trustee, by deed dated October 11, 1921, and recorded in Deed Book 88 at page 486, of the land records of Page County, Luray, Virginia.

(2) Those certain three (3) tracts containing sixty-seven (67) acres, sixty-one (61) acres, sixty (60) acres, and twenty-three (23) poles, respectively, all, more or less, having been conveyed to the Pittsburgh Manganese Corporation by Robert F. Levi, et al., Special Commissioners, by deed dated July 19, 1920, and recorded in Deed Book 79, at page 46 of the said land records. The four tracts hereinbefore mentioned all lie in Springfield Magisterial District, Page County, Luray, Virginia, and were conveyed to Harvie W. Goddin, by deed recorded in Deed Book 115 at page 154, and rerecorded in Deed Book 117, at page 417, of the land records of Page County, Luray, Virginia.

(3) All land described above is included under this application.

(b) Compton or Dry Run Mine.

(c) Owner in fee simple.

(d) Owner

(e) (1) Virginia taxes in the amount of $107.65. (Will be paid soon),

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

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Answers to MF-103

(2) Right of way to Virginia Power Co. for pole line with right of upkeep.

(3) A Lis Pendens was recorded by one Lewis during the course of litigation between him and a party named Goddin which involved, in part, the property in question. Lewis at the time was protesting the sale of this property under a court order because of the failure to reserve a one-third interest in the mineral rights in him. Before this issue was decided by the Circuit Court of Page County where the action was pending, E.V. Bulow, Vice President of Compton Manganese Corporation (who then owned this property under a deed from the original purchaser who bought under the court order referred to above), entered into a contract with said Lewis, dated June 15, 1954, in which for a stated sum of money, he purchased Lewis' claimed one-third interest in the mineral rights to said property. Said Chancery Court subsequently entered an order affirming Lewis' claim and ordered the deed to be reformed so as to reflect Lewis' one-third interest in the mineral rights. A petition for an appeal has been filed by Goddin, the other party to this dispute primarily because of the Court's ruling that a deficiency judgment should be entered against him for about $4,000 in settlement of the various claims between him and Lewis.

(f) None.

4. (a) Development work on this property was conducted over thirty years ago by a company believed to operate under the name Pittsburgh Manganese Corporation, and consisted of: (1) a cross cut tunnel about three-hundred (300) feet long in the ore bearing quartzite, (2) a raise from this tunnel to a surface open cut which is no longer visible and from which ore was produced. Ore was also produced from underground workings and trammed out the tunnel.

The tunnel is caved at least at the portal and probably back some distance, but the exact extent of caving is not known. The raise is now under water. At the time of this old operation, a dam was constructed by this company at a cost estimated in the neighborhood of $65,000 and which is still in usable condition. However, it does not appear that any extensive use, if any, was ever made of this dam. Neither the applicant nor any persons associated with the applicant had any connection with the above described mining operations, and no mining machinery or equipment used in these operations is on the property.

The applicant has over the past 4 or 5 months conducted its own exploration consisting of a bulldozer operation in which six (6) trenches were uncovered approximately two-hundred (200) feet long, ten (10) feet wide, and five (5) feet deep, on an average.

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

Answers to MF-103

The approximate location of these trenches in relation to the old mine workings is shown on the sketch which is attached hereto as Exhibit A and made a part hereof. The property is easily accessible for examination purposes. The results of the bulldozing operation conducted by the applicant can be inspected, and the open cut remaining from the previous mine operation of some thirty (30) years ago may be examined. However, as the tunnel has been caved and much of the operations under water, the old mining operations are not visable.

(b) A careful investigation of the old mining operations on this property described above failed to reveal any record proof of the quantities and grades of ores produced. However, officers of the present applicant have talked personally with old residents of the area who were employed in this mining operation. They testify that great quantities of high-grade ore were produced; others state that some twenty (20) carloads of ore were actually shipped. A report, examined by the applicant, prepared by a group of promoters in about 1945 states that geologist, Harvie Goddin, estimated that about one-hundred-thousand (100,000) tons of ore was readily mineable as you go into the sides of the hills and a little deeper into the earth. According to the same source, this mine has the highest grade of manganese ore obtainable, as it runs from 62.5 to 68% metallics.

Mr. Carson Adkerson, a consultant, employed by the applicant who is now President of the American Manganese Producers Association, made several trips to the scene of the actual workings of the old mine. His description of these old workings is contained in his report and is submitted herewith as Exhibit B, and made a part hereof.

It is not possible at this time to compute accurately the ore reserves.

(c) The information requested in 4 (c) of application MF-103, is described in detail in the Virginia Geological Survey Bulletin XVII and attached hereto as Exhibit C.

