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JEFFERSON GOLD & SILVER MIN. CO. Jefferson Canyon, 48 mi. N of Nye County (Nevada)
Tonopah, 4 1/2 mi. E of Round Mt.

Kanrohat Prop. & sometimes
known as Jefferson Canyon Prop.
Sierra Nevada Mining Props.

Au Ag

REC'D

SEP 20 1919

J. H. W.

JEFFERSON GOLD & SILVER MINING COMPANY

JEFFERSON CANYON, NYE COUNTY, NEVADA.

JEFFERSON GOLD & SILVER MINING COMPANY.

NYE COUNTY, NEVADA.

Examination, August, 1919.

LOCATION:

This property is located in Jefferson Canyon, 48 miles north of Tonopah, and 4-1/2 miles east of Round Mountain. The freight haul from Tonopah to the property is through Manhattan over a road 65 miles long. The drainage from Jefferson Canyon is into Big Smoky Valley. The old road between Austin, Spanish Belt and Belmont is through the canyon.

HISTORY:

Charles Kanrohat worked for the Prussian, Prussian South and Jefferson Companies prior to 1873. After that date he began making the locations that are now a part of the Jefferson Gold & Silver Mining Company's holdings. He has lived in the district and on the property continuously up to the present time. During that time the property has several times been sold, but for one cause or another it has reverted to the original owner, each time with an added equipment, until there is quite a complete plant in existence.

EQUIPMENT:

¹²⁰⁰⁰
A ~~6600~~-volt power line has been built in from Round Mountain where power is supplied by the Nevada-California

Power Company. No lightning arresters protect the plant, consequently severe accidents to transformers have been experienced.

The mine and mill equipment is electrically driven. The mill is essentially a flotation plant, consisting of a gyratory crusher, rolls, tube mill and flotation cells, and has a capacity of about 60 tons per day. Extraction during Mr. Brady's operations is said to have been not over 60%.

The mine equipment consists of a 600 ft. Ingersoll-Rand two stage compressor and all air lines necessary to reach tunnels Nos. 2 and 4. There is also a very complete outfit of drifting and stoping drills. Blacksmith shops, assay office, etc. are in operating condition.

TERMS:

This property has been called to our attention several times. When the property reverted to the Jefferson Gold & Silver Mining Company after the Brady-Stoneham operation, it was equipped in a modern way for immediate work, so that six months development could have been obtained before any great outlay of cash was necessary. With this in mind a thorough sampling was determined on under the following terms:

Price, \$350,000.00. \$5,000.00 to be paid on signature of papers; \$45,000.00 six months after signature. At the end of 12 months another \$50,000.00; 15 months, \$100,000.00; 18 months, \$100,000.00; two years \$50,000.00. If milling undertaken, royalty to apply to purchase price.

The present company is capitalized for 2,000,000 shares, par value \$1.00. Nevada incorporation.

Kanrohat has in his possession 1,187,092 shares, and is reasonably sure of proxies on 2700 shares. 124,105 shares remain in the Treasury. Board of Directors controlled by Kanrohat. 60% of the outstanding stock can legally sell the assets of a Nevada corporation.

WATER RIGHTS AND OTHER RESOURCES:

Jefferson Canyon at low water would supply water for a large mill but not sufficient for any extensive power installation. At present there is a suit pending between the Company and the Round Mountain Company over the Jefferson Canyon water; also tailings from the Jefferson Mill will have to be diverted to some other canyon on account of the Round Mountain intake. This intake is 1.7 miles below the Jefferson Mill, with another intake under construction 2.5 miles below. The Jefferson Company undoubtedly has a right to some of the water, though its use is not entirely continuous.

ORES:

No reserve of ore can be said to exist. It is true, however, that some ore of commercial grade exists, but it is very irregular. The Bryan vein is very flat, which is against cheap and clean mining, the hanging wall being soft and having a tendency to fall with the ore. The Sierra Vein where encountered is of a very low grade.

Surface workings, except the Bryan incline, indicate a low grade on both Bryan and Sierra veins. The Jefferson Cross vein is also irregular and low grade.

Also the vein material in the lowest tunnel, No. 4 has not the strength that is shown above Tunnel No. 2.

Nearly 400 samples were taken and their value and position are shown on attached maps. A sketch map of property holdings and a plan showing workings and elevations are also attached.

The ore treatment by cyanide seems feasible, as is shown by tests by Mr. Johnson. Mr. Black has also discussed the geology and sampling in an attached letter.

Kanrohat milled and shipped a small tonnage of high grade ore from the Bryan incline.

CONCLUSIONS:

A considerable amount of development work has already been done and it is difficult to plan any further work that would put ore enough in sight to meet the payments. The property is therefore not recommended as worth considering under the terms offered.

W W Blackman

General Superintendent.

Tonopah, Nevada,
September 8th. 1919.

JEFFERSON GOLD & SILVER MINING COMPANY.

NYE COUNTY, NEVADA.

GEOLOGY.

The property of the Jefferson Gold & Silver Mining Company lies on the western edge of the granitic intrusion which makes up the mass of Jefferson Mountain and Spanish Belt Peak, and extends south for about twenty miles to a point several miles beyond Manhattan. There are three veins on the property - the Bryan, Sierra Nevada and Jefferson Cross, each of which occurs under different geological conditions.

BRYAN VEIN:

On the footwall of the BRYAN VEIN is a belt of shale, often altered to mica schist, about 200 ft. wide. Where it crosses the Company's claims, this belt strikes N. 68 deg. W. The dip varies from 30 deg. N. at the surface to 49 deg. at Tunnel No. 4. On the hanging wall is a granite containing blocks of shale and schist of varying sizes and shapes. At times this granite is also found on the footwall of the vein, between the vein and the shale. The character of this rock varies, in places being a true granite, but often being more like quartz porphyry, with prominent quartz phenocrysts and but little mica. Evidently the contact between the slate and the igneous rock formed a line of weakness, allowing faulting with consequent brecciation. The filling of the BRYAN VEIN

consists of the more or less completely silicified fragments in this zone of brecciation, cemented together with quartz. Then, after further movement, the silver sulphides were deposited in the cracks, sometimes with rhodochrosite, sometimes with quartz. Subsequently oxidation took place to a vertical depth of 300 feet, (100 feet above the level of Tunnel No. 4).

SIERRA NEVADA VEIN:

On the hanging-wall (or north) side of the BRYAN, at a distance of 300 feet at the surface and 60 feet at Tunnel No. 4, lies the SIERRA NEVADA VEIN. This vein, where examined, consists of a wide crushed zone, in some places up to 25 feet wide. It is characterized by red iron oxides, but not over the entire width. In general, there are well defined gouge seams on footwall and hanging wall; but the rock for several feet beyond the walls is generally crushed and altered. As shown in the crosscuts on Tunnel No. 4 level, the hanging wall rock is a granite. On Tunnel No. 2 level quartz phenocrysts are prominent, while in Tunnel No. 1 the granite is again found.

JEFFERSON CROSS VEIN:

The Jefferson Cross vein lies wholly in rock similar to that found on the hanging wall side of the SIERRA NEVADA in Tunnel No. 2. The vein strikes about N. 10 deg. E. and dips north at a flat angle. It is very irregular, varying from a one-inch stringer of manganese stained quartz to a stock work three or four feet wide.

SAMPLING.

SIERRA NEVADA VEIN:

The sampling of the SIERRA NEVADA VEIN, as indicated on the accompanying assay plan, showed no portion of the vein that was of a commercial grade.

JEFFERSON CROSS VEIN:

The JEFFERSON CROSS VEIN was so small and irregular that but few samples were taken. A sample from the west cross-cut in the tunnel half way up the hill, taken across three feet of manganese stained quartz, assayed but 6.0 ounces silver and a trace of gold. A grab from the quartz on the dump at the lower tunnel gave 6.1 ounces silver and a trace of gold.

BRYAN VEIN:

Most of the accessible workings and all of the stopes were found on the BRYAN VEIN. The sampling soon indicated the spotted nature of the deposit. In the oxidized zone the silver minerals could not be recognized, but in the sulphide zone the black silver sulphide could be clearly seen. The sulphide occurs in small stringers and bunches, very irregularly distributed.

The sampling failed to locate an ore body of any great size. Continuous commercial values were found above Int-D213 over a length of 80 feet. A large part of the available ore has already been stoped, while a continuation of R 213 indicates a decrease in value at about 60 ft. above the drift. A small body averaging 26 ounces over 4.4 ft. is indicated in Tunnel No. 2 at the winze.

but the winze samples show this to be very irregular. In an east drift seventy-eight feet below the collar, the sampling indicated nothing of value. In R-406 the upper 70 feet averaged 16.5 ounces over 5.5 feet. This was the greatest length of continuous commercial values found. However, owing to the spotted nature of the deposit, these values can be assumed to continue for but a short distance beyond the face sampled. The BRYAN INCLINE, about 500 feet west of the west face of Tunnel No. 2, contains ore, but over a narrow width. The sampling of a 175 ft. east drift, 30 feet from the collar, indicated the lack of persistence of the ore.

CONCLUSIONS:

The sampling indicates the occurrence of ore of commercial grade in but a few bunches, none of large size. The total tonnage in sight in the main workings is not over 2500 tons. It is very doubtful if these bunches are frequent enough and of such grade and size as to pay for development and extraction.

J. H. Black

J. H. WHITEMAN, PRESIDENT

C. R. MILLER, VICE-PRESIDENT

C. A. HIGBEE, SECRETARY & TREASURER

W. H. BLACKBURN, SUPERINTENDENT

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA.
September 14, 1919.

Mr. W. H. Blackburn, General Sup't.,
The Tonopah Mining Company of Nevada,
T O N O P A H,, N E V A D A .

Dear Sir:

Attached find results of tests run Samples #1 and # 2
from Jefferson Mining Company.

The values yield readily to cyanidation although the
cyanide consumption is high on both samples.

Concentration followed by cyanidation removes some of
the cyanicides and the cyanide consumption was reduced 2.9#
per ton ore on sample # 1 and 3.4# on sample # 2. The ratio of
concentration on sample #1 was 1 ton concentrates to 42 tons
of ore and on sample #2 was 1 ton concentrates to 39.4 tons
of ore. The extraction on this method of treatment over straight
cyanidation was improved 0.8% on sample #1 and 1.2% on sample
#2.

Based on 100 tons per day the comparison between the
two methods on Sample #1 is shown as follows:

CYANIDATION.

100 tons @ \$21.25	\$2125.00
96.0% Extraction	2040.00
Cost of cyanide 770# @ 25¢	192.50
Balance	\$1847.50

CONCENTRATION and CYANIDATION.

100 tons @ \$ 21.25	\$2125.00
96.8% Extraction	2057.00
Cost of cyanide 480# @ 25¢	120.00
Concentration at 25¢ per ton	25.00
Frt. Jefferson Canyon to Tonopah, 2.4 tons @ \$12.	28.80
Frt. Tonopah to Selby, Cal. 2.4 tons @ \$8	19.20
Treatment 2.4 tons @ \$6	14.40
Smelter deductions 5% Silver contents	13.81
Balance	\$ 1835.79

Mr. W.H.Blackburn, #2

On sample #2 the comparison between the two methods is as follows, based on 100 tons as in sample #1.

CYANIDATION.

100 tons @ \$37.04	\$3704.00
96.9% Extraction	3589.18
Cost of Cyanide 980# @ 25¢	245.00
Balance	\$3344.18

CONCENTRATION and CYANIDATION.

100 tons @ \$37.04	\$3704.00
93.6% Extraction	3552.14
Cost of cyanide 640# @ 25¢	160.00
Concentration @ 25¢ per ton	25.00
Frt Jefferson Canyon to Tonopah 2.5 tons @ \$12	30.00
Frt Tonopah to Selby, Calif. 2.5 tons @ \$8	20.00
Treatment 2.5 tons @ \$6	15.00
Smelter deductions 5% Silver Contents	26.60
Balance	\$3375.48

By these comparisons it is seen that with Sample #1 the added cost of concentration and marketing the concentrates more than offsets the increased extraction and lower consumption of cyanide, while with Sample #2, which is higher grade, the comparison is in favor of combined concentration and cyanidation. In either case the difference in saving is small.

With the exception of the high cyanide consumption, there should not be any unusual difficulties with this ore.

Yours very truly,

V.A. Johnson

Mill Superintendent.

MILL TESTS ON JEFFERSON CANYON MINING CO. ORE.

SAMPLE No. 1.

TEST # 1.

1# of ore was ground to pass 200 mesh and agitated with 2# KCN solution containing 5.35# KCN per ton solution. 10 grams of lime added. Lead acetate equivalent to 1# per ton ore was added.

