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PRINTED: 10/19/2001

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: IRON KING NORTH PROSPECT

ALTERNATE NAMES:

YAVAPAI COUNTY MILS NUMBER: 726A

LOCATION: TOWNSHIP 14 N RANGE 1 E SECTION 36 QUARTER C
LATITUDE: N 34DEG 33MIN 00SEC LONGITUDE: W 112DEG 12MIN 40SEC
TOPO MAP NAME: HUMBOLDT - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
UNKNOWN

BIBLIOGRAPHY:
ADMMR IRON KING NORTH PROSPECT FILE
THE WORK COVERED SEC. 2, 3, 4, 9, 10 & 15
T13N-R1E AND SEC. 35 & 36 T14N-R1E

IRON KING NORTH PROSPECT

YAVAPAI COUNTY

See: U.S.G.S. Bulletin 1336, p. 73

Little May Group (file)

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED

Exploration Division

Subject: Proposed exploration north of Iron King Mine

Location: Yavapai County, Arizona, U.S.A.

Date: May 13, 1960

By: Neil Campbell

SUMMARY

The Iron King Mine in Yavapai County, Arizona produces about 300,000 tons of base and precious metal ore per year from a series of massive sulphide veins. The latter are situated in a shear zone localized in a horizon of Precambrian sediments of volcanic origin. Most of the ore and also the northerly projection of the ore horizon is concealed by a cover of alluvium. As both regional geologic mapping and reconnaissance geophysical work suggest that the structural and/or stratigraphic controls extend many miles beneath this cover, there is a possibility that other deposits like the Iron King do exist and can be found and exploited. The search for such deposits is sound exploration practice, the inherent risk in which can be reduced by field work which moves in progressively more intensive steps.

It is proposed to option and stake the mineral rights along the northerly projection of the Iron King horizon and complete the geophysical work already started. The more promising sections will then be tested by vertical drill holes to locate direct evidence of mineralization. Finally, inclined drill holes will be used to block out ore.

GEOLOGY

The 1959 production of the Iron King Mine situated one mile west of Humboldt, Arizona and owned by the Shattuck Denn Mining Corporation was about 300,000 tons of ore from which the following values were recovered:

Zinc	34,838,503 lbs
Lead	12,068,100 lbs
Copper	468,981 lbs
Gold	26,837 ozs
Silver	862,780 ozs

It is understood but not confirmed that the ore reserves are sufficient to support production at this rate for many years to come. The mine is one of the more successful base metal operations and there is little doubt that a new deposit of similar size and grade would be of commercial interest.

The possibility that undiscovered deposits do exist is suggested by the geologic setting of the mine as interpreted by Anderson and Creasey of the United States Geological Survey. Briefly, the deposit is an en echelon system of 12 parallel, steeply-dipping, northerly-plunging veins situated in a shear zone in, and conformable with a series of andesitic tuffs and related sediments of volcanic origin. The beds on the west or hanging wall side are characterized by crystal tuff. The zone of alteration enveloping the ore is a band roughly 400 ft. wide of sericite-quartz-carbonate replacement. A portion of this zone 75 to 100 ft. wide contains the tabular bodies of massive sulphides which, in part, comprise the ore. The sulphide is very fine-grained and consists mainly of pyrite with varying proportions of sphalerite, galena and other metallics. The individual sulphide bodies pass northward into veins or nests of quartz. Sulphides also occur as disseminated grains and veinlets in the wall-rock schist.

Two divergent views of the ore controls may be advanced. It is generally believed that the vein matter originated with granitic intrusives and deposition was controlled by a shear zone in a favorable host rock. A second explanation based on theoretical considerations beginning to find wide acceptance is that the sulphides are sedimentary in origin and are, like the enclosing wall rocks, the product of volcanic activity. A strong stratigraphic control is implicit in both explanations. That is to say, the beds in which the Iron King ore was deposited were closely associated with the mineralizing process. By the same token these, or similar horizons comprise a valuable guide for the search for new ore bodies. Experience elsewhere shows that simply tracing the projection of such beds or structures is one of the most fruitful types of exploration.

GEOPHYSICS

The Iron King deposit is situated at the boundary between the alluvial plain of Lonesome Valley to the north and the low hills or outliers of the Bradshaw Mountains to the south. There is considerable outcrop in the hills and it is assumed for the time being that exploration of the ore horizon in a southerly direction has been adequate. Further study

would be required to determine whether this is a valid assumption. To the north, on the other hand, the projection of the ore horizon is covered by overburden for many miles and exploration involves penetration of this cover by mining, drilling or geophysical sensing devices. There is little information on the thickness of cover but it is believed to be 300 ft. or more in some places and may average about 400 ft.

The physical property of ore like that at the Iron King which can best be used in exploration is its high electrical conductivity relative to that of country rock. Accordingly, a ground reconnaissance survey over Lonesome Valley was made with an engine-driven, vertical-loop electromagnetic unit chosen for its high power output and related penetrating ability, and its selective characteristic of excellent coupling with steeply-dipping tabular conductors like the Iron King veins. This device simply generates an alternating electromagnetic field which, in the presence of an electrical conductor, sets up a secondary field which can be detected and measured. A response obtained with this instrument only indicates a conductor of which an ore body is one type. The device also detects indiscriminately thin but continuous seams or veinlets of sulphides as well as some non-metallic conductors of unknown characteristics. Briefly, it is almost certain that the equipment used would respond to ore bodies like those of the Iron King but not every response is necessarily indicative of ore. Accordingly, the responses must be interpreted within a geological context.

Our survey, which covered a belt about ½ mile wide, produced a series of responses of low to moderate magnitude extending northeasterly across the valley from a point near the Brown shaft. (See plate 60-1) There were certain gaps in this survey, notably south of the Brown shaft and in the vicinity of the community of Dewey. Circumstances did not permit our establishing good topographic control. Nevertheless, the geophysical results may be interpreted to mean that a series of conductors exist along the northeasterly projection of the Iron King horizon. Such conductors could be indicative of sulphides, some of which may be ore.

The series of electromagnetic responses lead to a point on the east margin of the valley where outcrops again appear. (See plate 60-1) At this point the conductor(s) evidently join a northerly-trending mineralized zone which in most geological respects resembles the Iron King mineralized zone. That is to say, the host rock is in the same stratigraphic unit and the lithology and hydrothermal alteration are closely similar. The outcrops expose considerable iron oxide and there is an unconfirmed report that some copper ore was shipped from one place. However, no truly commercial mineralization has yet been found. This zone also produces electromagnetic responses that conform very well to the mineralization as it appears on the surface. The northerly-trending zone on the east side of Lonesome Valley is interesting and should be investigated further. (For details see report on Gigi and adjoining property.)

In summary, the preliminary geophysical tests were promising and informative. It is desirable to do further work on similar lines in order to (a) fix the locations of the responses more precisely (b) to provide readings at closer intervals and (c) to cover a broader area so as to determine whether there are similar regular responses elsewhere that are not consistent with the simple geological explanation advanced above.

TENURE OF MINERAL RIGHTS

The foregoing geological and geophysical features suggest a very attractive belt for exploration extending 7 to 8 miles northeasterly from the Iron King Mine. As the scope of our activities here is confined to the comparatively high-risk, low-cost search for new ore bodies, we are not and have not been concerned with those areas which could be explored and developed through extensions of the underground headings of the Iron King Mine. This excludes from further consideration that part of the favorable belt which lies within ½ mile or possibly more from the mine workings.

Preliminary inquiries showed that for roughly 1.5 miles north of the surface plant, the belt is controlled by Western Gold and Uranium, owners of the Brown shaft. The next mile or so, which is in the vicinity of Dewey, is divided into several small blocks held by various persons and organisations. We staked four Hilda claims on State land north of those blocks. Section 35, northeast of the Hilda group, is believed to be held by the Santa Fe railway whom we have approached. Three Coe claims were staked on State land north and east of Section 35. Section 25, northeast of Section 35, is held by Mr. Norman Fain with whom an agreement which proved unacceptable to us was negotiated. The most northerly 1.7 miles of the belt, which is on Federal and patented land, was covered by staking of the Gigi and IPR claims and by an option agreement obtained from Mr. Fred [illegible] and Mr. Ed. Rocklear. It is planned to extend the Hilda group south for 6000 ft. by staking six new claims to cover, not the northeasterly extension of the Iron King horizon, but rather the northerly-trending mineralized zone described above. The various properties mentioned cover the northerly extension of the Iron King horizon provided the assumed westerly deviation from the straight-line projection, as suggested by the geophysical work, is valid.

PROPOSED EXPLORATION

The steps which should now be taken are as follows:

(1) Negotiate options on privately held minerals rights along the favorable belt and increase our holdings of State land somewhat.

(2) Complete the vertical loop geophysical work and survey the responses.

(3) Obtain more definitive geophysical information in those areas of strongest responses previously obtained.

(4) Drill "fences" of vertical holes to locate sulphide bodies.

(5) Drill inclined holes to block out ore.

(6) Sink a production shaft.

Acquisitions: Our efforts should aim at acquiring the right to purchase the mineral rights at some future date on as favorable terms as possible. We should not contract to make appreciable payments for the right to explore. Except for the land immediately north of the Iron King Mine, no one part of the belt may presently be considered significantly more attractive than any other part. Accordingly, a gap in our holdings may not be a serious matter.

Geophysical: The vertical loop reconnaissance survey should be completed and the response points should be located by studie survey. The work can be done by local personnel trained for the purpose or, at somewhat greater cost, by contractors from Toronto. In areas of significant response, other more definitive equipment should be used to obtain more detailed information. It should be borne in mind that the geophysical equipment is operating where the required depth penetration is extreme and at some places, out of range. Furthermore, it will not identify ore as such. Accordingly, our principal exploration tool must be the drill.

Drilling: The position of the mineralized horizon will be defined within limits sufficiently narrow to make exploration by drilling practicable. It is proposed to attack the drilling in this way: sections of the favorable belt where no significant geophysical response is obtained will be abandoned as either containing no sulphides or being too deeply covered for penetration by either drilling or geophysical tools. As the target deposits may be expected (like the Iron King deposit) a strike length of say 3000 ft. the remaining portion of the belt need not be tested at intervals much less than this distance. At points along the belt selected for testing, it is proposed to drill a "fence" of 5 or 6 holes at 100 ft. intervals across the trend of the belt. These vertical holes will be drilled by rotary rig through the overburden to bedrock. About 50 ft. of bedrock will then be cored. The core will be examined to determine stratigraphic position and evidence of mineralization. If it can be arranged with the owners, we will, where necessary, use a "down-the-hole" geophysical device developed by Falconbridge Nickel. The latter organization have used this sensing device successfully in detecting their steeply-dipping tabular sulphide location in deep holes which had missed the ore.

