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ITEM 45

REPORT ON THE

ESMERALDA GROUP

BELONGING TO THE CAIN CONS. GOLD MINES CO.,

AURORA, NEVADA

SUMMARY

The Esmeralda claim covers a colossal quartz fissure vein, striking N 20° E, and dipping steeply west. The only cross-cut through this vein shows a width of 75 feet + at this point. The vein is chiefly developed by a single cross-cut tunnel, with drifts, cross-cuts, and a winze.

In this vein practically all the quartz contains small but weighable amounts of gold and silver.

At the surface a shoot of ore was found, on the foot-wall of the vein and was worked by open cut, and then by an irregular shaft down to the main tunnel level. On the tunnel level this shoot shows 10 feet of quartz, averaging $3.77; and this ore has been followed down in a winze, now under water. This shoot does not extend far longitudinally along the vein in either direction, however; although the values continue higher near the wall, drifting has developed nothing else that can be classed as possible ore. The main body of the vein in this cross-cut averages $0.27.

There is, therefore, no ore of value exposed in these workings, nor any promising bodies of undeveloped ore. A little careful development may be allowable in the future; but as it stands, the property cannot be considered as of value.

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LIST OF MAPS

TABLE OF CONTENTS

GENERAL DESCRIPTION

The Esmeralda claim is 1500 feet by 200 feet, and covers a lode of truly colossal proportions--one of the most striking of the great lodes of the camp, and one of the earliest discovered. It is developed principally by a cross-cut tunnel, situated not far below the outcrop, which tunnel connects with some old open-cut workings from surface. There is also a little drifting on the tunnel level. Besides this, there is a shaft 150 feet deep, at another point. This was not sampled, there being no ladders.

The Southern extension of the vein is covered by the South end claim, belonging also to the Cain Consolidated Co., and being 1500 by 600 feet in extent. There is very little outcrop on this claim.

The vein where cut by the cross-cut tunnel shows 75 feet of solid quartz, (actual width of vein) with one wall (hanging wall) not yet cut. The dip is to the west at a steep angle, and the strike about N. 20° E.

The calculated average assays given later show gold and silver in the following proportions:

Au : Ag = 1 : 35, 46, 67 and 69 by weight. The vein therefore apparently belongs to the earlier type of quartz, where silver values were more conspicuous, and differs from the usual vein of this type, in its steep, nearly vertical dip.

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LIST OF ASSAYS

Following is the list of assays of the Esmeralda:

ASSAYS FROM ESMERALDA VEIN

Sample No.	Length in Meters	Location and Description	Grams Gold per T.	Grams Silver per T.	Value Gold	Value Silver	Total Value per T
858	0.35	Outcrop	0.75	24	$0.50	$0.41	$0.91
859	1.70	"	0.75	18	0.50	0.31	0.81
881	1.30	"	0.25	14	0.17	0.24	0.41
882	1.40	"	0.50	34	0.33	0.58	0.91
883	1.40	"	tr.	12	0.00	0.20	0.20
884	1.00	"	0.87	31	0.58	0.53	1.11
885	1.00	Drift N. Face	1.37	13	0.91	0.22	1.13
886	1.50	" 3 M. from N Face	0.25	20	0.17	0.34	0.51
887	0.80	" 6 M. " " "	1.25	3	0.83	0.05	0.88
888	0.95	" 9 M. " " "	1.50	6	0.99	0.10	1.09
889	1.20	"12 M. " " "	1.00	41	0.66	0.70	1.36
890	1.00	1st. X-Cut	1.50	11	0.99	0.19	1.18
891	1.25	" "	0.25	4	0.17	0.07	0.24
892	1.00	" "	0.25	3	0.17	0.05	0.22
893	1.30	" "	tr.	3	0.00	0.05	0.05
894	1.45	" "	tr.	8	0.00	0.14	0.14
895	1.00	" "	0.25	4	0.17	0.07	0.24
896	1.00	" "	tr.	3	0.00	0.05	0.05
897	1.80	" "	tr.	4	0.00	0.07	0.07
898	1.20	" "	0.25	7	0.17	0.12	0.29
899	1.00	" "	0.50	5	0.33	0.08	0.41
900	1.10	" "	0.25	5	0.17	0.08	0.25
901	0.90	" "	0.25	4	0.17	0.07	0.24
902	1.00	" "	tr.	7	0.00	0.12	0.12
903	1.00	" "	0.50	16	0.33	0.27	0.60
904	1.00	" "	0.25	7	0.17	0.12	0.29
905	1.00	" "	0.25	4	0.17	0.07	0.24
906	1.00	" "	0.25	24	0.17	0.41	0.58
907	1.00	" "	4.75	224	3.16	3.81	6.97
908	1.00	" "	1.50	60	0.99	1.02	2.01
909	1.10	Drift at 1st X-Cut	1.62	80	1.07	1.36	2.43
910	0.95	" 18 M S. of N. Face	0.75	62	0.50	1.05	1.55
911	1.00	2nd X-Cut	1.37	6	0.91	0.10	1.01
912	1.00	" "	0.50	5	0.33	0.08	0.41
913	1.00	" "	0.50	7	0.33	0.12	0.45
914	1.00	" "	0.25	11	0.17	0.19	0.36
915	1.35	" "	1.37	30	0.91	0.51	1.42
916	1.10	Drift 24 M. from Face	1.00	12	0.66	0.20	0.86