						Value			
Sample	lbs KCN /ton Sol:	lbs CaO /tonSol:	Au ozs: per ton:	Ag ozs: per ton:	Value per ton:	Au Ext: %	Ag Ext: %	Ext: %	KCN Cons per ton
Heads	5.35	Sat.	.05	18.41	21.25	-	-	-	-
24hrs Agit	1.8	2.0	Tr	1.72	1.89	100	90.6	91.1	7.1
120 "	" 1.5	2.0	Tr	.92	1.01	100	95.0	95.2	7.7
144 "	" 1.5	1.9	Tr	.76	.84	100	95.9	96.0	7.7

TEST #2.

1# of ore ground to pass 40 mesh and hand concentrated on vanning plaque. Concentrate tailings reground to pass 200 mesh and agitated with 2# KCN solution containing 5.35# KCN per ton solution. 10 grams lime added. Lead acetate equivalent to 1# per ton ore added. Ratio ore to solution 1: 2.05

Concentration Test.

Sample	Wt. :Grams	Au ozs : per ton:	Ag ozs : per ton:	Value : per ton	Au : mgs	Ag : mgs	Au Ext: %	AgExt: %	Value : Ext %
Heads	453.6	.05	18.41	\$21.25	0.775	285.35	-	-	-
Concen- trates	10.7	.20	91.50	104.65	0.073	33.56	-	-	-
Tails	442.9	.04	16.56	19.02	0.702	251.79	9.4	11.8	11.7

Ratio of Concentration One ton Concentrates to 42 tons Ore.

Au @ \$20.00 per ounce.
Ag @ \$1.10 per ounce.

CYANIDATION TEST ON CONCENTRATION TAILINGS.

Sample	LbsKCN tonSol	LbsCaO tonSol	Au Ozs per ton	Ag Ozs per ton	Value per ton	Au Ext%	Ag Ext%	Value Ext%	KCN cons. per Ton Ore.
Heads	5.35	Sat.	.04	16.56	19.02	-	-	-	-
24hrsAgt	3.4	2.0	Tr	.92	1.01	100	94.4	94.7	4.0
120" "	3.1	2.0	Tr	.72	.79	100	95.7	95.8	4.6
144" "	3.0	1.9	Tr	.64	.70	100	96.1	96.3	4.8

Au Extraction by concentration	9.4%
Ag	11.8%
Value	11.7%
Au " cyanidation	90.6%
Ag	84.6%
Value	85.1%

Au combined extraction by concentration and cyanidation 100.0%

Ag combined extraction by concentration and cyanidation 96.6%

Value combined extraction by concentration and cyanidation 96.8%

MILL TESTS ON JEFFERSON CANYON MINING CO. ORE.

SAMPLE No. 2 .

TEST # 1 .

1# of ore was ground to pass 200 mesh and agitated with 2# KCN solution containing 5.3# KCN per ton solution. 10 grams lime-added. Lead acetate equivalent to 1# per ton ore added.

Sample						Value			
	Lbs KCN: /tonSol:	Lbs Cao: /tonSol:	Au ozs: per ton	Ag ozs: per ton	Value per ton	Au Ext: %	Ag Ext: %	Ext: %	KCN Cons per ton
Heads	5.3	Sat.	.11	31.67	37.04	-	-	-	-
24Hrs Agit.	0.5	2.0	Tr	1.84	2.02	100	94.2	94.6	9.6
120"	7.4	6.9# KCN added per ton solution.	Tr	1.60	1.76	100	94.9	95.3	9.8
144"	7.3	1.9	Tr	1.04	1.14	100	96.7	96.9	9.8

TEST # 2 .

1# of ore ground to 40 mesh and hand concentrated on vanning plaque. Concentrate tailings reground to pass 200 mesh and agitated with 2# KCN solution containing 5.3# KCN per ton solution. 10 grams lime added. Lead acetate equivalent to 1# per ton ore added. Ratio ore to solution 1 : 2.05

CONCENTRATION TEST.

Sample						Value			
	Wt. : Grams	Au ozs : per ton	Ag ozs : per ton	Value : per ton	Au : mgs	Ag : mgs	Au Ext: %	Ag Ext: %	Value : %
Heads	453.6	.11	31.67	37.04	1.705	490.89	-	-	-
Concen- trates	11.5	.42	193.58	221.34	0.166	87.28	-	-	-
Tails	442.1	.10	26.62	31.28	1.539	403.61	9.7	17.8	15.2

Ratio of Concentration One ton Concentrates to 39.4 tons Ore.

Au @ 20.00 per ounce.
Ag @ 1.10 " "

CYANIDATION TEST ON CONCENTRATION TAILINGS.

Sample	LbsKCN tonSol	LbsCaO tonSol	Au Ozs per ton	Ag Ozs per ton	Value per ton	Au Ext%	Ag Ext%	Value Ext%	KCN Cons. per Ton Ore.
Heads	5.3	Sat.	.10	26.62	31.28	-	-	-	-
24HrsAgit	2.2	2.0	Tr	1.16	1.28	100	95.7	95.9	6.2
120"	" 2.1	1.9	Tr	0.56	0.62	100	97.9	98.0	6.4
144"	" 2.1	1.9	Tr	0.52	0.57	100	98.0	98.1	6.4

Au Extraction by Concentration	9.7%
Ag " " "	17.8%
Value " " "	15.2%
Au " " Cyanidation	90.3%
Ag " " "	80.6%
Value " " "	83.4%
Combined Au Extraction by Concentration and Cyanidation	100.0%
Combined Ag Extraction by Concentration and Cyanidation	98.4%
Combined Value Extraction by Concentration and Cyanidation	93.6%

ABSTRACT OF REPORT

Name of Mine Kanrohat.

State Nevada.

County Nye.

Distant from Round Mountain, 7 miles northeast.

Kind of Deposit Contact and fissure veins.

Valuable Metals Gold and silver.

Extent of Property 19 Lode claims and 2 fractions.

Reported on by F. W. Holler.

Date Dec. 10, 1912.

Financial Proposition:

Mining proposition brought in by Catlin & Powell, New York.

Abstract of Report:

Date

By

Average of 23 samples taken on vein in supposed ore shoots \$4.50 per ton in gold and silver. The two main veins are from 1 foot to 12 feet wide and dip at about 45° to 70°. They are strong, well defined, and can be traced for almost the full length of the property. But the values are very erratic and besides are too low to make it worth while to thoroughly sample the mine.

Tonopah, Nevada, December 10, 1912.

Mr. Frederick Bradshaw,
General Superintendent,
Tonopah Belmont Development Company,
Tonopah, Nevada.

Dear Sir:

I herewith submit a short report on the Kanrohat property.

The Kanrohat property consists of 19 claims and 2 fractions at Jefferson, Nye County, Nevada; in the Jefferson Mining District. Assessment work has been kept up to date and there are no questions involving titles.

Jefferson is located in Jefferson Canyon which is one of a number of narrow canyons running from Mt. Jefferson into Big Smoky Valley. At Jefferson the canyon has an elevation of 8,000 feet and is about 500 feet wide. On both sides the mountains rise up steeply, their summits being as much as 700 feet above the floor of the canyon in a number of places. Jefferson Creek with its source in the high mountains south of Mt. Jefferson flows down the canyon and into the Valley where it soon disappears into the ground. Most of the claims included in this property are located south of Jefferson Creek. Some extend over the ridge into Berlin Canyon, a branch of the main canyon, as shown on the claim map. The steep slopes of the mountains make the property ideal for developing by tunnels. Round Mountain, the nearest supply center, is seven miles from the mine by wagon road. The road is up grade most of the way, the mine being approximately 2,000 feet above Round Mountain. Except for a few steep pitches, it is in good shape for heavy hauling. Austin, 78 miles north and Tonopah, 70 miles south, are the nearest railroad points. Roads to both of these points are in good condition. The road from Austin has fewer grades and has been used to haul most of the supplies into this district.

The district is made up of paleozoic sediments cut by porphyry intrusions. In the Kanrohat property, the principal rocks are: mica schist, slaty schist, blue crystalline limestone, gray porphyry and, light colored mica granite. The orebodies are both contact and fissure veins, which have a strike of East and West, and dip to the north. Quartz and talc are the vein filling.

The Starry Flag or main vein cuts through the Prussian Lode and Prussian South claims, and extends through into Kanrohat ground. It can be traced on the surface across the full length on this ground. It varies in width from a foot to ten feet and dips 45 deg. to the north. It carries the value as silver sulphide with a small amount of gold in a white quartz mixed with talc. The walls, which are well defined, stand well and usually have a talc gouge on them from a few inches to a foot thick. This applies to the foot wall more than to the hanging wall. The values in the vein are not at all constant and from what development has been done it can be seen that the commercial ore occurs in irregular shaped shoots in the vein. The samples taken on different parts of the vein give values from 20.cents to \$10.65 per ton except for the small shoot in the winze from No. 2 Tunnel which gives higher values. The average of all samples taken on this vein, excluding the winze samples, is less than \$5.00 per ton.

Next to the Starry Flag vein, the Sierra Nevada is the most important vein. It varies in width from a foot to twelve feet. It dips 70 degrees to the north and if it continued at this steep angle to depths, it will intersect the Starry Flag vein at about the point where the present No. 4 tunnel will cut the vein. The vein structure is about the same as that of the Starry Flag vein and the values in it show as much variation. The average of all samples taken on this vein is less than \$2.00 per ton. A sample of ore sorted from this vein where it was drifted on from the No. 3 tunnel only ran \$10.10 per ton.

Besides the two veins mentioned above, there are a number of veins on the Jefferson Cross claim, which were developed by numerous shafts and tunnels. Samples taken in the most favorable places failed to show commercial values.

The property has been developed in an unsystematic manner. Shafts were sunk on the outcrops and tunnels run to the veins from various points. The Sierra Nevada claim is the only one that has been developed to show what the vein will do at depths, but not enough work has been done to estimate any ore blocked out. Below is a short account of the condition of the veins in the main openings.

The Bryan incline Shaft, which is down 190 feet on the dip, is on the Starry Flag vein? It shows the vein to be as wide as four feet, but not averaging more than two feet. Small stopes on the sides of the shaft show where bunches of commercial ore were mined. In the bottom of the shaft is an 18 inch vein which assays \$8.90 per ton. All other samples taken here assayed \$2.00 per ton or under.

The No. 1 tunnel was driven ^{to} in the Sierra Nevada vein and drifts run both east and west as shown on the map. In the face of the east drift the vein is exposed for a width of twelve feet and assays \$2.00 per ton. This is the widest part of the vein. Other measurements give it an average width of under four feet and the average of all samples taken on this vein is \$2.35 per ton.

300 feet below No. 1 tunnel, the No. 2 tunnel was driven in 425 feet cutting both main veins. Drifts were run east and west on both veins, but only the drifts on the Starry Flag vein are accessible. The east drift, which is in 450 feet is on the vein for almost its entire length and averages less than \$5.00 per ton for the full width of the vein exposed. The west drift is not on

the veins as it is supposed to be, but is in the foot wall and no samples were taken. The 100 foot winze from this level developed a small shoot of good ore. It will not average more than 18 inches thick and does not show signs of permanency.

The No. 3 tunnel is 70 feet below and 900 feet east of No. 2 tunnel. It was driven in 400 feet cutting both veins. The Starry Flag vein was not drifted on and has caved so badly as to make it inaccessible. The east drift on the Sierra Nevada is in such poor shape that it could not be sampled without doing considerable work barring down slabs. Where the tunnel cut this vein it is twelve feet wide. A sample of the six feet of vein matter next the foot wall assayed \$2.25 per ton, while the six feet next the hanging wall assayed 50 cents per ton. A sample of the ore sorted from this vein while driving the drift assayed \$10.10. Another sample of this same ore, but which had not been sorted so closely, assayed \$5.80 per ton. The lower No. 4 tunnel is not yet in to the veins. It is in 400 feet in a light colored quartz porphyry.

On the Jefferson Cross claim, a number of small veins and stringers were exposed by the Shallow prospect openings. None of these are more than 15 inches wide and do not contain commercial ore. A sample of ore sorted from the material taken out of these veins in development assayed \$4.20 per ton. Sample of the veins assayed less than \$2.50 per ton.

SAMPLES

Gold is figured at \$20.00 per ounce and silver at 50 cents per ounce.

Sample No. 1.

18 inch cut across vein in bottom of Bryan Incline (190 feet deep) Oxidized quartz ore. Gold 40 cts, Silver \$8.50, Total \$9.90 per ton.

Sample No. 2.

14 inch cut across vein in Bryan Incline 150 feet from surface. Oxidized quartz ore. Gold 40 cts, Silver 60 cents, total \$1.00 per ton.

Sample No. 3.

5 foot cut across vein in Bryan Incline 100 feet from surface. Oxidized quartz ore. Gold 40 cents, Silver \$1.60, total \$2.00 per ton

Sample No. 4.