Detailed Drilling: Upon the discovery of mineralization of commercial significance, it will be necessary to evaluate the deposit. As the structures are steeply-dipping it will be necessary to resort to the more costly inclined holes. When we have obtained enough ore intersections to justify a shaft, the exploratory phase of the project will have been completed.

PRELIMINARY COST ESTIMATES

(1) Negotiation for mineral rights, legal and title search costs $2000

(2) Vertical loop geophysical survey, two months $5000

(3) Detailed local geophysical surveys $1500

(4) Preliminary (fence) drilling assuming six hole in each row, depth of overburden 400 ft., cost of drilling in overburden $3.50 per foot, drilling in bedrock $5.00 per foot, each row will cost $10,000. Assuming spacing between fences at 5000, the number of fences required may be reduced from seven to four by geophysical work. Four fences $40,000

(5) Detailed drilling: blocking out ore by surface drilling will probably cost in the range of $50,000

Submitted by:

Neil Campbell

Neil Campbell

copies:

Exploration Div.(2)
Southwest Ventures
file

enclosure (1)

THE NEW JERSEY ZINC COMPANY
(ESTABLISHED 1848)
CABLE ADDRESS
"JERSEZINC"
160 FRONT STREET
NEW YORK 38, N.Y.
HORSE HEAD PRODUCTS

June 17, 1954

PLEASE ADDRESS REPLY TO

P. O. Box 1629
Prescott, Arizona

Mr. H. F. Mills, Manager
Iron King Mine
Prescott, Arizona

Dear Mr. Mills:

Herewith is the following information on the Boggs and El Capitan joint ventures for your files:

(1) Report of the Electromagnetic Survey, Boggs Venture with folio of maps.

(2) Logs of D.D.Holes BIQ#1, BIQ#2, BN#1, BN#2, EC#1, EC#2, EC#3.

(3) Report of El Capitan area with geological map.

(4) Sections (3) through El Capitan D.D. Holes, EC#1, 2 & 3.

(5) Sections (4) through Boggs Venture D.D. Holes, BIQ#1, BIQ#2, BN#1, BN#2

(6) Surface map (1" = 100') of Butternut area.

(7) Magnetometer map Boggs-Iron Queen area.

(8) Boggs Venture property map.

(9) Boggs Venture claim locations.

(10) Boggs Venture optioned property payment schedule.

(11) 400 scale geological maps.
Mesa sheet
Grapevine sheet
Poland Junction sheet
Dry Gulch sheet

El Capitan sheet ✓
Iowa sheet
Iron King sheet ✓
Minor sheet
Iron Queen sheet ✓
Hackberry sheet
Index map for above sheets
Legend

Very truly yours,

THE NEW JERSEY ZINC CO.

By D. C. Bulmer
D. C. Bulmer

cc-Messrs. W. H. Callahan (2)
M. J. Maloit
File

June 9th, 1953

MEMORANDUM

COPY

NOTES ON CONFERENCE PERTAINING
TO
JOINT VENTURE EXPLORATION
IN
BRADSHAW MOUNTAINS,

Yavapai County, Arizona

June 2nd, 1953.

A conference attended by Messrs. Callahan, Mills and Bulmer was held in the Prescott Office the evening of June 2nd, 1953, to discuss the exploration work in the Bradshaw Mountains, Yavapai County, Arizona.

The geological mapping completed to date was reviewed. It was pointed out that from the mapping, the structural picture of the Precambrian is beginning to fall into place. Three major folds are indicated in the Bradshaws, all having a plunge to the north. The larger features are complicated somewhat by minor folding, a number of strike faults and large intrusive masses. The mineralization at the Iron King and on the Bogan Venture is along two shears which are located on opposite limbs of a north plunging syncline. The mapping to date has not indicated what the feature is which in conjunction with the shearing serves to localize the mineralization.

El Capitan Venture

The results of the geological, geophysical, geochemical and diamond drilling programs on this venture were reviewed. (See May Progress Report for summary.) It was pointed out we have concluded after having tested with negative results what we consider the best targets on the property and subsequent work having located no better targets to prospect, that the property is of no further interest to us and should be returned to the owners prior to the forthcoming anniversary date (July 31, 1953) of the option agreement. The option agreement calls for an additional 2500 feet of drilling if we hold the property beyond this date.

Mr. Callahan pointed out that for tax purposes it would be desirable if the company could hold the property until January 31, 1954. However, this would only be true if we could alter the original terms of the agreement, eliminating or postponing the clause requiring us to do 2500 feet of drilling. Mr. Callahan suggested that the owners might be willing to postpone the second year work requirement for six months in consideration of a modest payment of from two hundred to three hundred dollars, or our assuming responsibility for the assessment for 1953 on the three claims originally held

COPY

June 9, 1953

by the owners. It was left that Mr. Mills would explore these possibilities with Fred Gibbs, one of the owners and see what might be agreeable to them.

With the drilling completed this year we have sufficient work to cover the assessment work for 1952. The affidavit of labor performed will be prepared and filed prior to June 30, 1953.

Boggs Venture

The individual projects of the Boggs Venture as shown on the accompanying maps were discussed in turn, outlining the property situation and geochemical, geophysical and geological targets on each.

Project No. 1: There is a geophysical anomaly on this project which has been attributed to a burried pipeline. It was decided more geophysical work is needed in this area to decide whether the anomaly is entirely due to pipeline. Also, in this area, but not coincident with the geophysical anomaly is a geochemical anomaly. Both anomalies are on located ground except for a small portion of the geophysical anomaly which extends onto the Hackberry claim. It was decided that additional geophysics should be done on this anomalous area prior to the coming anniversary date of the Hackberry option (December, 1953). Unless the geophysics indicated otherwise the Hackberry option would be dropped this coming November. It was also decided to relocate these claims in another person's name unless sufficient work has already been done in bulldozing lines in the area to cover the necessary assessment work on the unpatented locations covering the geochemical anomaly. With new locations the anomalous areas would be protected until such time as they could be tested.

Project No. 2: Although there are no targets on this project, the Marjorie Faye and Faye Claims would be essential if the geophysical anomaly on the Mary Copper were available for drilling. Prior to attempting to obtain control of the Mary Copper ground additional geophysics is essential to make certain the anomaly is a legitimate one because there are many cultural features in the area which might have bearing on the anomaly. The located claims in this project would be necessary if the geochemical anomaly on project number one is drilled. Hence the disposition of this project depends on the action taken on the Mary Copper geophysical anomaly and the geochemical anomaly between the Hackberry and Pentland Mines.

It was decided to do assessment work with a bulldozer on

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COPY

the Marjorie Faye and Faye and to renotice other claims in the project.

Project No. 3: There are no targets on this project. All claims are locations except the Jane which is under option and unpatented. The agreement requires that we do the assessment work. There is some doubt as to whether or not we can apply assessment work done on the Dailey patented claim to the North (two drill holes) that far south so it was decided for our own protection to do $100 worth of bulldozer work on the Jane claim to cover the required assessment work. The two diamond drill holes will be used to cover the assessment work on our located claims in this group.

Project Nos. 4, 5, 6: The Boggs patented claim is under option from Gibbs and its status should be reviewed before the next payment which comes due in December. It was decided that the Iron Queen claim should be held until the end of the year to protect our use of the two drill holes which we will use for assessment work in 1952-1953 on the other contiguous claims in the Boggs Venture. In addition, the Iron Queen Claim should be held until after the end of the year for tax purposes. The drilling done so far on this project was reviewed and possible additional work discussed. One of the features limiting exploration on this, and Project No. 3, is that the area is largely covered and no definite targets have been located with either geochemistry or geophysics.

Project No. 7: This group of claims is comprised entirely of locations, except for the Boggs Extension Nos. 1 and 2 which we have completed the purchase of. The two drill holes on the Dailey claim on Project No. 4 will be used to cover the assessment work. There is a geochemical anomaly on this project. However, it is largely on a claim which we do not control, the Mattie. Before doing anything more with this project, it was decided to investigate the status of the Mattie claim to see if we can obtain control of it.

Project Nos. 8 & 9: There are no targets on this project. A decision should be made whether we wish to hold the Lone Pine group of claims prior to November 1, 1953, after which date we will be responsible for the taxes. In the case of the Conway group, although a payment does not come due until September, 1954, it should be reviewed and possibly disposed of at the same time as the Lone Pine group to avoid the responsibility of the assessment work for 1953.

Project No. 10: The unpatented claims in this group are

X 1400 (2CM 2-52

COPY

June 9, 1953

all our locations and the drilling done on the Dailey claim will cover the assessment work for 1952-1953. The geological mapping and geochemistry have not been completed on this project. However, it is expected we will have the work completed well in advance of the anniversary date of the Huron, Montanna option agreement so that we will know if we wish to hold the option beyond this date.

Project No. 11: The claims in this group are all our locations, and the two drill holes on the Dailey patented claim will be used to cover the assessment work. The geological mapping has introduced some doubt into the cause of the geophysical anomalies on this project, and additional geophysical work is required prior to drilling the anomalies.

Project Nos. 12, 13, 14: The assessment work on the unpatented claims in this group will be covered by the drilling which has been started on the Goodluck No. 3 claim. The status of Blackhawk Nos. 2 and 3 claims is uncertain and their status is to be investigated. It is important to have a decision on this project before December, 1953. The drilling under way should give us the answer.

Copper Queen - Minor Area Venture

It was decided to start the mapping of the Copper Queen area as soon as possible. In the matter of the Binghampton it was thought best to postpone trying to obtain control of this property for the time being.

D. C. Bulmer

D. C. Bulmer/dvl
cc: Messrs. W. H. Callahan (2)
P. J. Maloit
H. F. Hills (2)✓
File

Top Left

Geologic Formations

Cenozoic Rocks

Quaternary gravels

Tertiary Hickey formation

Precambrian Rocks

Intrusives

Alaskite and aplite

Quartz diorite

Gabbro, diabase, and diorite

Quartz Porphyry

Sediments and volcanics

Iron King volcanics Andesitic tuff

Mafic flows

Spud Mtn volcanics Rhyolite tuff

Andesitic tuff

Andesite breccia

Image Gulch fm Rhyolite tuff, slate,

limestone, & cgl.