Sample No.	Length in Meters	Location and Description	Grams Gold Per T.	Grams Silver per T.	Value Gold	Value Silver	Total Value per T.
917	1.40	Drift 27 M. from Face	1.87	24	$1.24	$0.41	$1.65
918	1.05	" 30 M. " "	3.62	18	2.40	0.31	2.71
919	1.45	" 33 M. " "	1.37	16	0.91	0.27	1.18
920	1.20	" 36 M. " "	1.50	48	0.99	0.82	1.81
921	1.00	3rd X-Cut	0.25	16	0.17	0.27	0.44
922	1.00	" "	0.75	7	0.50	0.12	0.62
923	1.40	" "	0.25	7	0.17	0.12	0.29
924	1.00	Stope N. face	1.87	13	1.24	0.22	1.46
925	1.20	" N "	2.50	122	1.83	2.07	3.90
926	1.00	" S "	0.50	8	0.33	0.14	0.47
927	1.15	" S "	2.62	195	1.74	3.31	5.05
928	1.55	" S "	6.00	549	3.99	9.33	13.32
929	1.35	" S "	0.75	38	0.50	0.65	1.15
930	1.15	" Floor	4.75	369	3.16	6.27	9.43
931	1.00	" S. "	0.50	22	0.33	0.37	0.70
932	1.00	" Floor	1.25	80	0.83	1.36	2.19
933	1.05	" "	11.37	403	7.56	6.85	14.41
934	1.60	" S "	0.50	54	0.33	0.92	1.25
935	1.70	Raise above X-Cut	1.00	12	0.66	0.20	0.86
936	0.75	Stope N. Face	2.62	95	1.74	1.61	3.35
937	1.10	" N "	4.87	308	3.24	5.24	8.48
938	1.00	Outcrop	1.00	76	0.66	1.29	1.95

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CALCULATION OF AVERAGE VALUES

Samples on Edges of Surface Open Cut.

Sample No.	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value
934	0.50	56	0.33	0.95	1.28
933	10.12	416	6.73	7.07	13.80
932	11.00	61	0.66	1.04	1.70
931	0.50	23	0.33	0.39	0.72
930	4.50	388	3.00	6.66	9.66
928	5.87	562	3.90	9.55	13.45
936	0.50	8	0.33	0.14	0.47
937	2.32	197	1.55	3.35	4.90
938	1.00	76	0.66	1.29	2.95
884	0.87	30	0.58	0.51	1.09
					50.02

10) 27.18 1817

2.72)182 Av Ag

Av Au

Au: Ag = 1:67 by wt.

$5.00 Average Value

Samples in Drift Half Way Between Surface & Tunnel

Sample No.	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value
929	0.75	42	0.50	0.71	1.21
926	0.50	8	0.33	0.14	0.47
927	2.32	197	1.54	3.35	4.89
928	5.87	562	3.90	9.55	13.45
924	1.75	13	1.16	0.22	1.38
925	2.50	128	1.66	2.18	3.84
					25.24

6)13.69 950

2.28)158 Av. Ag

Av. Au

Au: Ag=1:69 by wt.

$4.21 Average Value

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Main Tunnel

Drift on Foot Wall Streaks (about 17 m. below surface)

Sample No.	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value
885	1.37	13	0.91	0.22	1.13
886	0.25	20	0.17	0.34	0.51
887	1.25	4	0.83	0.07	0.90
888	1.50	7	1.00	0.12	1.12
889	1.00	40	0.66	0.68	1.34
909	1.62	80	1.08	1.36	2.44
910	0.75	61	0.50	1.04	1.54
916	1.00	12	.66	0.20	0.86
917	1.75	25	1.16	0.43	1.59
918	3.62	18	2.41	0.31	2.72
919	1.25	17	0.83	0.29	1.12
920	1.37	48	0.91	0.82	1.73
				12)	17.00
					$1.42 Average

