

LOGAN

PLACER

WALDO

REPORT
of
LEWIS A. LEVENSAUER, M. E.
on
LOGAN PLACER PROPERTY

WALDO - OREGON

DATED

1916

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Sampling

PANNING TESTS

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
1	4	2	Red to gray clay
	5	1	Boulder formation
	6	0	" "
	7 1/2	0	" "
2	10 1/2	0	" "
	6	0	Top soil and clay
	9	0	Boulder formation
3	11 1/2	1 small	" "
	5	1	Brown clay
	5	16	" "
	8	0	Boulder formation
4	10 1/2	0	" "
		0	Top gravel (Samples from dump)
	7	0	Clay Boulder formation
5		0	" "
	5	6	Brown to red clay
	9	5	" " " "
	13	0	Boulder formation
	13 1/2	0	" "
6	14 1/2	0	" "
	3	2	Top soil and clay
	4	5	Brown clay
	6 1/2	6	" "
	7	5	" "
	10	1	" " , boulder formation begins
	14	0	Boulder formation
7	17	0	" "
	6	0	Clay
	8	1 small	" "
	10	0	Boulder formation
	12	0	" "
8		0	
	5	2	Clay
	6	0	Boulder formation
	8	0	" "
	9	0	" "

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Shaft Number	Depth (feet)	Colors to the Pan	Character of Ground and Remarks
9	3	0	Yellow Clay. Contact between two different formations dips fifty degrees to north. Red to brown clay Boulder formation
	6	0	
	7	0	
10	3	1	Clay and soil Boulder formation " "
	6	0	
	8	0	
11	3	3	Brown clay and top soil Brown clay Red to brown clay Red clay " " Clay " Ashy material Boulder formation " "
	4	6	
	5	5	
	5	12	
	7	16	
	9	23	
	10	25	
	11	1	
	14	0	
	14	0	
12	5½	4	Clay Boulder formation " " " "
	11	1	
	12½	0	
	14½	0	
13	3	94	Top soil and clay Clay Brown gray Boulder formation " "
	4	84	
	8	2	
	8	1	
	9½	0	
14	8	3	Brown clay " " Boulder formation
	8	5	
	9	0	
15	8	7	Clay " " Boulder formation
	8½	2	
	8½	1	
	14	0	

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
16	8	16	Brown to red clay
	10	13	" " " "
	12	22	Clay
	12	6	"
	13	24	"
	13	15	"
	14	20	"
	14	6	"
	14	13	"
	14	19	"
	15	7	"
	16	3	"
	16	8	"
17	8	6	Clay
	9	6	"
	10	8	"
	10	8	"
	10	4	"
	12	6	"
	14	1	Top of boulder formation
15	0	Boulder formation	
18	3	6	Top gravel and soil, abandoned account of water.
19	1-8	0	Top soil, gravel and clay
	15-25	0	Clay and soft boulder, much water below 20 feet
	24	0	Boulder formation, much water
	27	0	" " " "
20	7½	2	Clay and soft boulders.
	8	0	Boulder formation
	12	1	" "
	12	2	" "
	14	0	" "
	15	1	" "
	17	0	" "
	18	0	" "
	19	0	" "
	Dump	0	Dump

10
27

Shaft
Number

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
21	3	0	Top gravel, oild tailings. " " , abandoned account of water.
	6	0	
22	13	3	Red Clay Gravelly Sticky red clay " " " " " " Boulder formation " "
	15	2	
	16	36	
	16½	11	
	17	10	
	21	0	
	21	0	
	21	0	
23	2	16	Top soil Top clay Red to brown clay " " " " " " " " " " " " Red to brown clay, gravelly Boulder formation
	3	33	
	8	6	
	10	27	
	10	10	
	13	52	
	15½	51	
	16	0	
24	8	14	Brown clay " " " " " " Clay wash Boulder formation
	8	19	
	8	21	
	8	1	
	Dump	33	
	13	0	
25	5	4	Clay Boulder formation " "
	8	0	
	8	0	
26	4	16	Brown clay " " Blue-yellow clay Yellow-brown clay " " " " " " " " " " " " " " " Boulder formation " "
	5	16	
	6	25	
	8	10	
	8	8	
	11	5	
	14	0	
	18	1	
	19	0	
	22½	0	
23½	0		