Chaparral volcanics Andesitic tuff

Rhyolite tuff

Green Gulch volcanics Mafic flows & tuff

Geophysics and Other Symbols

1000-cycle EM response

400-cycle EM response

Afmag response

Mineralized zone

Fault

Depth of Cenozoic cover (from water wells)

Tenure of Mineral Rights (Owned or Controlled)

Shattuck-Denn Mining Corp.

Western Gold & Uranium, Inc.

Henderson (60%), Phoenix Title & Trust (40%)

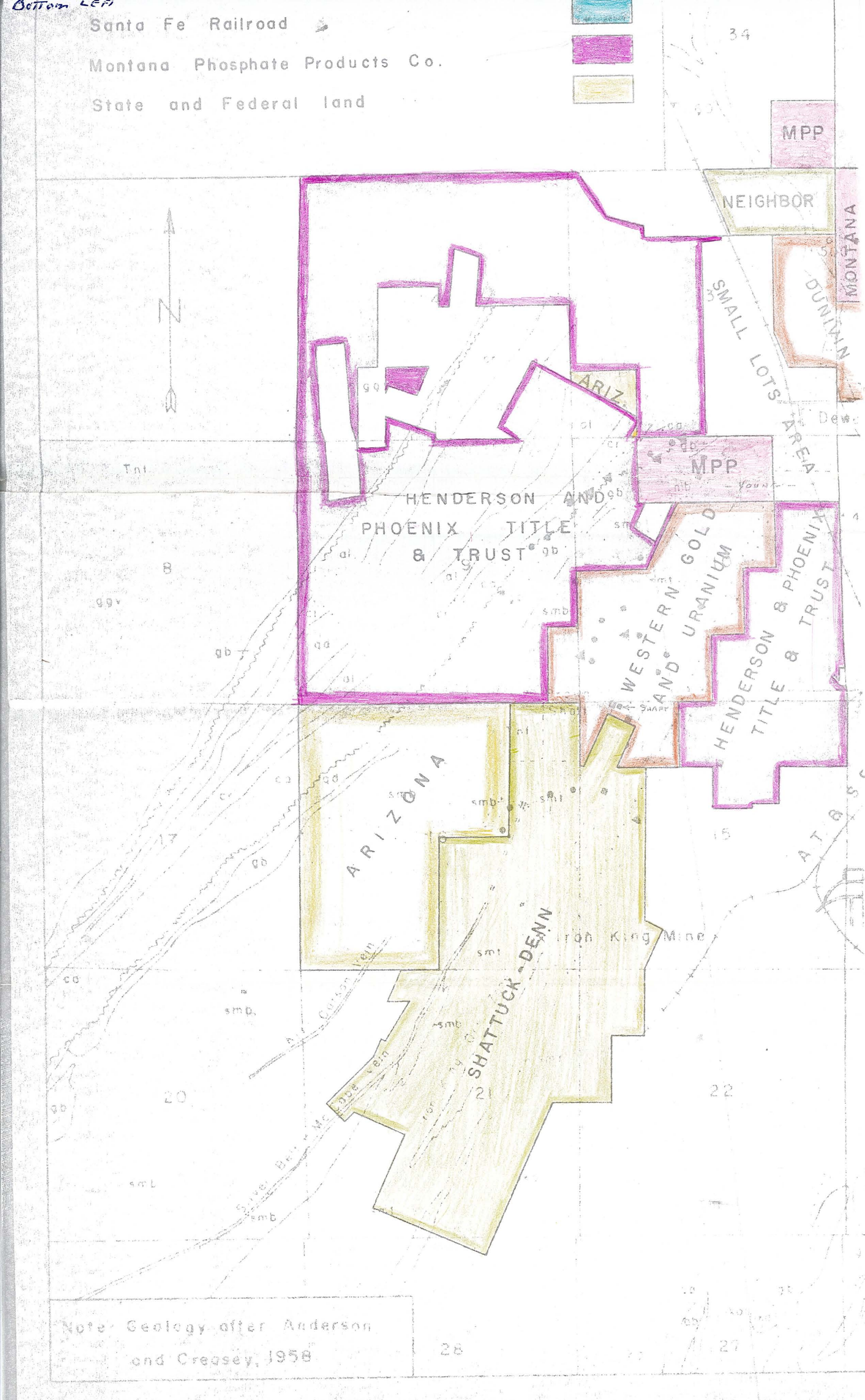
E. J. Young

J. L. and H. D. Dunivin

J. R. and A. L. Naighbor

MONTANA PHOSPHATE
ARIZONA
possibly the same
ted
Schemmer Zone
UNITED STATES
26
23
24
25
30
14
13
18
2

Bottom LEM


Santa Fe Railroad
Montana Phosphate Products Co.
State and Federal land
MPP
NEIGHBOR
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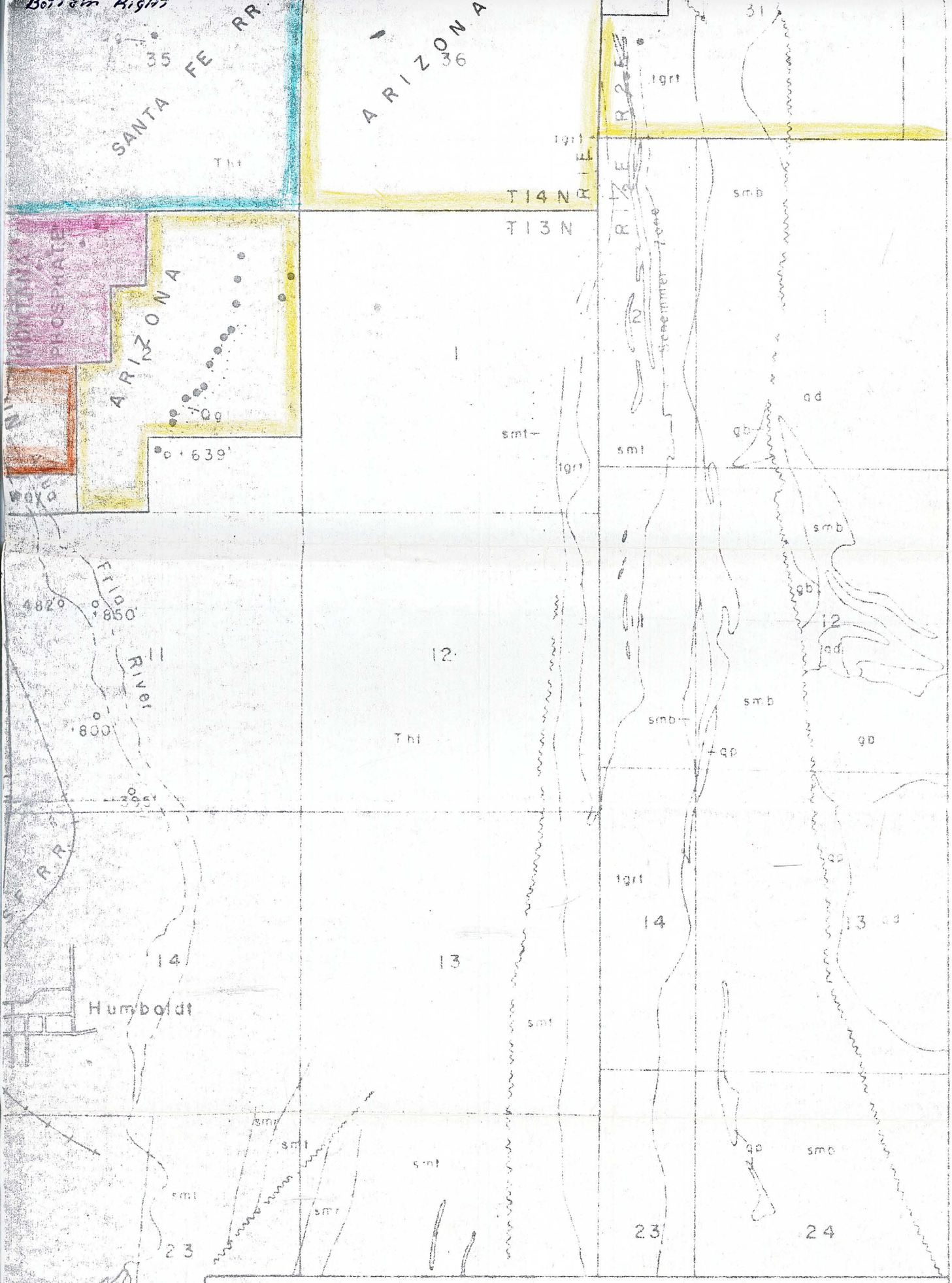
DUNIVIN
SMALL LOTS AREA
ARIZ.
MPP
HENDERSON AND PHOENIX TITLE & TRUST
WESTERN GOLD AND URANIUM
HENDERSON & PHOENIX TITLE & TRUST
ARIZONA
SHATTUCK-DENN
Iron King Mine
Note: Geology after Anderson and Creasey, 1958

Bottom Right



TENURE OF MINERAL RIGHTS
IRON KING NORTH AREA
BIG BUG MINING DISTRICT

Yavapai County, Arizona

1 in. = 2000 ft.

