

6000 0078 (0760)

Walker River
Reservation

Progress Reports

June 15, 1965 →

Feb 28, 1966

6000 0078 (0760)

M E M O R A N D U M

June 2, 1975

To: W. L. and Kay Wilson
Idaho Mining Corporation

From: Ward Carithers, Consultant
Reno, Nevada

Subject: Drill hole logs
Hottentot and Badger areas
Walker River Indian Reservation

Herewith are the logs for the following 14 drill holes: H-7 through H-14, H3-J, K, L, M and H6-E in the Hottentot area and [redacted] in the Badger area. Please note that I have not entered the coordinates as I understand John Volgamore will be surveying these holes later. Also, we do not yet have assays for the Hottentot holes nor for the bottom of BA-4.

After being exposed to the information in these holes as well as a brief look at the surface, I have the following observations:

1. The oldest rocks of the area are limestones of the Luning formation and diorite or andesite, probably of the so-called Excelsior formation in the upper plate of the Gillis Thrust. The geologic environment, then, appears to be the same as at Copper Hill, eight miles south.
2. These rocks are intruded by two plutons: (a) an early medium- to coarse-grained granodiorite which crops out just south of the Badger area and also just north of Copper Hill; and (b) a fine-grained, highly silicic alaskite-type rock which crops out east of the Badger and which at places has profoundly affected the earlier rocks. The ferromagnesian minerals of the andesite, diorite and granodiorite have been completely broken down by this intrusive, and the feldspars are argillized and considerably flooded by silica. Also, limestones have been contact-metamorphosed to skarn and hornfels.
3. The iron of the district probably originated in the destruction of the ferromagnesian minerals in the basic diorite-andesite types, from which it was mobilized by the silicic intrusive and re-deposited irregularly around it. The iron ore of the Hottentot area appears to be in the diorite-andesite of the upper plate, and it deposited in a sulfur-poor environment to form iron oxides. The mineralization in the Badger area, on the other hand, is mostly in the lower, limestone plate in which more sulfur was available; hence there is more sulfide mineralization in the Badger than in the Hottentot. Deeper drilling in the Hottentot from the upper plate down into the lower plate limestones ought to show an increase in the sulfide content. There might also be more copper in the lower plate as this metal is supposed to have a greater affinity for sulfides than oxides, but this is, of course, speculative.

Memorandum June 2, 1975
Bill and Kay Wilson

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4. Considering the length and strength of mineralization at the Calico, Hottentot and Badger, I think you are dealing with a major mineralized district with opportunities for large-scale iron and copper deposits similar to those at Pumpkin Hollow, some 20 miles west, which has a similar geologic environment. It ought to be of interest to any of several major companies.

Ward Carithers
Ward Carithers

WC:C
encl.

WALKER-MARTEL MINING COMPANY

Progress Report - Walker River Piate Indian Reservation,
Period June 15, 1965 - Sept. 15, 1965

Exploration progress will be reported under individual project designations within the reservation.

HOTTENTOT COMPLEX:A) Main Hottentot

DDH 1 (location 300W 150N) was offset with DDH 1A, located 100W 100S. The rotary drill was moved in on 6/23/65 and was bottomed at 864' on 7/23/65. At this time a core rig was moved on to the site and core was taken from 864' to 1,046'. No mineral was encountered; however, the hole is considered as favorable in that silicification and slight alteration of the intrusive host was encountered. A major fault structure was cut by the drilling, which may account for the lack of mineral. DH 1, approximately 200' to the west-northwest, encountered magnetite and copper mineralization at a depth of 708'. A third hole should be placed in this area in an attempt to solve this particular geological and geophysical problem.

B) Hottentot #3

DDH 6 (location 800E 400S) was offset with DDH 6A, located at 800E 250S. The rotary drill was moved on the site 6/21/65 and bottomed at 284' on 6/23/65. The core rig was moved to the location on 8/27 and drilled to a depth of 509'. Sixty-five feet of massive magnetite with an estimated grade of 55%, plus iron associated with copper mineralization in the form of chalcopyrite, was cut between 292' and 357'. Samples have been cut and sent for copper and iron assay. Five additional drill sites were laid out in this area.

COYOTE:

The area is located approximately 1-1/2 miles to the northwest of the Hottentot complex and is on the same NW-SE structure. An aerial magnetic high covers the area. Ground control was set and a magnetometer survey was run on 100' spaced lines on 50' stations. The ground magnetic work indicates the possibility of an east-west structure. There are no observable outcrops as the area is completely covered by blow sand. Rotary drilling was started 6/14/65 and was bottomed at 300' on 6/18/65. The rock encountered was as follows: 0-11', alluvium; 11-15', quartz latite tuff with up to 5% magnetite; 15-170', andesite flow with up to 2% magnetite; 170-300', same as previous except slightly higher magnetite content. No further work is planned for this area in the near future.

CALICO:

The original ground magnetic work in this area was run on 750' spaced lines on 150' stations. This work indicated two separate magnetic highs, so a program of detailed work was instituted on 100' and 200' spaced lines with 50' stations. Although

the total magnetic anomaly is quite large, an attempt is being made to map buried structures in the vicinity of the two highs so that drilling may be placed with some reasonable assurance that holes will not be placed on sites that will encounter broken and fractured conditions at depth. A gravity survey has been made over this area, and the results will be covered in the next report.

COPPER HILL:

This area is located on the western flank of the Gillis Range where various acid intrusives are exposed. Weak copper mineralization has been found in several localities where those intrusives are associated with thick limestone beds. Geochemical work indicates anomalous copper conditions in the area. The favorable area appears to extend eastward off the reservation, so 10 claims - referred to as the Delta 50-59 - were staked along the reservation boundary covering an area 6000' x 1500' in size. Rotary drilling for claim validation was begun here on 7/26/65 and finished 8/31/65, for a total of three holes - CH 1, CH 2, and CH 3 - with a total footage of 310'. Weak copper mineralization was encountered in all 3 holes. A reconnaissance IP survey is planned for this area and should be concluded before further drilling.

AFTERTHOUGHT:

A drill test is presently underway in this area to test the IP anomaly. A rotary drill was moved to Site AF 1 (location 10N 3E) on 8/31/65 and bottomed at 100' on 9/7/65. Site AF 2 was started 9/7/65; however, the hole was lost at 30' by caving from the surface. The cuttings from this hole were quite interesting, as the metal content (pyrite and unidentified copper minerals) were noticeably increasing from 5' to the 30' depth. This material is presently in for assay work. A core rig is to be moved into the area on 9/20/65 and will start work on Site AF 2.

Dozer Work

Access roads were built into the following projects: AFTERTHOUGHT and COPPER HILL.

Drill sites were built on the AFTERTHOUGHT, COPPER HILL and HOTTENTOT projects.

An access road will have to be built into the CALICO area before any equipment can be moved into that area. A contractor has been contacted for a bid on this work. The work will probably cost around \$4,000.

Project Planning

Induced Polarization Surveys: (McPhar)

Hottentot Complex. On the last IP survey, an anomaly was indicated on one

line lying east of the Hottentot #3 magnetic anomaly. This may be the area of interest for copper mineralization, as our drilling has indicated increases in copper content as we have moved eastward. It is recommended that a 10-day survey be conducted in this general area in an attempt to localize a drilling target.

Afterthought. The present drilling of the IP anomaly indicates enough disseminated metal present to warrant extension of the last IP survey. An attempt to close this anomaly at each end should be made. A 10-day IP program should be sufficient to obtain these closures.

Copper Hill. A 5-day reconnaissance IP program should be made in this area in an attempt to select favorable areas for further work.

Aerial Photo Work

One of the reconnaissance areas of interest to Walker-Martel is the Black Mountain located in the northern end of the Wassuk Range. Elevations range from about 4500' to 8136' and there is only one road leading into the area (suitable only for 4-wheel drive). Geologically, the area is one of numerous intrusives with occasional patches of volcanic cover. There are numerous prospects in the area for copper, gold and silver. As far as is known, no detailed exploration has ever been undertaken in the area. Because of difficult access problems, a project consisting of aerial color work is under consideration. From the color work, areas will be selected for detailed geologic and geophysical studies. It is hoped that the photos will indicate which areas are of little interest and will help to concentrate work in the most favorable area.

Research Work Finished or in Progress

Bear Creek Mining Company has indicated an interest in the general reservation area and surrounding country. They have spent the better part of two years in mapping and geophysical work in western Nevada, and have asked that they be allowed to conduct some of this work on the reservation. Permission was granted. To date, they have run a gravity survey on the Calico (results to be forthcoming within the next two or three weeks) and they intend to run their own IP equipment on 1000' spreads on the Calico and Hottentot in the near future. All information from this work will be given to Walker-Martel.

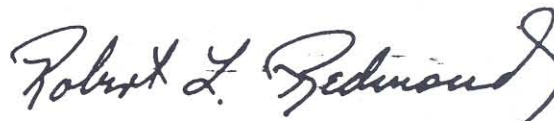
U.S. Steel has been conducting research on the problem of differentiation of magnetics obtained from surface and near surface volcanics vs. buried magnetite sources. It is hoped that a copy of this work will be obtained in the near future. In a personal communication it has been learned that the Lyon deposit and the Calico prospect appear to be very similar in nature in aerial magnetic surveys.

Harvard Research, under the direction of Mr. Rob Roy, had contacted us about research on a geothermal gradient project. In exchange for allowing them to put casing into the Main Hottentot DDH 1A, they agreed to bring in their own drill to deepen DDH 41-1, located on the Boudier Anomaly. This work was vital to Walker-Martel, as

we hold this area by 30 lode claims which were in need of assessment work this year. The drill was on the location on 8/31/65 and drilled from 778' to 936'. They will leave \$1,800 worth of BX casing in the hole and have indicated a desire to return later this year to further deepen this hole. The rock encountered was re-crystallized limestone cut by quartz monzonite dikes containing some sulphide mineralization.

Recommendations

Hottentot Complex. The South Hottentot and Hottentot #3 areas should be offset drilled to prove a tonnage (estimated from geophysical methods) of approximately 2,000,000 tons of 57% Fe in the form of magnetite. Two Japanese firms have indicated an interest in buying a high grade iron containing copper, providing the copper is free to them. Several local outlets for iron have been contacted and all have indicated an interest; however, until we have blocked out tonnage no one will commit as to their actual degree of interest. Indications are that we could open pit mine from 1/2 to 1 million tons of iron with a profit potential of from 50¢ to \$1.00 per ton. If this potential could be realized, the money could be used to offset the high exploration costs on the rest of the reservation. Such a development would have the additional benefit of pleasing the Piaute tribe, who are most anxious to see something brought into production, and would put Walker-Martel's relationship with the tribe on even a stronger footing than at present.



Robert L. Redmond
Walker-Martel Mining Company

6000 0078 (0760)

WALKER-MARTEL MINING CO.
1080 PINE RIDGE DRIVE
RENO, NEVADA

FAIRVIEW 2-6320
CODE 702

October 25, 1965

Progress Report - Walker River Paiute Indian Reservation
Period Sept. 15, 1965 - Oct. 15, 1965

Exploration progress will be reported under individual project designations within the reservation.

HOTTENTOT COMPLEX:

A. Main Hottentot
No work this period.

B. South Hottentot
All drilling on this anomaly will be designated as #3 series holes. Hole #4 was changed to #3A and Hole #5 was changed to #3B.

Hole #3C was bottomed at 212 feet. Assay values are as follows:

Depth	Thickness	Cu %	Fe %
✓ 49.1 - 67.6 = 18.5		0.088	50.4
✓ 67.6 - 91.0 = 23.4		0.094	47.6
✓ 91.0 - 110.0 = 19.0		0.088	61.6
✓ 110.0 - 127.0 = 17.0		0.075	61.2
127.0 - 129.1 = 2.1			
		waste	
✓ 129.1 - 144.0 = 14.9		0.100	24.8
✓ 144.0 - 157.5 = 13.5		0.050	18.2
			Av. 77.9 ft. 54.6% Fe
			Av. 108.4 ft. 44.95% Fe

Hole #3D was bottomed at 150 feet on October 7, 1965. Assay values are as follows:

Depth	Fe %
✓ 0-25 = 25.0	42.8
25-35 = 10.0	41.2
35-51 = 16.0	32.4
51-72 = 21.0	not returned 15.0%
72-94.5 = 22.5	not returned 37.8%

Used
Wt. avg.
for 0-94.5
A

Hole #3E is presently in progress. Extreme difficulty is encountered in drilling this hole, as the intrusive rock is very silicified and badly shattered.

C. Southeast Hottentot (name changed from Hottentot #3)

Hole #6A was bottomed last period at 509 feet. Assay values are as follows:

Depth	Thickness	Cu %	Fe %
293.5 - 313.5	= 20.0	0.107	59.6
313.5 - 333.5	= 20.0	0.138	57.2
333.5 - 352.5	= 19.0	0.088	56.0
352.5 - 355.0	= 2.5	0.080	59.6

Av. 61.5 ft. 57.71% Fe

Attached is a hole location map for these two magnetic anomalies, which shows the location of all drilling to date. A peg model of the South and Southeast Hottentot is being built to a scale of 1 inch equals 50 feet.