1st Cross-Cut South of Main Cross-Cut

Sample No.	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value
916	1.00	12	$ .66	0.20	$0.86
915	1.37	30	.91	0.51	1.42
914	0.25	11	0.17	0.19	0.36
913	0.50	7	0.33	0.12	0.45
912	0.50	5	0.33	0.08	0.41
911	1.37	6	0.91	0.10	1.01

Cross Cut At South End

Sample No.	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value
920	1.37	48	0.91	0.82	1.73
923	0.25	7	0.17	0.12	0.29
922	0.75	7	0.50	0.12	0.62
921	0.25	16	0.17	0.27	0.44

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Main Cross Cut of Vein (East to West)

Sample No. (Footwall)	Au Gr	Ag Gr	Au Val.	Ag Val.	Total Value	M. Width Cut
909	1.62	80	$1.08	1.36	$2.44	1.1
908	1.50	60	1.00	1.02	2.02	1.0
907	4.75	224	3.16	3.81	6.97	1.0
906	0.25	24	0.17	0.41	0.58	
905	0.25	4	0.17	0.07	0.24	
904	0.25	7	0.17	0.12	0.29	
903	0.50	16	0.33	0.27	0.60	
902	tr.	7	0.00	0.12	0.12	
901	0.25	5	0.17	0.08	0.25	
900	0.25	5	0.17	0.08	0.25	
899	0.50	5	0.33	0.08	0.41	
898	0.25	7	0.17	0.12	0.29	
897	tr.	4	0.00	0.07	0.07	
896	tr.	3	0.00	0.05	0.05	
895	0.25	4	0.17	0.07	0.24	
894	tr.	8	0.00	0.14	0.14	
893	tr.	3	0.00	0.05	0.05	
892	0.25	4	0.17	0.07	0.24	
891	0.25	4	0.17	0.07	0.24	
890	1.50	12	1.00	0.20	1.20	

16)$4.26
$0.27 Average
Samples 906-891 Inclusive

ORE

The results of the last table above may be given as follows:

Samples 907-8-9 on Footwall
(2.44 x 1.1 = 2.68
(2.02 x 1.0 = 2.02
(6.97 x 1.0 = 6.97
3.1) 11.67 $3.77 Av. 3.1 meters = 10 feet
9 3
237
217
200

Sample No.	Au Gr	Ag Gr
909	1.62	80
908	1.50	60
907	4.75	224
3)	7.87	364
	2.62)	121

Au: Ag = 1:46 by wt.

Samples 892-906 Inclusive

	Au Gr	Ag Gr
16)	3.25	110
	0.20	7

Au: Ag = 1:35

Sample No. 890 Au: Ag = 1:8

The results of this sampling shows that the only ore

in the lower tunnel, is 10 feet of the vein, adjoining the the footwall, exposed in the main cross-cut, and averaging $3.77. In this tunnel, a width of about 23 meters, or 75 feet, of vein (solid quartz) is exposed, and the hanging wall has not yet been cut. Apart from the first 10 feet, the rest of the vein, although showing in nearly every sample weighable amounts of gold and silver, averages only $0.27. The last sample, in the face is higher, running $1.20, which suggests that the other wall is near.

This concentration of values along the walls of these great veins is according to the usual rule in the district, and is discussed in the general report on the Cain Consolidated property.

The earlier developers of this vein discovered the above fact, and the only drift from the tunnel is run along this foot-wall portion of the vein (see assay plan). This is about 17 meters (56 feet) below the surface. The average value of all the assays on this drift, is, however, only $1.42. Also two other cross-cuts failed to find the same ore as described above in the main cross-cut.

This 10 feet of $3.77 ore, then, represents a shoot of limited longitudinal extent along the vein. It was discovered at the surface, and was worked by open-cut, and was followed from the surface directly down to the tunnel level. A winze from the tunnel level was also sunk on it, but this is now full of water.

There is, therefore, no ore of value exposed in these workings, which are the most important ones on the Esmeralda lode.

Various samples of the outcrop all show small weighable quantities of gold, but nothing even approaching possible ore.