Dec. 1960

Plate II

J. S. Phillips

RECEIVED
FEB 17 1961

Long Shot
B-5+60
1KN-1 -69°
Projected T
895'
8000 N
T13N R1E
9 10
16 15
Brown Shaft
Brown Fraction
Brown No. 1
Brown No. 2
60°
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T1
T2
T3
T4

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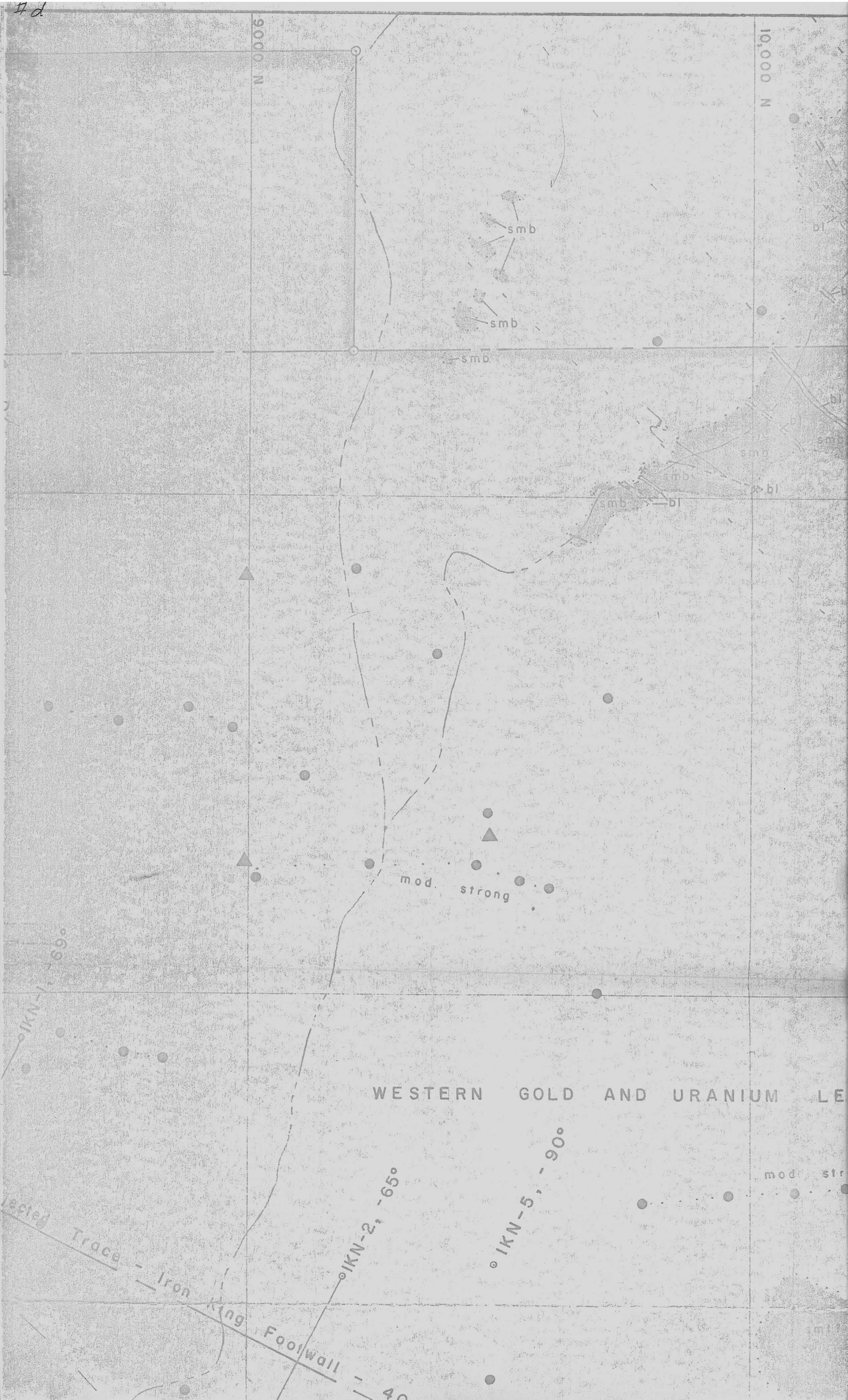
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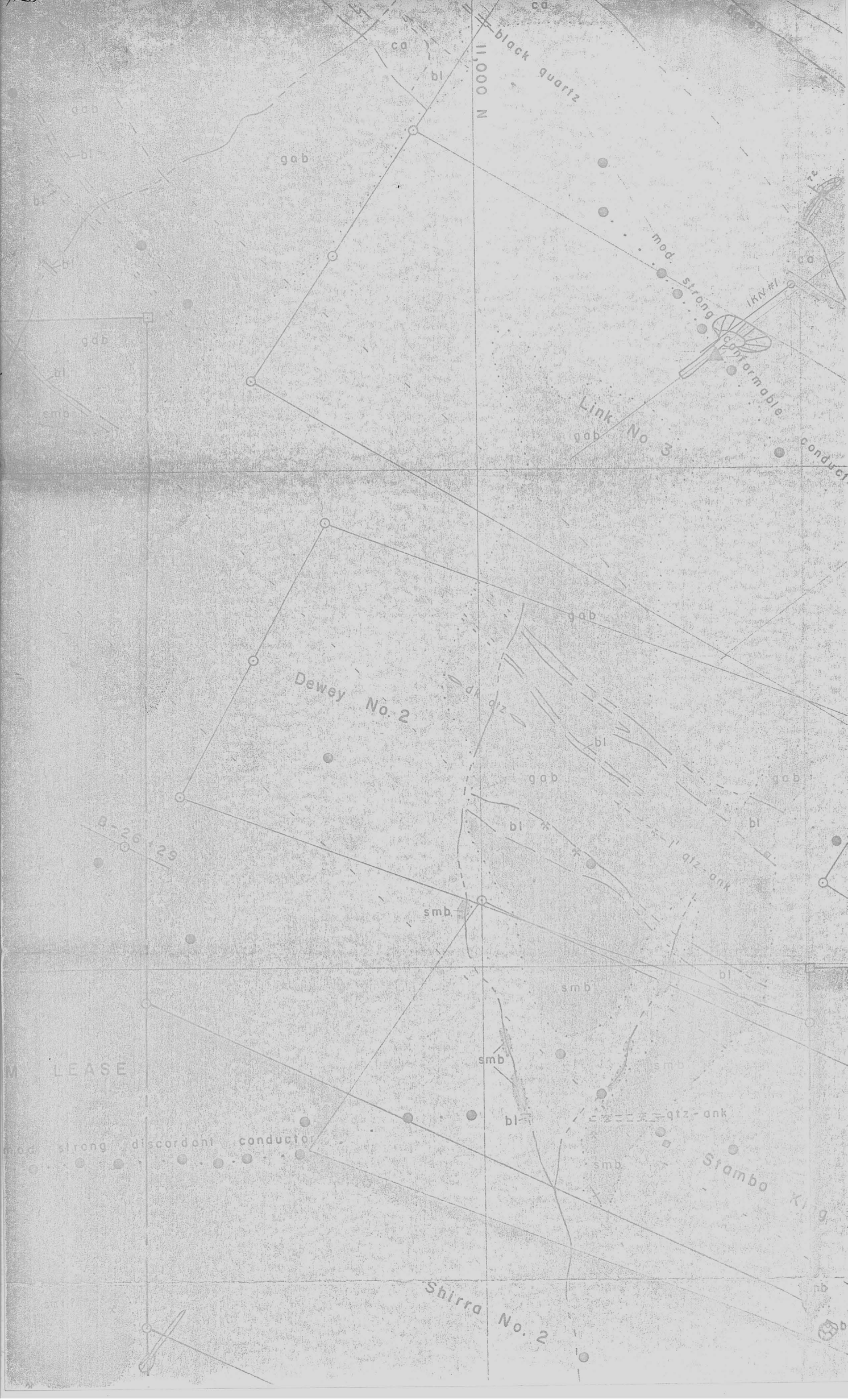
WESTERN GOLD AND URANIUM LE
IKN-2, -65°
IKN-5, -90°
mod. str
Iron King Footwall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Link No. 3
gab
conduct
gab
Dewey No. 2
dk qtz
bl
gab
gab
bl
bl
qtz-ank
smb
bl
smb
smb
smb
bl
qtz-ank
smb
Stamba King
M LEASE
mod strong discordant conductor
Shirra No. 2

13,000 N
12,000 N
5000 E
5000 E
4
3
9
10
Chas. Davis
Guarantee
Gold Standard
Link No. 4
Cousin Jane
Anne Louise
King
silicified and bleached
bleached
along gravel ridge line
marble conductor
gr
cr
ca
qtz
bl

Geologic Formations (After Anderson and Creasey, 1958)

- Quaternary
  - Overburden
- Tertiary
  - Hickey hornblende basalt — Tb
- Precambrian
  - Intrusives
    - Granite and aplite — gr
    - Gabbro, diabase, massive andesite and associated chlorite schist — gab
  - Volcanics and sediments
    - Chaparall volcanics
      - Rhyolitic tuff unit — cr
      - Andesitic tuff unit — ca
    - Spud Mountain volcanics
      - Andesite breccia unit — smb
      - Andesitic tuff unit — smt