Attached hereto is a sketch marked Fig. I showing the location of this mine and referred to as Exhibit D, and another sketch marked Fig. 2 and referred to as Exhibit E, showing location of the mine and types of rock formation, together with a cross cut diagraming the old mine operation and indicating the nature and location of the deposits. Attached hereto and made part of this

application is Exhibit F, which is an aerial photograph showing the location of the Compton Mine, and which is an enlarged section of a United States Department of Interior Geological Survey map.

(d) The property is easily accessible by Highway No. 12 from Front Royal and Luray, Virginia. There is a short gravel road approximately one and one-fourth miles leading directly to the property. See figure 1, Exhibit D. A platform providing loading facilities to the railroad is located at Compton, Virginia about two (2) miles from the property.

(e) There is an abundance of manpower which can be obtained locally. All necessary materials, supplies, and equipment can be obtained in the neighboring towns. Arrangements have already been made for obtaining the necessary electrical power. Water on the property is sufficient for present needs. If necessary, water can be brought from the river -- a distance of one and one-half (1-1/2) miles. No mill is presently contemplated which requires any great quantity of water.

5. (a) Manganese.

(b) The purpose of the present project is to conduct an exploration which will reveal the definable limits of the manganese deposits as they exist under ground. An examination of the nature and extent of the old operations on this property, together with a study of all other sources of information, convinces the applicant that substantial deposits of manganese ore exist, and that manganese was, in fact, produced and shipped. We have some information concerning the size of the old deposit and the direction in which the ore body was found. Qualified personnel making the study have made their own determinations concerning the probably extent and location of the total formation.

In order to determine whether the ore extended to the top of the ground or even to the top of the formation, the six trenches were dug as described above. Several outcroppings of manganese appeared on the sides of these cuts. It is not believed that any of the discoveries would justify any type of surface operation at this time.

Outcroppings of manganese are primarily discerned in fairly large quantities at the lower left hand corner of the open cut. Exhibit A is a rough sketch showing the old mine site, the open cut, and the approximate location of the trenches with reference to said mine and open cut. Exhibit G, which is attached hereto, is a rough sketch of the open cut referred to above.

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

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Answers to MF-103

Readings have been made on an M-scope which produced several high readings indicating manganese deposits. The highest reading was recorded in the ravine shown on the sketch in Exhibit A in the number 5 trench at a point closest to the lower left hand corner of the outcroppings of the open cut. These readings tend to confirm the earlier conclusions made as to the direction in which the manganese formation runs. At this time, we do not contemplate reopening the old tunnel in order to arrive at the spot where the old operations ceased. It is believed that the tunnel is flooded, and it would be both dangerous and expensive to reopen at this time. Furthermore it is felt that such a venture would not yield any substantial information as to the limits of the formation.

Accordingly, it has been decided that we would begin the exploration with a series of holes to be dug by a well drilling process. It is believed that this is the most feasible type of drilling because of its ability to drill through anticipated materials and its speed under the circumstances. The first holes will be drilled in the approximate vicinity of the out-cropping at the lower left hand corner of the open cut where the high recordings on the M-Scope were first registered. Subsequent holes will then be drilled at various locations in relation to this first drilling and depending upon the discoveries made. We can state definitely now only where the drilling will begin, as the precise location of the subsequent holes will be determined upon the basis of what has been discovered. The present exploration project contemplates the drilling of approximately 20 holes of an average depth of 250 feet.

Since it is known that the manganese formation in the area is extremely irregular, and is not to be found in solid veins, the information obtained in the drilling process will not afford a completely reliable picture of the nature and extent of the deposits.

Accordingly, we intend ultimately to engage in certain limited drifting operations in order to trace the deposits to their actual bounds. No precise blueprint of this additional exploration can be made until some progress is noted in the hole drilling operation. Therefore, no request for any specified amount of funds covering such work is being requested in this application. However, if the advance requested in this application is approved, we ask that the contract be kept open in order that additional work may be included at a later date for an amount, and in a manner, mutually agreeable to the parties. It might be noted that two possibilities for this future work are under consideration. (1) A fairly deep stripping operation might be employed, or (2) a shaft (continued on page 6)

might be sunk and addits dug for purposes of drifting the approximate length of the deposit plus certain cross cuts to measure the width. We request in this application that approval be given to this plan of operation with the details to be worked out between the parties as the work progresses.

(c) The work will start within thirty (30) days after a contract has been approved, and the work included in this application will be completed within six (6) months thereafter at the latest, and probably sooner. Additional time will, of course, be needed for whatever extra work is done.

