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RHODE ISLAND MINING COMPANY

(Summary Report)

Diamond drilling at the Rhode Island Exploration Project began in August 1951 and was concluded in July 1952, after a temporary suspension of activity during the months of January through April 1952, when surface drilling conditions were difficult and expensive.

The original plan called for exploration of the Rhode Island vein system to a depth of approximately 500 feet below the existing mine workings, by diamond drilling from the surface. Details of the location and length of holes to be drilled were modified by the information resulting from each successive hole as it was completed; and because the Rhode Island company was able to make an exceptionally favorable diamond drilling contract, it was found possible to explore the vein system to a depth of nearly 1000 feet below the surface workings without exceeding the funds originally set up for the project.

The Rhode Island vein was intersected by five of the seven holes drilled (Nos. 1, 2, 3, 5, and 7); and only one of the holes failed to intersect the principal objectives. The first three holes, while not containing commercial values, did indicate a progressive widening of the Rhode Island vein in depth; but hole No. 3 introduced a new physical problem when it was found to have deviated progressively from a vertical attitude at the collar to a dip of 65° at a depth of 697 feet. Hole No. 4 was, therefore, laid out to allow adequate leeway for any comparable deflection. While no such deflection occurred, the hole intersected only a barren fault zone at the expected position of the Rhode Island vein; and hole No. 5

then had to be drilled to cut the vein above this point. The intersection in No. 5 hole was the most encouraging showing obtained from the vein, containing 4.4% zinc across a two-foot width. The project was suspended at this point because of severe winter conditions.

When drilling was resumed, in May 1952, it had been decided to explore the vein at greater depth beyond the steep barren fault zone, and to be guided by the resulting information for future planning. Hole No. 6 was collared vertically, with large size (BX) equipment, but it finally had to be abandoned when serious deviation (similar to hole No. 3) was found to be taking place. The final hole, No. 7, intersected all known objectives but did not encounter ore; and it was, therefore, felt that the project must be considered as completed.

A cross section showing the results of all holes, on a scale of one inch to 100 feet, is attached to this final summary. Details concerning the project may be found in the monthly progress reports, submitted as the work was in progress.

F. McIntosh Galbraith
Consulting Geologist

November 13, 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
[redacted]
So. 157 Howard Street
Spokane 4, Washington

Perkins

December 18, 1952

Memorandum

To: DMEA Field Team, Region II

From: S. W. Hobbs, Geologist, U. S. Geological Survey, and E. G. Erickson, Mining Engineer, U. S. Bureau of Mines.

Subject: Final report on completed exploration project, Contract No. Ida-E101, Rhode Island Mining Company, Shoshone County, Idaho, Docket DMEA-1505X (lead-zinc).

The exploration work was performed on the Rhode Island Mining Company's Black Prince and Homestake mining claims, in Terror Gulch, Evolution mining district, Shoshone County, Idaho. The property is on the Terror Gulch road 2-1/4 miles up from its junction with U. S. Highway No. 10 one mile west of Osborn, Idaho.

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

The drilling was successful in locating the structure in all of the holes except No. 6 and possibly No. 4 which intersected a fault zone that offsets the vein. The drilling thus has established the persistence of the vein to a depth of over 1300 feet down the dip (see cross section attached). Wherever cut, the vein is a strong structure containing 4 to 13 feet of quartz, carbonate and pyrrhotite. Invariably there is a minor amount of visible sphalerite and usually some visible galena. This persistence of minor zinc and lead sulphides encouraged the Operator to carry the project at least into Stage II in order to see what change in mineralogy might occur at greater depth.

In spite of the persistence of the mineralized structure, the general lack of lead or zinc minerals anywhere approaching commercial amounts and the inconclusive evidence that ore shoots of higher grade material might occur in the structure has dictated the closing of the project without making a discovery and with no recommendations for further work.

DESCRIPTION OF WORK COMPLETED

Drilling under the exploration project contract between the United States of America and the Rhode Island Mining Company, dated August 7, 1951, was started August 21, 1951.

A total of 3000 feet of drilling was authorized to explore for the possible downward extension of the Rhode Island vein. The drilling was to be done in two stages--the second stage contingent upon the first--and the total cost of the project was not to exceed $23,900 of which the Government would pay $11,950. The project was to be completed in 7 months.

Holes No's. 1, 2 and 3 were drilled from the same drill site at different angles of inclination (see attached cross section of drill holes). Although the first 3 holes failed to disclose commercial ore, results did encourage more drilling.