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Shaft Number	Depth (feet)	Colors to the Pan	Character of ground and remarks
27	4	13	Top soil
	7	9	Brown clay
	8	10	" "
	8	12	" "
	10	5	Yellow to brown clay
	14	6	" " " "
	15	1	" " " "
	17	1	" " " "
	19	1	" " " "
	19½	5	Dark brown ashy
	19½	5	Gray ashy
	20	3	" "
	21	5	" "
21	1	" "	
21½	0	Boulder formation	
22	0	" "	
28	1	15	Top soil
	4	12	Yellow-brown clay
	10	1	Red gravelly
	13	1	" "
	16	1	Brown gravelly
	18	5	" "
	22	0	Loose rocky
	25	0	Boulder formation
29	2½	11	Top soil
	4		Abandoned account of water
30	2	3	Top soil
	8	0	Brown clay
	8½	0	Ashy brown
	10	0	" "
	12	5 fine	" "
	14	0	Boulder formation
	16½	0	" "
17	0	" "	
31	5	11	Sticky brown clay
	10	0	Ashy brown loose
	12	0	" " "
	16	0	" " "
	16½	0	" " "
	19	15	Red ashy

Shaft Number	Depth (Feet)	Color to the Pan	Character of Ground and Remarks
31	19 $\frac{1}{2}$	3	Red ashy
	20	4	" "
	23	0	" "
	24	0	Hard boulder formation
	25	0	" " "
	26	0	" " "
32	3	10	Top material
	4	3	" "
	8	10	Blue-yellow mud
	11	5	
	18	0	
	18 $\frac{1}{2}$	2	
	21	0	Boulder formation
	22	0	" "
33	4	7	
	8	13	
	8 $\frac{1}{2}$	9	
	13	3	
	15	5	fine
	17	3	"
	18	1	"
	20	1	"
	20	1	"
	22	16	med. fine
	22 $\frac{1}{2}$	11	
	22 $\frac{1}{2}$	10	
	23	11	
	23	9	
25	0	Boulder formation	
26	0	" "	
34	3	9	Abandoned account of water
35	3	11	
	3 $\frac{1}{2}$	6	
	5	10	
	5 $\frac{1}{2}$	7	
	6 $\frac{1}{2}$	8	
	6 $\frac{1}{2}$	16	
	7	12	
	8	12	
	8 $\frac{1}{2}$	17	
	9 $\frac{1}{2}$	11	
10 $\frac{1}{2}$	7		
13	0		

18
18

Shaft
Number

Depth
(Feet)

Colors
to the
Pan

Character of Ground and Remarks

18

35

15 1/2

0

16

0

18

2

20

2

20 1/2

0

21 1/2

0

23 1/2

10

22

24

9

24

6

25

2

25

10

26

0

27

1 large
5 fine

29

0

30

0

23

31

0

36

3

8

4

5

5

10

10

0

13

0

17 1/2

0

37

5

3

6

0

7 1/2

0

10

0

13

0

16

0

16

0

17

0

25

17

0

20

0

23

21

0

38

3

4

5

5

5 1/2

0-

8

0

11

2

12

2

13

2

15

0

Three feet in red grits

Red gravelly

Red-blue grit

" " "

Red grit

Red-blue grit

" " "

Brown gravelly

" " "

" " "

" " "

" " "

Coarse brown and green boulders

Boulders

" " "

Fine

one foot yellow clay

Very fine

Yellow-blue clay

Dead brown material

" " "

Brown clay

Red clay with gravelly

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

" " " "

White-Yellow Clay

Red Clay

Brown ashy gravel

" " "

" " "

" " "

" " "

" " "