The Bear Creek Mining Company spend two days in this area with their I.P. equipment. Results of this work will be reported in the next report.

CALICO

The Bear Creek Mining Company has furnished Walker-Martel with a copy of their gravity work for the Calico area. The area covered approximately 5 by 2-1/2 miles. The objective was to find out if a pediment exists to the west of the Calico Hills. The work indicates that there is no pediment, but does support the theory we have developed of a major NW-SE trending fault structure bounding the Calico on the west side. The gravity work indicates the valley fill to the west of the Calico to be over 1,000 feet in thickness. This work was not undertaken with enough sensitivity to indicate the presence of massive mineralization such as magnetite. Direct cost per station for this survey was estimated at \$7.00. A survey to establish the presence of a massive body would cost approximately \$40/station, and regardless of the results would have to be drilled for a final proof. Such a survey ~~was made~~ over the U.S. Steel-Lyon deposit. The results were rather inconclusive in nature.

Bear Creek has spent the week of October 11, 1965 running 1,000 foot spread I.P. lines over the Calico area. The results of this work will be covered in the next report.

The drilling equipment access road will be under construction starting October 18, 1965. It is anticipated that this work will cost about \$3,500. Some difficulty will be encountered in constructing an adequate road through the sandy areas which completely surround this project.

AFTERTHOUGHT

Drilling was continued on this project throughout the period. Drill hole AF2 was cored to a depth of 412 feet. Circulation was lost at 400 feet. An attempt was made to cement off the hole at that depth. This was successful. However, at 412 feet the drill rods were stuck in the hole. Two days were spent trying to free them, unsuccessfully.

The hole was abandoned. If further drill depth is needed, we will have to try BX rods, drilling through the NX size rods which remain in the hole.

AF-2

Pyritic mineralization has been encountered almost continuously for the 412 feet drilled, with a molybdenum association at 350 feet. At the present time, the core is being split for geochemical and assay work which will be reported next month.

The drill has been moved to the AF1 drill site located 200 feet north of AF2 on I.P. line 300E.

The cuttings from the 33 feet of rotary drilling on AF2 were sent for assay with these results:

	<u>Gold</u>	<u>\$</u>	<u>Silver</u>	<u>\$</u>	<u>Copper</u>	<u>\$</u>	<u>Zinc</u>	<u>\$</u>	<u>Total \$</u>
Sample 811 R	0.010	0.35	0.10	0.125	0.088	0.548	0.10	0.28	\$1.30/ton

The amount of disseminated metal encountered in drilling proves the value of I.P. work for discovery of "blind" mineralized areas. Further I.P. work, seeking closure of the existing anomaly, will start about December 1, 1965.

A preliminary surface geochemical program was undertaken and concluded this period in the general area of the I.P.-anomaly. The attached map indicates the strong I.P. anomaly as well as the weaker "possible" anomalous areas. The samples consist of 4 to 5 separate rock chips taken at each sample site. The sites were tied into the existing I.P. location Grid. The samples were sent to the Rocky Mountain Geochemical Lab in Salt Lake City and tested for Cu, Pb, Zn and Mo. Each of these metals is indicated as present in anomalous amounts in specific areas outlined by the I.P. work. Values for molybdenum were many times background in certain areas.

Work in progress for the project consists of the following:

- (a) Extending the detailed geologic mapping both to the west, east and to the south.
- (b) Setting up the areas for further I.P. surveying.
- (c) Further surface geochemical traverses.
- (d) Geologic cross sections.

Reconnaissance (attached map shows areas of investigation)

AREA A: One day was spent making an aerial geologic reconnaissance of the magnetic highs located along the northern reservation boundary. This particular area lies to the north-northeast of Weber Reservoir. Two days were spent on the ground checking out the highs. The conclusions are that this area is covered by an assortment of volcanic flows and tuffs which are largely responsible for the occurrence of the magnetic pattern in the area. No further work is planned for this particular area in the immediate future.

AREA 1: Area of intrusives covered by volcanics. The area has apparently been prospected in the past for gold and silver. Numerous small adits and shafts are present. There appears to be an altered area on the SE flank of the intrusive. Further geologic studies will be made of this area.

AREA 2: Area of intrusives. Is probably part of the intrusive complex reported in Area 1. There is some visible mineralization in the form of pyrite, copper, manganese and, as there are modest workings, probably some gold and silver. Quartz veins occur with widths up to 10 feet. Further geologic studies of this area will be made.

AREA 3: Primarily covered by alluvium and assorted volcanics. Proximity to the old camp of Rawhide makes this area interesting from the standpoint of finding possible economic deposits of gold and/or silver. Preliminary evaluation suggests that several methods for exploration may be beneficial in this area.

- (a) Detailed geologic mapping - structure, lithology and alteration mapping.
- (b) Manganese geochemistry, determination of trace element associations.
- (c) Gold and silver geochemistry.
- (d) Regular geochemistry for Cu - heavy metal and arsenic. No priority has been assigned to this area at this time.

AREA 4 & 5: New staking activity was discovered in this area this period. The claims cover what may be exposures of the Gillis thrust. Copper Hill is also located along this structural feature. There is an area of about 4 miles between the reservation boundary and where the new claims have been staked, which by projection should cover this thrust. Further work is planned for this area between Copper Hill and the new set of claims.

AREA 6: A manganese occurrence described in U.S.G.S. Bulletin 710 F, pp. 233-4, was examined. There is no production record for the area, but apparently a few tons were mined. There is an association of silver, lead and zinc with the occurrence. Further work will be done in this area as part of the Aspiring project.

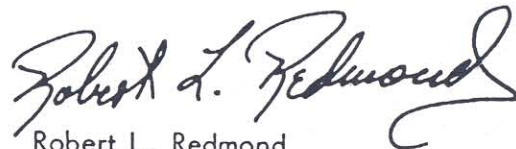
AREA 7: Black Mountain or the Mountain View Mining District (unorganized) is an interesting intrusive area. The area has been prospected for many years and is still attracting interest. No major exploration has ever been undertaken other than the usual digging of short adits or shafts. Mineralization is copper, gold and silver. Our work to date has consisted of three short reconnaissance trips, and complete aerial magnetic coverage. The magnetics indicate interesting patterns in the areas of complex intrusives, similar in nature to those found in the Afterthought area.

Access to the reservation part of the district is severely limited. The one road available was washed out about one year ago. Some thought has been given to flying this area to obtain color photograph coverage. However, the project would be quite expensive. It may be better to institute a preliminary program of flying a geologist over the area for one to three days and map existing features such as structure, alteration, intrusives, etc., on

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Period Sept. 15, 1965 - Oct. 15, 1965

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new U.S.G.S. topo sheets at a scale of 1:24000. This would delineate areas for us to begin preliminary investigations. Then, if warranted, we could reconsider the aerial color photo program.



Robert L. Redmond
WALKER-MARTEL MINING CO.

15 North

2020N

2019N

15N

10 North

5 North Line

10N

5N

ZERO LINE

9W

6W

3W

0

AF3

AF1

AF2

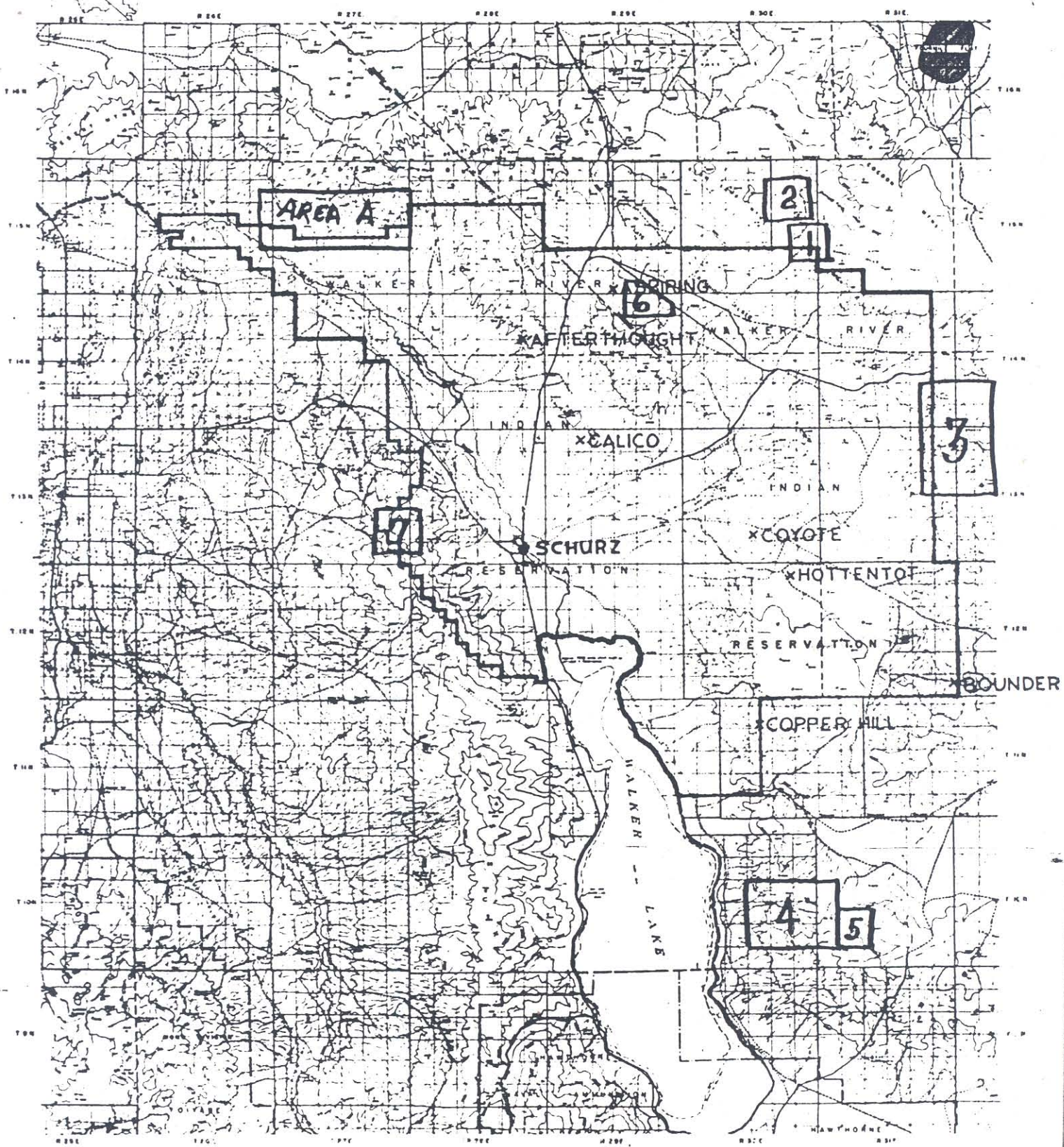
— I.P. Anomaly
- - - Probable
I.P. Anomaly
○ AF2 Drill Hole.
Mapping E.F.L.