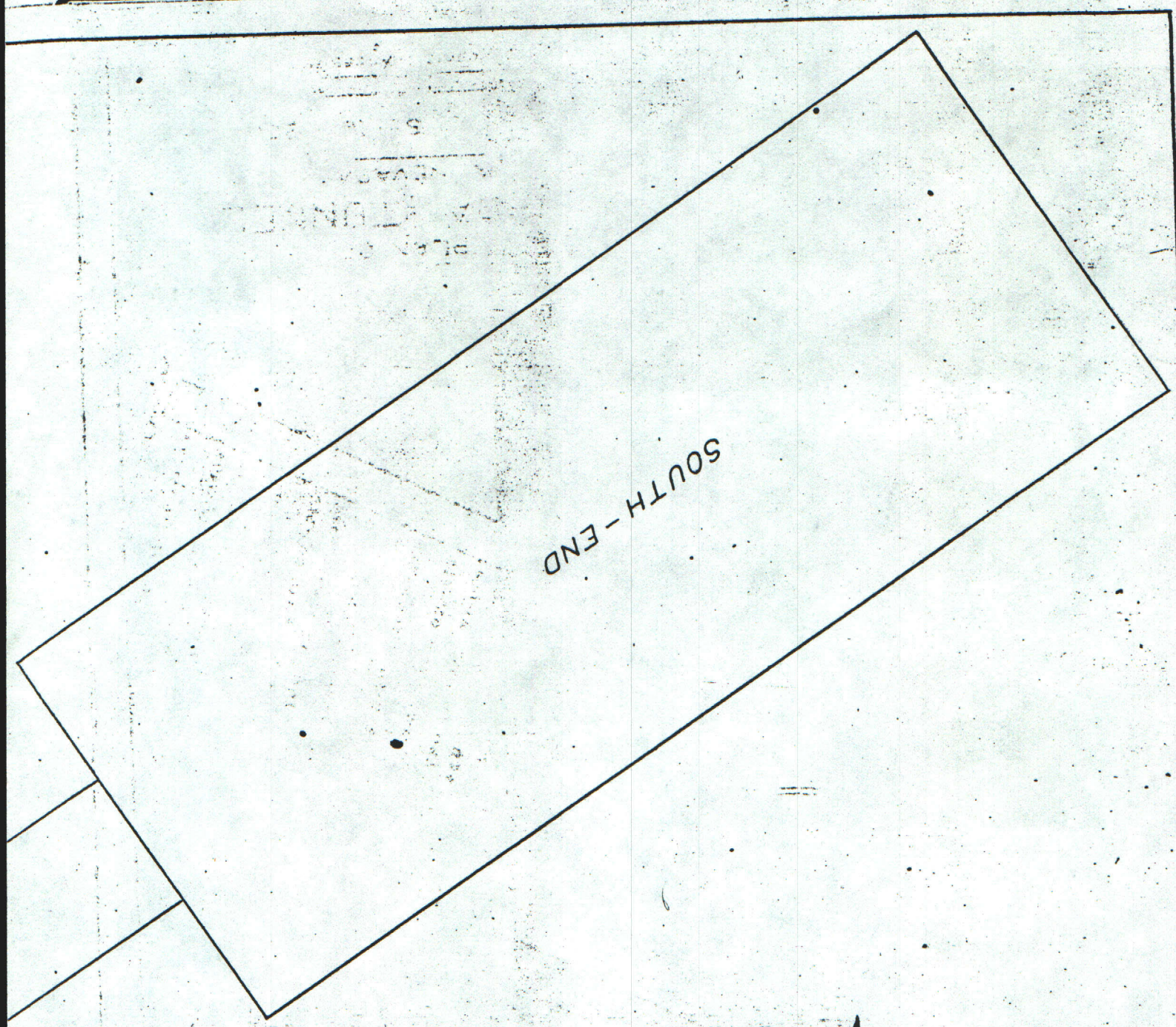
CONCLUSION

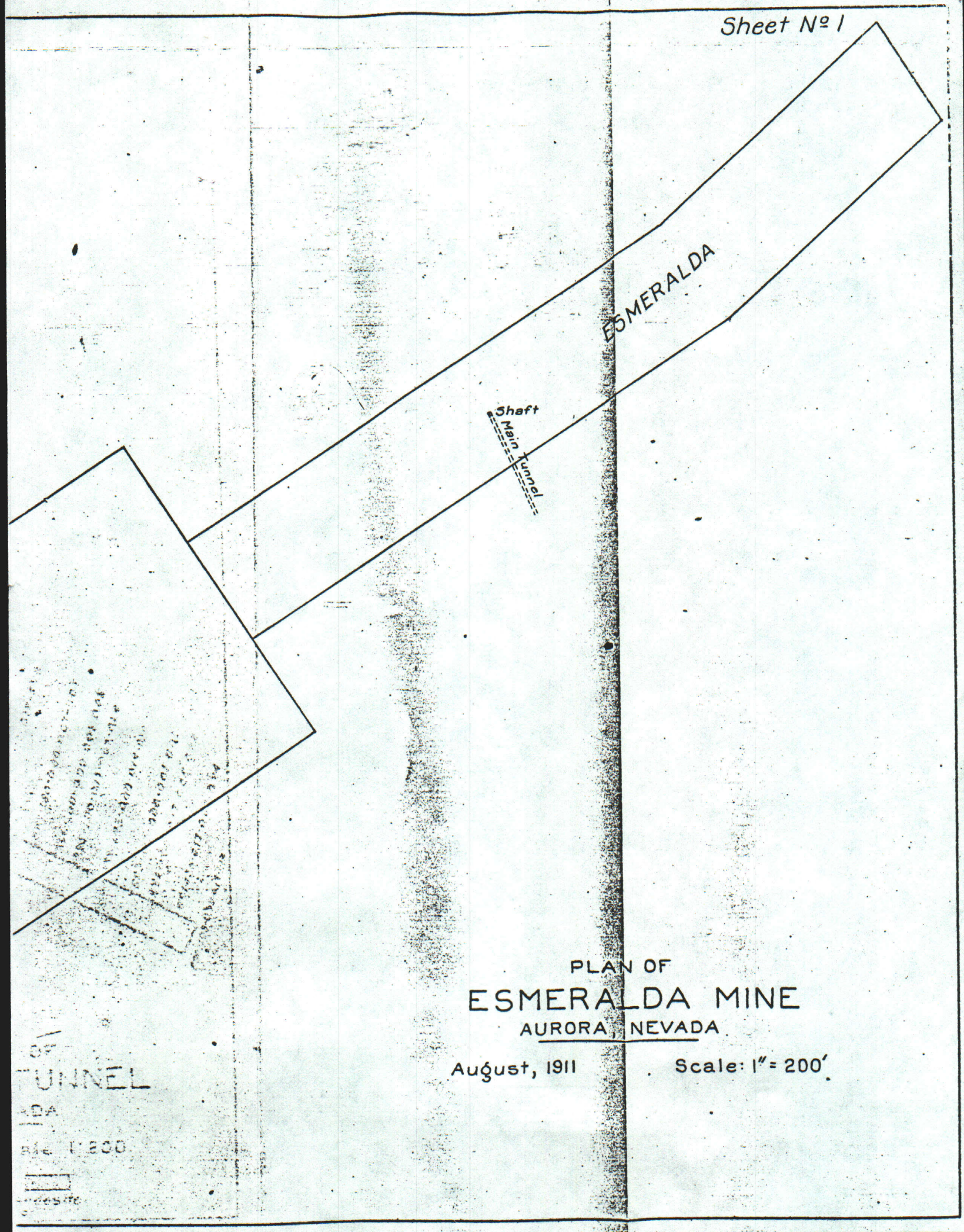
There are no known ore-reserves in the Esmeralda mine, nor any promising bodies of undeveloped ore. The fact that the whole vast body of quartz shows small weighable amounts of gold and silver, however, makes it a possibility that local concentrations, not yet found, may exist. A little careful development work may be done in the future, but must be most cautiously planned. As it stands, the property cannot be considered as of value.

SPURR & COMPANY

by ORIGINAL SIGNED
J. E. SPURR

August 1911.