Field remarks	Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
30	39	3	10	Fine yellow surface clay
		7	1	Grit brown gravelly
		8	4	Gray gravelly
		12	2	Brown ashy material
		15	3	" " "
		19½	0	" " "
		23	0	" " "
	23½	0	" " "	
	40	3	6	Yellow clay grit
		5	3	Brown loose gravelly
		6	3	" " "
		6	3	" " "
		9	3	" " "
		10	3	White and red clay
		18	0	Brown dead ashy material
		20	0	" " " "
		22	0	" " " "
		23	0	" " " "
85	41	4	7	
		6	13	
		7	10	Brown mud
		7½	7	
		8	2	
78		8	6	Fine
		8	17	Yellow clay with grits
		10	15	" " " "
		13	4	Blue clay
		14	0	" " "
	16	0	Red-brown clay	
	17	0	" " "	
			Bottom looked good but pans no colors. Closed account water.	
	42	2	6	Fray grit surface red to yellow clay
86		4	3	Yellow clay, gritty
		5	4	" " "
		7	5	" " "
		9	8	" " "
		10	74	" " "
		10	45	" " "
		10	25	" " "
	12	6	Red clay	

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
42	13	6	Red Clay
	14	9	" "
	16 $\frac{1}{2}$	0	Brown dead material
	19	1	" " "
	19	3	Red gravelly
	20	2	" "
	22	0	Red-brown clay
	22 $\frac{1}{2}$	5	" " "
	23	5	Gray gritty clay
	25	7	Red gravelly
	27	15	Red clay with yellow material
	29	10	Yellow gritty clay
	30	0	Brown clay
	31	8	Ashy brown
	32	0	" "
32 $\frac{1}{2}$	2	Boulder formation	
43	3	11	Red gravel surface
	5	7	Red clay
	6	8	" "
	7	10	Red gritty
	10	6	Red-yellow gritty
	12	3	" " "
	13	1	Red-white clay
	15	0	Dead brown ashy
	21	0	" " "
	22	0	" " "
22	0	" " "	
44		7	Surface soil
	2 $\frac{1}{2}$	6	Gray-white clay
	4	4	Yellow clay
	5 $\frac{1}{2}$	4	Red clay
	6 $\frac{1}{2}$	0	Brown dead ashy
	8 $\frac{1}{2}$	0	" " "
	9 $\frac{1}{2}$	2	" " "
	13	0	" " "
	14	0	" " "
	16	0	" " "
45	3 $\frac{1}{2}$	5	Red-gray clay
	6	0	Red-brown clay
	7	2	Yellow ashy
	9	0	" "
	12	1	" "
	15	0	Brown ashy material

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
46	2 $\frac{1}{2}$	15	White-gray clay
	3	2	Gray clay gritty
	4	6	" " "
	5	8	Gray clay
	8	4	Brown clay with lime
	11	0	Gray ashy material
	12	0	Boulder formation
	47	4	20
4		8	" " "
6		4	Yellow clay gritty
6		3	" " "
9		2	" " "
11		15	" " "
13		21	" " "
16		3	Brown ashy clay
17		7	Yellow clay
18		0	Brown ashy clay
19 $\frac{1}{2}$		3	Brown to red clay
23		8	Brown with gritty clay
48	4 $\frac{1}{2}$	5	
	7	3	
	8	1	
	12	5	Very fine colors
	15	6	" " "
	17	3	" " "
	18	7	" " "
	19	2	" " "
	20	7	" " "
	22	0	
	25	0	
	25	0	Mush water
49	3	7	Red clay gritty
	4	3	" " "
	5	5	" " "
	8	4	" " "
	10	6	" " "
	12	8	" " "
	13	0	Yellow clay
	14	25	" " " gritty
17	1	" " "	