Alluvium
Volcanics
Granite
Granodiorite
Metamorphic
Flows
Tuffs

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LEGEND

--- Indian Territory Boundary
+ Indian Reservation
A Indian Reservation



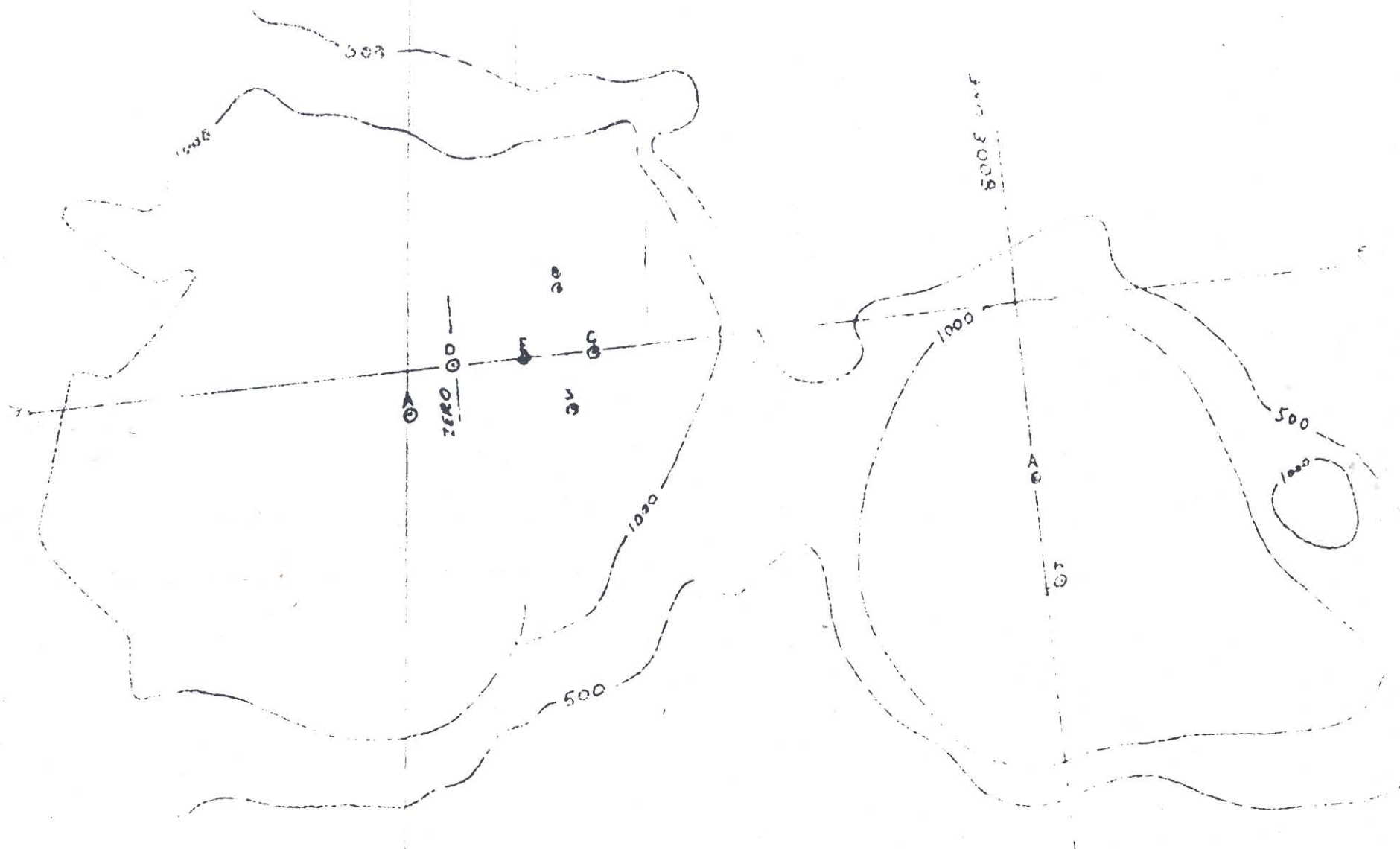
STATE AS OF JANUARY 1964

Reconnaissance Progress.

WALKER MASTER UNIT

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SHEET NO. 1

1962



South Hottentot

Southeast Hottentot

Drill Hole locations

Scale 1" = 200'

WALKER-MARTEL MINING CO.
1080 PINE RIDGE DRIVE
RENO, NEVADA

FINAL

6000 0078 (0760)

FAIRVIEW 2-6320
CODE 702

Progress Report - Walker River Piaiute Indian Reservation
Period Oct. 15, 1965 - Nov. 15, 1965

Exploration progress will be reported under individual project designations within the reservation.

HOTTENTOT COMPLEX:

- A. Main Hottentot
No work this period.
- B. South Hottentot
The final two assays for iron were returned on Hole 3D.

<u>Depth</u>	<u>Assay</u>
51-72 = 21.0	15.0% Fe
72-94.5 = 22.5	37.8% Fe

The mineralized material in this hole was completely oxidized and consisted largely of limonite with some subordinate hematite with very little magnetite. The mineralization occurs as a replacement in a shattered diorite intrusive.

Hole E

This hole was barren from the surface to the bottom depth of 149 feet. Extreme drilling difficulty was encountered in cutting the intrusive, as the diorite was completely shattered and oxidized from top to bottom.

Hole F

This hole has two mineralized intervals, from 19 to 49 feet, and from 72 to 135 feet. Both intervals have been sent in for assay and will be reported in the next report. The hole was bottomed at 159 feet in oxidized and shattered diorite.

Hole G

Cut iron mineralization at 20 feet. Sampled intervals and assays will be reported in the next report.

Upon completion of Hole 3F, 2,225 feet of drilling has been put into the Hottentot complex. The following is a list of how the footage was expended:

<u>Hole Designation</u>	<u>Rotary Footage</u>	<u>Core Footage</u>	<u>Totals</u>
DH 1A (Main)	864	182	1,046
DH 6A (Southeast)	286	223	509
DH 3C (South)	None	212	212
DH 3D (South)	"	150	150
DH 3E (South)	"	149	149
DH 3F (South)	"	159	159
		Grand Total	<u>2,225</u>

The preliminary footage budget was for a total of 3,300 feet. There now remains 1,075 feet to be used in the area. Based on the results of footage used in drilling the South Hottentot, it appears that drilling can be terminated upon completion of DH 3H. Footage that remains might be placed with the most advantage in a drill test of the area lying to the east of the southeast magnetic anomaly.

Bear Creek Mining Company completed an I.P. survey of Line 400S on 200 feet and 500 feet dipole spacing using a frequency of 0.1 and 1.2 cps. The results of this work are essentially a verification of McPhar's previous work, in that apparently the very low resistivity encountered over the South and Southeast Hottentot anomalies precludes obtaining useful I.P. data in that immediate area. However, Bear Creek's work does show an anomalous condition starting at about 1300E on the 400S line and extending to the east. McPhar's preliminary work also indicated a possible mineralized area lying in that direction. Geologic mapping suggests that the Hottentot intrusive may underlie this area. Our drilling indicates that the intrusive is mineralized in at least three separate areas across a distance of approximately 2,000 feet (i.e., Main, South, and Southeast Hottentot areas) and with an apparent build up in copper content in the form of chalcopyrite, as drilling proceeds towards the southeast.

The programmed I.P. work will be used in an attempt to delineate the anomalous conditions and block out any existing areas of mineralization. If this program is successful, recommendations will be made for a preliminary drill test.

A meeting was held here in Reno with Dr. Phillip Hallof of McPhar Geophysical this period. Prior geophysical studies coupled with drill results were discussed. Dr. Hallof has recommended two days of experimental work for the area of low resistivity at no charge to Walker-Martel other than expenses. Hopefully, this work will point up geophysical methods that may be useful in all very low resistivity areas found on the reservation, but in particular the known mineralized area of the Hottentot complex.

Work continues on the South and Southeast Hottentot peg model. Drilling results on the South Hottentot are extremely hard to reconcile with the magnetic anomaly which suggests that we may be dealing with two magnetic influences; (1) that derived from the magnetic field associated with the iron body and (2) remnant magnetism associated with the intruded rocks. At the present time, the drilled South Hottentot area suggests that there is an elongate north-south body which may contain approximately 350,000 tons of iron ore separated from one or two smaller irregular bodies of material best suited for an up-grading process. Drill holes G and H may drastically change this picture.

No attempt is made to evaluate the Southeast Hottentot based on the present 2 drill hole program other than the iron encountered is of good grade and thickness. However, the amount of copper encountered, 0.12% Cu, is excessive for direct shipping iron. Discussions held with one Japanese firm indicated they would be interested in a high copper-iron if they did not have to pay for the copper content.

A drill hole location map is attached.

CALICO

An access road was built into the Calico area this period using a local construction firm which supplied a D 8 dozer, compressor, air hammers and crew. The area is one completely surrounded by soft sand. The road, finally completed, will not be suitable if the Calico is a development project.

CA-1 drill hole was located in the area selected by U. S. Steel for a drill test when they were working on this project. Before accepting this site for drilling, Walker-Martel undertook an intensive program of mapping and detailed magnetic surveying over two target areas within the anomaly indicated by our aerial magnetic survey. The results and interpretation we obtained were quite close to those obtained by U. S. Steel.

As of November 13, DH CA-1 was down to a depth of 610 feet by air rotary drilling. At that depth the cuttings show the presence of moisture, necessitating a switch to rotary drilling with mud. Rocks penetrated have been tuffs and thin volcanic flows.

The results of the I.P. survey conducted by Bear Creek Mining Company have been received. They ran the same line as McPhar Geophysical on 1,000 foot dipole spacing. The interpretation given to this line is also the same "probable pick-up of coupling effects, although it may represent anomalous conditions."

Because of the thick cover of volcanics in the area and the estimated depth of 1,200 to 1,500 feet to the top of the magnetic source, I would say coupling effects are probably the best interpretation of the data.

AFTERTHOUGHT

Hole AF-1 was drilled to a depth of 535 feet. From approximately 425 to 535 ft., several fault zones were cut which caused difficulty in drilling. Thin section work on the core indicates this area to be composed of a quartz monzonite intruding a series of sedimentary rocks composed primarily of limestones. There is also an association of grano-diorite, the main part of which has intruded the general area to the south of this area. The quartz monzonite and metamorphic rocks contain abundant pyrite mineralization. The mineralization of interest is chalcopyrite, tetrahedrite, and occasional blebs of molybdenite associated with the pyrite. No quantities of these minerals have been found that could be considered as economic.

The following is a list of the assays returned for DH AF-2:

AF-2	Sample Interval	Copper ppm	Moly ppm
	300 - 310	340	25
	310 - 320	330	5
	320 - 330	280	8
	330 - 340	265	10
	340 - 350	55	12
	350 - 360	20	5
	360 - 370	150	8
	370 - 380	120	2
	380 - 390	15	3
	390 - 400	20	2

The mineral associations as well as the complex intrusive geology suggest that this general area is one which could well contain economic values.

At present, the drill has been put back on AF-2 to deepen the hole. Slight difficulty was encountered in drilling through the NX core barrel and diamond bit that was lost in the previous drilling. However, BX casing has been successfully set through the NX rods and drilling is proceeding with BX size. McPhar considers a drill test of about 600 feet depth as adequate for full information, based on the I.P. work. Upon completion of this hole, the drill will be demobilized. When the next stage I.P. work is completed, we will determine if we should put the final hole at site AF-3 or to spot it in a new area based on, hopefully, more precise information.

During the discussions held here with Dr. Hallof, he asked if he could put in some experimental I.P. work on Line 3E. The work will consist of running a series of offset dipoles on 100, 200 and 300 foot spacing in an attempt to pin down more precisely a zone, indicated by the past I.P. work, to be very massive sulphide with an approximate width of 100 feet, located within the broad, weaker mineralized zone. The two holes, AF-1 and 2, verify the existence of the broad zone of mineral. However, we have been unable to locate the more massive zone.

Further work will be undertaken in an attempt to localize the massive zone, if present.

COPPER HILL RESUME'

The Copper Hill area was first reconnoitered in 1962 by E. F. Lawrence and W. L. Wilson, and certain features of geologic interest were noted, among which was the area that we call the "gossan" towards the summit of the range. This gossan is a deep iron and manganese stained area varying in width from 15 to 25 feet and traceable along a strike length for approximately 1,500 feet. This was prospected in perhaps the early 1900's and a few fairly shallow shafts on the order of 50 to 100 feet were sunk on it and a few adits were driven both into the structure on which the gossan is developed and adjacent structures up to 50 feet away from the gossan. The dumps from some of the older structures have high amounts of principally zinc and copper with up to 1% copper and

some of them with up to 5% zinc. These workings were mapped by Ed Lawrence and Al MacLaine during the Spring of 1965. It was found that most of the mineralization in the old workings in the shaft was confined to relatively high-grade seams of pyrite and no disseminated mineralization was encountered in the old workings. The copper, lead and zinc mineralization that was present in the material on the dumps is probably, for the most part, contained in the pyrite.

In the Fall of 1964, we started a limited exploration program to determine the significance of the mineralization observable on the surface. In connection with this program we started a magnetic survey, laying out a baseline along the strike of the gossan, and normal to this line we ran cross lines with a magnetometer. The area from approximately 200 east to 800 west along the baseline was run with the magnetometer, with a cross line being run on 50 foot spacing every 200 feet. These cross lines were carried approximately 700 feet north of the baseline and approximately 500 feet south; however, line 200 east was carried to 900 south. The magnetics were run with a Jalander Magnetometer, Serial No. 57102. There was very little observable pattern that was useful from the magnetics that were run. However, the intrusives appear to give higher values than the sediments, and by sediments we mean the pre-tertiary sediments which are in this area -- largely limestones and dolomites. Something that may be a little unusual in this area is that the diorite in the southeast corner of the area map appears to be lower in magnetic intensity than the more acidic intrusives to the west and to the north.

In November, 1964, test lines were run using self-potential gear, both across the gossan area and the structures in that area and across the acidic intrusive stocks northeast of the gossan where the disseminated copper is found. The self-potential method did not appear to give any anomalies at all in either area. The fields are more or less uniform, although there is a little bit of variation in the intensity of the natural electrical field, but the pattern does not necessarily fit the known mineralization. At any rate, there is a maximum variation in the area covered of approximately 40 or 50 millivolts and this is not thought to be an anomaly that we can use to advantage in this area.

Concurrent with the magnetic survey described above, we ran test surveys on geochemical soil samples. Lines 200 east, 200 west, 400 west, 600 west and 800 west were all sampled at 50 foot intervals from approximately 500 south to 650 north. These samples were then run for cold copper (acid soluble); definite patterns did emerge from this sampling. To the northwest of the gossan area, strong anomalies were found, in excess of 40 parts per million, covering lines 8 west, 6 west, 4 west and 2 west from approximately 300 north on these lines to the end of the lines, and the lines quit in material which was running greater than 40 parts per million copper. Further, there were areas developed along the gossan and mostly adjacent to the old prospects that had in excess of 40 parts per million copper. We did get a good cut-off going south on these lines and down to fairly low values on each line, with the exception of line 200 east which was building up again towards the south end of the line.