(d) Compton Manganese Corporation was formed in Virginia in 1954. The operating experience of persons who will supervise the proposed operation is as follows:

(1) J. Carson Adkerson -- a consultant to and stockholder in Compton Manganese Corporation. See Exhibit B for background.

(2) Walter D. Glenn -- assistant secretary of applicant who will act as superintendent in charge of all operations.

Mr. Glenn has had twelve years active experience with various manganese companies. During this time he examined and made reports on numerous manganese properties including both prospects and operating companies in Virginia and Tennessee. For over ten years he was associated with Hy-Grade Manganese Corporation, Woodstock, Virginia, where he acted as general superintendent. He participated actively in all of the companies' activities including prospecting, developing, Mining, and milling. He also served for two years as foreman of the Piedmont Manganese Company, Six Mile Run, Virginia.

He had ten years experience with the U.S. Army Engineers mostly in heavy construction work. He was Project Engineer of a job on Okinawa, and is now retired from the government. However, his specialized experience is almost entirely in the manganese field. He has lived in the manganese region of Western Virginia for many years.

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

Answers to MF-103

6. (a) Independent Contracts

Well Drilling

First bid from Alvin Robinson, Water Lick, Virginia, at $2.30 per foot.

A second bid from William Burruss, Woodstock, Virginia, at $2.50 per foot.

A third bid from Robert M. Pritchard, at $6.00 per foot.

We propose to accept the Robinson bid, and will drill 20 holes, approximately 250 feet each. Total $ 11,500.00

Bulldozing

Mr. Russel Mantz of Edenburg, Virginia, has agreed to perform the bulldozing work at the standard price in the area of $7.50 per hour. We contemplate using the bulldozer for a two week period which is believed to be sufficient for the purposes of this exploration project. Total 600.00

(b) The work described above will be done by independent contractors and the price quoted includes the cost of necessary labor.

The applicant now employs a supervisor at the rate of one-hundred dollars ($100.00) per week who will be in charge of this exploration project. (6 months) 2,600.00

One (1) engineering consultant for approximately 5 days per month at $90.00 per day. (6 months) 2,700.00

One (1) geological consultant for approximately 4 days at $135.00 per day. 540.00

(c) Approximately two hundred (200) barrels will be needed at a cost of $2.00 per barrel for packing the core recovered from the drilling. 400.00

(d) All operating equipment will be furnished by independent contractors with some minor exceptions.

Donald P. McHugh, Secretary
Compton Manganese Corporation
821 - 15th Street, N.W.
Washington 5, D.C.

Answers to MF-103

6. (e) A building on the property now owned by the applicant will be converted into a tool shed and also to be used for storing cores at an estimated cost of four hundred fifty dollars ($450.00). $ 450.00

(f) None.

(g) Workmen's Compensation at $3.43 per $100.00. (6 months). 89.18

Accounting - $20.00 per month. (6 months) 120.00

Social Security - 2%. (6 months) 26.00

Sampling and Assaying - $1.00 per foot = $250.00 per hole for 20 holes 5,000.00

$ 24,025.18

(h) Contingencies - 5% 1,201.26

Total $ 25,226.44

Exhibit B

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

J. CARSON ADKERSON
MINING ENGINEER
WOODSTOCK, VIRGINIA

976 National Press Bldg.
Washington 4, D. C.

April 28, 1955

Compton Manganese Corporation
821 - 15th St., N. W.
Washington 5, D. C.

Gentlemen: Re: Dry Run or Compton Mine, Page Co., Va.

I have been engaged in the manganese industry continuously since 1912. I am a mining engineer registered and licensed under the laws of the Commonwealth of Virginia and the District of Columbia. Presently, I am President of the American Manganese Producers Association, with offices in the National Press Building, Washington, D.C., and have occupies this position since 1927. In addition, I am also presently engaged in the development of several manganese properties in Virginia. From 1916 until 1936 I was engaged in the development and exploration of different manganese properties in the Shenandoah Valley, Virginia.

In the early 1920's I became interested in the prospects of the property involved in this application, which was then referred to as the Compton Mine. I believe it was operated at that time by interests known as the Pittsburgh Manganese Corporation. I was personally friendly with the managers of this property at the time and was permitted to inspect and examine the property and the mine operation from time to time for purposes of obtaining information as to the commercial prospects of this and neighboring properties. My associates and I were contemplating future expansion and we were therefore interested in the prospects of this property.

At the time of this company's operation--believed to be about 1922 or 1923--I examined and inspected the ore formation underground and observed the mill in operation. I made this inspection of the property and actual operation several times during the period of development and operation.

I have examined Bulletin No. XVII of the Virginia Geological Survey, prepared by G. W. Stose, H. D. Miser, F. J. Katz, and D. F. Hewett, published in 1919, and corroborate the findings contained in that report as shown on pages 62 and 63 covering the Dry Run or Compton Mine.