No. 1 tunnel. Sierra Nevada vein. 8 foot cut across vein in face of east drift, 175 feet from where tunnel intersects vein. Gold 80 cents, Silver \$1.20, total \$2.00 per ton.

Sample No. 5.

No. 1 tunnel. Sierra Nevada vein. 5 foot cut across vein where tunnel intersects vein. Gold 40 cents, Silver \$1.00, total \$1.40 per ton.

Sample No. 6.

No. 1 tunnel. Sierra Nevada vein. 3 foot cut across vein in West drift 40 feet from tunnel. Gold 80 cents Silver \$2.80 total \$3.60.

Sample No. 7.

No. 2 tunnel Sierra Nevada vein. 5 foot cut across vein in tunnel. Gold Tr. Silver 50 cents, total 50 cents per ton.

Sample No. 8.

No. 2 tunnel Starry Flag vein. 3-1/2 foot cut across vein in face of east drift. Total thickness of vein not exposed by drift. Gold \$1.40, Silver \$9.25, total \$10.65 per ton.

Sample No. 9.

No. 2 tunnel Starry Flag vein. 2 foot cut across vein in east drift 410 feet from tunnel and 35 feet from face of drift. Gold 80 cents, Silver 90 cents, total \$1.70 per ton.

Sample No. 10.

No. 2 tunnel. Starry Flag vein. 4 foot cut across vein in east drift 300 feet from tunnel. Between No. 10 and No. 9 samples the drift is not on the vein. Gold 40 cents, Silver \$2.70 per ton, Total \$3.10 per ton.

Sample No. 11.

No. 2 tunnel- Starry Flag vein. 5 foot cut across vein in east drift 225 feet from tunnel. Gold 60 cents, Silver \$8.30, total \$8.90 per ton.

Sample No. 12.

No. 2 tunnel - Starry Flag vein. 5 foot cut across vein in east drift 150 feet from tunnel. Gold 60 cents, Silver \$7.20, total \$7.80 per ton.

Sample No.13.

No. 2 tunnel-Starry Flag vein. 3 foot cut across vein in east drift 100 feet from tunnel. Gold 40 cents, Silver \$1.70, total \$2.10 per ton.

Sample No.14.

No. 2 tunnel - Starry Flag vein. 5 foot cut across vein in east drift 50 feet from tunnel. Gold tr. Silver, 20 cents, total 20 cents per ton.

Sample No.15.

Winze from No. 2 tunnel. Starry Flag vein. 12 inch cut across vein in winze 35 feet below level. Gold \$2.40, Silver \$21.35, total \$23.75 per ton.

Sample No.16.

No. 3 tunnel. 18 inch cut across vein 145 feet south of Sierra Nevada vein. Gold Tr. Silver 10 cents, total 10 cents per ton.

Sample No.17.

No. 3 tunnel, Sierra Nevada vein. 6 foot cut across foot wall, half of vein exposed in tunnel. Gold \$1.60, Silver 95 cents, total \$2.55 per ton.

Sample No.18.

No. 3 tunnel Sierra Nevada vein. 6 foot cut across hanging wall half of vein exposed in tunnel. Gold 40 cents, Silver 10 cents, total 50 cents per ton.

Sample No. 19.

No. 3 tunnel. Sample of ore from Sierra Nevada vein sorted on dump. Gold \$4.00, Silver \$6.10, total \$10.10 per ton.

Sample No.20.

No. 3 tunnel, sample of ore from from Sierra Nevada vein on dump. Not sorted as close as sample No. 19. Gold 60 cents, Silver \$5.20, total \$5.80 per ton.

Sample No.21.

Jefferson Cross Tunnel. 15 inch cut across vein of white sugary quartz in top of raise from tunnel. Gold 40 cents Silver \$2.00, total \$2.40 per ton.

Sample No.22.

Jefferson Cross Tunnel. 12 inch cut across vein in tunnel. Gold Tr. Silver 40 cents, total 40 cents per ton.

Sample No.23.

Jefferson Cross Tunnel. Sample of ore on dump sorted out from material excavated in development. Gold 40 cents, silver \$3.80, total \$4.20 per ton.

A mill was built there years ago by a New York Company who had an option on the property. It consists of a small jaw crusher, rolls, challenge automatic feeder, Huntington Mill, two Pinder concentrating tables, 100 H.P. return tubular boiler, 80 H.P. Erie steam engine and a number of tanks of various sizes. The machinery has all been set in place, but never connected up for operating. The mill building is covered well and the machinery is in good condition.

This property has very little equipment outside of the mill and would have to be equipped completely before beginning active work. All supplies will have to be hauled in from Austin and Tonopah.

Operating costs in this district will necessarily be high on account of its distance from railroad. Miners can be had for \$4.00 per day, 8 hour shifts. Timber can be freighted in for \$20.00 per thousand board feet, from Austin. Electric Power lines of the Nevada California Power Company are within two miles of the mine. There is sufficient water in the creek for mine and mill use, and at some seasons of the year there is sufficient for developing power.

CONCLUSIONS

The two main veins developed on this property are strong but, with the exception of the shoots in the winze from the No. 2 tunnel, no commercial ore has been found. Ore on the dumps said to be sorted from ore bodies carrying good ore does not show high enough values to justify any extensive exploration. The ore in the winze is not developed enough to estimate tonnage. From the above it can be seen that the property does not warrant thorough sampling.

F. W. Noller

December 10, 1912.

OUTH

ORECON

MONITOR

ADMIRAL

MISSOURI

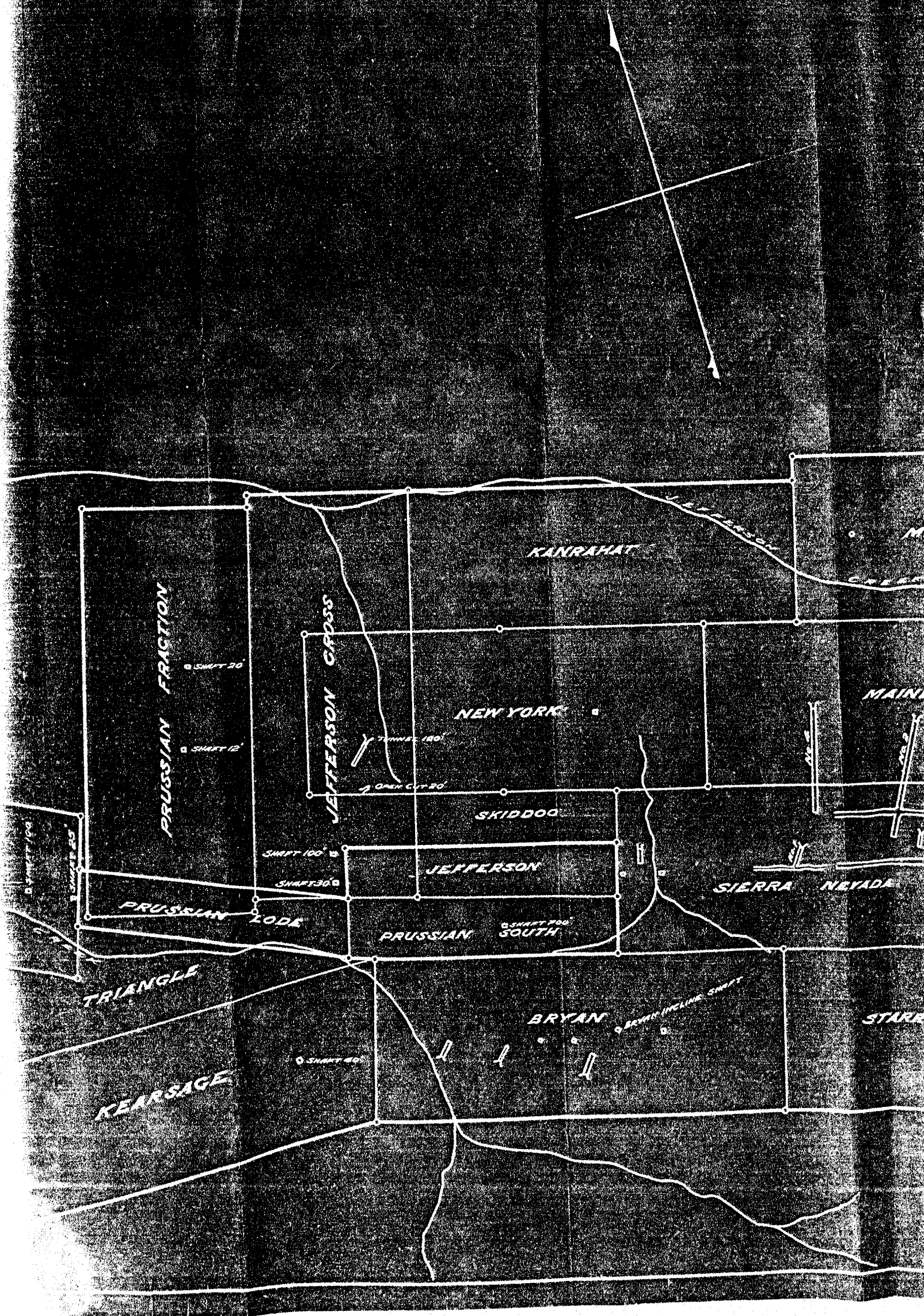
UNION SOUTH

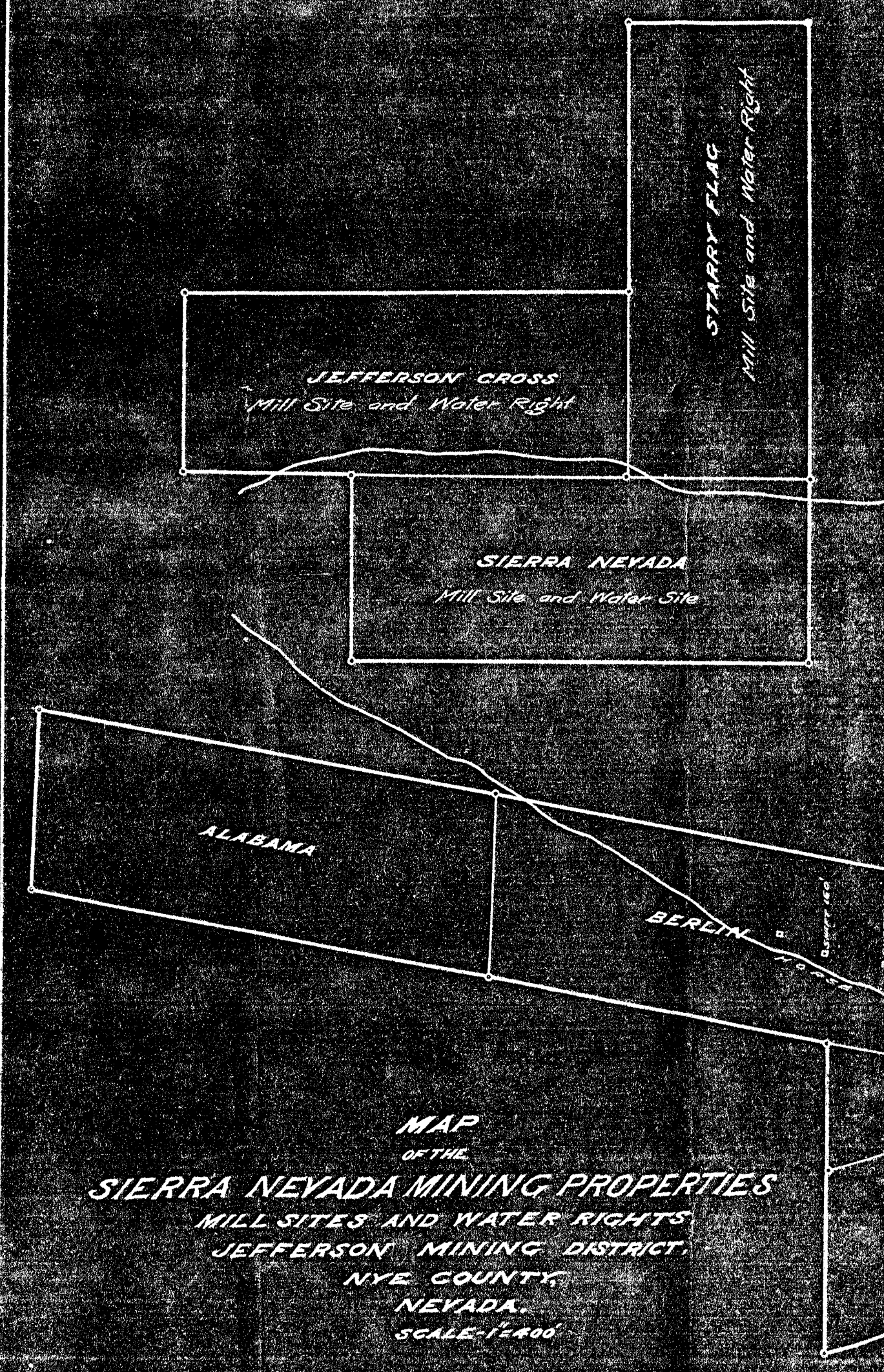
OREGON

MONITOR

ADMIRAL

FLAG





MAP
OF THE
SIERRA NEVADA MINING PROPERTIES
MILL SITES AND WATER RIGHTS,
JEFFERSON MINING DISTRICT,
NYE COUNTY,
NEVADA.
SCALE 1"=400'

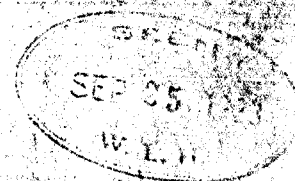
LAW OFFICE
ROOM 204 BANK BUILDING
P.O. BOX 764

PHONES
OFFICE: 532 RES: 533

W. R. GIBSON

TONOPAH, NEVADA

9-20-23.