It appears that we do have a higher background for cold copper in this area than the rest of the reservation on which we have conducted soil sampling. On most of the reservation, our background is less than one part per million. However, in the Copper

Hill area there appears to be around two to three parts per million, both in soil sampling and in stream sediment sampling when we are in or near the mineralized area.

The same series of samples that were run for cold copper were also run for general heavy metals with the cold extraction. The heavy metals' pattern is essentially the same as the cold copper. However, the method discriminates slightly against copper and it discriminates in favor of zinc, so the pattern is slightly different in that the heavy metals' pattern probably reflects areas where there is a greater concentration of zinc and doesn't show the copper content as well as the specific test for cold copper. When it became apparent that we were getting high metal values in the samples, we extended some of the lines further north to try to close off the anomaly. We also extended lines to the west and we interspaced lines between the original lines which were on 200 foot center, so that we now have coverage on 100 foot centers along the baseline and on 50 foot centers on our lines normal to the baseline. Inspection of the area where the high copper values were coming from, in the northwest portion of the area sampled, indicates that there is a skarn zone and there are some vein-like occurrences of copper that could be accounting for most of the anomalous conditions. This is on a steep slope and part of the copper that is scattered throughout the area may be coming from the material eroding down hill from small veins. However, the values are fairly uniform in this area and it is also thought that there is the possibility of disseminated copper in this general area.

In the course of performing the geochemical and geophysical work described previously, disseminated copper was found in an area approximately a thousand to fifteen hundred feet northeast of the gossan outcrop. This is present in low-grade concentration fairly uniformly disseminated throughout a quartz-monzonite rock; the outcrop of which is not large, probably covering only 100 acres. However, this rock type is fairly common in the area of Copper Hill, but only a relatively small portion of it appears to be mineralized on the surface. A portion of these mineralized stocks extends off of the reservation and, accordingly, ten claims called the Delta 50 to Delta 59 were located in June, 1965.

Sprout Engineers was hired to survey the reservation boundary line and also to set the corners and the discovery monuments on these claims and also to tie in some corners of older claims that had been located on the reservation in this general area which were not valid because of withdrawal of lands for the Indians. The claims were properly cornered and validation work was done both with a bulldozer and by drilling three holes with a rotary drill called the Delta 1, Delta 2 and Delta 3. Reference to the location of these holes can be made on the claim map prepared by Sprout. The location certificates for these claims were filed within the 90 days allowed by Nevada law.

Additional geochemistry was performed, largely on the basis of stream sediment samples. An attempt was made to surround the entire area of mineralization with stream sediment samples to make sure we would not miss any large amount of mineralization that would show up in this sort of a pattern. The information obtained from these samples is plotted on overlay of photographs VAMT 2-109, 2-137. It was observed from the information collected here that there is the higher background of cold copper previously referenced. Some exposures of copper were found in areas previously not known to be strongly mineralized. These are mostly in the form of veins or small dikes, and mineralized with

moderately high-grade copper. Most of these areas are southwest of the gossan out toward the western range front. In the location work drilling there was a small amount of disseminated copper mineralization found throughout all three of the holes. This was on the order of .02 to .09 per cent copper.

The areal magnetics were then plotted in greater detail than previously done for the Copper Hill area, and this shows a relatively encouraging pattern. Over the mineralized stocks there is a well-developed low. It is not of large areal extent, being approximately a half a mile wide and possibly three-quarters of a mile long. To the northeast of this low there is a larger magnetic low of greater width and greater strike length, and this may represent a portion of the Gillis thrust. However, additional detail magnetics need to be plotted along the projections of this to see if it does correlate with the areas where the thrust has been mapped on the ground. There are no strong positive anomalies in this area. The aerial magnetics are plotted on photos 2-109 and 2-137. The only geology that has been done to date consists of mapping the underground workings performed by Ed Lawrence, mentioned previously. These are plotted on a scale of 1":50' and 1":20'. There is a fair amount of tungsten present in the area previously called the skarn zone to the northwest of the gossan outcrop. This tungsten is present in the form of scheelite and there is also some powellite present. Powellite can be variable in composition between calcium molybdate and calcium tungstate; however, it does carry significant amounts of molybdenum. For that reason it is recommended that we run some of the samples that were taken and known to be in the mineralized area for molybdenum.

Maps available in this area include 7-1/2 minute quads which Geological Survey has just completed which is on a scale of 1:24,500 and good aerial photography of the Geological Survey which is the VAMT photography on an approximate scale of 1:20,000. We have contact prints of all of the VAMT photography in this area. In addition, we have 2X enlargement of photo 2-137 and we have a 3X enlargement of photos 2-109, 2-111, 2-135 and 2-137. We are in the process now of bringing all of the data that is applicable to the aerial photographs up to the 3X scale so that we can show the aerial geophysics and the geochemistry all on the same scale. These were all previously plotted on the scale of the contact prints.

All of this information has been turned over to Mr. Robert Holt. He is to be responsible for carrying out further detailed work and will submit specific recommendations for furtherance of the project. His first full day was on November 14, 1965.

Research Reconnaissance (Confidential Information)

The results of an original research magnetic program were obtained that had included approximately two-thirds of the reservation area. Within certain elevational limits, it appears that all mineralized areas can be selected from this type aerial work. This particular research work emphasized all known economic mineral areas within parts of several counties.

The most interesting information is the comparison between the Lyon deposit (iron and copper) and our Calico project. The Lyon deposit registered at 1550 gammas, while

the Calico registered at 2000 gammas. The data also suggests that the Calico source is somewhat larger than that found at the Lyon deposit.

Three reconnaissance projects will start this period (November 15-December 15) on the three highs located to the northwest (Afterthought), north and northeast of the Calico. All three are located in areas we have designated as favorable from a geological standpoint. The attached map indicates the results of this research work. The yellow areas are magnetic lows of less than 1000 gammas. The uncolored areas lie in the range of 1000 to 1250 gammas. The blue areas lie in the range of 1250 to 1400 gammas and are also thought to delineate areas of favorable intrusives for mineral deposition. The purple areas cover the magnetic range from 1400 to 2000 gammas and probably represent specific areas where additional ground work will turn up quite favorable conditions. As an example; the Afterthought which lies on the southeastern end of an area enclosed by the 1400 gamma contour and has been proven by our drilling to be mineralized.

The lows indicated in our magnetic aerial work and results of this research program have not been investigated as yet, but in view of the magnetic low found over the Anaconda deposit at Yerington, all are felt to merit additional research. As present programs are completed, these magnetic low areas will be investigated.

Reservation Facilities and Equipment

Arrangements were made with the tribal council to locate a living trailer at Schurz within the hospital compound. We are to be allowed to use the sewer line and water; however, negotiations are continuing for electric power and may have to pay the cost of power pole installation. We have been given space for a field office and additional space for core and equipment storage.

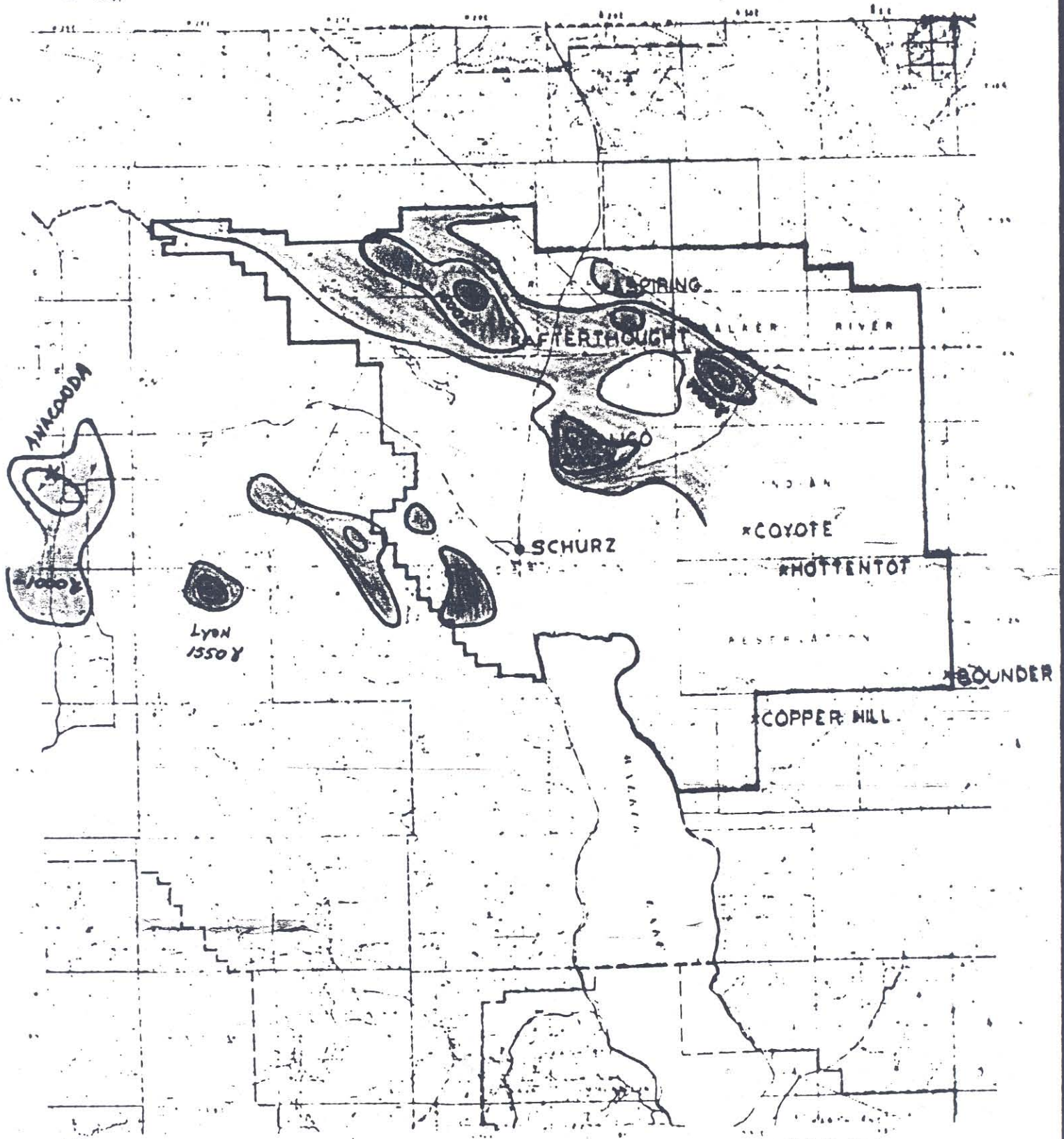
We have also completed arrangements for one vehicle on lease and purchased a water trailer for the camp site located at the Hottentot project. One more 4-wheel drive vehicle is under consideration. Upon obtaining this vehicle, we will have all necessary equipment.

General Reconnaissance

General reconnaissance was confined to two days in the Copper Hill area, specifically to acquaint Robert Holt with the area and bring him up to date on all work that has been done and one day in the area immediately southeast of drill hole 6 and 6A where I.P. effects have been found to be anomalous.