During the period referred to above, a mill was built and operated on the property. It consisted of log washer, crushers, rolls, screens and jigs. The product from the jigs yielded a satisfactory metallurgical grade manganese concentrate. I would estimate that the capacity of the mill was in the neighborhood of 100 tons per day of heads.

The operations were suspended on account of the extremely low market price then prevailing, and not because of any failure of the quality or quantity of ore. It appeared to me that considerable quantities of ore remained in this formation after the mill was closed. No estimates of reserves were made. To the best of my knowledge this property has never been reopened since it was closed in the early twenties.

It is my judgment, as a mining engineer and as an operator of manganese properties, that the property covered by this application justifies further exploration.

I concur in your plans of proposed exploration and subsequent development work and will be glad to render further assistance.

Very truly yours,

J. Carson Adkerson
Mining Engineer

JCA:b

Exhibit C.

DEPARTMENT OF THE INTERIOR
Minerals Administration
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MAY 2 1955

DRY RUN OR COMPTON MINE.

The Dry Run or Compton mine is on the south side of Dry Run between the two outer foothill ridges of the mountains. It is 1½ miles southeast of Compton and a little over a mile from the railroad, to which the ore is hauled by wagon. The workings include an open cut at the top of a small ridge or spur on the east side of the Erwin quartzite ridge and a tunnel 300 feet long which enters from the floor of the valley between the ridges and intersects the shaft. (See fig. 5, p. 50.)

At the tunnel mouth hard vitreous white quartzite strikes N. 25° E. and dips 75° SE. At the open cut, the rock is much crushed and disintegrated to a soft buff sandstone which crumbles readily. Between the layers of clean sandstone are thin layers or partings of dark sandy shale which has weathered largely to clay. The ore, as seen in the surface cut, is a good grade of psilomelane containing some crystalline manganite in concentric layers, the needle-like crystals of which are transverse to the botryoidal surface of the ore. The ore fills cracks and spaces between the fragments of brecciated sandstone and penetrates along joints and bedding planes in thin sheets which taper to paper thinness at their extremities. In places the sandstone is replaced by the ore and all gradations occur from thin seams of ore along the bedding and joint planes to replacement of nearly a whole block of sandstone between such planes, leaving only a central core of unchanged sandstone. More commonly veins an inch or more in thickness are to be seen in the present workings, but there are some pockets which yield masses of ore weighing over 100 pounds. The zone which contains the ore is said to be 100 feet wide in the tunnel, but in the open cut the zone of workable ore did not seem to be more than 20 feet wide. An incline formerly carried the ore from the open cut to the mill, but since the tunnel has been completed the ore is dumped into the shaft and carried by mine cars out through the tunnel.

The rock in the mine is broken down by blasting and the ore is thus largely loosened from the sandstone. It is further crushed at the mill, washed, concentrated, and hand picked. The product is mostly small particles as the ore is crushed rather fine to remove the included sandstone. Recent shipments contain 43 to 48 per cent manganese, 1 per cent iron, and 8 to 11 per cent silica. The mine has been operated intermittently since 1916 by the Compton Manganese Corporation of Pittsburgh, Pennsylvania. R. F. Watson of Shenandoah is superintendent.

At the gap through the front ridge, where Dry Run passes out into the valley, have been two prospect tunnels, opened by F. S. Heiskell. The ore here cements brecciated quartzite as it does at the Compton mine. Other prospects in the neighborhood are being developed by the Mineral Products Corporation, of which Perry A. Nicklin is secretary.

Bulletin x v 1 1 (MVll) Va. Geological Survey
Manganese Dep. of the West Foot of the Blue Ridge, Va.

By G. W. Stose, H. D. Miser, W. J. Katz, and D. F. Hewett,
1919

Exhibit F.

Milford Gap
Camp Skymont
Sandbank
Overall
WARREN CO
PAGE CO
FORT TRAIL
WESTERN
Burners Bottom
RIVER
Indian Grave Ridge
SHENANDOAH
AND
NORFOLK
Compton
Cem
Hebron Lutheran
East Fork
Dry
Mine
Broadus Mtn
Nelson
Rileyville
Run
FORK
BM 701
BM 665
BM 441

Exhibit A.