Another drill site was prepared and Hole No. 4 was drilled. The hole penetrated a fault zone which led to directing Hole No. 5 to intersect the vein at a higher elevation. Hole No. 5 disclosed the best results (a 2-foot vein containing 4.4 percent zinc) from the drilling program. Severe winter conditions forced a recess from January through April 1952.

The Operator's drilling contract was favorable and it was possible to drill more footage than was originally planned for less money. Therefore, on March 1, 1952, the contract was amended to extend the time to 14 months and to allow additional drilling to the extent possible with money remaining under the original contract.

Drilling was resumed in May 1952 with Hole No. 6, which had to be abandoned at 553 feet because it was deviating far from the desired course. It was decided that it would be cheaper and more satisfactory results could be obtained by drilling a new hole rather than trying to divert the course of Hole No. 6.

A new drill site was prepared, and the final hole, No. 7, was drilled. A total of 4,483 feet of hole was drilled under the contract. Work under the contract was concluded during the first week in July 1952.

The drill cores were boxed and shipped to the U. S. Bureau of Mines core library in Albany, Oregon.

DESCRIPTION OF GEOLOGY

Country rock in the area of the Rhode Island mine is Prichard formation--the lowest member of the sedimentary Belt series in the Coeur d'Alene district. The rocks are very fine-grained banded argillites with some minor interbedded impure quartzites. The bedding has a markedly different attitude on opposite sides of the vein as well as across the flat fault that cuts the vein at its east end in the No. 1 adit. The vein as exposed in the drifts and located in the drill holes has a general strike of N. 50° W. and a dip of 55° to 60° SW. It ranges from a few to 13 feet thick and comprises milky white quartz, carbonate, pyrrhotite--locally very massive--occasional specks of galena and sphalerite in small

patches, and stringers either in the vein or in the footwall. The sphalerite is clear and rosin-colored and assumed to be relatively low in iron. As such it appears to be associated with later quartz and perhaps belonging to a phase of the mineralization considerably later than the ore responsible for the main ore deposits in the district. Similar relationships have been noted in other parts of the Coeur d'Alene metalogenic province.

The results of the project were negative and no discovery was made. Drill Hole No. 5 intersected 2 feet of vein material that assayed 4.4 percent zinc, but none of the other drill holes showed more than a few specks of lead or zinc sulfides.

EXPENDITURES

Cost tabulation:

Contract amount	$23,900.00
Government's participation - 50% or	11,950.00
Total sum expended on project through July 1952	19,076.22
Government's actual contribution to date	9,538.10
Government's share unexpended to date	2,411.90
Fund set up (should error be claimed)	187.50

Note: Vivian Brothers', diamond drill contractors, statement dated July 8, 1952, to the Rhode Island Mining Company was in error in the amount of $375.00. The statement contained the item "250'-371' BX size core bit @ $3.75 per foot - - - $78.75." This obviously is an error as only 21 feet at $3.75 equals the billed amount of $78.75. The error has not been called to the Operator's attention. A memorandum from Mr. Robert M. Hull, DMEA auditor, Region II, dated October 23, 1952, to the Certifying Officer states in part: "The final invoice is being passed as presented by the Operator. This matter will not be called to the Operator's attention and no action will be taken on the part of the Government to make an adjustment at this time.

"In the event that the Operator submits an additional form MF-104 for the difference and it is supported with adequate proof of payment, an adjustment may be made."

A fund of $187.50 has been left in the contract should the Operator make claim for error in statement mentioned above.

EFFICIENCY OF OPERATION

Cost breakdown:

Item	Cost/ft.	Feet of hole drilled	Total cost
Diamond drilling	$3.6562	4,483*	$16,390.83**
Supervision and technical services	.4238	--	1,900.00
Miscellaneous ***	.1752	--	785.39
Total	4.2552	4,483*	$19,076.22

* Includes 675 feet BX; 3,427 feet AX, and 383 feet EX drilling.

** Includes hole surveying $200.29; cementing and reaming $637.44; lost casing $29.59.

*** Includes drill site preparation $340.00; assaying and sampling $199.80; core boxes and sundry supplies $245.59.

The diamond drilling was performed by a competent independent contractor and the operation was supervised by the Operator's representative. The supervisor made core boxes, boxed cores, took samples and kept daily operating data.

Technical services were rendered by Mr. F. M. Galbraith, a local geologist.