Alteration

- Bleached schist with limonite — bl

Property S

Shattuck

Montana

Claim

Section

Geophysics

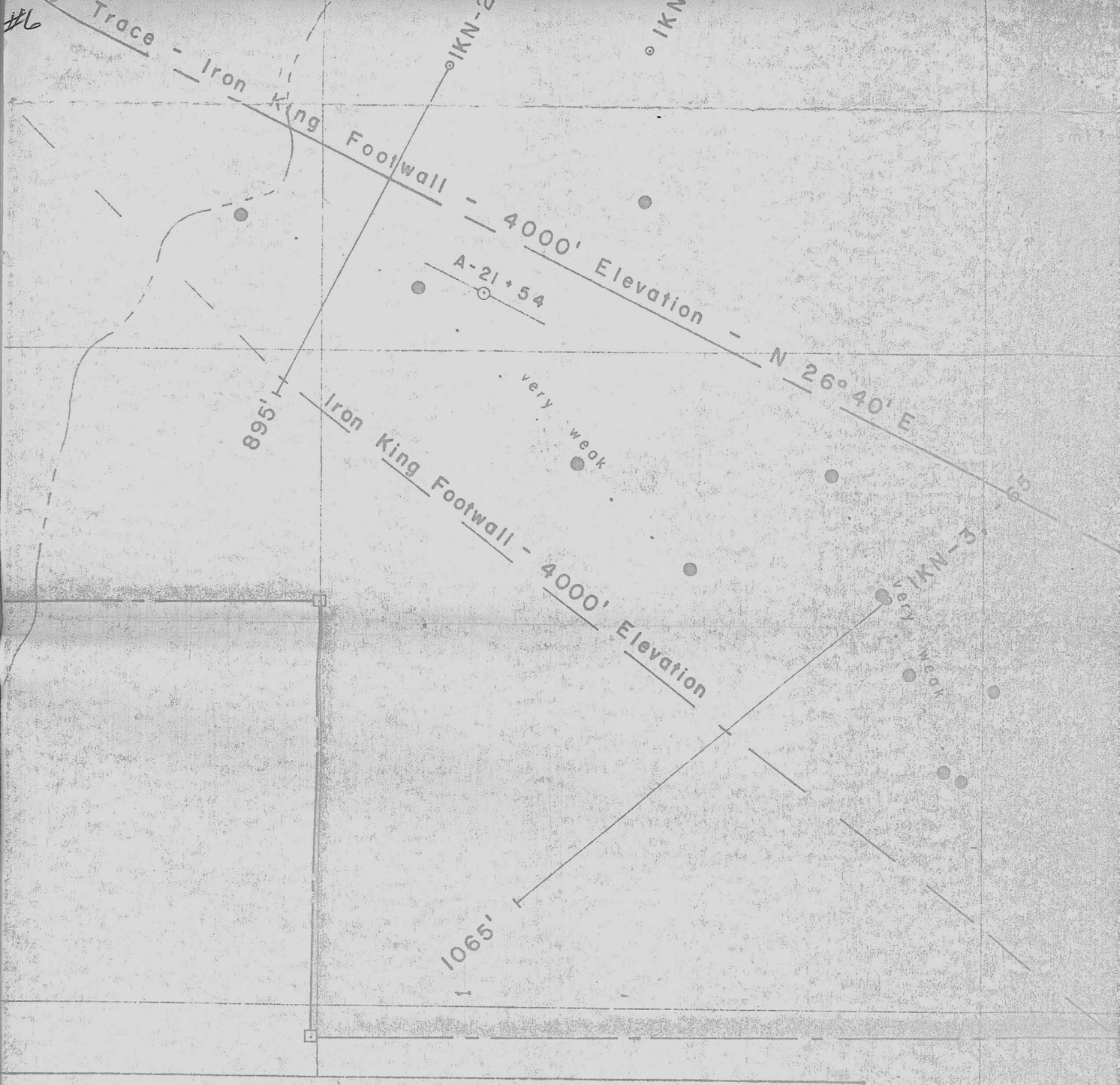
1000 c

400 cy

Afmag

Baseli

#6



perty Symbols

Shattuck - Denn Mining Corp

Montana Phosphate Lease, Claims

Claim Corner

Section Corner

physics Symbols

000 cycle EM response

400 cycle EM response

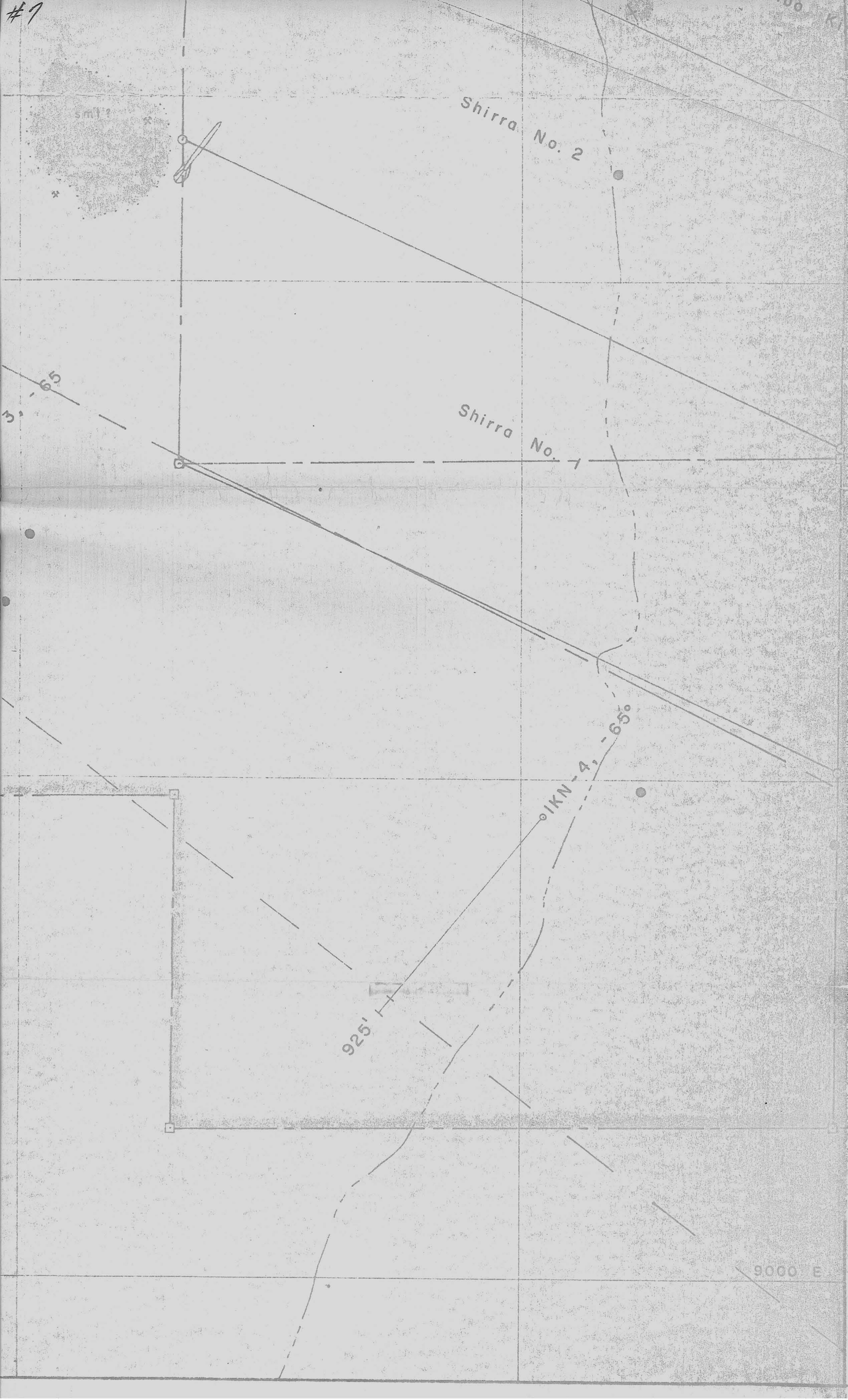
Afmag response

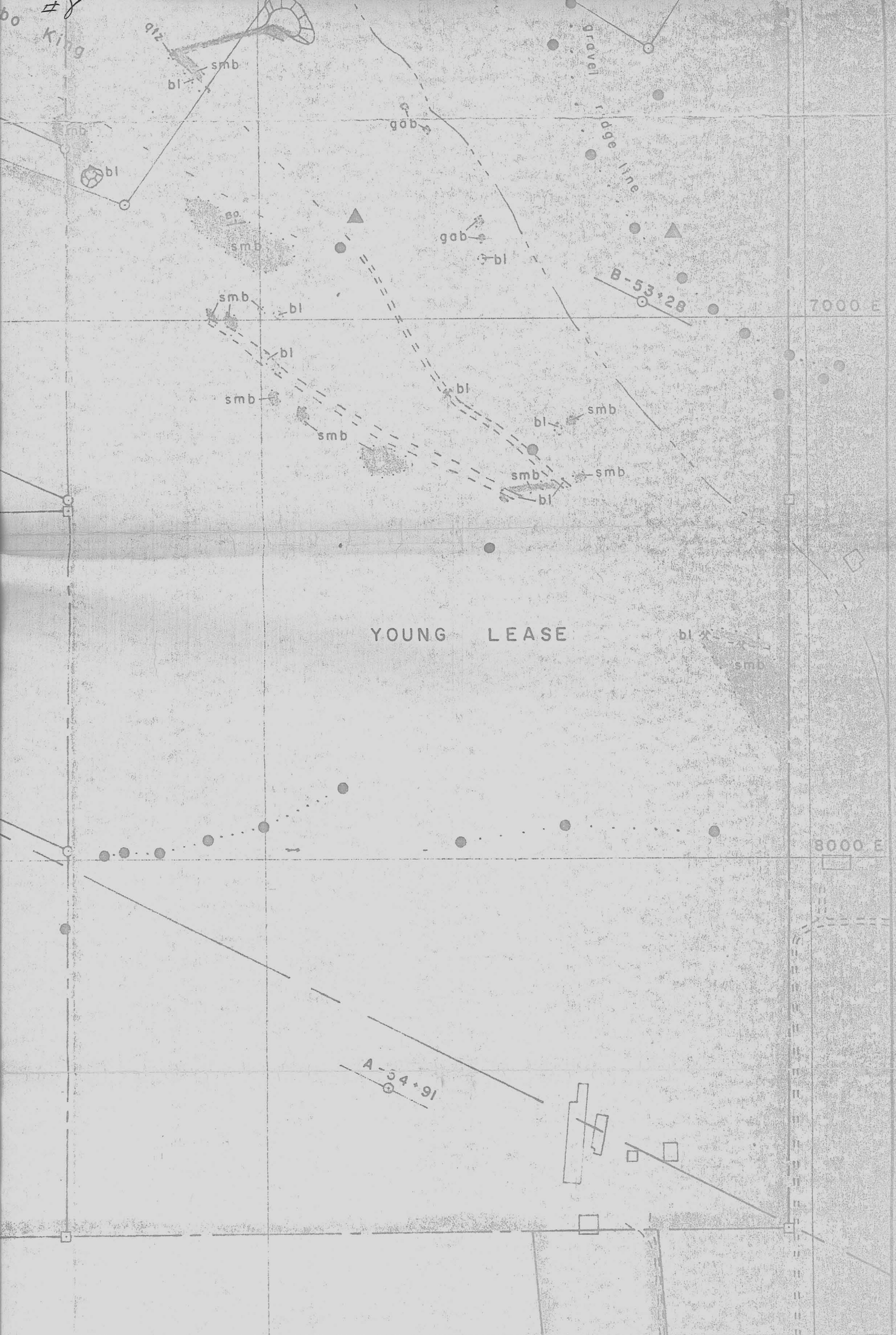
Baseline

4 3
9 10

26+29

#7





The Consolidated Mining and Smelting Company of Canada Limited

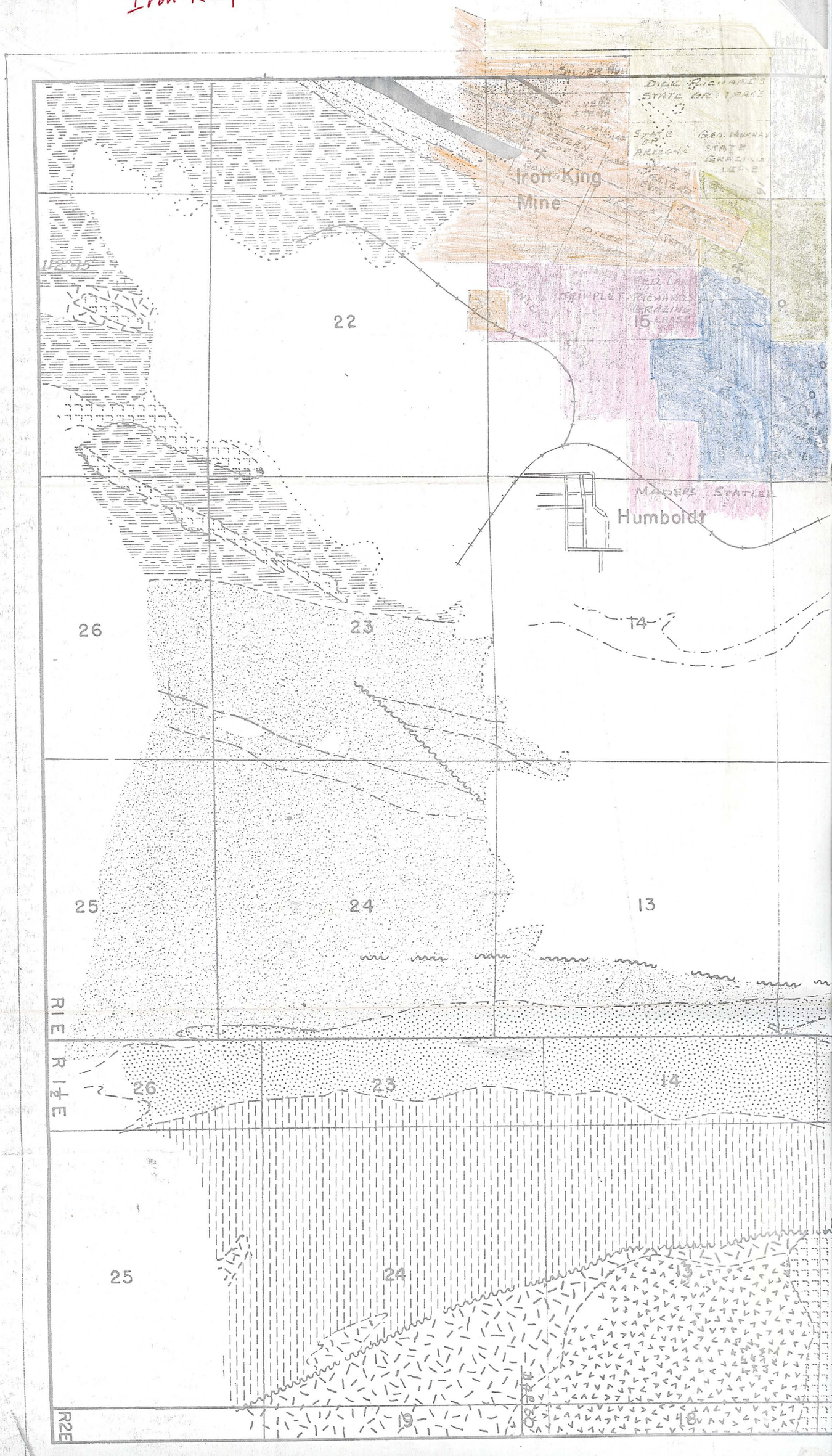
DRAWN BY: J. S. P.		TRACED BY:	
REVISED BY	DATE	REVISED BY	DATE

GEOLOGIC MAP
BROWN SHAFT TO DEWEY
Yavapai County, Arizona

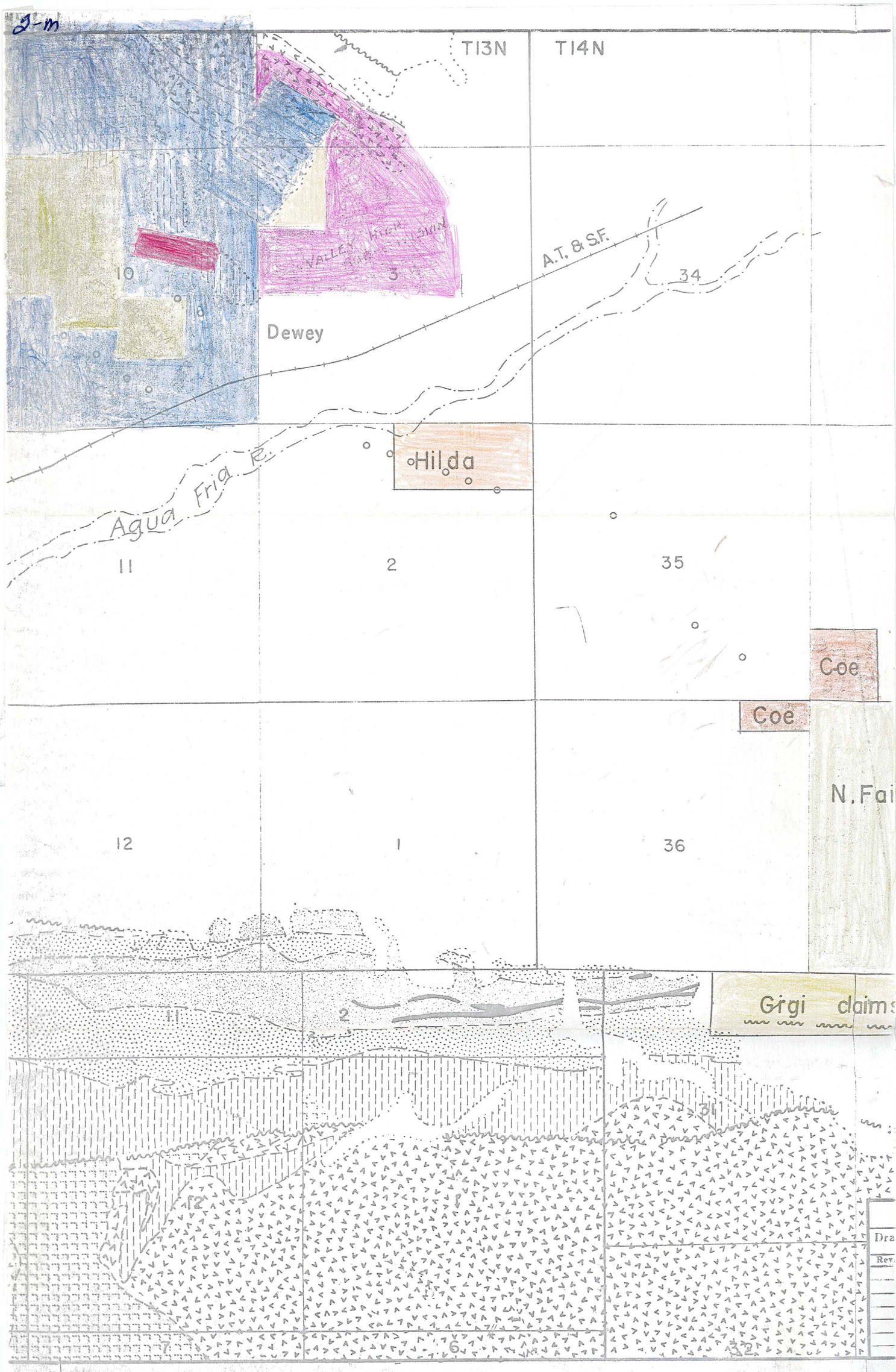
SCALE: 1 in. = 200 ft. | DATE: Apr. 1962 | PLATE:

1-h

Iron King file



2-m


T13N
T14N
A.T. & S.F.
10
3
34
Dewey
Hilda
Agua Fria R.
11
2
35