NOT DRAWN TO SCALE

1 TO 6 BULLDOZER CUTS
APPROX. 200' X 10' X 5 TO 6' AVERAGE DEPTH
PORTAL 1 + DRIFT IS BELOW PORTAL 2 + DRIFT

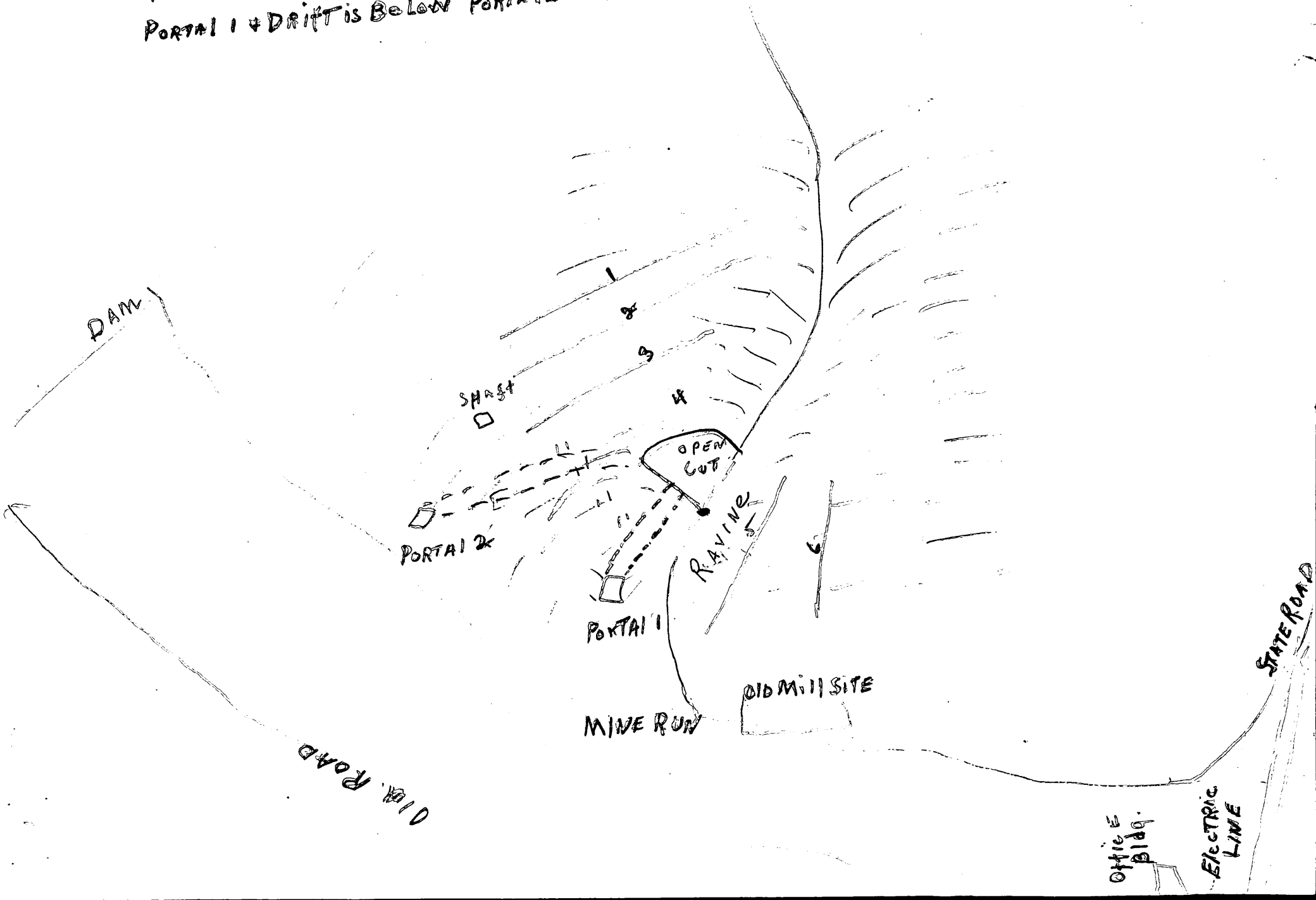
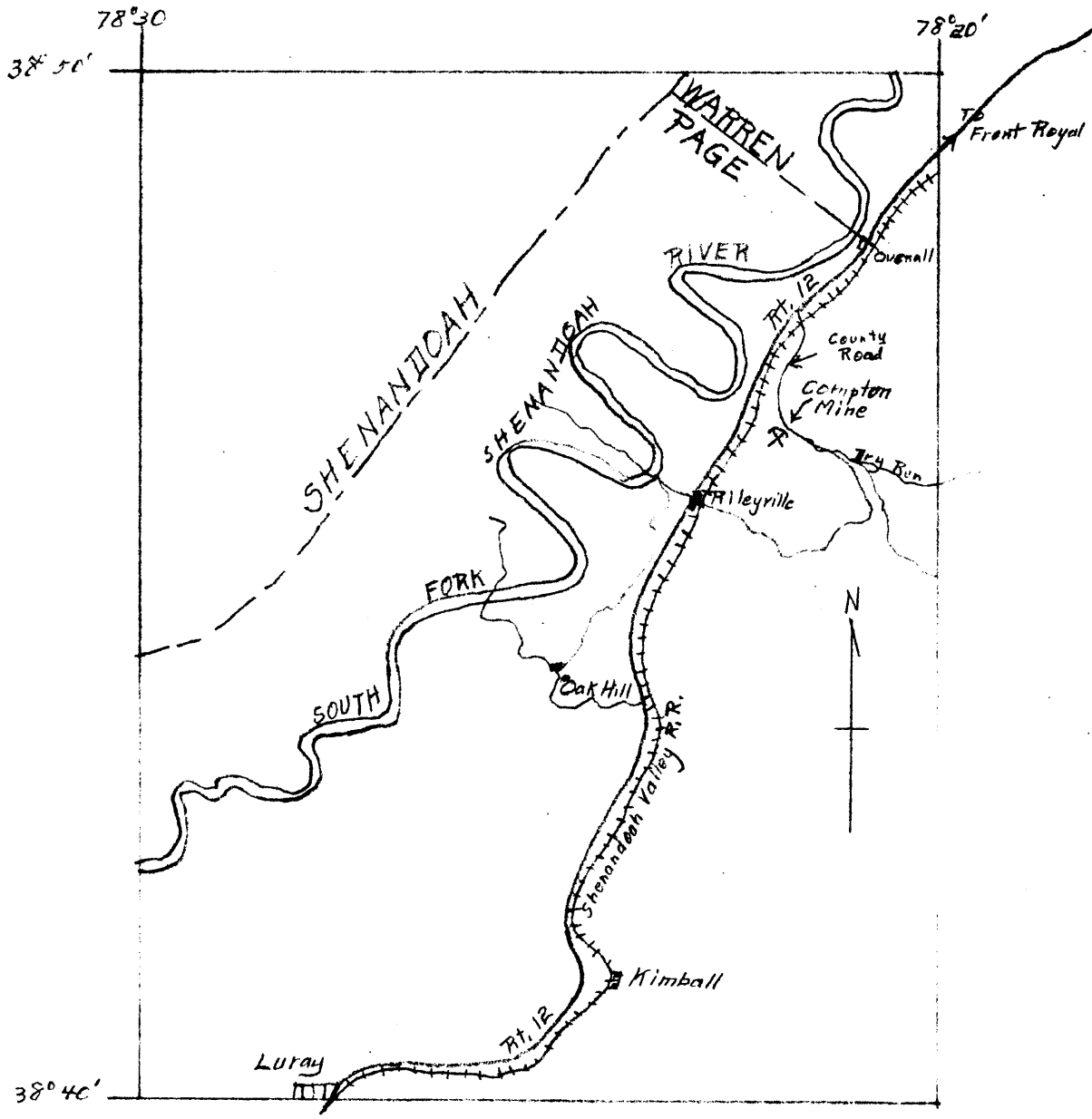