On July 23, secured quiet title to an old mine shut down 1877. Reputed production three million; mostly above 300 ft shaft down 700.

Power line within 1000ft. Needs hoist, compressor, pump to take out water, replace old skidway with not less than 12# rails, some additional timbering; no caving.

Values silver and gold, silver predominating.

✓ Location, Jefferson canyon, Nye County, Nevada.

Will deed for \$25,000 or take \$300 per month for ten years.

15
From list of assays reputed to have been made in 1892 by W.A. Atwell; 230 level 13 oz. 300 level 200, and 10 oz. 600 level 8, 80 and 4 oz. 700 level 328, 2, 2, 2, 2, 140, 4, 408, and 22oz.

If interested will furnish all the information I possess concerning the former operations which was from 72 to 77; the parties taking it over for debt tried to sell it for \$75,000 and 100,000 shares out of 600,000 shares of stock in 1892.

Yours truly,

See also Letter - Tonopah

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA.

Sept 15th, 1919.

REC'D

Sept 20 1919

Mr. J.H. Whiteman, Pres.,
Tonopah Mining Co.,
Philadelphia, Pa.

RECEIVED	J.H.W.

Dear Sir:

Enclose herewith report on the Jefferson Gold and Silver Mining, located in Jefferson Canyon, Nye County, Nevada.

This property has come to our attention several times and finally to settle the question of its desirability a thorough examination was undertaken.

The result ^{is} that we do not consider the property a good mining venture.

It is true that a complete mine and mill equipment is now installed and ready to go to work as soon as a crew could be gotten together and the fact that there was a complete mine equipment influenced the decision to examine.

The flotation portion of the mill however would need to be replaced by cyanide as indicated by Mr. Johnsons tests. His tests were made on a composite from samples running over 100oz. silver.

The sampling shows a very spotted vein condition and a vein in which clean mining of ore will be difficult of accomplishment.

Yours truly,

W. H. Blackburn

General Superintendent.

Catlin & Powell Co.

Stocks and Bonds

15 Broad Street,

New York, Nov. 26, 1912.

Telephones: *Hanover* 6050-1-23
Cable address *Catpow New York*
Codes *Bedford McNeill, Western Union.*

London Office,
N^o. 7 Great Winchester St.,
London, E.C.

Mr. Clyde A. Heller,
Bullitt Bldg.,
Philadelphia, Pa.

Dear Mr. Heller:

Our Mr. W. L. Fleming, E. M. whom I think you met one day last Spring, made a brief analysis of the Kanrohat proposition as follows:--

"The property comprises 16 claims, 6 miles from Round Mountain and 20 miles from Manhattan.

"The property has been worked by one man for 35 years, who has made his living and developed the mine from high grade ores extracted and shipped; these rich ores occur in seams and pockets through veins which are all reported to be of an excellent milling grade. The output is stated to have been in the neighborhood of \$170,000. 100,000 tons of ore that will mill \$10 is stated to be piled on the various dumps, and a very large tonnage of ore of a high milling grade is exposed in the workings.

"The accompanying sketch brings up to date the various principal workings, and summarizes the data contained in the reports submitted.

"It is further stated that the ore shoot from which the Jefferson Mining Company made its production of \$3,000,000 to \$4,000,000 during the early seventies, \$3,000,000 was taken out in 18 months. The workings are 750 feet deep, the shaft collar being approximately on a level with the No. 2 tunnel on accompanying sketch.

"The remarkably high grade of the selected ore, the fact that the mine has supported itself and its owner for 35 years, the size and

C. A. H. #2.

continuity of the veins, the large tonnage of ore in the workings and on the dumps, the good working facilities furnished by tunnel sites and water power, and the possible significance of an intersection of the two main veins at or near the objective point of No. 4 tunnel, together with the fact that the company owns the vein apexes over a long distance - all indicate the property to be worthy of investigation as capable of being developed into a very large and economical milling enterprise."

Fleming is a very keen analyst, and upon the assumption that the values given by Kanrohat are correct, his analysis shows an exceptionally interesting piece of business.

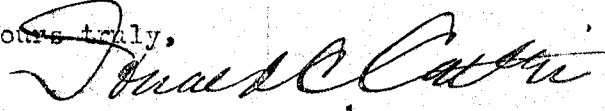
I found on my desk the enclosed sketch map which Fleming made.

You will note that the No. 3 tunnel was at a point 900 feet east of No. 2; it cut the Starry Flag vein out of the ore shoot; it showed the Sierra Nevada vein to be very wide in this section, but lower in grade than where cut by No. 1 and No. 2 tunnels.

This sketch map illustrates the two principal veins and the one upon which Kanrohat has done most of his work.

It might be worth while for you to forward this sketch map with copy of this letter to your examining engineer.

Yours truly,



no reason upon

Mill - Huntington, 50 ton crushing capacity, 150 ton cyanide capacity.

grass roots
vein 6' wide
20 tons return

granite foot wall

re in 4-10' wide
drift 200' long
average \$1700

winze 100
all rock hoisted
from this winze
averaged 50 per ton

cut vein - no drifting -
vein strong but low grade
where cut

Note - Tunnel No 3 is
--- East of No 2

Ex. 7 of No 2

Vein 4-12' wide
dyke + 200'
average #17

starry flag vein
dip 45°
-1100 ft.

Sierra Nevada vein
dip 70°

π Dampers @ 415-

Point Harbor

vein 4-8' wide
dip + 700' long
average #/8

34

Wash 2' wide
100' + 500' long
Average 250' long

winze 100

320-40-510



316 - 1.5 FN - 4.20

317 - 1.4 - 1.00

318 - .9 - 3.90

319 - 1.5 H.W. - 80



APPROXIMATE OUTCROP

Core

EL-7566

275-30-150
 276-30-260
 274-41-150
 273-37-140
 271-33-530
 270-33-130
 262-31-420
 263-45-120
 284-37-140
 285-35-260
 286-47-150
 287-33-270
 288-33-500
 289-17-130

TUNNEL No. 1 - ELEV. 8042

290-18-11704

291-22-54 600
 292-13 HW 320

237-50 FW - 40
 238-24 - 40
 239-30 - 10
 240-16 - 50
 241-31 HW - 20

CIVIL
 TUNNEL

CO.

281-59FM-430
280-341M-360
278-32-410
276-20-270
277-30-170
275-28-250
274-41-140

PLAN OF THE
SIERRA NEVADA VEIN
JEFFERSON GOLD & SILVER MIN. CO.

JEFFERSON CANYON - NYE CO. - NEV.

1 IN. = 40 FT. SEPT. 1919

368

NOTE: - PLANE OF PROJECTION STRIKES $N65^{\circ}30'W$
AND DIPS $53^{\circ}N$.

SAMPLES RECORDED: SAMPLE No. WIDTH - OZ. DORE

RATIO GOLD TO SILVER 1:350 BY WEIGHT.

360-3877

361-50110

362-55691

SIERRA NEVADA VEIN
JEFFERSON GOLD & SILVER

JEFFERSON CANYON - NYE CO - NEVADA

LINE 40 FT.

SEPT. 1919

368

NOTE: - PLANE OF PROJECTION STRIKES N65°30' W
AND DIPS 53° N.

SAMPLES RECORDED: SAMPLE No. WIDTH - OZ. DWT.

RATIO GOLD TO SILVER 1:350 BY WEIGHT.

358-254 W. - 3.60
359-34 F.W. - .30

360-38 F.

361-50 W.

362-52 W.

TUNNEL No. 3 - ELEV. 7813'

SIERRA NEVADA VEIN
JEFFERSON GOLD & SILVER MIN. CO.

JEFFERSON CANYON - NYE CO. - NEV.

1 IN. = 40 FT. SEPT-1919

968.

NOTE: PLANE OF PROJECTION STRIKES $N68^{\circ}30'W$
AND DIPS $59^{\circ}N$.

SAMPLES RECORDED: SAMPLE No. - WIDTH - OZ. DORE

RATIO GOLD TO SILVER 1:350 BY WEIGHT.

360-38.77

361-50.110

362-51.293

Caved

TUNNEL No. 3 - ELEV. 7813.

281-59.74-130
280-5.44-160

279-32-110

278-20-250

277-30-100

276-39-260

274-41-110

273-37-140

272-35-100

271-32-830

270-33-140

262-31-110

263-25-110

TUNNEL No. 1 - ELEV. 8042

350-2.5FW .20
351-3.9 .20
352-4.8HW .10

354-60-10

255-38-130

TUNNEL No. 4

280-13

283-45-20
284-34-100
285-35-260
286-47-480
287-38-210
288-33-500
289-17-130

LEV. 8042

237-5.0 FW. - 40
238-24 - 40
239-3.0 - 10
240-1.6 - 30
241-3.7 HW. - 20

Caved  Caved

TUNNEL No. 2 - ELEV. 7866

358-60-30

357-5.0-30

TUNNEL No. 4 - ELEV. 7700

MAXIMATE OUTCROP



353-25-10

320-40-510



316 - 1.5 FN - 420

317 - 1.4 - 1.00

318 - .9 - 3.90

319 - 1.5 FN - 80



340-50 HW-70
339-50 GF-70
338-50 FN-400
337-40-400

336-4.5-170

335-2.2-160

269-3.5-8.10

403

334-2.8-80

329-3.6 HW-7.20
333-2.1 FN-5.10

R 401

268-5.4-3.10

267-3.8-8.30

266-5.8-18.20

185-30-140

184-30-0.20

183-3.2-0.40

182-40-3.10

181-2.2-1.30

180-20-110

2 FN-5.80
2.1-2.30
HW-2.90

Samples in H.W. branch drift.

-3.70

-3.20

9-8.80

-1.280

329-3.6HW-7.20
335-2.1FW-5.10

R 401

268-6.4-5.10
267-3.6-8.30
266-5.6-16.90

264-3.5-2.80
265-2.5-5.20

404

205-2.5HW-2.00
204-2.0FW-10.00
203-4.0-4.90

R 406

206-4.5-2.20
207-4.2-3.90
208-4.2-16.30
209-4.0-4.70
210-3.4-5.60
211-3.2-10.40
212-3.7-3.00
215-3.7-16.30
214-3.9-400.50