SOUTH - END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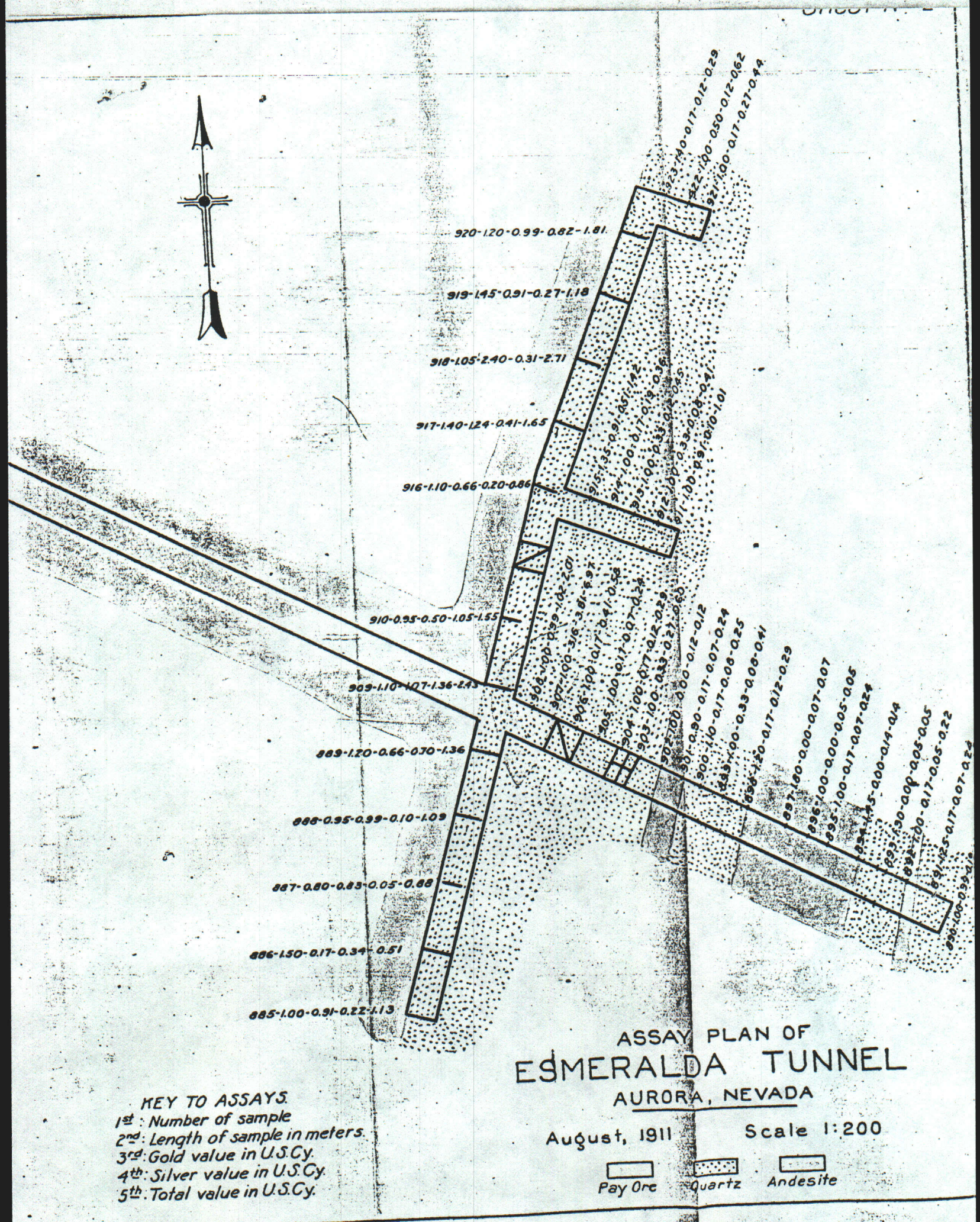
ESMERALDA
Shaft
Main Tunnel
PLAN OF
ESMERALDA MINE
AURORA, NEVADA
August, 1911
Scale: 1" = 200'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919-1.45-0.91-0.27-1.18
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917-1.40-1.24-0.41-1.65
916-1.10-0.66-0.20-0.86
910-0.95-0.50-1.05-1.55