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
62	3	12	Gray gritty clay
	5	10	Yellow gritty clay
	6	21	Red clay
	10	10	Yellow-white clay
	11	8	" " "
	12 $\frac{1}{2}$	2	" " "
	13	1	Red gritty clay
	18	8	" " "
	22	0	Ashy material
	51	2	6
5		30	Red gritty clay
8 $\frac{1}{2}$		0	Yellow ashy
11 $\frac{1}{2}$		1	Gray ashy
52	3	5	Brown yellow clay
	5 $\frac{1}{2}$	3	Yellow clay, gritty
	8	0	Gray ashy
	8	0	" "
	9	0	" "
53	3	10	Yellow-Brown clay
	5	6	" " "
	7	7	" " " , gritty
	9	11	" " " "
	11	2	Brown ashy
	13	0	" "
	14	2	Red-gray ashy
	15	1	" " "
54	3	11	Yellow gritty clay
	6	5	" " "
	7	5	" " "
	8 $\frac{1}{2}$	9	" " "
	9	11	" " "
	11	9	" " "
	13	12	" " "
	14	15	" " "
	16	7	" " "
	18	1	Gray dead ashy
19 $\frac{1}{2}$	0	" " "	
20	0	" " "	
55	3	2	Abandoned account of water

32nd
road

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
56	3	5	Yellow gritty clay
	7	0	Red-brown clay
	10	10	" " "
	12	7	Yellow gritty clay
	14	30	" " "
	16	Amalgam	Red-brown with lime
	16	"	" " " "
	18	"	" " " "
	20	"	Red-brown gritty
	21½	0	" " clay
	24	0	" " "
25½	0	" " "	
57	5	10	Yellow grip clay
	7	5	" " "
	9	2	" " "
	11	7	" " "
	13	0	Brown ashy
	15	0	" "
19½	0	Dead gray ashy	
58	3	10	red-yellow clay
	5	9	Gray clay
	7	4	Brown clay
	9	0	Brown ashy
	10	3	Gray ashy
	13½	0	Boulders
	14	0	"
59	1½	7	Top soil
	3	7	Gray clay
	6½	2	Dead gray
	9	0	" " ashy
60	2	13	Top soil
	6	9	Yellow gritty clay
	8	11	Brown gray with lime
	10½	2	Gray ashy
	13½	1	" "
61	2	5	Top soil
	4	3	Brown-yellow grip clay
	5	2	Yellow grip clay
	7	5	Red-brown grit clay
	9	3	Yellow gritty clay
	12	2	" " "

13

32

33

43

67

30

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
32	14	7	Yellow gritty clay
	16	2	Yellow-red clay with lime
	17	1	" " " " "
	20	1	Red clay, gritty
	23	0	" " " "
	25	0	Boulder formation
62	2	1	Top soil
	4	11	Yellow-brown clay gritty
	5	Amalgam	" " " "
	6	12	" " " " , closed account of water.
72	3	6	Top soil
	5	0	Red-gray gritty clay
	8 $\frac{1}{2}$	0	Red-brown gritty clay
	9	2	Yellow clay
	11	4	" "
	12	2	Red-brown gritty clay
	14	7	Red-yellow gritty clay
	16	Amalgam	Red-brown gritty clay
	16	"	" " " "
	19	0	Red-brown clay with lime
	20	0	Red-brown gritty
82	2	15	Top soil
	3	Amalgam	Gray-yellow gritty clay
	3	4	Yellow clay gritty
	5	4	Yellow gritty clay
	7	30	" " " "
	8	5	Red gritty clay
	10	4	Brown gritty clay
	12	4	" " " "
	14	3	Red-brown gritty clay
	16	0	Brown with lime
	19 $\frac{1}{2}$	0	Boulder formation
88	2	10	Clay
	5	5	Red clay
	6 $\frac{1}{2}$	0	Boulder formation
	8	0	Ashy brown boulder formation
	9	0	" " " "
	12	0	" " " "