The project was efficiently operated as is reflected by the costs and performance.

EQUIPMENT PURCHASED FOR CONTRACT

None.

S. W. Hobbs, Geologist

Distribution
DMEA (Orig. & 3)
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Hobbs
Docket

E. G. Erickson, Mining Engineer

DMEA

U.S. v. ASARCO

~~July~~ Aug 1, 1996

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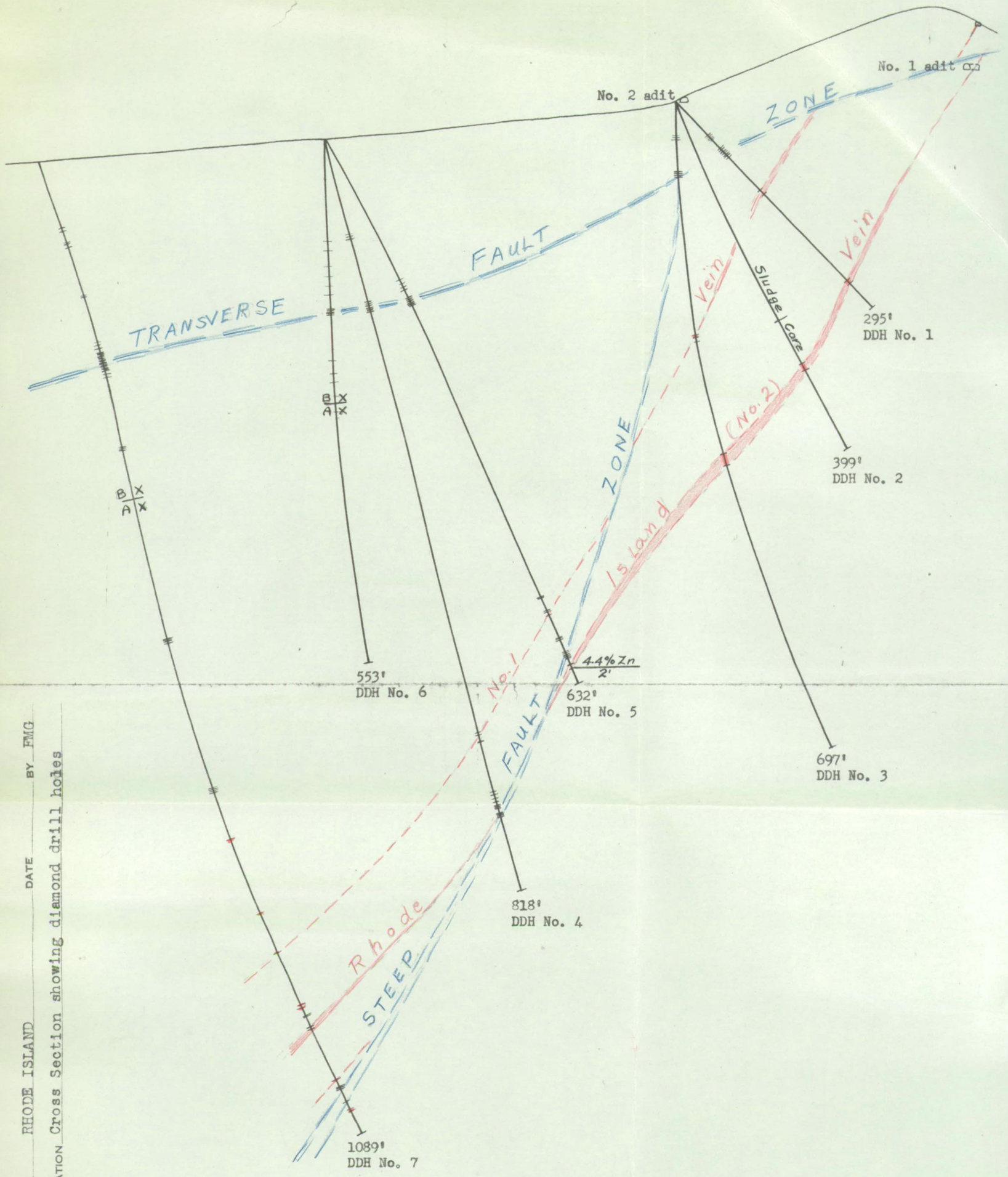
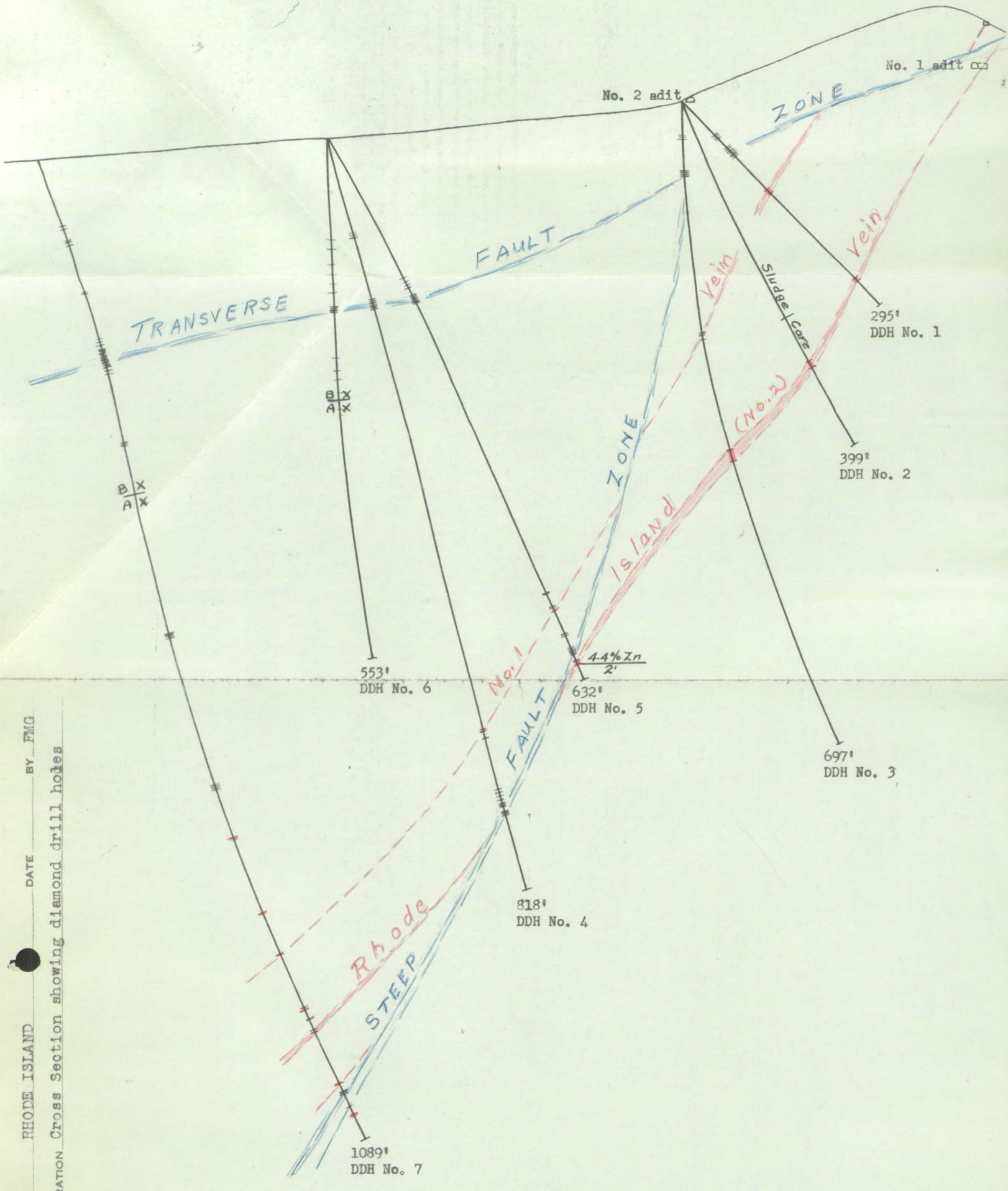