216-3.4HW-7.90
215-3.3FW-1.50

217-3.7-3.10

242-4.8-2.70

243-3.7-10.00

244-4.9-11.70

245-6.5-10.00

246-5.7-10.00

247-6.4-10.00

248-5.6-10.00

249-2.3-10.00

171-3.8HW-7.90
170-3.0FW-20.00

172-3.2-4.00

173-1.3-0.20

174-4.4-4.90

175-4.4-11.80

176-4.6-0.00

177-4.5-1.00

178-5.9-0.40

179-1.9-0.90

180-2.0-1.10

181-2.2-1.30

R 217

143-4.4HW-0.70
142-3.1FW-0.00

R 215

140-3.2-20.10
141-4.5-1.70

142-3.9-7.00

43-11HW-4.16.20
42-10.1-2.2-10.10

44-4.1-7.90

45-4.5-8.80

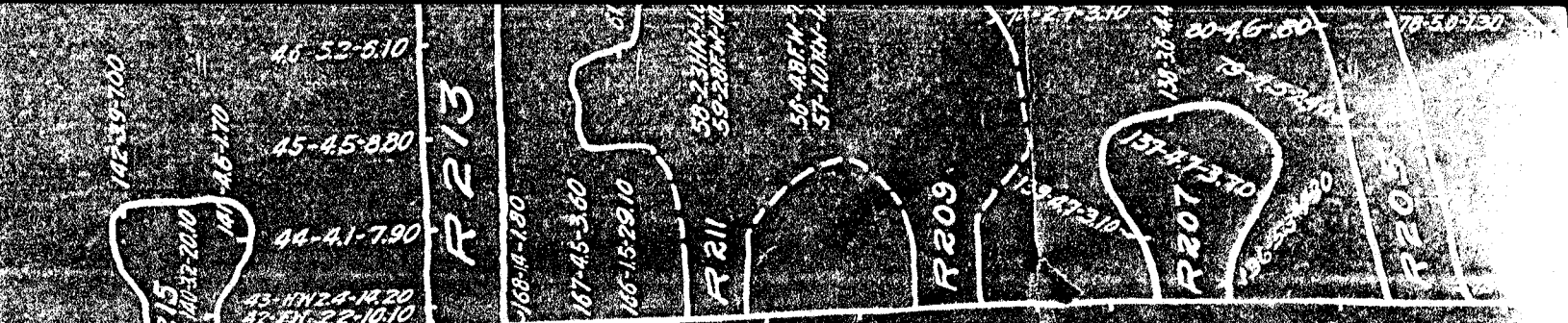
46-5.2-10.00

47-4.3-10.20

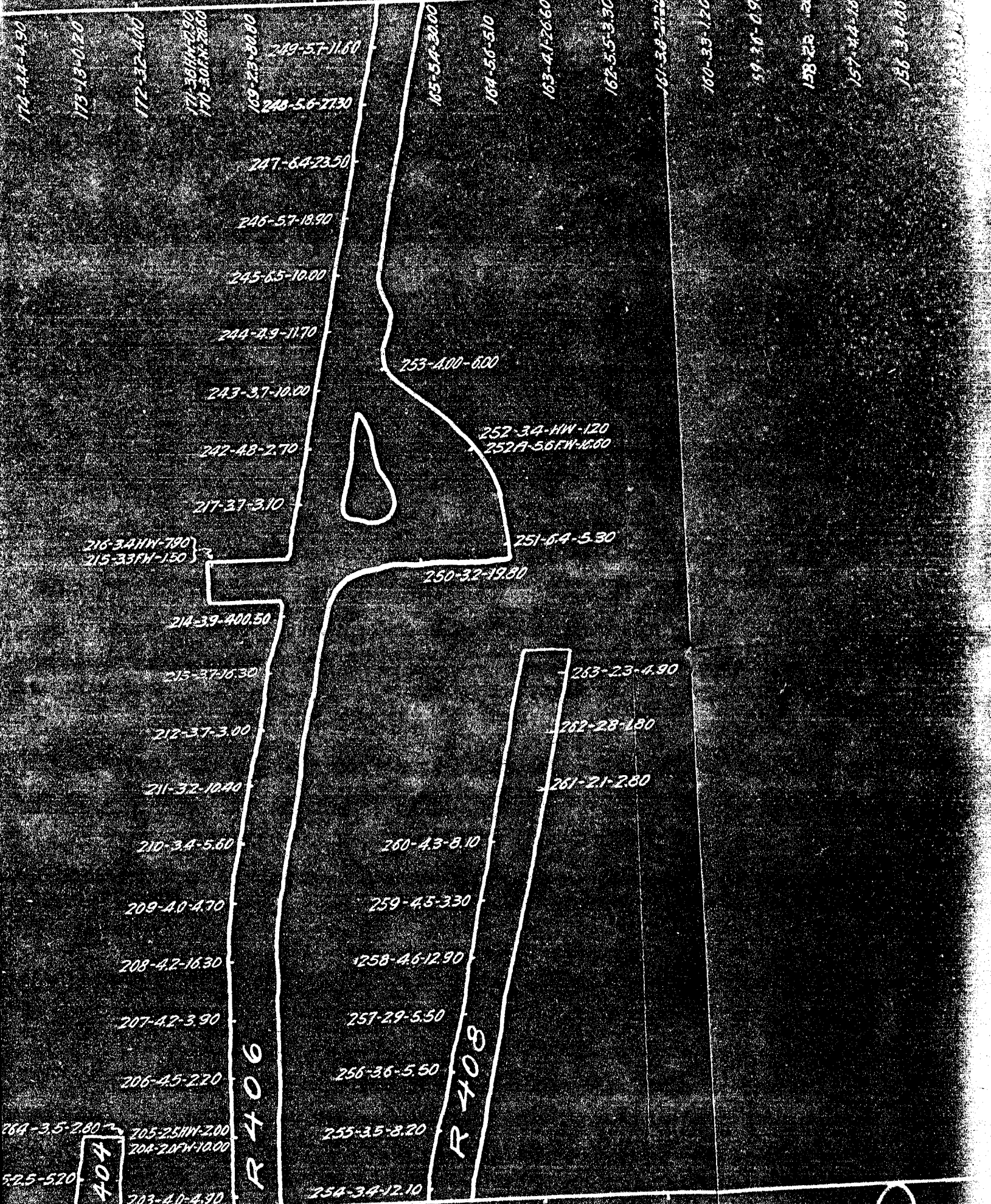
TUNNEL No

1. HW branch drift.

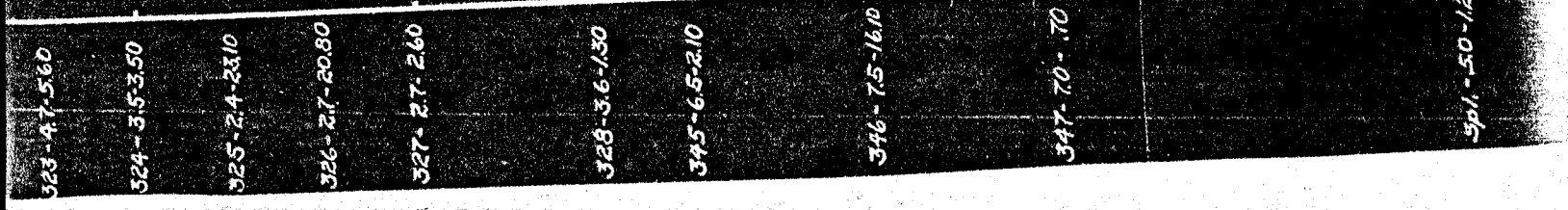
5.10 4.00 5.60 5.350 4-23.10 2-20.80 7-2.60

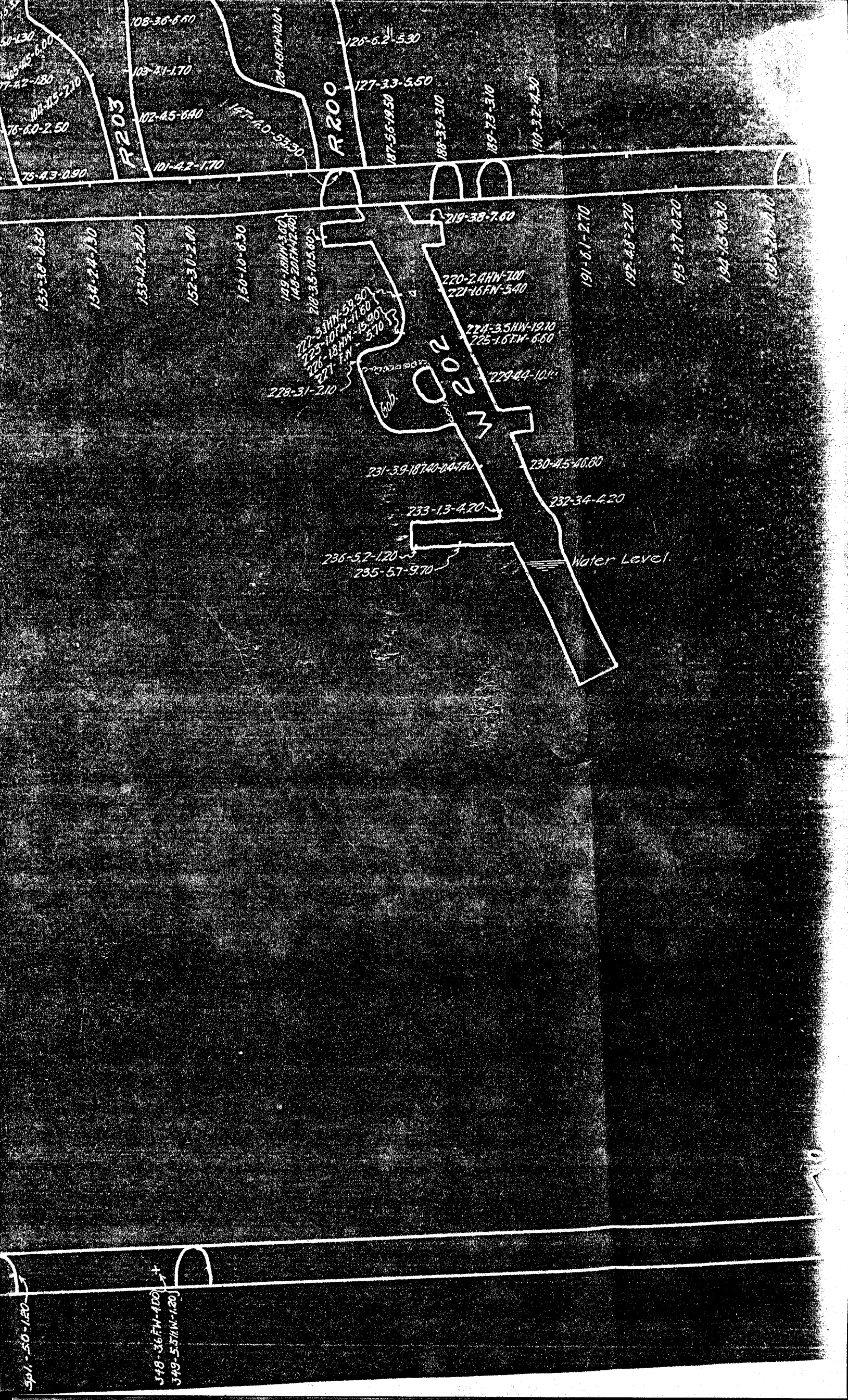


TUNNEL No.2. ELEV. 7866 FT.

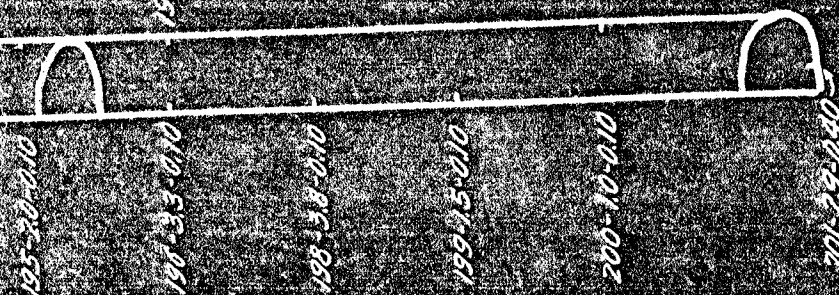


TUNNEL No.4. ELEV. 7700 (ASSUMED)