Robert L. Redmond

6000 0078 (0760)



WALKER MASTER UNIT

6000 0078 (0760)



A

D

E
BARREN

B

3

C

G

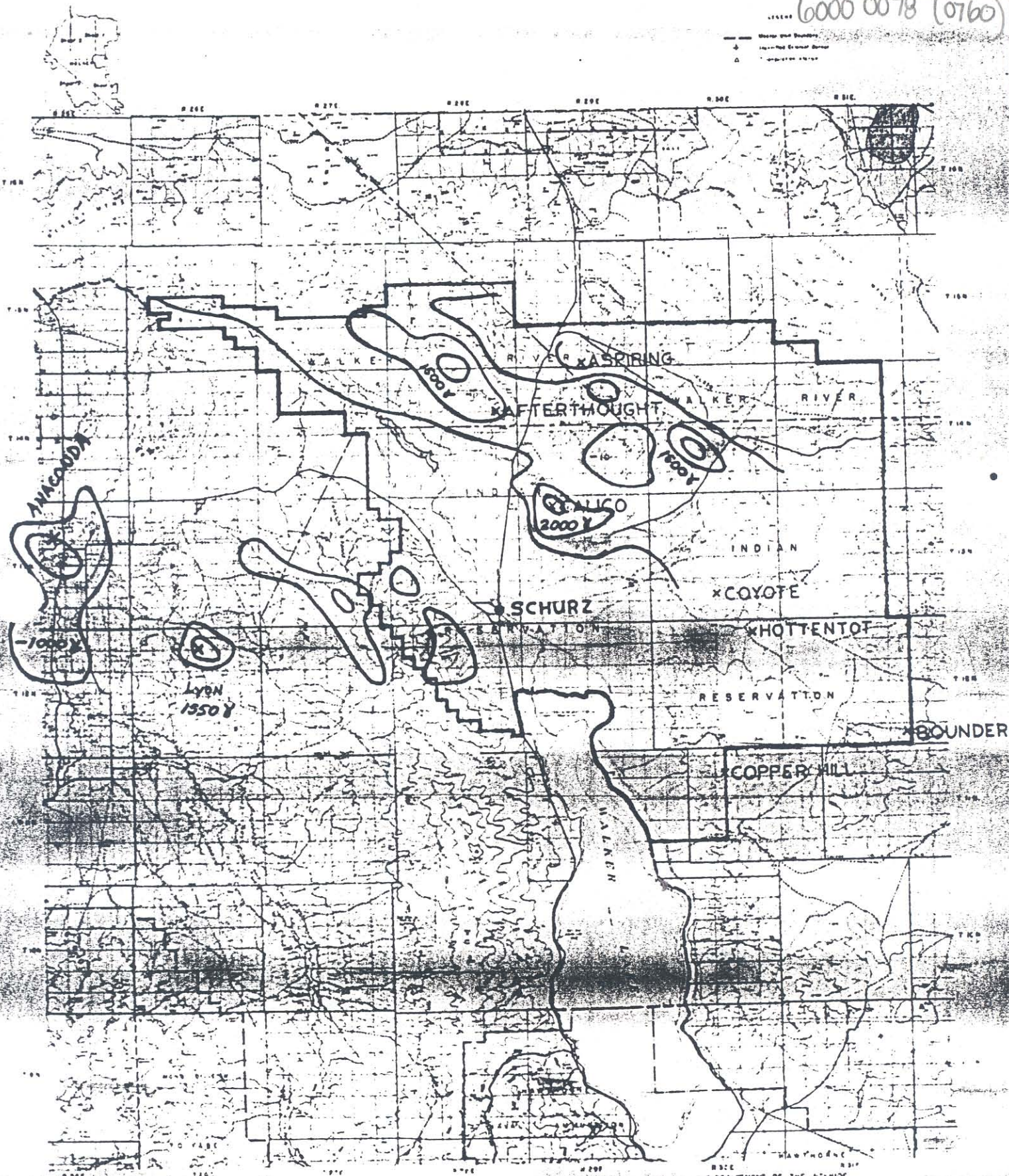
F

H

South HOTTENTOT

SCALE 1" = 100'

6000 0078 (0760)

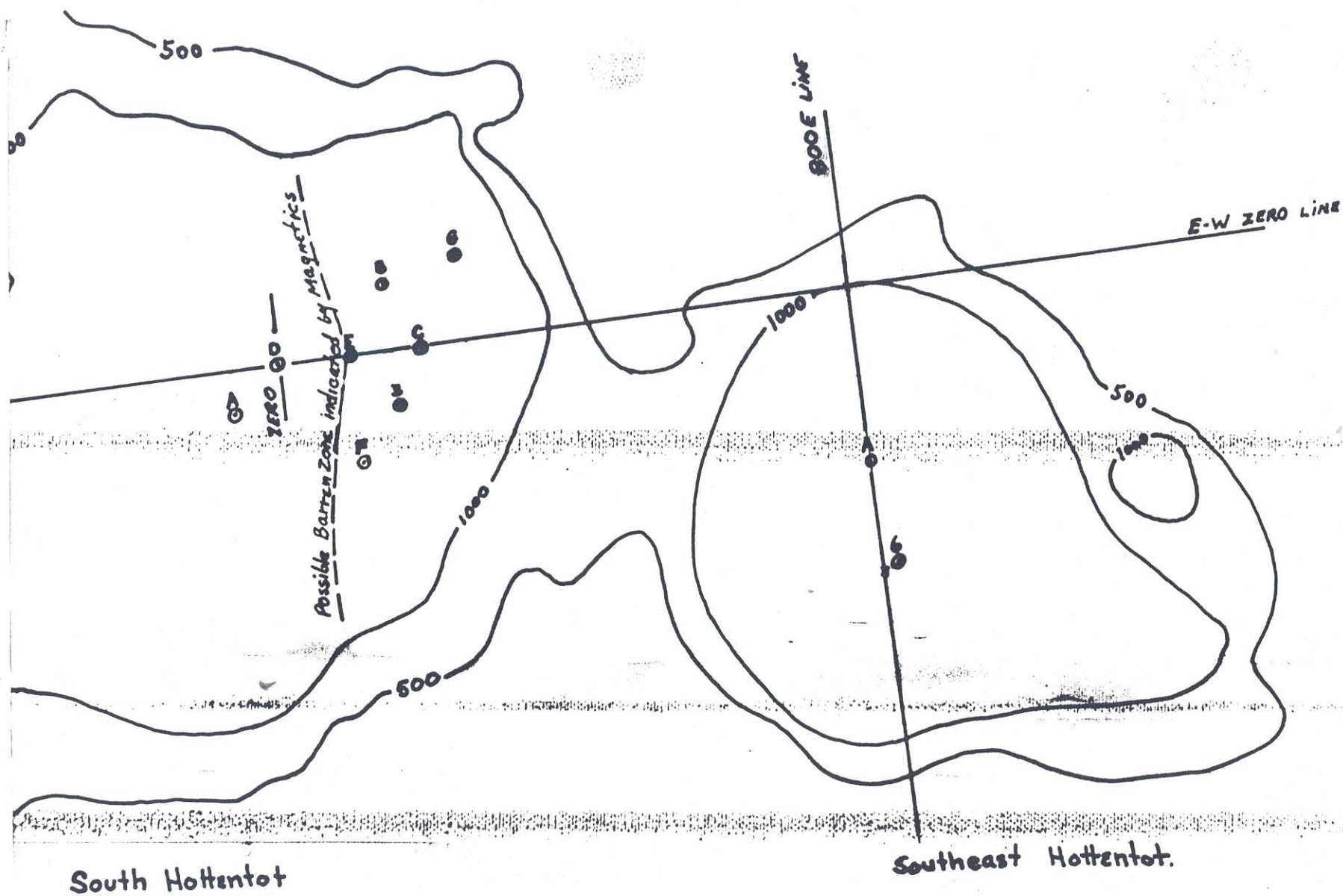


NOTE: STATUS AS OF JANUARY 1964

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SHEET NO. 1

WALKER MASTER UNIT

1962



Drill Hole locations
Scale 1" = 200'
R.L.R.

6000 0078 (0760)

WALKER-MARTEL MINING CO.

1080 PINE RIDGE DRIVE

RENO, NEVADA

FAIRVIEW 2-6320
CODE 702

Progress Report
Walker River Paiute Indian Reservation
Period Nov. 15, 1965 - Dec. 31, 1965

Exploration progress will be reported under individual project designations within the reservation.

HOTTENTOT COMPLEXA. Main Hottentot

No work this period.

B. South HottentotHOLE F

The following are the assays returned for the two mineralized intervals cut in drilling.

<u>Depth</u>	<u>Thick- ness</u>	<u>Assay Fe%</u>	<u>Remarks</u>
19.0 - 30.0	11.0	43.6	Oxidized
30.0 - 49.0	19.0	54.0	"
Barren 23.0 feet			
72.0 - 81.6	9.6	49.2	Oxidized
81.6 - 103.3	21.7	54.0	Hard/Massive
103.3 - 108.1	4.8	29.2	
108.1 - 125.0	16.9	35.6	0.107 % Cu
125.0 - 135.0	10.0	40.8	0.113 % Cu

The hole was bottomed at 157 feet in diorite.

HOLE G

The following are the assays returned for the two mineralized intervals cut in drilling.

<u>Depth</u>	<u>Thick- ness</u>	<u>Assay Fe%</u>	<u>Assay Cu%</u>	<u>Remarks</u>
19.5 - 48.5	29.0	46.0	0.119	Oxidized

H-36

<u>Depth</u>	<u>Thick- ness</u>	<u>Assay Fe%</u>	<u>Assay Cu%</u>	<u>Remarks</u>
48.5 - 65.2	16.7	61.2	0.050	Hard Hematite
65.2 - 66.7	1.5	44.8	--	Soft
66.7 - 76.7	10.0	58.4	0.315	Limonite/Hematite/Magnetite
76.7 - 82.2	5.5	46.8	0.113	
82.2 - 96.0	13.8	48.0	0.107	

Barren 37 feet

133.0 - 150.5 50.4 0.113

The hole was bottomed in the diorite intrusive at a depth of 175 feet.

HOLE H

The hole was bottomed at a depth of 221.0 after cutting one mineralized zone.

<u>Depth</u>	<u>Thick- ness</u>	<u>Assay Fe%</u>	<u>Assay Cu%</u>	<u>Remarks</u>
163.5 - 178.5	15.0	56.0	0.050	Soft Friable Limonite Hematite/ Minor Magnetite

Upon completion of Hole H, 2655.5 feet of new drilling has been put into this area. The first stage contract allowance was 3300.0 feet. At the present time no further drilling is planned for this project, so the drill has been demobilized.

A study will be made of the drilling results to determine the economic possibilities of mining, processing, and marketing iron ore from this area. Attached is a complete resume' of all assays and depths for all drilling to date and a hole location map.

Two major problems exist for this deposit. First, there are three types of iron ore, hematite, magnetite and a soft, friable limonitic material. The other problem is the association of sulphides containing copper. This situation puts the sulphur and copper content over allowable limits for direct shipping ore in the U. S. and necessitates up-grading to remove impurities to produce an iron concentrate. There are two possibilities for marketing which will be explored after completion of the metallurgical work now in progress. One is a new inquiry made by Mitsui Company asking what type and amount of either fines or lump ore we could furnish. The other possibility is a local company which has a 900,000 ton contract for shipment to Japan. They have a problem in that their iron is high in phosphorus, so that they must blend with other low phos ore. Discussions have been held with them concerning our mutual interests. They have indicated a willingness to explore the possibility of using our ore to lower their phos content. Their ore, on the other hand, would lower the copper content of our iron.

McPhar completed their experimental IP work on the Hottentot during the latter

part of December. The results of this work have not been received. This survey was made in the immediate vicinity of the South Hottentot and the Southeast Hottentot on lines 4 south and 8 east. The instrument operator, in a verbal report, says that mineralization is either relatively limited in size or that quite possibly they could not "read" through the overlying volcanic tuffs. The latter statement supports the results and interpretation of the IP work undertaken by the Bear Creek Mining Company and the Hendricks Geophysical Company over the same area.

The major problem is that the volcanics in this area give resistivity results of between 3 and 10 ohm feet, which apparently causes inductive coupling effects. At this date, this physical condition has not been a major problem on our other reservation projects, and we appear to obtain useful data with IP equipment.

Other studies such as collection of rock chip samples from the outcropping intrusives for geochemical work are in progress and will be reported next period. Hopefully, these studies will indicate in what direction the most mineralization lies in specific areas.

All of the detailed work on the South and Southeast Hottentot is directed towards determining which methods will be of aid in furthering the evaluation of the large sized magnetic anomaly referred to as the Main Hottentot which lies just to the north of this area. The Main Hottentot has had two drill holes put down to date. One hole cut an intrusive at approximately 700 feet and assays indicated 32 feet of copper and iron with additional interesting amounts of sulphide below the iron zone to a bottoming depth of about 1200 feet. The second hole, after cutting the intrusive, only encountered disseminated pyrite to the bottom depth of 1050 feet. Neither hole contained sufficient magnetic material to explain the magnetic anomaly. The Bear Creek Mining Company crew felt as we do that this area is a focal point for mineralization; however, the 700 feet or so of volcanic cover precludes using an easy surface method for determining where to put in a preliminary drilling program. Their suggestion was to pattern drill the area in an attempt to locate the most abundant sulphide mineralization with the justification that our drilling to date has indicated sufficient copper values to warrant such a program. A representative sample was taken from each mineralized interval from the eight drill holes put into the South Hottentot. U. S. Steel is running the metallurgical work to determine minimum tonnages needed and estimating costs. This work should be returned in time for the next report.

CALICO

On December 1, the rotary drill cut through the volcanic cover at a depth of 1330 feet. A very hard siliceous phase of a quartz diorite intrusive was encountered immediately beneath the volcanics which cut the rotary drill rate to less than five feet per shift. A core rig was brought in and NX casing was put through the volcanics. NX core drilling was commenced on December 8. On December 31, the core drill had cut to a depth of 1541 feet. Our first sulphide and magnetite mineralization was encountered at 1339 feet. The mineralization is by no means to be considered as of economic importance at this time. Samples taken of this mineral gave the following assay results:

Calico

<u>Interval</u>	<u>Fe%</u>	<u>Cu%</u>	<u>Au/oz</u>	<u>Ag/oz</u>
1373.7 - 1400.0 = 26.3	7.0	0.037		0.10
1400.0 - 1418.0 = 18.0	15.4	0.050		0.10
1418.0 - 1467.7 = 49.7	13.6	0.063		0.10

There is a slight but noticeable increase in both sulphide and magnetite content as the drilling proceeds. At this point, it appears very unlikely that the mineralization encountered can account for the very large magnetic anomaly encountered in this area.