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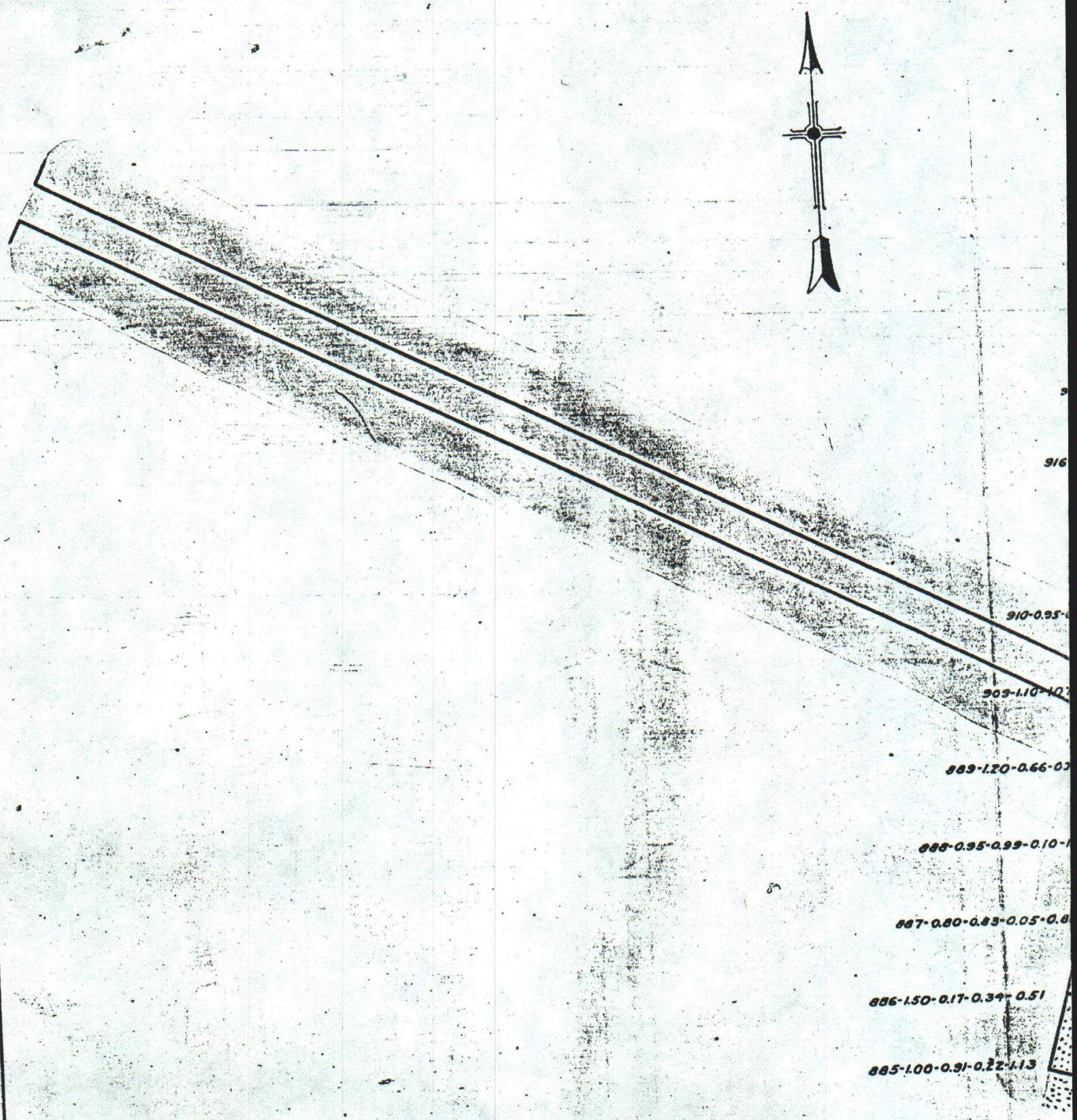
888-0.95-0.99-0.10-1.09
887-0.80-0.83-0.05-0.88
886-1.50-0.17-0.34-0.51
885-1.00-0.91-0.22-1.13
ASSAY PLAN OF
ESMERALDA TUNNEL
AURORA, NEVADA
August, 1911
Scale 1:200
Pay Ore
Quartz
Andesite
KEY TO ASSAYS.
1st: Number of sample
2nd: Length of sample in meters.
3rd: Gold value in U.S.Cy.
4th: Silver value in U.S.Cy.
5th: Total value in U.S.Cy.