Coe
Coe
N. Fai
12
1
36
Grgi claims
11
2
12
7
6
32

3-R

Basic flows

Andesite breccia, pyroclastics

Fine-grained andesitic tuff

Rhyolitic tuff, slate, limestone, cgl.

Quartz diorite, aplite

Gabbro, diorite, diabase

Quartz porphyry

Fault

Mineralized zone

Geophysical response

– after USGS Prof. Paper 308

27

26

Coe

N. Fain option

25

24

13

North

R1E

claims 4 to 11

Gigi 1 to 3

Gigi

Schem.

MPP

MPP

30

19

18

Schem.

R2E

The Consolidated Mining and Smelting Company of Canada, Limited

Drawn by: RLb		Traced by:	
Revised by	Date	Revised by	Date

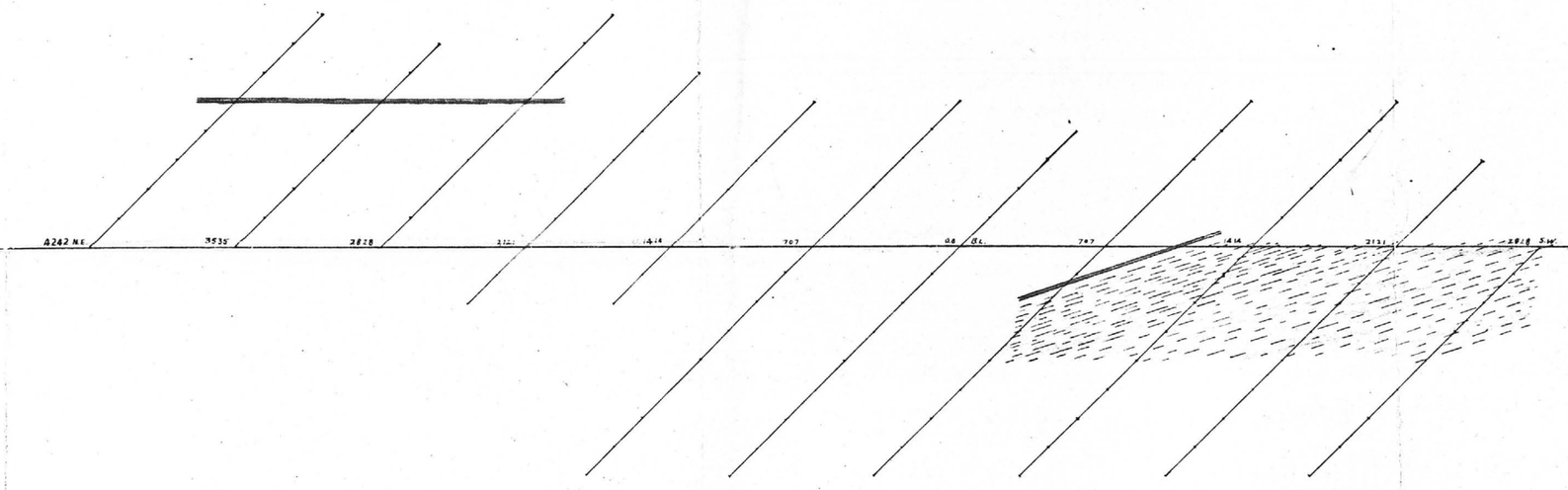
Area Northeast of

IRON KING MINE

Humboldt, Arizona

Scale: 1" = 2000 | Date: April 1, 1960 | Plate: 60-1

RECEIVED SEP 26 1960



While we believe this information to be correct, we make no representation with respect to, nor do we assume any responsibility for, the correctness thereof.