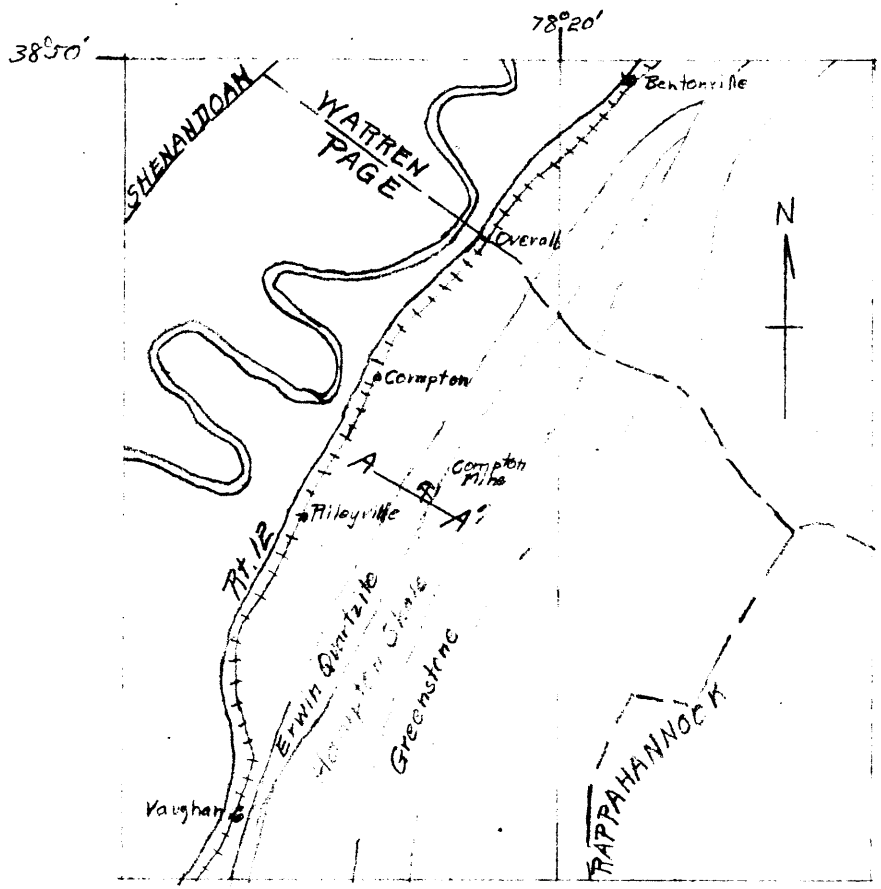
Exhibit D.