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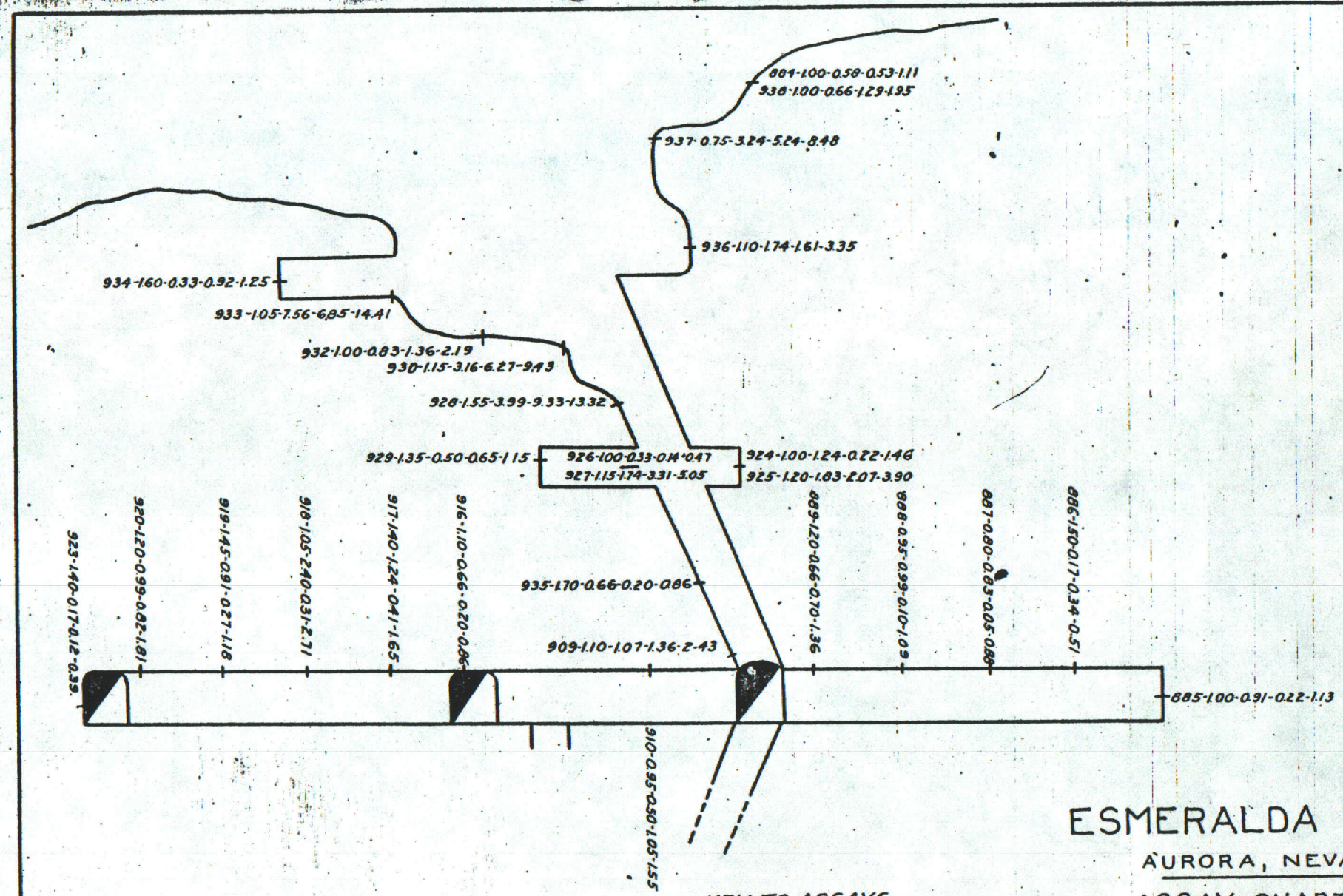