THE NEW JERSEY ZINC COMPANY (OF PA.)
Research Department

N

TOP EDGE OF SHEET CONDUCTOR

CONDUCTING LAYERS FORMATION

THE NEW JERSEY ZINC CO. (OF PA.)
RESEARCH DEPARTMENT

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GEOPHYSICS

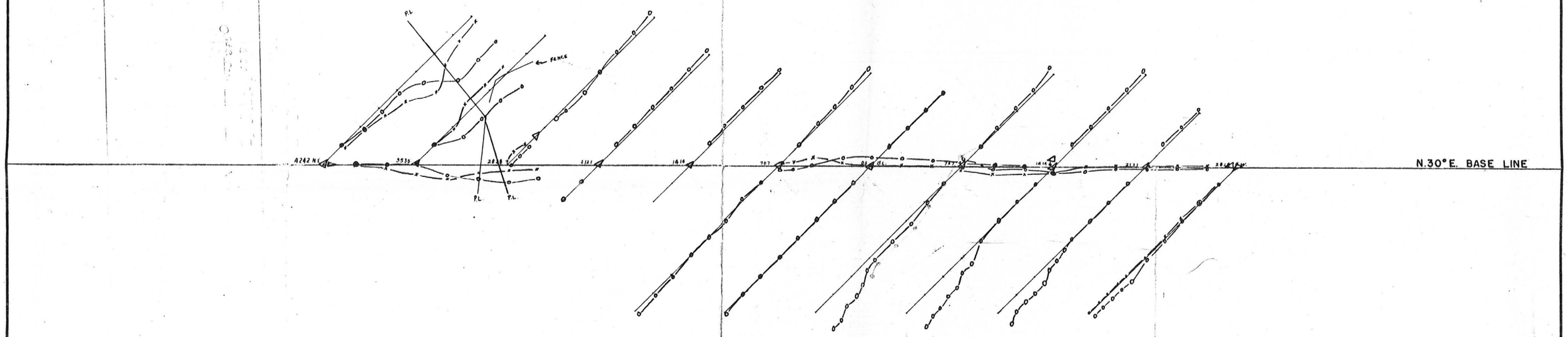
INTERPRETATION OF 900 CYCLE DATA

BOGGS VENTURE

BUTTERNUT AREA

YAVAPAI CO., ARIZONA

SCALE: 1" = 400'	DR.: J.R.D.	TR.: H.B.H.
DATE: OCT 1952	SERIAL NO.: RG-EM-158 B	



While we believe this information to be correct, we make no representation with respect to, nor do we assume any responsibility for, the correctness thereof.

THE NEW JERSEY ZINC COMPANY (OF PA.)
Research Department

+ / − — + / − AZIMUTH

X——X——X AZIMUTH

o——o——o INCLINATION

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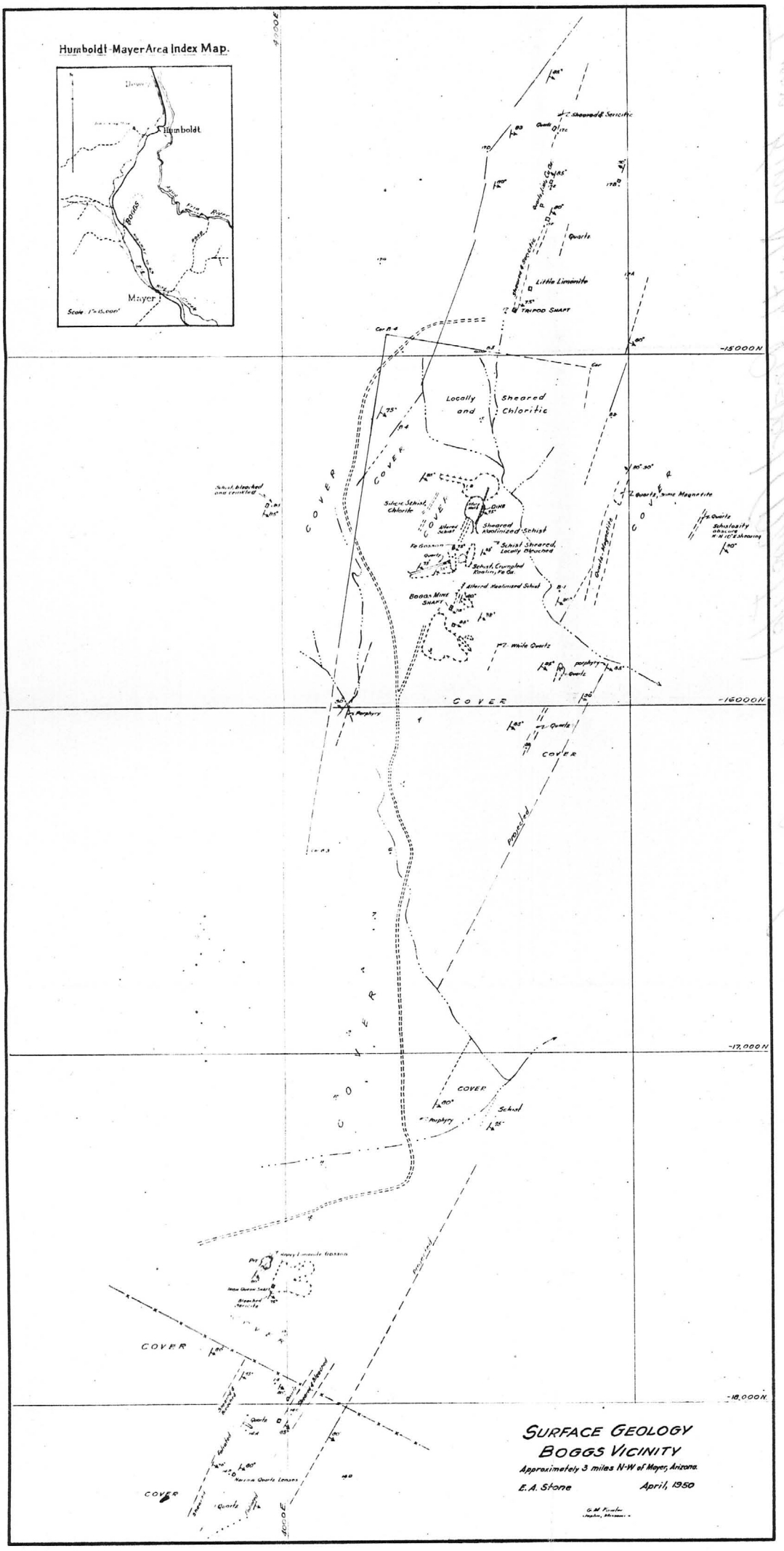
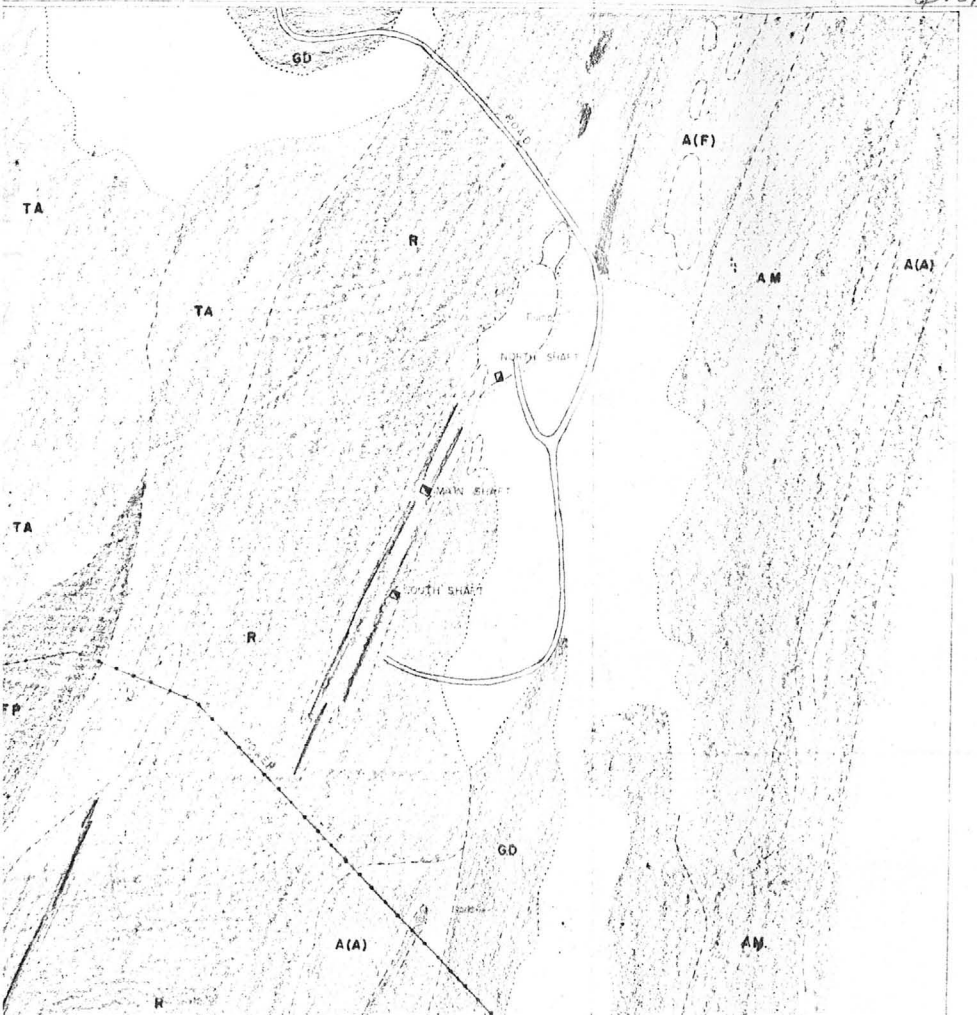
GEOPHYSICS

900 CYCLE SURVEY
BOGGS VENTURE
BUTTERNUT AREA
YAVAPAI CO., ARIZONA

SCALE: 1" = 400' : 1" = 40°	DR.: J.R.D.	TR.: H.B.H.
DATE: OCT. 1952	SERIAL NO.: RG-EM-155 B	


Humboldt-Mayer Area Index Map.
Humboldt
Mayer
Scale 1"=15,000'
Little Limonite
TRIPOD SHAFT
Locally Sheared and Chloritic
COVER
Sheared Mudinized Schist
Schist Sheared, Locally Brecciated
Boggs Mine Shaft
White Quartz
Quartz Magnetite
Shaly Limonite Gossan
-15000N
-16000N
-17,000N
-18,000N
SURFACE GEOLOGY
BOGGS VICINITY
Approximately 3 miles N-W of Mayer, Arizona.
E.A. Stone
April, 1950

Iron King North Prospect (Mine File) Yavapai Co.