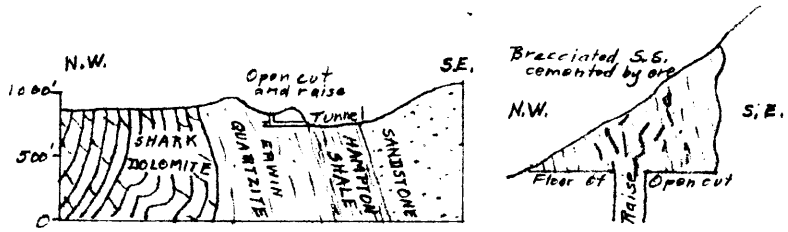
COMPTON MANGANESE MINE
PAGE COUNTY, VA.
U.S.G.S. LURAY, VA. QUAD.

FIG. 1

Exhibit E.



SECT. A-A'

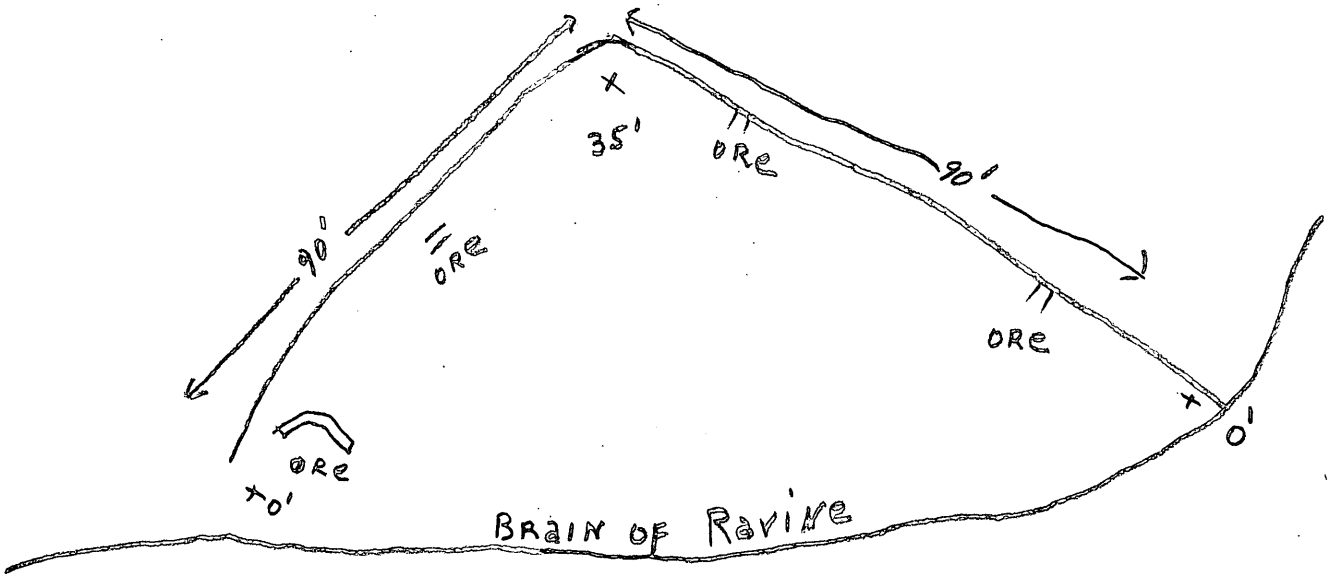


COMPTON MANGANESE MINE
PAGE COUNTY, VA.
AFTER VIRGINIA GEOLOGICAL SURVEY, BULL XVII

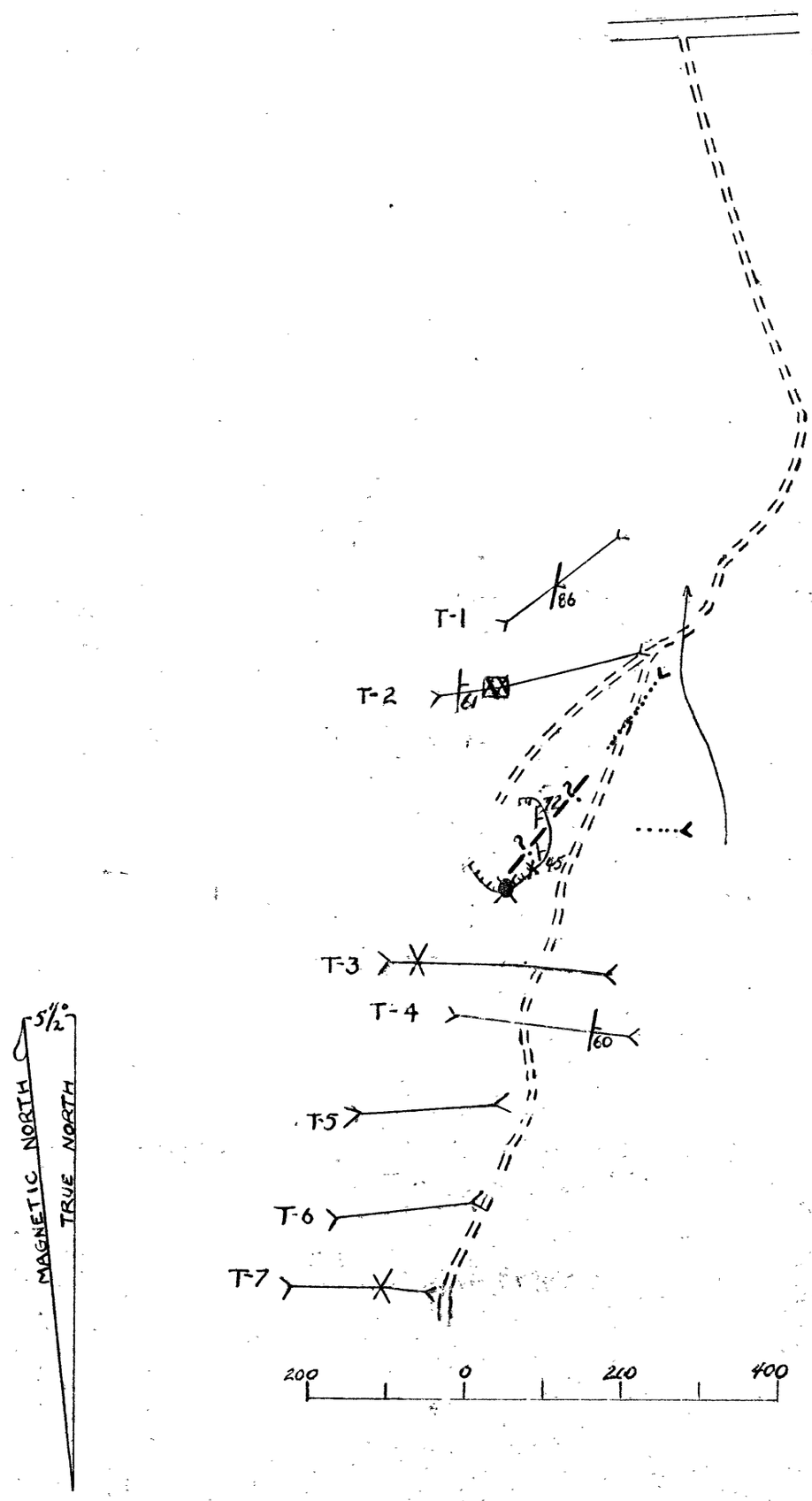
FIG. 2

Exhibit 6

OPEN CUT



X The Face is approx. 35' High Feathering To zero



EXPLANATION

Strike and dip of beds

Probable vertical fault

Erwin quartzite with manganese-bearing veinlets and fracture fillings

Erwin quartzite with manganese oxide stains

Manganiferous Erwin quartzite rubble from dump of former crusher site

T-1 Trenches, Compton Manganese Corporation

Open cut, Compton or Dry Run mine

Adit, position of portal approximate, bearing of adit assumed

Brunton and tape survey by: L. Pavlides, U.S.G.S. and G.L. Neumann and V.J. Lynch, U.S.B.M., 1955

Figure 2 - Sketch map showing location of Compton or Dry Run mine and applicant's prospect trenches.