At the present time, only one shift/day is working on the drill; however, Boyles Bros. assures us that as soon as men are released from other projects they will put on additional shifts to expedite drilling.

AFTERTHOUGHT

Hole AF 2 was bottomed at a depth of 638 feet in a grano diorite. Sufficient disseminated sulphide mineralization was encountered throughout this hole and AF 1 to explain the IP results. However, our drilling did not cut the massive sulphide zone that McPhar's work indicates as present within the disseminated sulphide area. McPhar began experimental work on line 3 east in an attempt to pinpoint a drill hole location which would intersect this anomalous condition. They did not finish this work because of an equipment failure; however, they intend to complete the project on January 3 and 4, 1966, and will make a drilling recommendation upon completion.

Geologic mapping continues in the general area with emphasis on suspected pediment areas and structural features. This mapping is scheduled for completion during the month of January, 1966.

COPPER HILL

Detailed geologic mapping was completed for the immediate Copper Hill project. The following is a resume' of Mr. Holt's conclusions of recommendations from his December, 1965, report:

"Summary and Conclusions

The Copper Hill area is, in my opinion, a moderately interesting prospect. It is in an area where structural activity is intimately associated with intrusive igneous activity and copper mineralization. The copper mineralization is not particularly widespread, nor is it associated with any pervasive rock alteration. Nevertheless, it is an interesting occurrence and since there is overlapping volcanic cover, there is an excellent possibility that we are looking at the periphery of a more mineralized area.

The target possibilities in decreasing importance are:

1. The quartz monzonite in the vicinity of the area recently drilled and to the

east under what is presumed to be a thin covering of volcanics. There is also the possibility that the entire block of ground which extends southward under the large ridge of intermediate volcanics and under the diorite adjacent to the shaft area could be included in this target.

2. Replacement deposits in the limestone and the limestone-diorite contact zone in the shaft area.

3. Fissure filling massive sulfides deposits or replacement deposits associated with the structure along which the prominent gossan outcrops in the shaft area.

4. The zone of disseminated copper mineralization in the quartz monzonite on the west edge of the map west of the drilled area. This particular area is of very low priority, however.

Recommendations

To check the potential of the targets enumerated above and to further prospect the Copper Hill area, the following steps are recommended:

1. Take a series of rock samples on 200-foot centers within the quartz monzonite and have them run for total copper and molybdenum. So as to keep costs at a minimum, every other sample can be run, and if significant data are forthcoming the remaining samples can be run. This will check the direction, if any, of a copper or molybdenum build-up in the quartz monzonite.

2. Take channel sample or at least take good representative chip samples in several areas along the prominent gossan outcropping in the shaft area. These should be run for total copper and at least one sample should be assayed for copper, lead, zinc, gold and silver.

3. An IP survey should be run in the area on at least 500' dipole spacing. Several lines should be run normal to the structure and across the areas of interest. Probably one long line should be run through and between the two major areas of interest; i.e., the drilled area on the north and the shaft area on the south.

Several 100' dipole lines should be run over the mineralized limestones and the gossan zone of the shaft area. Should any of these IP lines prove to be anomalous, zone by additional IP. It is possible that a 1000' dipole line over the volcanics east of the mineralized area would be justified, particularly if an anomalous situation is found on the shorter spaced lines. This is suggested because of the dip of the sediments under the volcanics and the increased thickness of the volcanics in this direction.

4. Several ground magnetic profiles might be useful in the drilled area so as to more definitely tie down the outlines of the magnetic low found there."

IP lines have been laid out in selected areas and will be run after January 1, 1966. Ground magnetic profiles will be obtained over each IP line.

GENERAL

A camp setup was completed at Schurz, Nevada, consisting of a living trailer, office space, and storage facilities for all our drill cores.

A grader was hired on a part time basis for \$12.00/hr. This equipment will be used to keep our various access roads in reasonable repair, which will reduce vehicle maintenance.

A geological map covering the parts of the three counties which comprise the Indian Reservation (Mineral, Lyon, Churchill) was completed at a scale of $1/2" = 1 \text{ mile}$. The geologic information was obtained from the individual county geologic maps.

Robert L. Redmond

WALKER-MARTEL MINING CO.
1080 PINE RIDGE DRIVE
RENO, NEVADA

FAIRVIEW 2-6320
CODE 702

SOUTH HOTTENTOT

Drill Hole	Interval	Thickness	Fe Assay	Ft%	Av.
3	41.0 - 50.5	9.5	59.78	567.91	
	50.5 - 60.4	9.9	55.45	548.96	
	60.4 - 69.5	9.1	59.66	542.91	
	69.5 - 80.8	11.3	62.13	702.07	
	80.8 - 91.0	10.2	49.82	508.16	
	91.0 - 102.0	11.0	60.13	661.43	
	102.0 - 112.0	10.0	60.60	606.00	
	112.0 - 122.0	10.0	57.44	574.40	
	122.0 - 126.0	4.0	55.56	222.24	4934.08 ✓
		85.0			
3A	130.0 - 147.1	17.0	54.29		928.359 ✓
		17.0			
3B	125.0 - 150.4	25.4	50.15	1273.81	
	150.4 - 154.8	no sample 4.4	-	-0-	
	154.8 - 177.5	22.7	45.11	1024.00	
	177.5 - 188.4	no sample 10.9	-	-0-	
	188.4 - 207.4	19.0	55.07	1046.33	
	207.4 - 230.5	23.1	51.83	1197.27	
	230.5 - 239.5	9.0	36.94	332.46	
	239.5 - 246.0	no sample 6.5	-	-0-	
	246.0 - 266.7	20.7	33.20	687.24	
	266.7 - 292.7	26.0	47.60	1237.60	
	292.7 - 310.0	17.3	28.00	484.40	7713.67 / 206.2 = 37.4
	310.0 - 331.2	21.2	22.80	483.36	
	331.2 - 354.6	23.4	18.40	430.56	8197.03 ✓
		229.60			
3C	49.1 - 67.6	18.5	50.40 ✓	932.40	
	67.6 - 91.0	23.4	47.60 ✓	1113.84	
	91.0 - 110.0	19.0	61.60 ✓	1170.40	
	110.0 - 127.0	17.0	61.20 ✓	1040.40	
	127.0 - 129.1 waste	no sample 2.1	-	-0-	
	129.1 - 144.0	14.9	24.80 ✓	369.52	
	144.0 - 157.5	13.5	18.20 ✓	245.70	4872.26
		108.40			

RLR

South Hottentot (cont.)

<u>Drill Hole</u>	<u>Interval</u>	<u>Thickness</u>	<u>Fe Assay</u>	<u>Ft%</u>	<u>Av.</u>
3D	0 - 25	25.0	42.8	1070.00	
	25 - 35	10.0	41.2	412.00	
	35 - 51	16.0	32.4	518.40	
	51 - 72	21.0	15.0	315.00	
	72 - 94.5	22.5	37.8	850.50	3165.90 / 94.5 = 33
		<u>94.5</u>			
3E	Barren 0 - 175	bottom depth			
3F	19.0 - 30.0	11.0	43.6	479.60	
	30.0 - 49.0	19.0	54.0	1026.00	1505.60 / 30 = 50.2
		<u>30.0</u>			
	49.0 - 72.0	waste			
	72.0 - 81.6	9.6	49.2 ✓	472.32	
	81.6 - 103.3	21.7	54.0 ✓	1171.80	
	103.3 - 108.1	4.8	29.2 ✓	140.16	
	108.1 - 125.0	16.9	35.6 ✓	601.64	
	125.0 - 135.0	10.0	40.8 ✓	408.00	2793.92
		<u>63.0</u>			
3G	19.5 - 48.5	29.0	46.0 ✓	1334.00	
	48.5 - 65.2	16.7	61.2 ✓	1022.04	
	65.2 - 66.7	1.5	44.8 ✓	67.20	
	66.7 - 76.7	10.0	58.4 ✓	584.00	
	76.7 - 82.2	5.5	46.8 ✓	257.40	
	82.2 - 96.0	13.8	48.0 ✓	662.40	3927.04
		<u>76.5</u>			
	96.0 - 133.0				
	133.0 - 150.5	17.5	50.4 ✓	882.00	882.00
		<u>17.5</u>			
3H	163.5 - 178.5	15.0	56.0 ✓	840.00	840.00
		<u>15.0</u>			

	<u>Total Tk</u>	<u>Total Ft%</u>	<u>Av. Grade</u>
8 Holes	736.50	32,046.19	43.51

RLR

WALKER-MARTEL MINING CO.

1080 PINE RIDGE DRIVE

RENO, NEVADA

FAIRVIEW 2-6320
CODE 702

SOUTHEAST HOTTENTOT

Drill Hole	Interval	Thickness	Fe Assay	Ft%	Av.
6	178.5 - 187.5 (2.0 waste)	9.0 (7.0)	60.05	540.450	
	187.5 - 197.5	10.0	61.34	613.400	
	197.5 - 203.0	5.5	59.33	326.315	
	203.0 - 209.5 (4.5 waste and low)	6.5 (2.0)	43.04	279.760	
	209.5 - 214.3	4.8	45.78	219.744	
	214.3 - 229.8	15.5	54.23	840.565	
	229.8 - 248.2 (9.0 waste and low)	18.4 (9.4)	46.73	859.832	
	248.2 - 261.0	12.8	51.32	656.896	
	261.0 - 269.5 (8.5 waste)	8.5		-0-	
	269.5 - 280.5	11.0	55.81	613.910	
	280.5 - 290.5	10.0	45.22	452.200	
	290.5 - 300.5	10.0	58.26	582.600	
	300.5 - 310.5	10.0	61.90	619.000	
	310.5 - 318.5	8.0	57.93	463.440	
	318.5 - 324.2	5.7	57.43	327.351	
	324.2 - 337.1	12.9	57.48	741.492	
	337.1 - 354.0	17.9	48.13	861.527	
	354.0 - 362.2 (8.2 waste)	8.2		-0-	
	362.2 - 384.0/	21.8	48.36	1054.248	10052.73
	205.5	205.5			
6A	293.5 - 313.5	20.0	59.60	1192.000	
	313.5 - 333.5	20.0	57.20	1144.000	
	333.5 - 352.5	19.0	56.00	1064.000	
	352.5 - 355.0	2.5	59.60	149.000	3549.00
		61.5			
	355.0 - 361.6	6.6	no sample		
	361.6 - 363.0	1.4			
	363.0 - 365.0	2.0			
	365.0 - 367.0	2.0			
	367.0 - 371.2	4.2			
	371.2 - 375.6	4.4	(57.20)		0.176 C
	375.6 - 379.0	3.4	grade of mineral only, waste excluded.		
	379.0 - 380.4	1.4			
	380.4 - 387.0	6.6		1830.400	1830.400
		32.0			

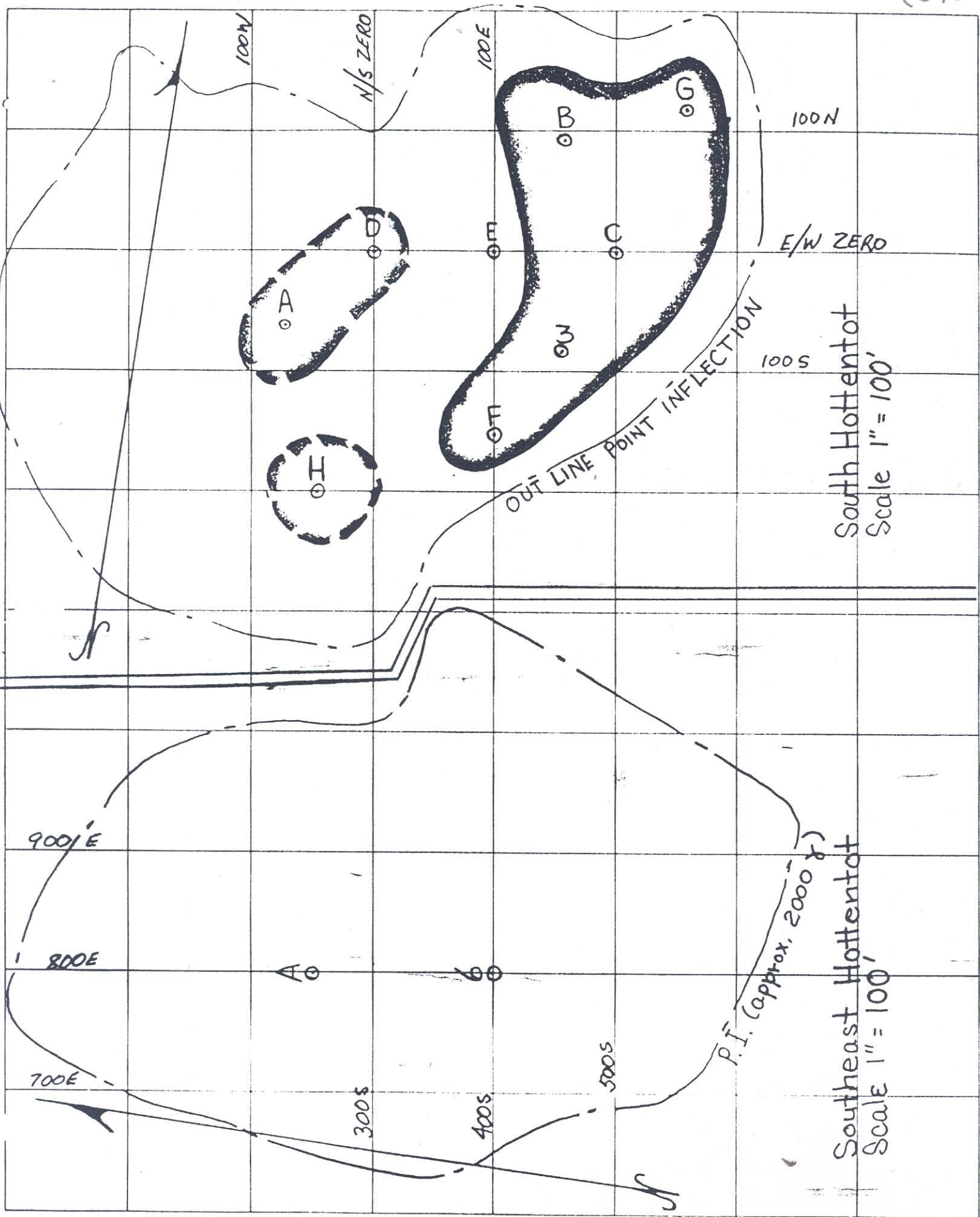
RHR

Southeast Hottentot (cont.)