Station	Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
13	66	2	10	Top soil
		3	10	Gray-brown gritty clay
		5	1	Red-brown ashy clay
		8	0	Brown ashy gritty clay
		10	0	Ashy brown material
28	67	12	0	Ashy gray material
		2	15	Yellow gravel
		4	5	Yellow clay
		4	Amalgam	Gray clay gritty
		5	4	" " "
30	68	7	1	Yellow clay gritty
		10	1	Brown clay
		11	0	Brown to red clay
		12 $\frac{1}{2}$	0	Boulder ashy
		14	0	" "
42	68	1 $\frac{1}{2}$	4	Top soil
		2	5	" "
		3	5	" "
		4	2	Yellow gritty clay
		6	2	Red gritty clay
		7	4	Red to yellow gritty clay
		9	6	Red to brown gritty clay
		11 $\frac{1}{2}$	6	Brown clay with lime
		13 $\frac{1}{2}$	5	" " " "
		16	1	" " " "
48	69	18	5	Yellow-brown clay with lime
		19	5	" " " "
		20	1	Bouldery clay
		22 $\frac{1}{2}$	0	Boulder formation
		2	8	Top soil
		4	0	Gray clay
58	69	6	2	Yellow-brown clay
		7	6	Red-brown gritty clay
		10	1	Yellow-brown clay
		12	2	" " "
		16 $\frac{1}{2}$	4	Brown gritty with boulders
70	70	16 $\frac{1}{2}$	3	" " " "
		3	10	Soil
		5	3	Red-brown gritty clay
		6	6	Gray clay with lime
		8	10	Yellow-red gritty clay
		12	12	Red-brown clay.

Stand
number

86

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
70	14	3	Red-brown with lime
	16 $\frac{1}{2}$	1	Red to gray ash
	18 $\frac{1}{2}$	1	Boulder formation
	21	0	" "
71	2	15	Clay and soil
	3	6	Yellow-brown clay
	4 $\frac{1}{2}$	4	Gray clay
	5 $\frac{1}{2}$	4	Brown clay
	8	7	Brown clay gritty
	9	3	Brown clay loose material
	11	0	Boulder formation
72	2	21	Red to gray clay
	4	12	Yellow clay
	6	13	Yellow-brown clay
	8	23	Red-brown clay
	10	10	Gray-brown clay
	12 $\frac{1}{2}$	0	Boulder formation
73	2	14	Top soil
	4	7	Yellow clay
	6	10	Yellow perphyry clay
	8	8	" " "
	10	23	" " "
	12	28	" " "
	13	5	Red-brown gritty clay
	16	4	" " " "
	20 $\frac{1}{2}$	0	Boulder formation
	22	0	" "
24	0	" "	
74	2	4	Red gritty clay
	3 $\frac{1}{2}$	6	Yellow gritty clay
	5	1	Yellow clay
	8	4	Brown gritty clay
	11	5	Yellow gritty clay
75	13	4	" " "
	15	4	Yellow-brown gritty clay
	17	1	Brown ash
	19	0	Brown ash
	23	1	Yellow-brown clay
	25	1	" " "
	28	4	Boulder formation
31	4	" "	

88

80

87

81

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
75	1½ 3	3 Amalgam	Top soil Closed account of water
76	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32	15 6 8 6 25 12 2 3 4 3 5 6 3 37 2 0	Top soil Yellow clay " " " " Red clay gritty Yellow porphyry clay Red-brown with lime " " " " Yellow-porphyry clay " " " " " " Brown-red with boulders Brown to ashy clay Red-brown ashy Boulder formation
77	2 4 6 8 10½ 13 15 17 19 21 22 25 27½ 28	10 10 8 10 3 5 4 1 3 14 47 38 0 0	Top soil Yellow clay Red-yellow clay Red-brown clay Red gritty clay Brown clay with lime Red-brown clay " " " Red-gray gritty clay Brown to gray ashy Red-brown ashy material " " " " Dead ashy material Boulder formation
78	2 4 6 7½	7 2 2 0	Red-gray gritty clay Yellow clay Red-brown clay Boulder formation
79	2 4 6 9 11 14 15	31 20 16 12 6 4 6	Top soil Brown gritty clay Red gravelly clay " " wash Red-yellow gritty clay Gray ashy Red loose dirt

Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
16½	6	Red gritty clay
18	6	Yellow clay with lime
20	7	Red-brown ashy material
22	16	Yellow-brown porphyry
24	6	Yellow-brown gritty material
26	3	Boulders
26½	2	Boulder formation
27	0	" "
2	Amalgam	Top soil
4½	0	Yellow clay
6	5	Brown gritty clay
8	3	" " "
11	13	Yellow gritty clay
12½	15	Brown gritty clay
14	8	Red-brown gritty clay
15	5	" " " "
17	7	" " " "
18	10	Brown gritty clay
21	6	Brown to yellow clay
23	8	Red to yellow clay
25	8	" " " "
25	8	Abandoned account of water
2	9	Top soil
4	6	Brown clay
5	6	Red-yellow gritty clay
8	4	" " " "
10½	6	Brown gritty clay
13	0	Boulders
18½	0	Boulder formation
3	54	Top soil
5	8	Yellow clay
7½	21	Yellow-brown gritty clay
9	16	Yellow porphyry clay
11	15	Red-brown gritty clay
13½	9	Bluish clay
16	3	Gray to brown clay
18	5	" " " "
20	16	Top of boulders
21	3	" " " "
22	0	Boulder formation

Shaded (Feet)	Shaded redms	Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and remarks
01	87	83	2	3	Top soil
01			3	7	Red gritty clay
02			7 $\frac{1}{2}$	0	Boulder formation
02			9 $\frac{1}{2}$	0	" "
02		84	2	6	Red gritty material
02			4	12	Red-brown clay
02			6	7	" " "
02			8	12-	Dry ashy material
02	08		10	0	Boulder formation
02		85	2	12	Top soil
02			2	10	" "
01			4	2	Clay with lime
01			8 $\frac{1}{2}$	0	Boulder formation for 4 feet
01		86	2	0	Top soil
01			4	4	Ashy material
01			6	2	Boulder formation
01			8 $\frac{1}{2}$	0	" "
01		87	2	0	Gray clay top soil
01			4	0	Brown clay with lime
01			5 $\frac{1}{2}$	0	Red to brown material
01	18	88	2	7	Top soil
01			4	14	Brown clay
01			6	2	Red-brown clay
01			8	0	Red-brown ashy material
01			10	0	" " "
01			12 $\frac{1}{2}$	0	Boulder bed rock on serpentine
01	38	89	2	12	Top soil
01			4	7	Greenish clay
01			6	3	Serpentine wash
01			8	12	Brownwash
01			10	3	Yellow-brown clay
01			12	4	" " "
01			14	14	Serpentine with gray clay
01		16	2	Greenish serpentine wash	
01		17 $\frac{1}{2}$	0	Serpentine bed rock	
01		90	2	7	Top soil, black
01			4	10	Black silt
01			6	5	serpentine wash
01			8	5	Black silt and serpentine wash

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
90	10	7	Serpentine gravel wash
	12	1	" " "
	12½	3	" " "
	14	3	Gravel wash
	15	14	" "
	15½	2	" "
	16	4	" "
97	17½	2	" "
	18	2	White clay with wash gravel
	19	0	Crushed serpentine bed rock
91	4	1	General sample of dump
92	13½	0	Down to 13½ ft. old wash, shale, slate, schist and crushed quartz boulders.
	19	0	" " " "
	22	0	Dry boulder wash
	25	0	" " "
	29	0	Serpentine bed rock
93	32	0	Solid serpentine bed rock
	Dump	3	Top soil
	"	0	Greenish to yellow clay
	"	2	Red gritty material
100	"	0	Greenish material
	"	1	Yellow to brown material
	"	"	Logan reports 15 ft. deep value 25¢ per cubic yard.
	"	"	"
94	Dump	5	Top soil
	"	4	Yellow clay material
	"	4	Gray gritty clay
	"	0	Yellow wash clay
	"	0	White clay no grits
95	Dump	8	Logan reports shaft 20 ft. deep value 25¢ per cubic yard.
	"	4	Top soil
	"	6	Gray serpentine clay
	"	3	Brown-gray gravel
98	"	3	Greenish serpentine wash
	"	1	Serpentine bed rock
	"	"	Logan reports shaft 31 ft. deep value 8 to 10 cents per c.y.