LEVEL _____ MINE RHODE ISLAND DATE _____ BY FMG

SCALE 1" = 100' OPERATION Cross Section showing diamond drill holes

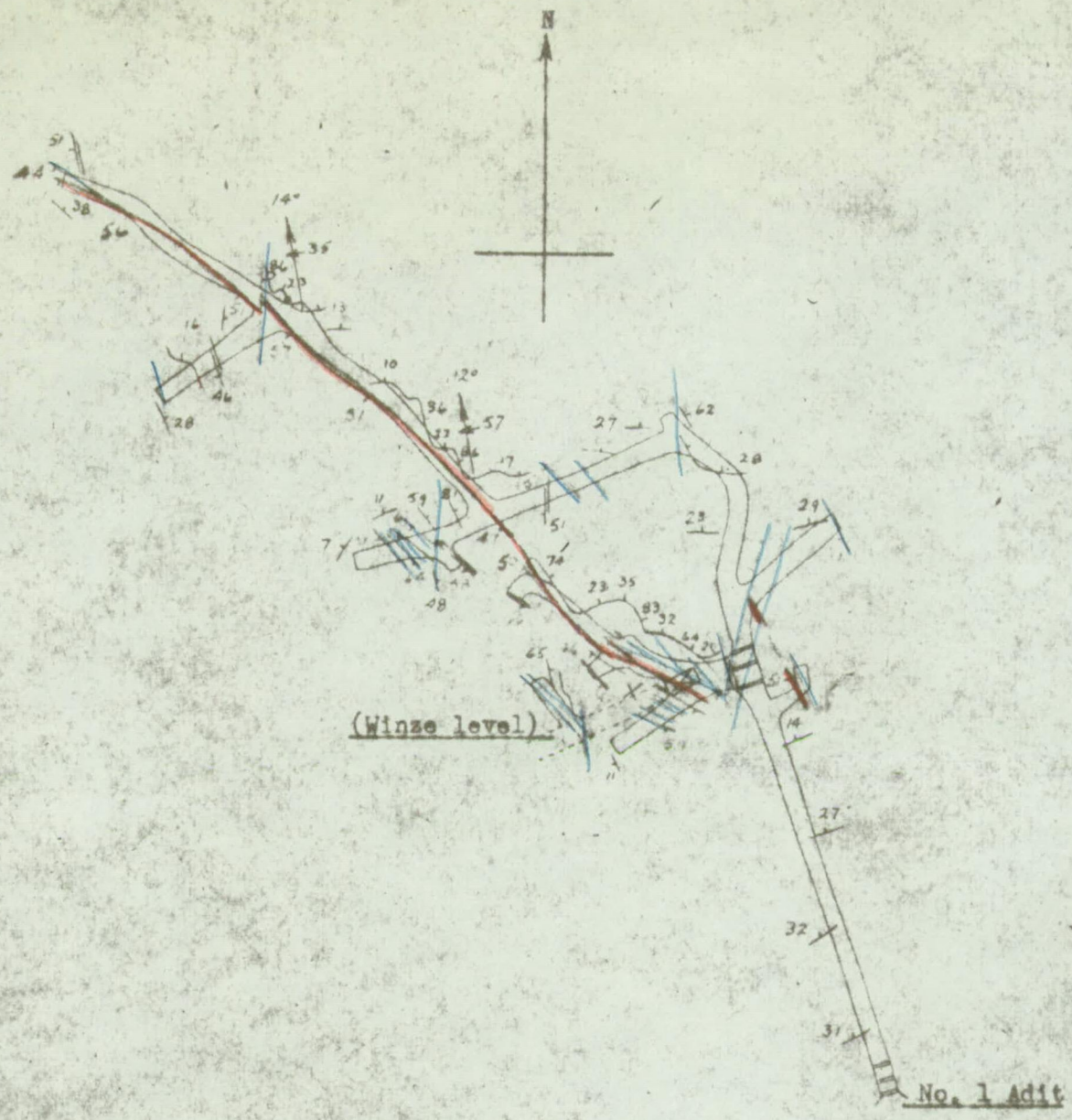


LEVEL _____ MINE RHODE ISLAND DATE _____ BY FMG

SCALE 1" = 100' OPERATION Cross Section showing diamond drill holes

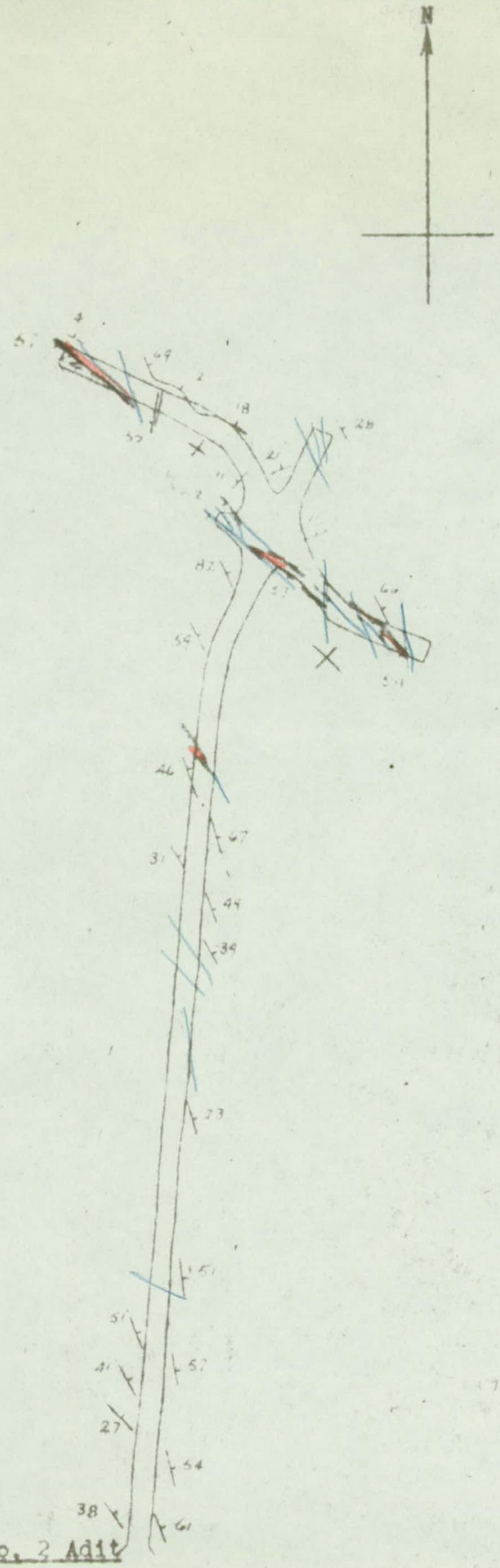
LEVEL No. 1 Adit ZONE Rhode Island DATE 5/28/51 BY FMG