R410



PLAN
BRYAN

JEFFERSON GOLD

JEFFERSON CANON

1 IN. = 20 FT

Handwritten signature

307-25-30.80

308-24-26.40

309-33-10.80

310-24.11-5.00

311-18.11-6.20

312-24-26.60

313-20-29.50

606

AN OF THE YAN VEIN

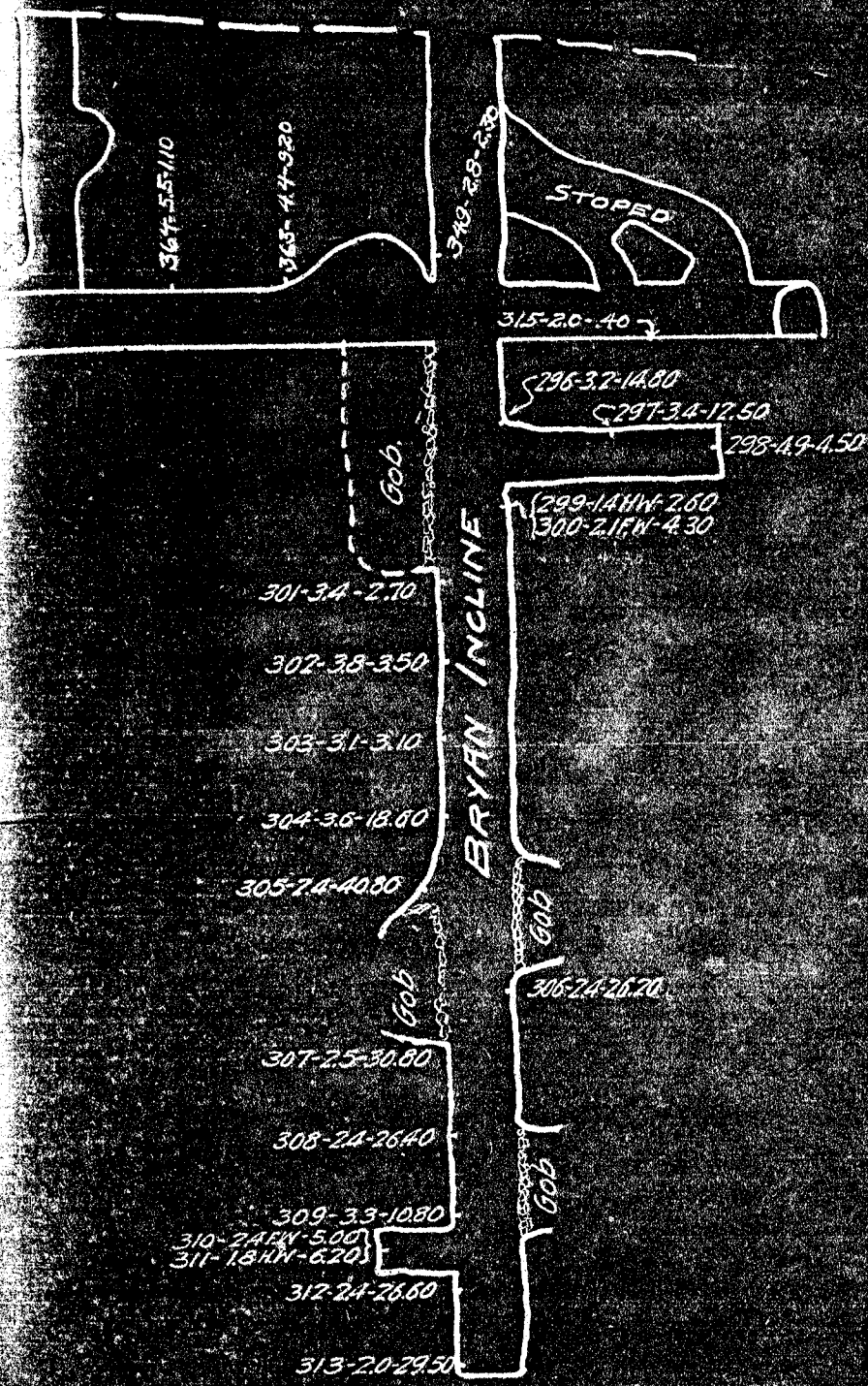
GOLD & SILVER MIN. CO.

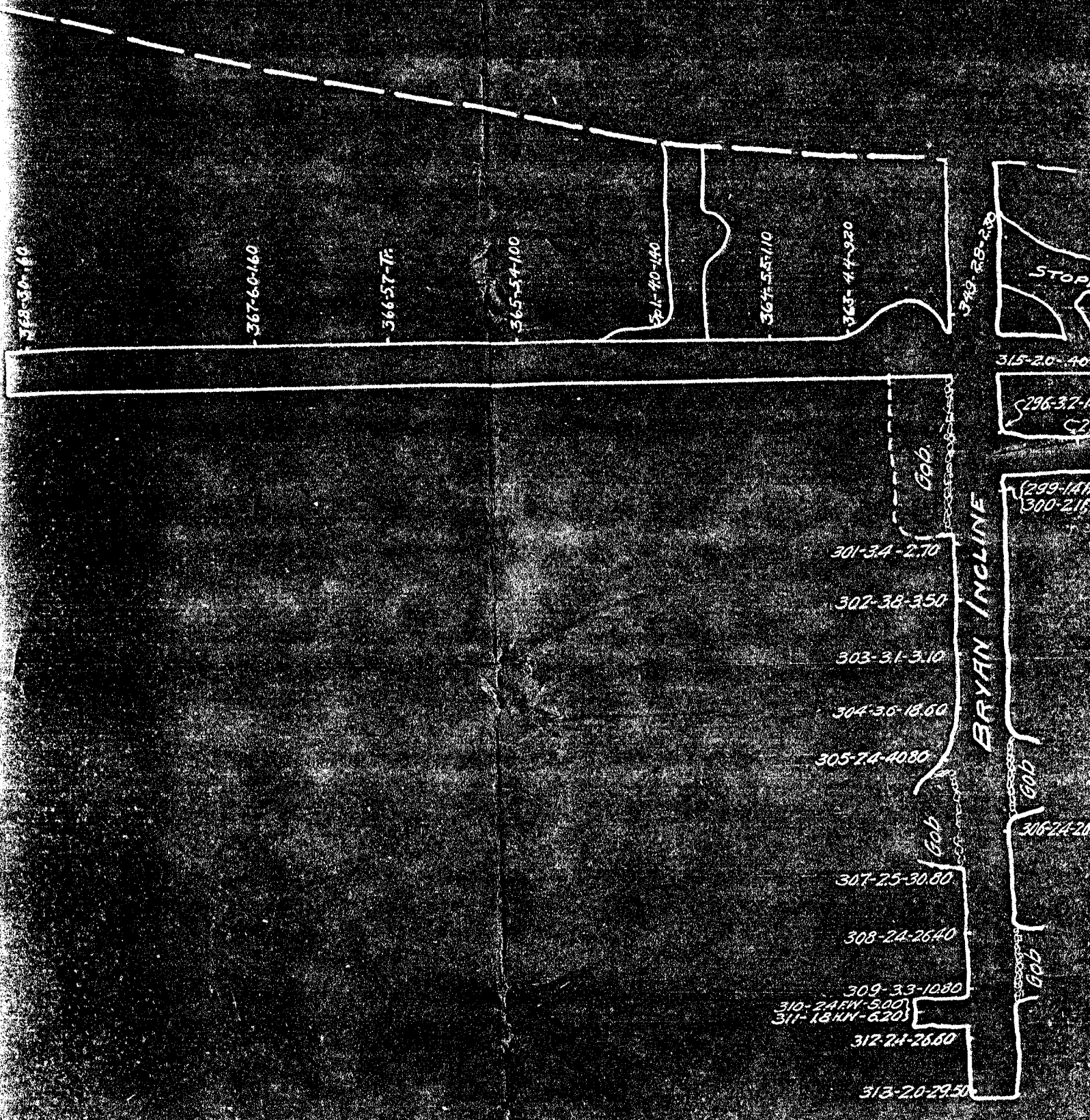
ON CANON-NYE CO-NEV.

10 FT. SEPT. 1919.

KCS

NOTE:- STRIKE OF PLANE OF PROJECTION $N66^{\circ}30'W$. DIP FROM TUNNEL NO. 2 TO
SURFACE $40^{\circ}30'N$. TUNNEL NO. 4 TO TUNNEL NO. 2 $-49^{\circ}N$.
SAMPLES RECORDED:- SAMPLE No. - WIDTH - O.U. DORE
RATIO GOLD TO SILVER :- 1:350 BY WEIGHT.





348-30-60



201-29-040

1-530

1-550

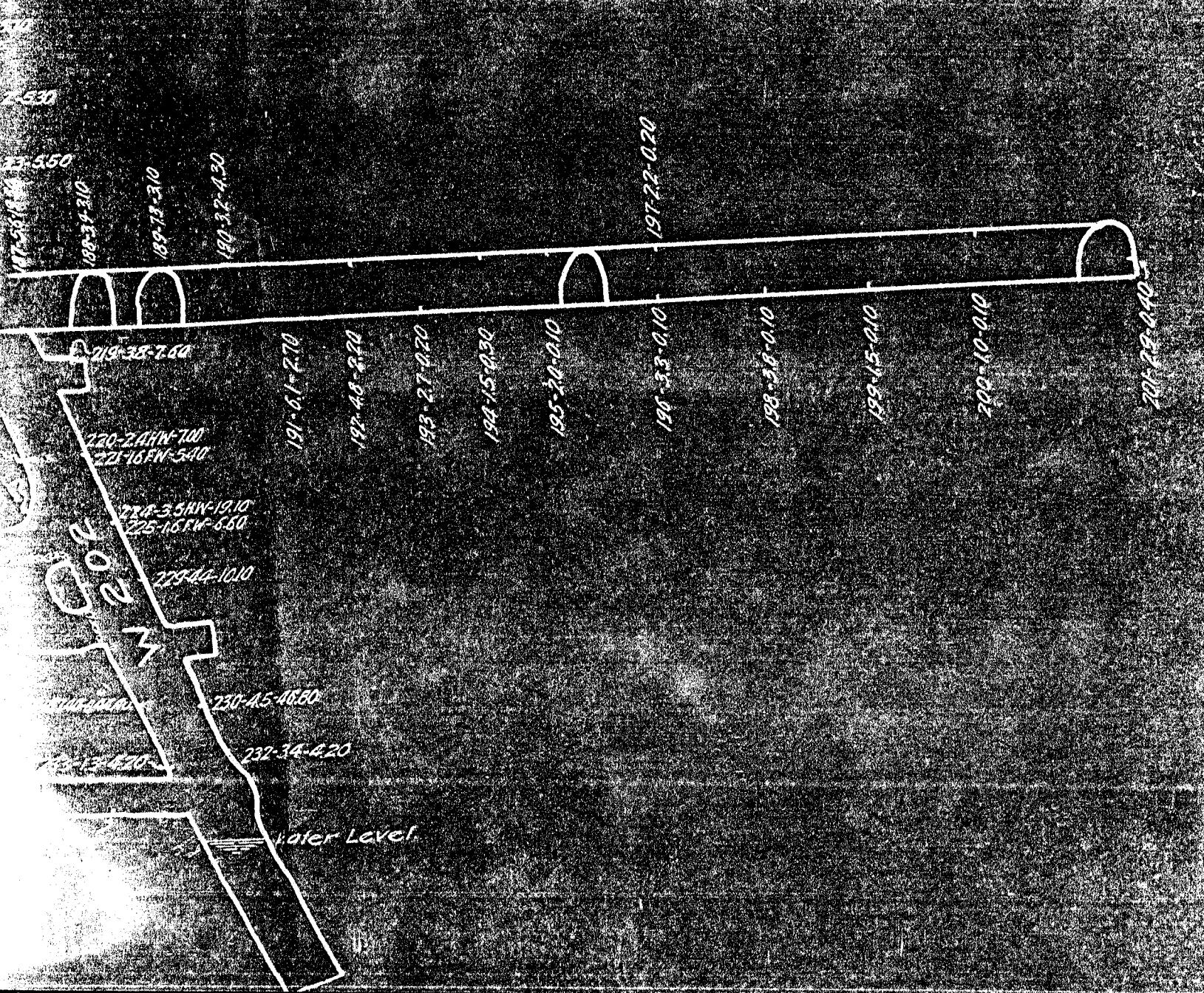
1-570

1-590

1-610

1-630

1-650



191-6.1-7.70

192-4.8-8.20

193-2.7-9.20

194-1.5-9.30

195-3.0-9.10

196-3.3-9.10

198-3.6-9.10

199-1.5-9.10

200-1.0-9.10

201-2.9-9.10

219-3.8-7.60

220-2.1-11.700

221-1.6-11.700

224-3.5-11.700

225-1.6-11.700

229-1.4-10.10

230-1.5-10.60

232-3.4-9.20

Water Level

103-40-10.20
105-21-10.00
R 211

179-19-2.90

178-59-2.00

177-45-1.00

176-46-0.80

175-44-1.80

174-44-4.90

173-43-0.20

172-32-4.00

171-38-14.90
170-30-14.20

169-23-20.80

168-57-11.80

167-56-27.30

166-54-30.00

165-50-5.10

164-41-20.60

6-27-0.30

55-48-8.50

63-36-15.10

54-37-6.50
53-36-2.70

68-41-10.70

52-36-2.00

67-32-1.60

51-40-4.70

66-30-0.80

50-39-1.80

65-28-3.40

49-45-4.40

64-47-2.80

48-41-6.00

63-53-4.50

47-43-4.20

62-43-5.80

46-52-6.10

61-30-3.90

45-45-8.80

58-23-14.10
57-28-14.10

44-41-7.90

56-48-14.70
55-10-14.10

43-44-14.20
42-46-22-10.10

169-14-1.80

167-45-3.60

166-15-29.10

R 211

TUNNEL NO. 2. EL

142-39-7.00
141-45-1.70
R 215
140-32-20.10

R 213

INT-D 213

28-35-26.90
29-18-8.30
30-46-6.8
31-29-4
32-4-4
36-30-6.20
37-38-9.90
38-30-32.60
39-24-27.00
40-23-7.10
41-23-7.10
42-23-7.10
43-23-7.10
44-23-7.10
45-23-7.10
46-23-7.10
47-23-7.10
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89-23-7.10
90-23-7.10
91-23-7.10
92-23-7.10
93-23-7.10
94-23-7.10
95-23-7.10
96-23-7.10
97-23-7.10
98-23-7.10
99-23-7.10
100-23-7.10