- L E G E N D -

QUARTZ W̄ SILICIFIC. & SERICIT.

GD — GRANODIORITE.

QFP — QUARTZ FELDSPAR PORPHYRY.

GROUP = "IRON KING VOLCANICS"

R — RHYOLITE FRAGMENTAL (W̄. SCHISTOSE ZONE).

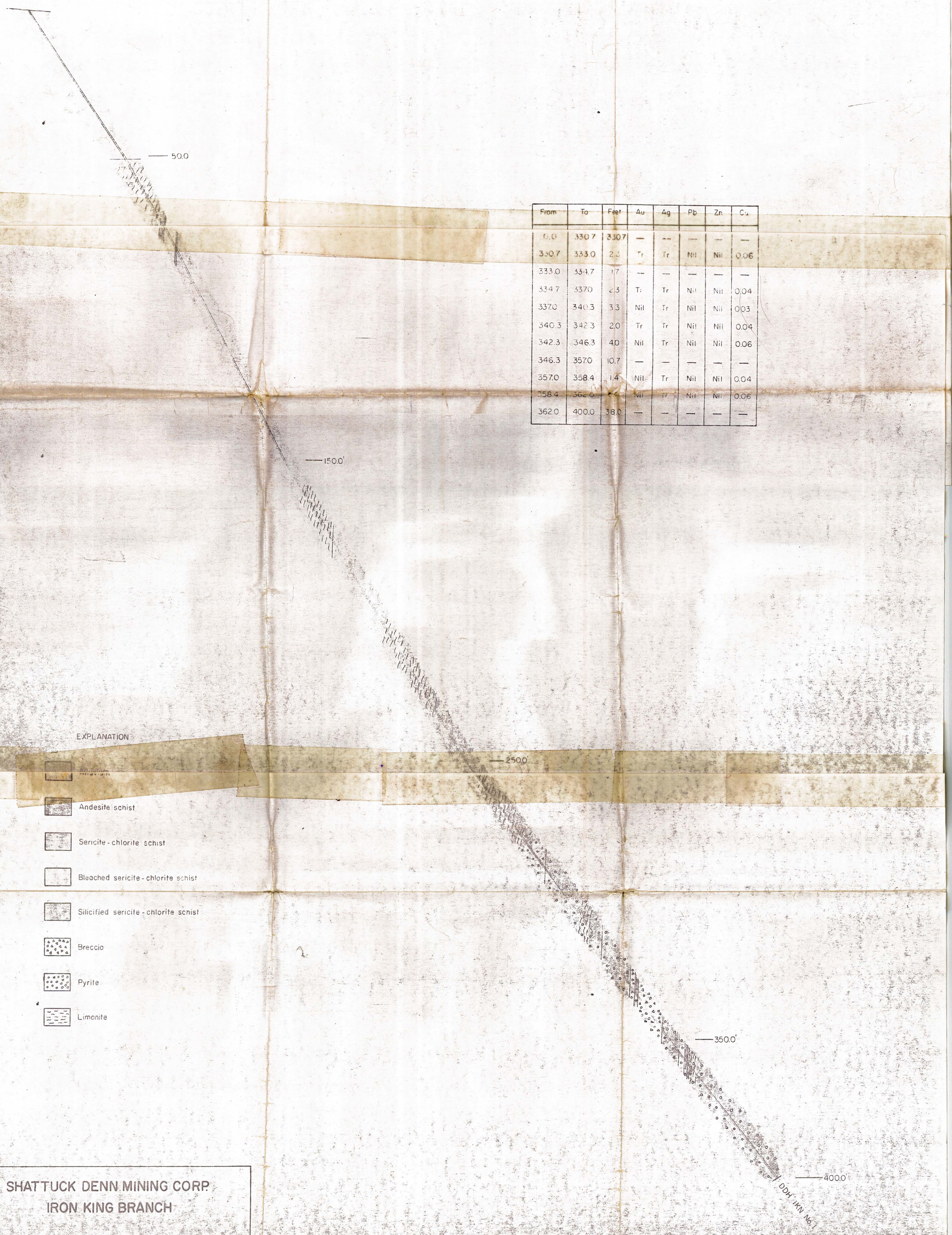
AM — ANDESITE (FLOW) - COARSE-GRAINED & MASSIVE.

TA — ANDESITE TUFF.

A(A), (F) — ANDESITE — AGGLOMERATIC / FLOW.

GEOLOGY OF - LONE PINE MINE

1" = 200'

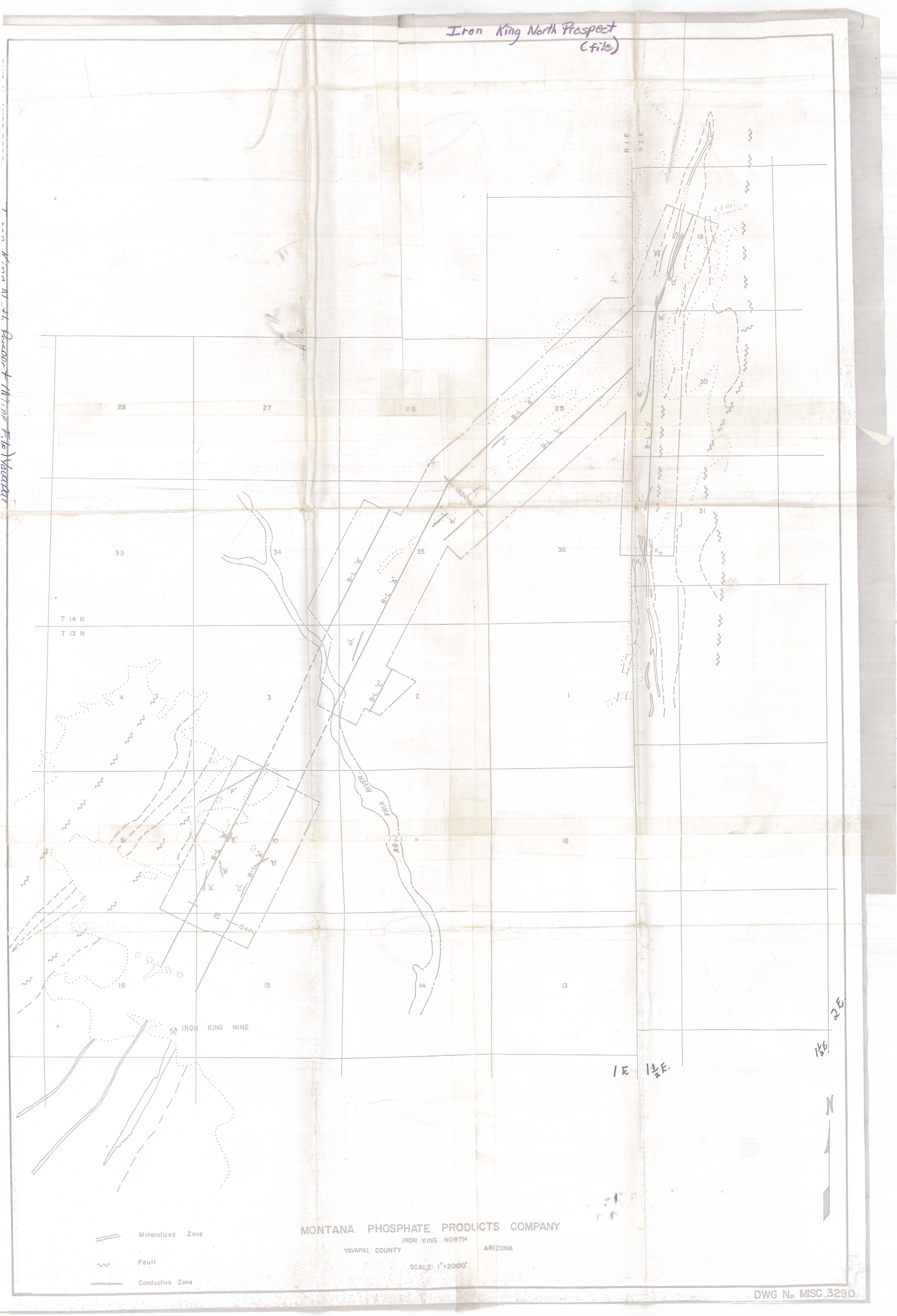


From	To	Feet	Au	Ag	Pb	Zn	Cu
0.0	330.7	330.7	—	—	—	—	—
330.7	333.0	2.3	Tr	Tr	Nil	Nil	0.06
333.0	334.7	1.7	—	—	—	—	—
334.7	337.0	2.3	Tr	Tr	Nil	Nil	0.04
337.0	340.3	3.3	Nil	Tr	Nil	Nil	0.03
340.3	342.3	2.0	Tr	Tr	Nil	Nil	0.04
342.3	346.3	4.0	Nil	Tr	Nil	Nil	0.06
346.3	357.0	10.7	—	—	—	—	—
357.0	358.4	1.4	Nil	Tr	Nil	Nil	0.04
358.4	362.0	3.6	Nil	Tr	Nil	Nil	0.06
362.0	400.0	38.0	—	—	—	—	—

SHATTUCK DENN MINING CORP.
IRON KING BRANCH

IRON KING NORTH PROSPECT
VERTICAL CROSS SECTION
LOOKING N53°50'E
SEC. 10, T. 13 N., R. 1 E., ARIZONA
SCALE: 1" = 20' S.S. JULY 1965

Iron King North Prospect
(file)



MONTANA PHOSPHATE PRODUCTS COMPANY
IRON KING NORTH
YAVAPAI COUNTY ARIZONA
SCALE: 1"=2000'

DWG No MISC.3290