SCALE 1 inch = 50 feet OPERATION Geological Level Plan



LEVEL No. 2 Adit MINE Rhode Island DATE 5/28/51 BY FMG

SCALE 1 inch = 50 feet OPERATION Geological Level Plan



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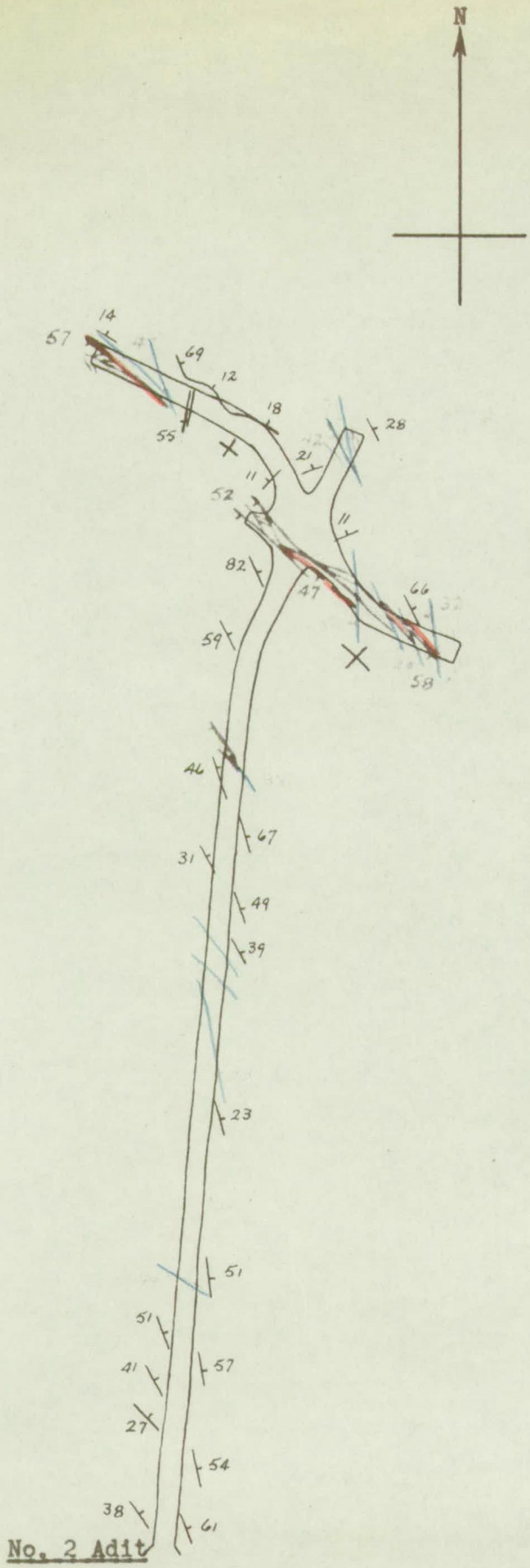
SCALE 1 inch = 50 feet OPERATION Geological Level Plan