185-30-120

184-50-020

183-32-040

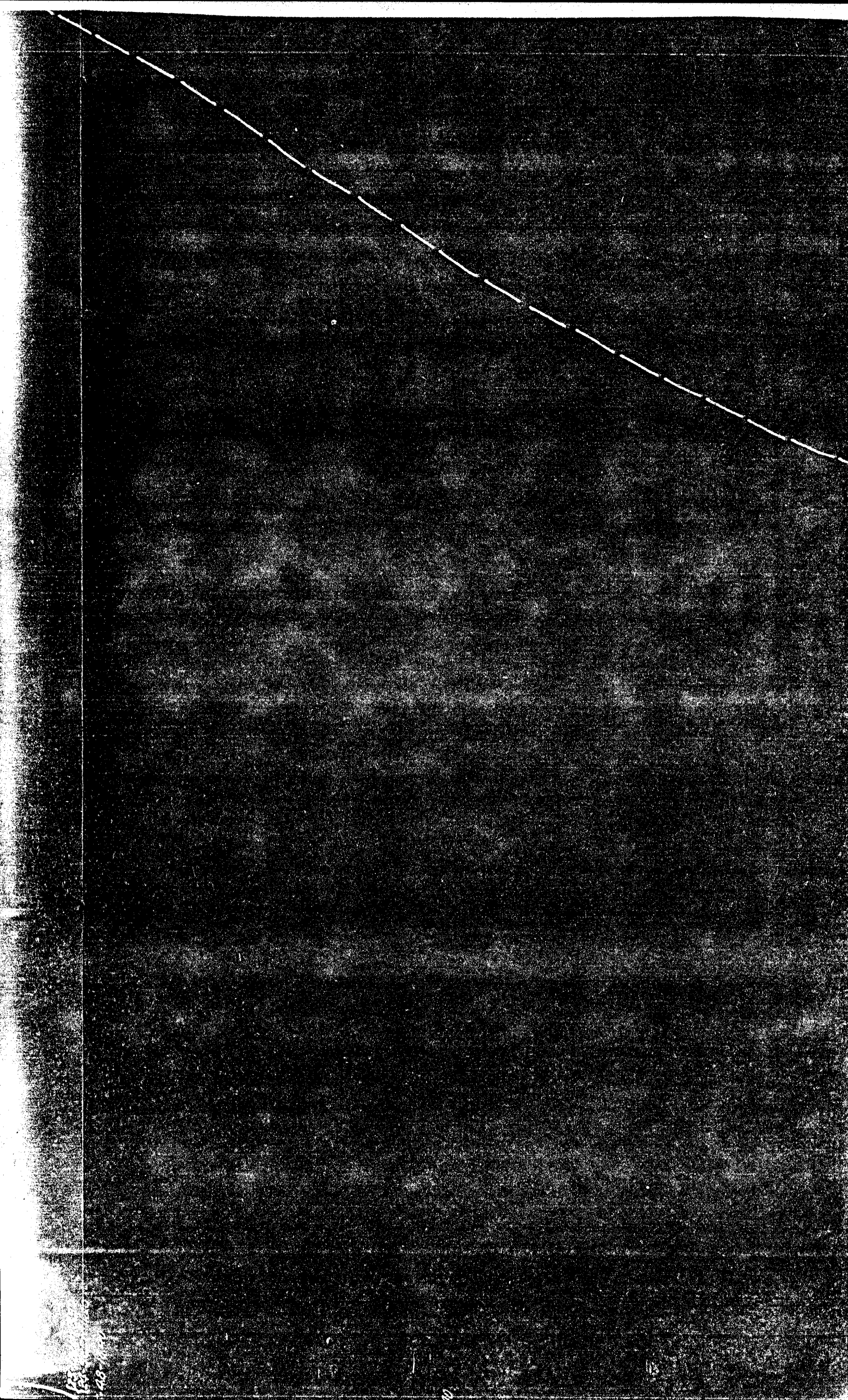
182-40-310

181-22-130

180-30-110

179-19-090

143-4444-070
144-2114-080
R217



293-20 H.W. - 6.70
294-28 Ctr. - 4.20
295-15 F.W. - 7.10

Elev. 8173 Ft.

APPROXIMATE DISTANCE IN PLANE OF VEIN 470 FT.

05182-52-82
29-81-62
08598-46
31-28-22
052-82-18
33-25 H.W. - 2.50
002-11.02-43
3.5-28-530
3.5-30-620
37-30-9.90
38-30-32.60
084-5-
39-24-2700
05524-1
00220-1
00220-1

JEFFERSON CROSS
MILL SITE & WATER RIGHT

SIERRA NEVADA
MILL SITE & WATER

ALABAMA

APEX

BER

JEFFERSON CROSS
MILL SITE & WATER RIGHT

STARRY FLAG

MILL SITE & WATER RIGHT

JEFF

JEFFERSON NORTH

SIERRA NEVADA
MILL SITE & WATER RIGHT

APEX MINING CO.