<u>Drill Hole</u>	<u>Interval</u>	<u>Thickness</u>	<u>Fe Assay</u>	<u>Ft%</u>	<u>Av.</u>
6A	396.7 - 423.2	$\frac{26.5}{26.5}$	52.0	1378.000	1378.00 0.132 Cu

	<u>Total Tk</u>	<u>Total Ft%</u>	<u>Av. Grade</u>
2 Holes	325.50	16810.13	51.64

DLR.



WALKER-MARTEL MINING CO.
1080 PINE RIDGE DRIVE
RENO, NEVADA

FAIRVIEW 2-6320
CODE 702

Progress Report - Walker River Piaiute Indian Reservation
Period January 1 - February 28, 1966

Exploration progress will be reported under individually designated projects within the reservation.

HOTTENTOT COMPLEX

No work this period.

Results of metallurgical and I.P. work have not been returned for the project.

Main Hottentot

Evaluation of the latest geophysical and geochemical data for the complex suggests that further drilling can only be placed upon magnetic information. Since the mineral environment encountered in past drilling is favorable, a drilling program should be considered for the Main Hottentot. Two holes have been put in; one on the magnetic crest, and one offset to the south on the slope of the magnetic anomaly. The second hole cut sulphide mineral in a favorable host, but gave no explanation for the magnetic anomaly. The possibility is that the volcanics covering the area have, at least in part, a magnetic susceptibility such that some magnetic build-up has occurred which subjects interpretation of the magnetic curves to errors in placement of the magnetic source. A further possibility, as suggested by the drilling results obtained in drilling the South Hottentot and Southeast Hottentot is that the Main Hottentot may be composed of a series of discontinuous blocks of mineral faulted to various attitudes and elevations. In any event, the main magnetic anomaly is of sufficient size to suggest a large mineral potential. I would strongly suggest that we begin a rotatory hole 200 feet north of H-1. If, upon bottoming this hole, we still do not have positive evidence of a good drill target I would suggest that we proceed to farm out the Hottentot complex. If on the other hand we have cut mineral in interesting amounts, we should continue offset drilling.

In order to obtain the time extension agreement from the Indians, we agreed to take the South and Southeast Hottentot prospects to lease. This act requires certain development commitments to start within a 6-month period or that particular land reverts to the Indians. There is the possibility that the Southeast Hottentot could have a million ton plus potential in iron/copper mineral. Previous tests indicate that this particular mineral can be upgraded to produce a 68% Fe concentrate. Attached is a copy of U.S. Steel's letter of 5/7/65, with analysis of one hole DH6. The main hope for the complex remains; that since we have demonstrated that we do have a mineral focal point we may have copper in commercial amounts in the immediate vicinity. Unfortunately, except for magnetics, there does not seem to be any method, either geophysically or geochemically, for localizing drill targets other than actual drilling. Each new hole must be placed upon results of previous drilling and re-evaluation of the existing magnetic data.

CALICO

CA-1 drilling commenced November 11, 1965, and ended February 19, 1966, at a depth of 2,640 feet. Total cost of the hole was \$30,397.48 or \$11.514 per foot. However, the total cost includes 1,332 feet of NX casing (\$2,597.40) which will be deducted if and when the casing is pulled.

Rotary

The first 1,332 feet of CA-1 was drilled with a 4-1/4" tricone rotary bit. Air was used to blow out the cuttings from 0-620', when moisture was encountered. Drilling mud was used from 620' to 1,332'.

During the 24 working days from November 5 to December 2, 1965, a total of thirty-six 8-hour shifts were worked, giving a penetration rate of 37 feet per shift. From 1,260 to 1,332 feet the drilling was charged at an hourly rate instead of a price per foot because the progress had slowed to below 5 feet per hour.

The cost of plug bit drilling was \$5.04 per foot.

Core

The core drill moved on to CA-1 on December 4, 1965, and by December 7 had set 1,332' of NX casing.

Actual drilling commenced on December 8, 1965, and finished on February 19, 1966. During the 63 working days, a total of one hundred and four 8-hour shifts were worked, giving a penetration rate of 12.58 feet per shift. However, 188 hours (23.5 shifts) were lost due to equipment repair and cementing time, so the actual penetration rate while drilling was 16.25 feet per shift.

The cost of core drilling was \$18.11 per foot with the casing left in the hole, or \$16.12 per foot with the casing removed.

The average direct contract cost per foot drilled was \$11.514.

The following are the samples and assay returns for the hole.

DRILL HOLE CA-1

Sample No. <u>R Series</u>	<u>From</u>	<u>To</u>	<u>Thick- ness</u>	<u>Fe %</u>	<u>Cu %</u>	<u>Oxy Fe %</u>
	1332.0	1373.7	41.7			
987	1373.7	1400.0	26.3	7.0	.037	
988	1400.0	1418.0	18.0	15.4	.050	
992	1418.0	1467.7	49.7	13.6	.063	
	1467.7	1477.0	10.0			
	1477.0	1486.5	9.5			
	1486.5	1496.0	9.5			
	1496.0	1506.5	10.5			
	1506.5	1516.0	9.5			
	1516.0	1524.0	8.0			
	1524.0	1533.5	9.5			
	1533.5	1534.0	.5			
997	1534.0	1541.5	8.0	39.2	.100	
	1541.5	1552.5	11.0			
	1552.5	1560.0	8.5			
	1560.0	1566.4	6.4			
999	1566.4	1568.0	1.6	54.5	.189	
	1568.0	1571.0	3.0			
998	1571.0	1578.0	7.0	39.6	.163	
1012	1578.0	1588.0	10.0	31.0	.170	
	1588.0	1620.7	32.7			
1004	1620.7	1623.5	2.8	18.2	.302	
1000	1623.5	1632.0	8.5	50.5	.768	
1001	1632.0	1644.8	12.8	33.1	.063	
	1644.8	1661.8	17.0			
1002	1661.8	1673.1	11.3	42.0	.100	
	1673.1	1689.5	16.4			
1003	1689.5	1705.0	15.5	23.4	.176	
1005	1705.0	1714.0	9.0	27.4	.095	
1006	1714.0	1723.5	9.5	17.6	.043	
1007	1723.5	1733.0	9.5	26.4	.057	
1008	1733.0	1738.5	5.5	16.2	.027	
1009	1738.5	1749.5	11.0	31.4	.031	
1010	1749.5	1758.0	8.5	27.1	.048	
1011	1758.0	1766.0	8.0	33.5	.065	
1015	1766.0	1777.7	11.7	33.10	.075	29.8
1016	1777.7	1786.5	8.8	45.60	.063	41.9
1017	1786.5	1796.2	9.7	40.40	.063	40.8
1018	1796.2	1806.0	9.8	26.60	.050	24.2

<u>Sample No.</u> <u>R Series</u>	<u>From</u>	<u>To</u>	<u>Thick-</u> <u>ness</u>	<u>Fe %</u>	<u>Cu %</u>	<u>Oxy</u> <u>Fe %</u>
1019	1806.0	1816.0	10.0	37.60	.088	36.7
1020	1816.0	1825.0	9.0	40.00	.063	37.8
1013	1825.0	1833.0	8.0	58.2	.075	53.2
1014	1833.0	1840.2	7.2	51.7	.063	50.6
	1840.2	1842.4	(2.2 waste)			
1021	1842.4	1851.0	8.6	42.4	.100	41.3
1022	1851.0	1861.0	10.0	52.1	.100	52.6
1023	1861.0	1870.5	9.5	49.7	.063	48.3
1024	1870.5	1879.7	9.2	40.0	.075	37.2
1025	1879.7	1889.1	9.4	37.1	.163	37.3
1026	1889.1	1900.2	11.1	40.8	.113	40.6
1027	1900.2	1909.4	9.2	43.2	.063	42.1
1028	1909.4	1918.5	9.1	41.6	.063	42.4
1029	1918.5	1924.1	5.6	47.2	.088	47.1
1030	1924.1	1936.0	11.9	29.9	.075	28.4
1031	1936.0	1938.5	2.5	46.8	.088	45.4
1032	1938.5	1941.3	2.8	13.3	.055	10.3
1033	1941.3	1944.8	3.5	50.1	.113	49.9
1034	1944.8	1952.3	7.5	50.1	.088	47.9
1035	1952.3	1960.2	7.9	46.4	.088	44.8
	1960.2	1969.7	9.5	(waste)		
1036	1969.7	1982.5	12.8	52.5	.138	52.0
1037	1982.5	1991.3	8.8	52.9	.063	54.3
1038	1991.3	2001.0	9.7	44.4	.063	42.7
1039	2001.0	2009.8	8.8	53.7	.100	54.2
1040	2009.8	2018.9	9.1	52.9	.075	50.3
1041	2018.9	2029.4	10.5	51.7	.100	50.1
1042	2029.4	2038.0	8.6	46.8	.075	42.9
1043	2038.0	2047.3	9.3	47.2	.088	45.9
1044	2047.3	2056.6	9.3	33.9	.063	30.5
1045	2056.6	2065.6	9.0	40.8	.088	38.4
1046	2065.6	2075.5	9.9	46.4	.088	41.9
1047	2075.5	2084.0	8.5	38.4	.100	36.1
1048	2084.0	2094.0	10.0	37.6	.075	34.4
1049	2094.0	2103.0	9.0	43.2	.100	38.7
1050	2103.0	2112.0	9.0	47.7	.088	43.7
Sample # Change in Sequence						
1101	2112.0	2122.0	10.0	50.1	.113	47.8
1102	2122.0	2131.2	9.2	55.3	.100	55.1
1103	2131.2	2141.0	9.8	49.7	.138	47.2
1104	2141.0	2150.0	9.0	49.3	.113	48.2

Sample No. R Series	From	To	Thick- ness	Fe %	Cu %	Oxy Fe %
1105	2150.0	2160.0	10.0	44.4	.138	42.8
1106	2160.0	2170.0	10.0	54.9	.138	53.9
1107	2170.0	2176.5	6.5	55.7	.189	53.8
	2176.5	2183.5	7.0	(waste)		
1108	2183.5	2188.2	4.7	53.7	.151	50.2
1109	2188.2	2191.0	2.8	11.7	.088	8.7
1110	2191.0	2198.0	7.0	50.1	.151	50.2
1111	2198.0	2208.5	10.5	41.2	.100	42.3
1112	2208.5	2217.0	8.5	51.7	.163	50.7
1113	2217.0	2226.5	9.5	52.9	.151	54.5
1114	2226.5	2236.0	9.5	53.3	.163	51.9
1115	2236.0	2245.5	9.5	50.9	.151	
1116	2245.5	2253.0	7.5	48.1	.163	
1117	2253.0	2263.0	10.0	54.1	.151	
1118	2263.0	2272.0	9.0	52.5	.088	
1119	2272.0	2281.0	9.0	48.9	.201	
1120	2281.0	2286.0	5.0	56.5	.100	
1121	2286.0	2298.5	12.5	22.2	.138	
	2298.5	2330.0	31.5			
1122	2330.0	2338.5	8.5	29.5	.063	
1123	2338.5	2351.0	12.5	33.1	.088	
	2351.0	2363.6	12.6			
1124	2363.6	2372.5	8.9	34.3	.264	
	2372.5	2391.0	18.5			
1125	2391.0	2401.0	10.0	21.0	.100	
1126	2401.0	2414.0	13.0	32.7	.100	
1127	2414.0	2425.2	11.2	61.0	.163	
1128	2425.2	2434.6	9.4	48.9	.151	
1129	2434.6	2448.0	13.4	24.2	.063	
	2448.0	2457.5				
	2457.5	2466.4				
	2466.4	2476.3				
	2476.3	2485.5				
	2485.5	2495.0				
	2495.0	2504.0				
	2504.0	2515.0				
	2515.0	2523.0				
	2523.0	2532.0				
	2532.0	2541.0				
1130	2541.0	2550.7		21.4	.252	
1131	2550.7	2560.7		25.8	.100	

<u>Sample No.</u> <u>R Series</u>	<u>From</u>	<u>To</u>	<u>Thick-</u> <u>ness</u>	<u>Fe %</u>	<u>Cu %</u>	<u>Oxy</u> <u>Fe %</u>
1132	2560.7	2570.0		19.4	.100	
1133	2570.0	2580.0		16.2	.277	
1134	2580.0	2590.0		25.0	.226	
1135	2590.0	2599.0		23.0	.075	
1136	2599.0	2608.4		16.2	.113	
1137	2608.4	2617.3		21.8	.075	
1138	2617.3	2627.0		42.8	.063	
1139	2627.0	2635.0		34.7	.075	
	2635.0	2640.0				

Hole bottomed
Feb. 19, 1966

Assays shown above were completed by the Union Assay Office in Salt Lake City. An iron assay check was made by the Occidental Agricultural Chemicals Corporation of Lakeland, Florida, on assay numbers 1013R through 1050R and 1101R through 1114R. Union Assay uses a wet method of assaying and Oxychem uses atomic absorption.