KEY TO ASSAYS.
1st: Number of sample.
2nd: Length of sample in meters.
3rd: Gold value in U.S. Gy.
4th: Silver value in U.S. Gy.
5th: Total value in U.S. Gy.

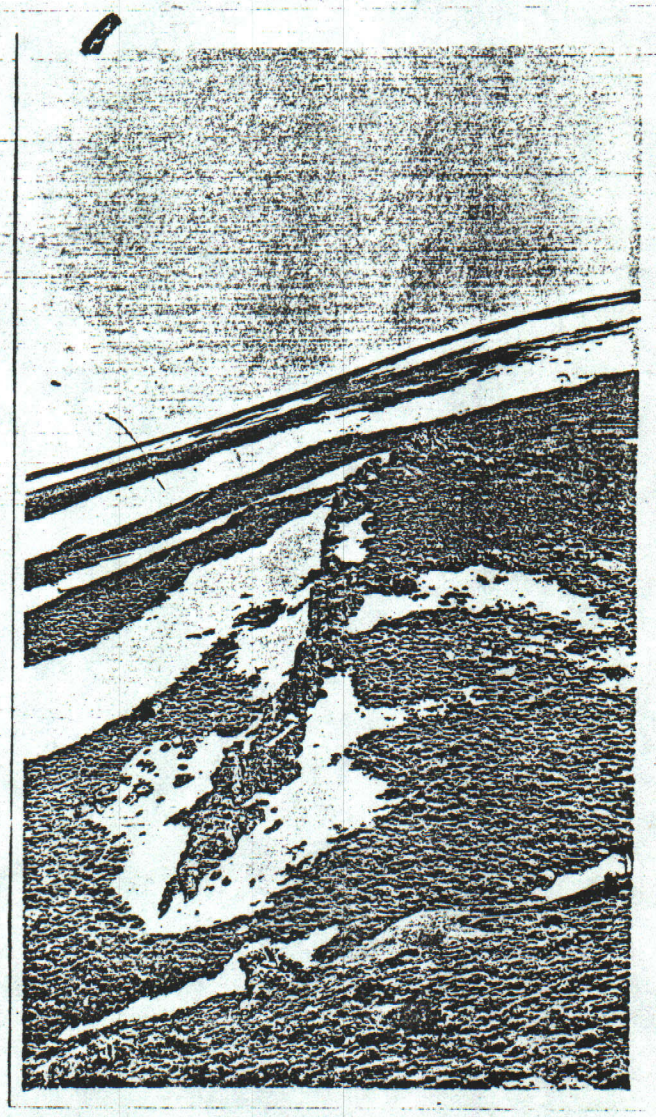
ESMERALDA MINE

AURORA, NEVADA

ASSAY CHART OF SECTION ALONG PLANE OF ESMERALDA VEIN

August, 1911 Scale 1:200

Sheet No. 3



IV Photograph of Outcrop, Esmeralda Vein, Looking South