Shaft Number	Depth (Feet)	Colors to the Pan	Character of Ground and Remarks
96	Dump	2	Top soil
	"	3	Serpentine wash with clay
	"	2	" " " "
	"	1	" " " "
	"	0	" " " "
			Logan reports shaft 19 ft. deep values fair.
97	Dump	22	Green clay top soil
	"	19	Serpentine wash gravel
	"	23	Gray gravel wash
	"	18	Greenish clay wash
	"	29	Serpentine clay wash
			Logan reports 19 ft. deep, value probably 50% per c.y.
98	Dump	2	Top soil
	"	0	Gray wash fine
			Logan reports 9 ft. deep, boulder formation, poor values.
99	Dump	2	Top soil
	"	2	Gray gritty wash
			Logan reports shaft 6 ft. deep on boulder formation, poor prospect.
100	Dump	5	Top soil
	"	3	Serpentine wash gravel
	"	4	" " "
	"	3	" " "
	"	1	" " "
			Logan reports 12 ft. deep on serpentine bed rock, poor prospect.

PROSPECTING RECORD

LOGAN PLACER

WALDO - OREGON

1916

Number	Total Depth	Pay Depth	Average Numbers Colors Per Pan	Value Cu. Yd. by Pan Tests in Cents	Value Cu. Yd. by Sluicing in Cents	Value Cu. Yd. by Aver. Colors Per pan in Cents	Value by Color Factor .96	Value by Pan Test Factor .7	Final Value per cu. yd. in Cents	Prod. Depth in feet	Value
10 1/2	5	2				4.86	4.66		4.75	23.0	
11 1/2	0	0									
10 1/2	6	8				19.44	18.66		19.05	114.0	
7	0	0									
14 1/2	10	5		15	9.64				9.60	96.0	
17	10	4		10 1/2		9.72	9.33	7.35	9.52	95.0	
12	0	0									
9	5	2				4.86	4.66		4.75	23.0	
7	0	0									
8	5	1				2.43	2.33		2.38	11.9	
14	10	11		19	33.91				33.91	339.0	
14 1/2	10	4				9.72	9.33		9.52	95.0	
9 1/2	9	89				216.27	206.67	Omit account of high grade			
9	9	4				9.72	9.33		9.52	85.6	
14	9	4				9.72	9.33		9.52	85.6	
20	18	13		32		31.59	30.32	22.40	30.00	270.0	
15	14	9				21.87	21.99		21.43	300.0	
3	9								5.00	45.0	
27	0										
19	6								5.00	30.0	
3	12								5.00	60.0	
21	18	12		18		29.16	28.99	12.60	20.00	360.0	
16	15	28		96	35.00				35.00	525.0	
14	9	15		37 1/2		36.45	36.00	26.25	34.00	306.0	
8	4	4				9.72	9.33		9.52	54.9	

PROSPECTING RECORD

LOGAN PLACER

WALDO - OREGON

1916

Shaft Number	Total Depth	Pay Depth	Average Numbers Colors Per Pan	Value Cu. Yd. by Pan Tests in Cents	Value Cu. Yd. by Sluicing in Cents	Value Cu. Yd. by Aver. Colors Per pan in Cents	Value by Color Factor
1	10 $\frac{1}{2}$	5	2			4.86	4.66
2	11 $\frac{1}{2}$	0	0				
3	10 $\frac{1}{2}$	6	8			19.44	18.66
4	7	0	0				
5	14 $\frac{1}{2}$	10	5	15	9.64		
6	17	10	4	10 $\frac{1}{2}$		9.72	9.33
7	12	0	0				
8	9	5	2			4.86	4.66
9	7	0	0				
10	8	5	1			2.43	2.33
11	14	10	11	19	33.91		
12	14 $\frac{1}{2}$	10	4			9.72	9.33
13	9 $\frac{1}{2}$	9	89			216.27	206.66
14	9	9	4			9.72	9.33
15	14	9	4			9.72	9.33
16	20	18	13	32		31.59	30.33
17	15	14	9			21.87	20.99
18	3	9					
19	27	0					
20	19	6					
21	3	12					
22	21	18	12	18		29.16	27.99
23	16	15	28	96	35.00		
24	14	9	15	37 $\frac{1}{2}$		36.45	35.99
25	8	4	4			9.72	9.33