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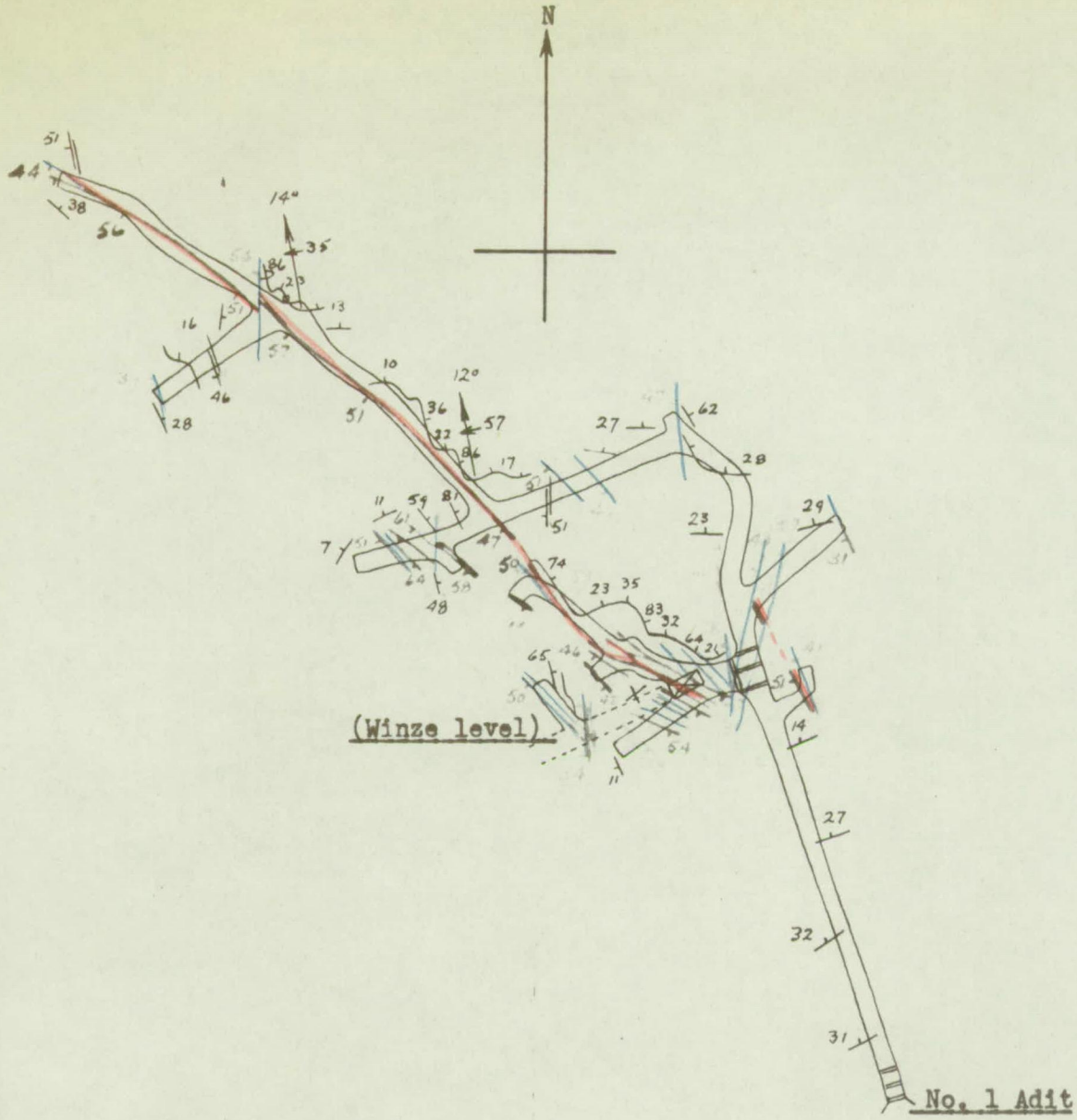
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