All reject sample material covering the interval from 1689.5 to 2236.0 was sent to the Colorado School of Mines Research Foundation for preliminary metallurgical testing. The Foundation has already completed exhaustive testing of what is apparently the same mineral type sent by U. S. Steel from the Lyon deposit. They report that the Lyon material is an excellent beneficiating ore.

A meeting was held with Mr. Cliff Marks who was in charge of the Lyon deposit exploration for U. S. Steel. Several interesting points were made about the Lyon. The main one is that the Lyon in all probability is a copper mine even without iron ore considerations. The copper occurs in a zoning situation on the flank of the high grade iron ore.

Mr. Marks examined our information to date, and it is his opinion as it is mine that the Lyon and Calico deposits are identical with the exception that the Calico appears to be about three times larger.

A meeting was held with Mr. Sam Sargis. All magnetic data was thoroughly reviewed. It appears from the data that magnetite should be cut in all drill holes which are placed within the red boundary outlined on the attached Calico map. This represents the area well within the points of inflection selected from ground mag profiles. There is confusion as to whether or not the deposit dips relatively steeply east, west, or is actually vertical. However, the second drill hole may clear up this problem.

The building of drill sites and access roads was started at the end of this period.

Copies of the geological data, drill log, surface geology and ground magnetic plan were sent to the Bakersfield office.

AFTERTHOUGHT

The I.P. work has been completed; however, the final report has not been returned. The data indicates that the mineralized zone is well over a mile in length, closing eastward and still open but getting deeper on the west end. The western part of the anomaly is also giving a stronger response. The surface geological mapping program has been completed. The completed map and report will be sent to the Bakersfield office.

COPPER HILL

I.P. work was completed, but the final report has not been returned. Anomalous situations were discovered, but may be explained by formations carrying graphite. Mr. Holt is studying the problem.

WILD HORSE

An interesting I.P. anomaly was found in an area of mineralized and marbleized limestone. The mineralization consists of disseminations of galena. A drill hole was put in on one flank of the anomaly. Results were negative. Further study is being made of the area. Rock types encountered in drilling have been sent to McPhar in Toronto for I.P. lab testing. Possibly the anomalous conditions can be traced to graphite in certain sections of the rock drilled.

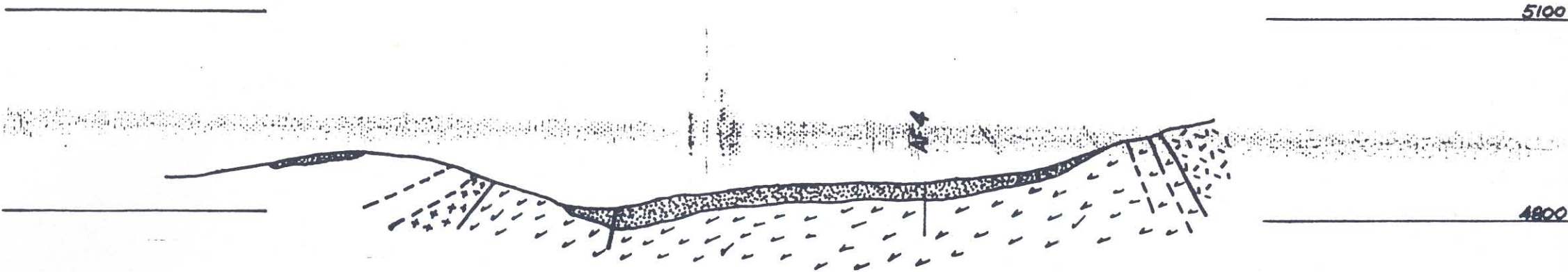
General

Upon receipt of the I.P. reports and completion of certain mapping projects within the next 2-week period, further drilling recommendations will be made. It would be ill advised to relax drilling programs because we have hit mineral on the Calico project.

Robert L. Redmond

Possible Positive I.P. ANOMALY. Possible

End @ 20N



AFTERTHOUGHT

300 W
r = 200'

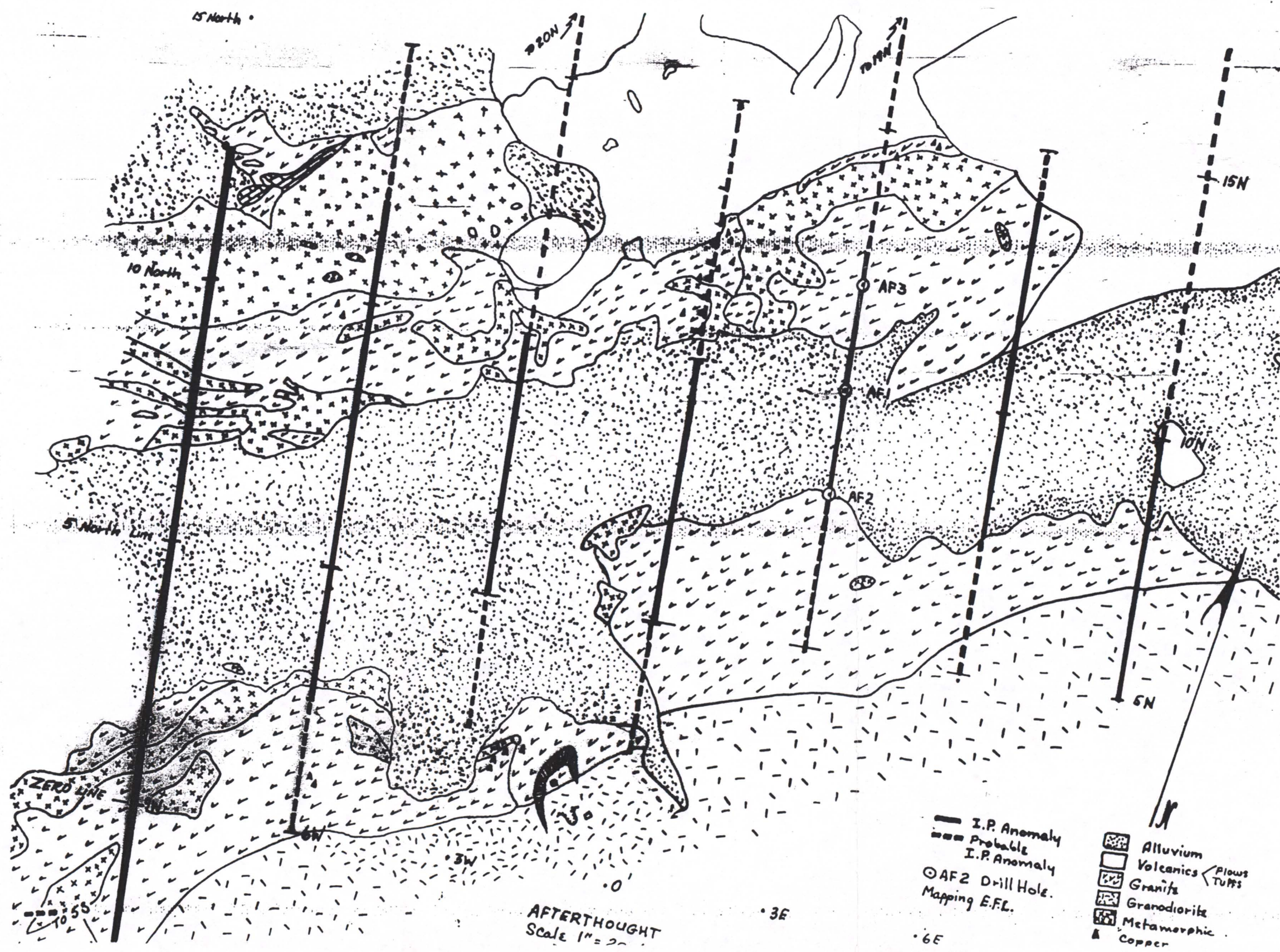
15N
|

10N
|

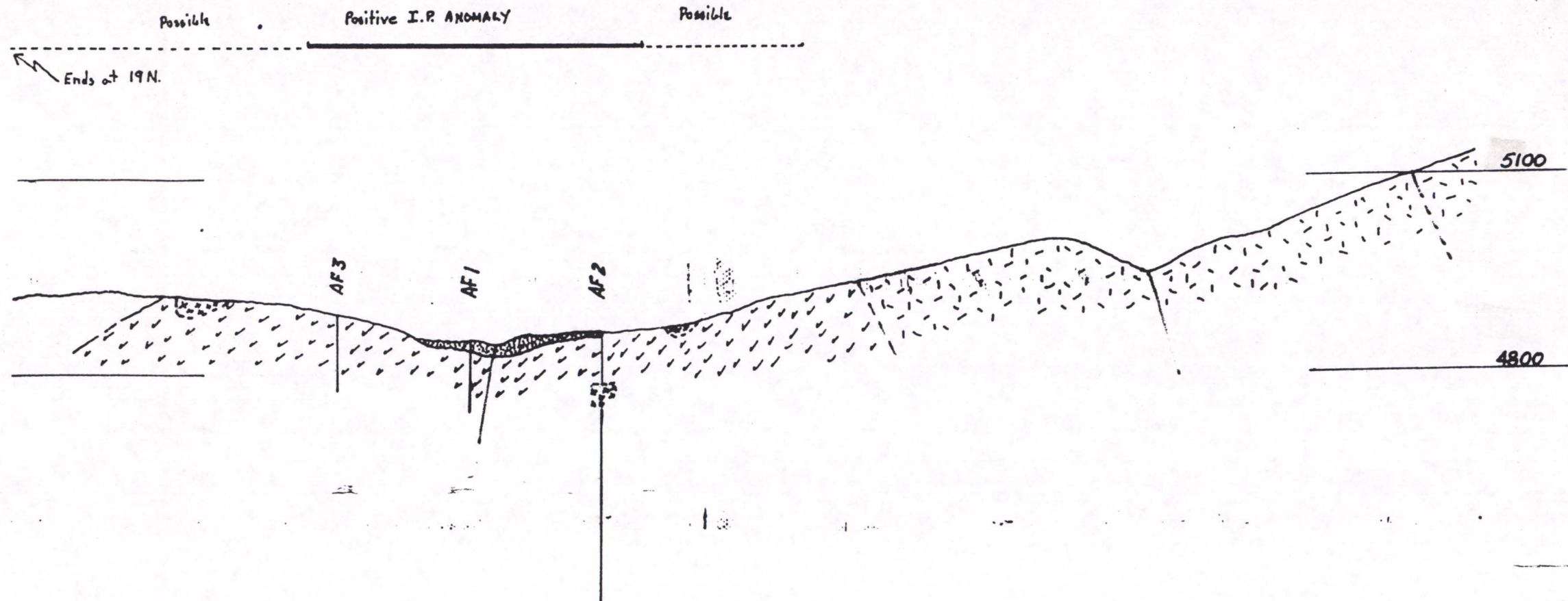
5N
|

ZERO
|

5S SPL
| ALR.



6000 0078 (0760)



AFTERTHOUGHT

X Section 300 E

1" = 200'

- | | |
|-------------------------------------|---|
| Alluvium | Granodiorite |
| Volcanics | Metamorphics <small>La. Silicates</small> |
| Granite (SiO ₂ Flooding) | |

15N
|

10N
|

5N
|

ZERO
|

5S
|
Rk.