MA

BERLIN

PRUSSIAN FRACTION

JEFFERSON CROSS

PRUSSIAN LODGE

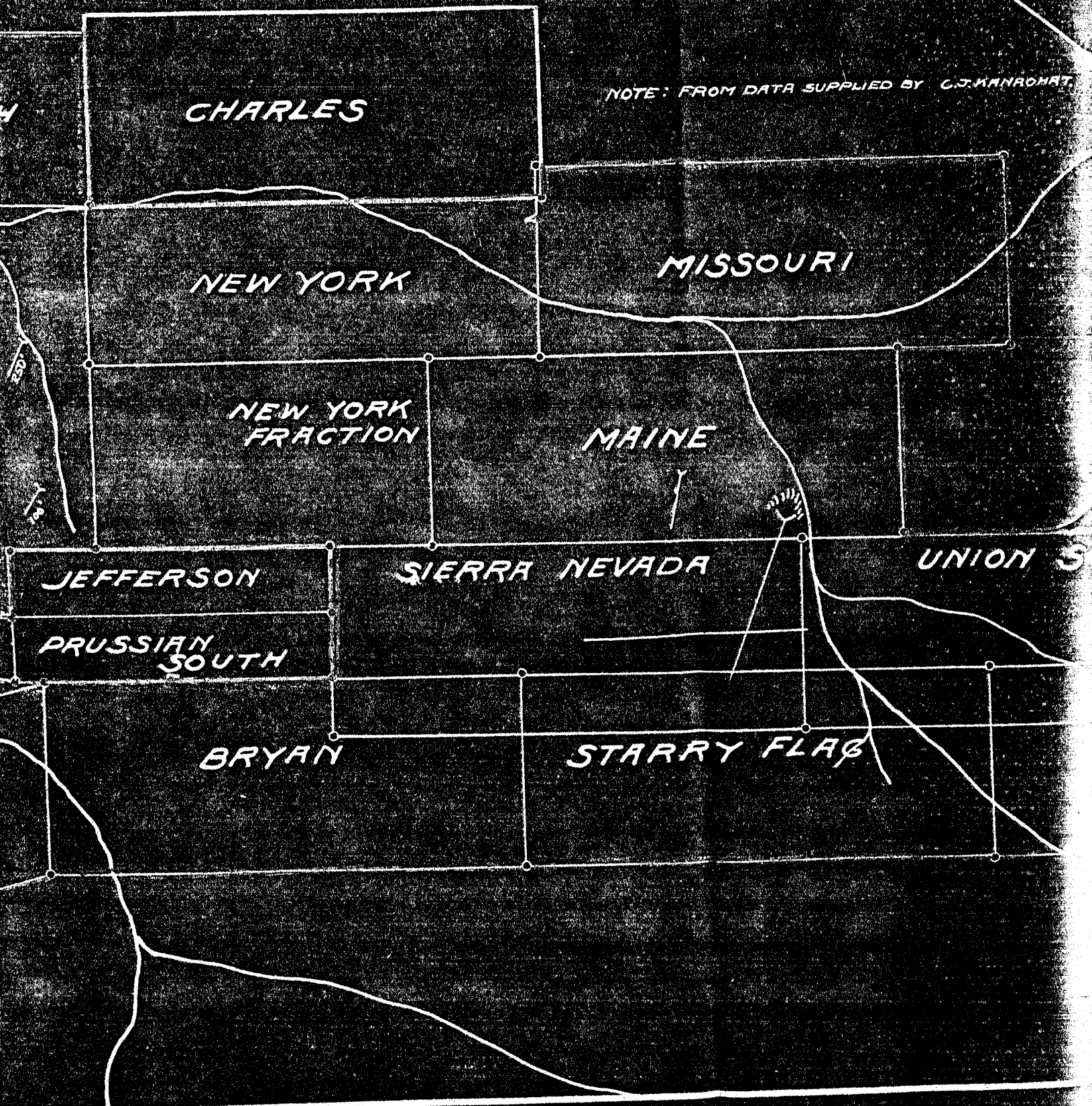
TRIANGLE

HEARSAGE

JE

PR

**PROPERTY MAP
OF
JEFFERSON GOLD AND SILVER MINING CO.
JEFFERSON CANYON-NYE CO.
NEVADA
SCALE 1/4 IN = 400 FT.**





SOUTH

OREGON

MONITOR

ADMIRAL

4500

A line of section

4000

SURFACE

JEFFERSON GOLD

JEFFERSON

3000
3500

3500

A line of section

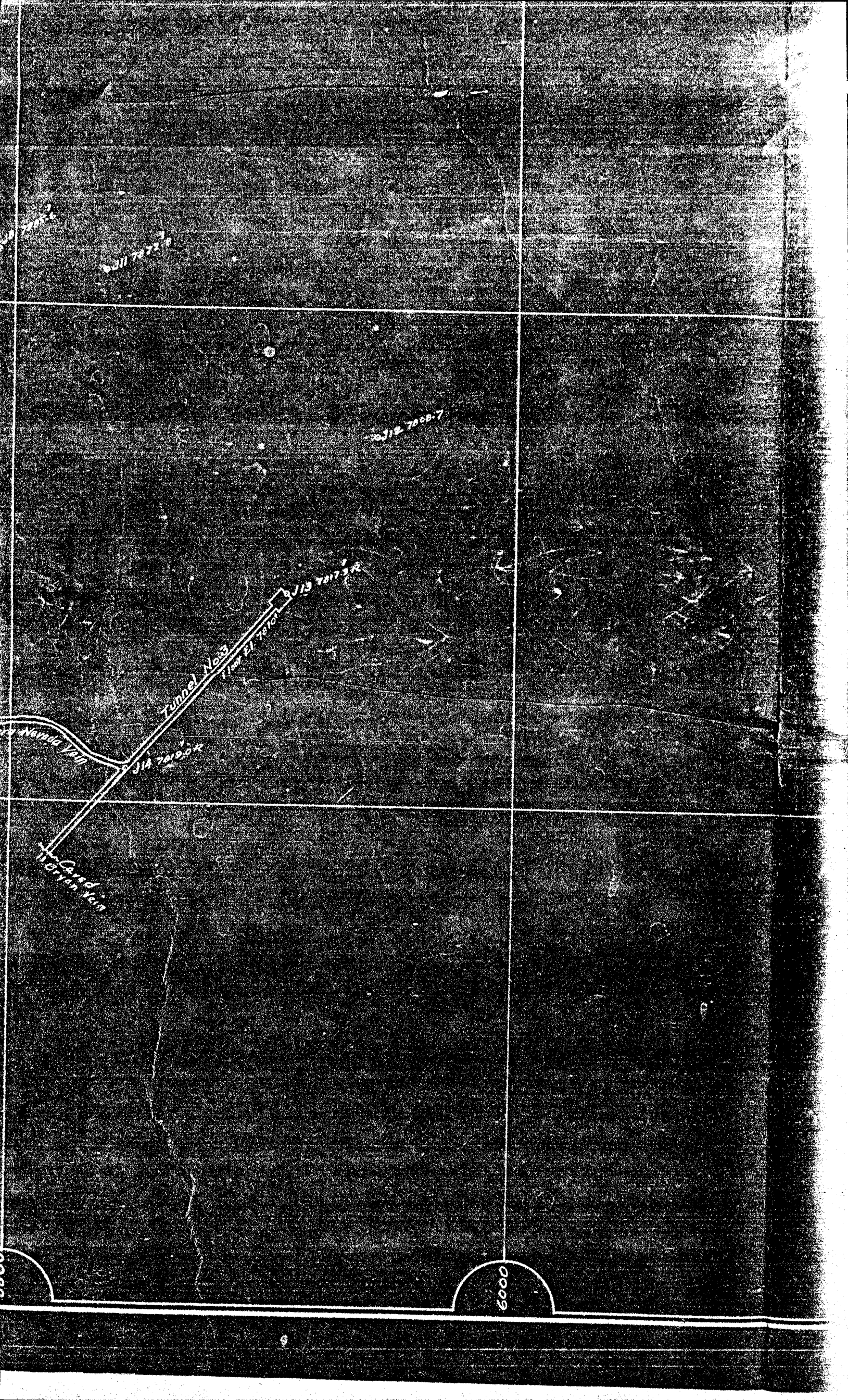
Jeff. Dump

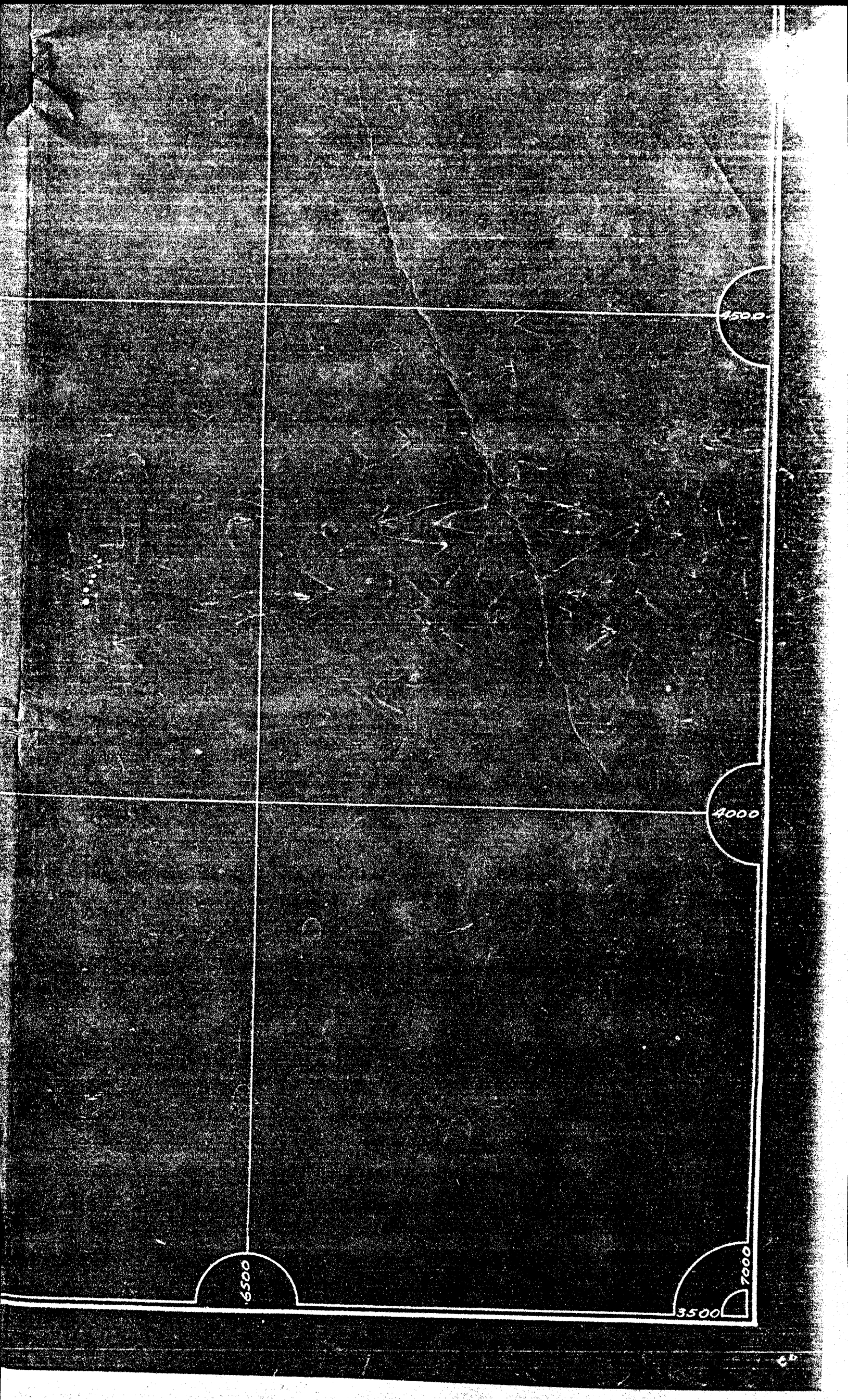
J26 79 43

SURFACE and WORKING
of the
JEFFERSON GOLD and SILVER
JEFFERSON CANYON, NYE COUNTY
Scale - 1" = 100'

3500







6000

6000

7000

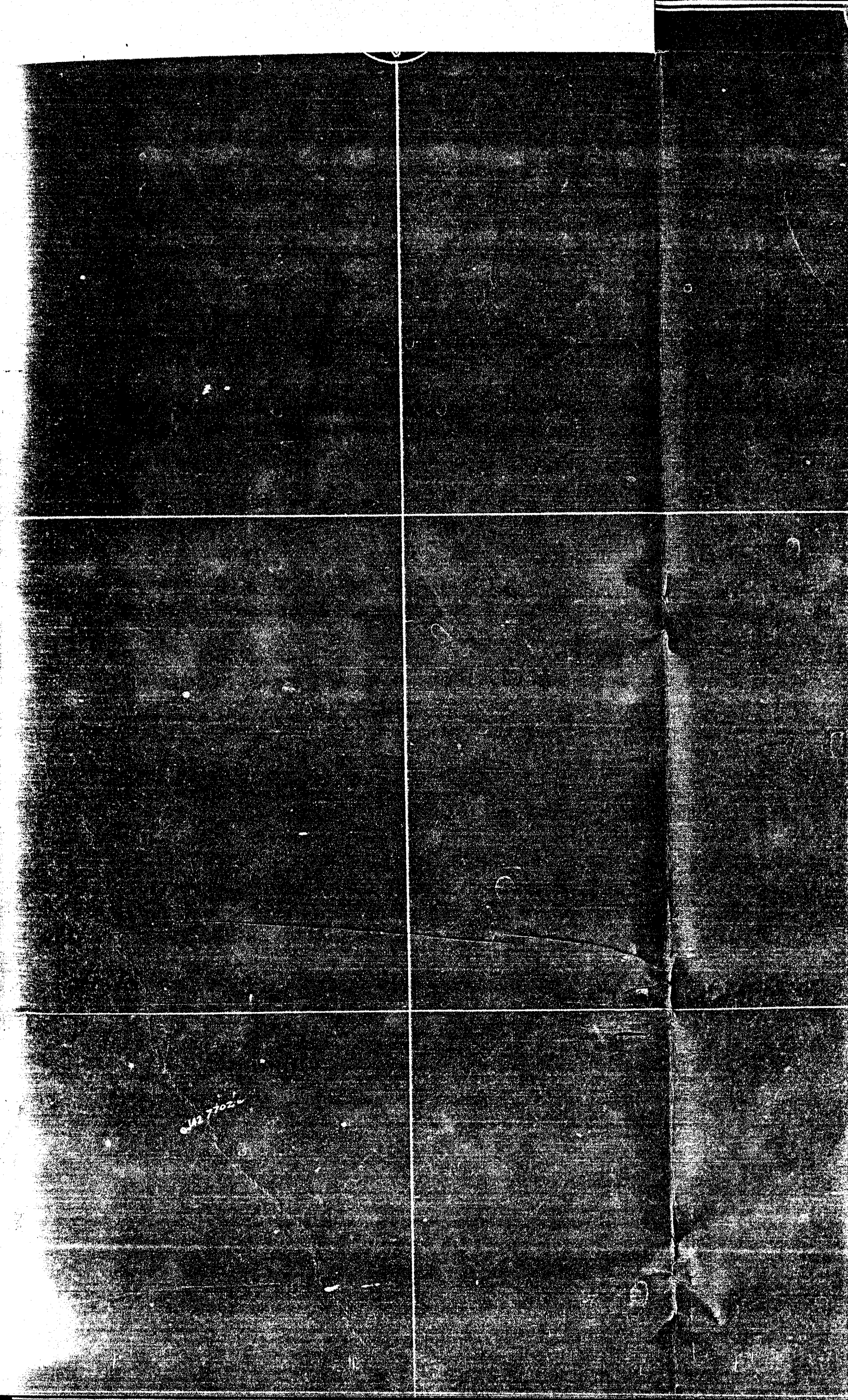
5500

PIPE LINE BOX
INTAKE 251
JAS 7701.2

JAS 7701.2

JAS 7701.2

5000

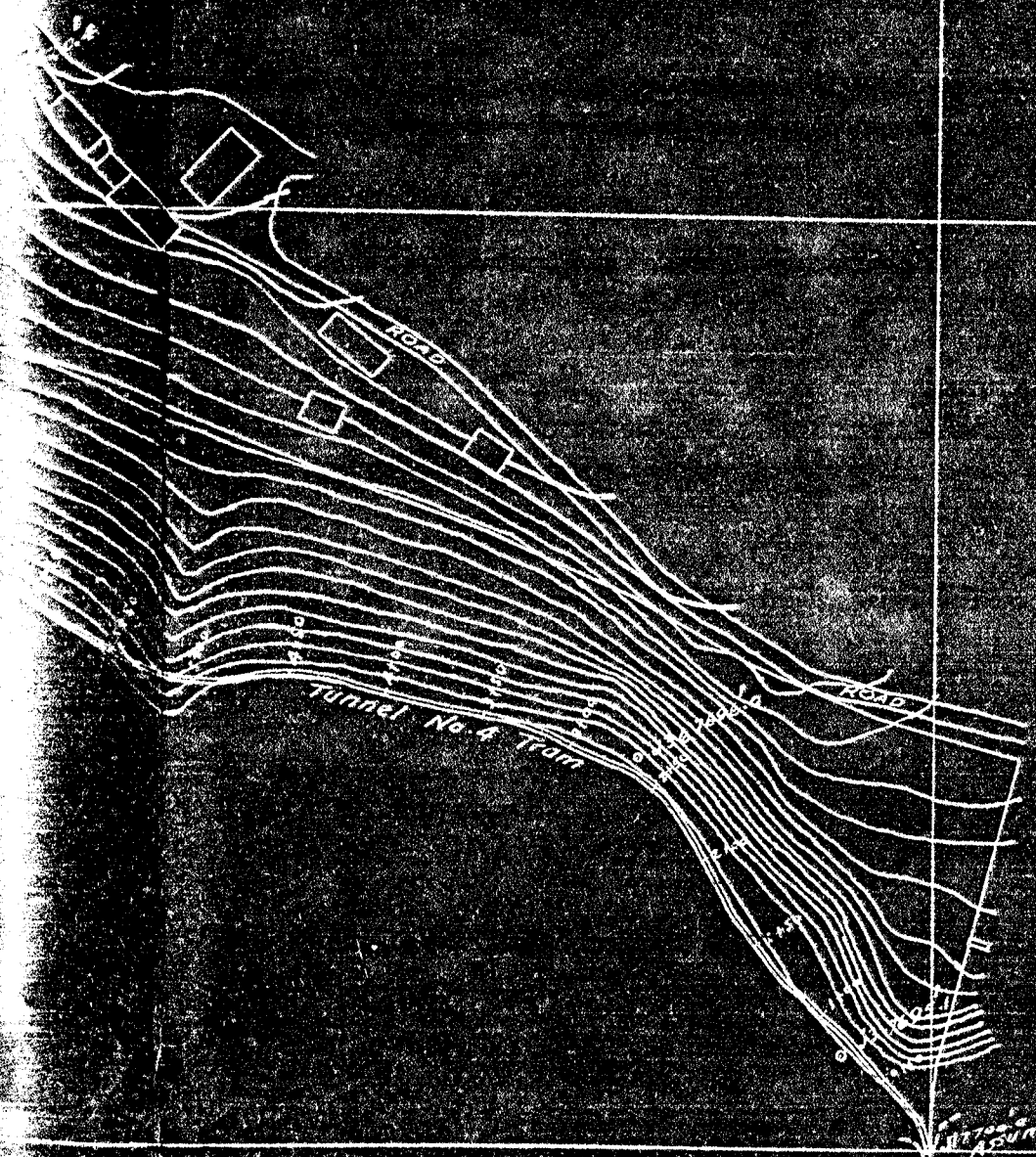


Q141 77043

Q142 77026

Q143 77027

Q144 77028



Camp
7641.5

Tunnel No. 4 Tram

Bottom of El. Ref.
Assumed

JA 7701.3

Camp New York
7794.7

JA 7703.7

Flow El. 7693.1
Tunnel No. 4

Disc. New
York
7857.8
JA 7863.2

JA 7863.4

5-7865.4

J. Cross Placer 7619.9
N.W. Cor Sierra Nevada 7620.1

0V35 7611.6

ROAD

MILL

Incline Tram

814 7740'

814 7862.0'

11450

10750

10200

9800

9700

9600

9500

9400

9300

9200

9100

9000

Tunnel No 2 Tram

759 7958.7

1407 7900.6

5500

outcrop Jefferson Quar. vein
632 7843.1

Prussian Shaft
Caved 7756'

outcrop

Caved Shaft

Jefferson vein

6455.35 7867.5

5000

Staged

Jefferson Shaft
1869 Collar

Jefferson Dump

7857.6 El.

Line of Section