Shaft No.	Total Depth	Depth of Pay	Average No. of Colors Per Pan	Value Per c. y. by Pan Tests in Cents	Value Per c. y. by Sluicing in Cents	Final Average Value by Projection & Factors in Cents	Product Depth Times Value	
26	23½	20	10	25		25	500	
27	22	21	6	30		30	630	
28	25	20	7	9		13	260	
29	4	15		9		13	195	
30	17	5	5	6		10	50	
31	26	20	5	6		10	200	
32	22	20	12	7		12	240	
33	25	23	6	6		10	230	
34	5	Abandoned on account of water						
35	51	27	6	8½	12	12	324	
36	17½	12	5	1		10	120	
37	21	6		1		10	60	
38	15	5	4	1½	10	10	50	
39	23½	12	5	2		10	120	
40	23	15	4	1		10	150	
41	17	30	8	7		10	500	
42	32½	32	10	7	10	10	520	
43	22	16	6	1½		8	128	
44	16	10	5	1½		8	80	
45	15	5	3	3		10	50	
46	12	10	3	6		12	120	
47	23	23	8	6½		10	230	
48	25	20	4	1½	5	5	100	
49	17	17	8	6		10	170	
50	22	20	9	2½	22	22	444	
51	11½	10	12	8½		12	120	
52	8	6	4	2½		8	48	
53	17	15	5	4		8	120	
54	20	18	6	4½		8	144	
55	3	20		3		8	160	
56	25	22	7	4½		8	176	
57	19½	12	8	5½		10	180	
58	14	12	5	3½		10	120	
59	9	7	5	3		8	56	
60	13½	12	7	4½	14	14	168	
61	25	22	3	1½		5	110	
62	6	20	8	4		8	160	
63	20½	18	3	1½		5	90	
64	19½	18	8	5		10	180	
65	12	6	7	4		10	60	
66	12	8	6	5		10	80	
67	14	12	5	3		8	96	
68	22½	20	3	2	7	7	140	
69	16½	16	3	1½		5	80	
70	21	18	7	6		10	180	
71	11	10	6	4		8	80	

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72	12½	12	15	12		15
73	24	20	12	10½		12
74	31	26	4	3		8
75	3	26		3½		8
76	32	30	8	6½		12
77	28	26	12	12	18	18
78	7½	6	3	4		8
79	27	26	10	9		12
80	25	26	7	3½	6½	6½
81	18½	12	6	3½		6½
82	22	22	16	15	18	18
83	9½	6	5	5		10
84	10	8	9	10		15

58 Shafts average - 16½ ft. -- 6 to 7 colors per pan
 Value per cubic yard for all shafts, 10½¢
 Value per cubic yard for dumps sluiced, 12½¢
 Probable value 11¢ per cubic yard for entire area covered by
 above shafts.

88	12½	12	6	3½		6
89	14	14	7	6		10
93	15	15	2	2½		5
94	20	20	4	4½		8
95	31	31	5	2½		6
96	19	19	2	2		5
97	19	19	20	48		50

Value per cubic yard 6¢ emitting high grade
 Value per cubic yard 12½¢ including high grade
 Probable value 10¢ per cubic yard.

PIT SAMPLES

Number	Number of pans	Depth	Average Colors Per Pan	Average Weight in mg. Per Color	Value per c. y. in Cents	Product Depth Times Value
A	50	30	10	.11 $\frac{1}{2}$	10 $\frac{1}{2}$	315
B	20	35	26	.04 $\frac{1}{2}$	1 $\frac{1}{2}$	385
C	10	26	40	.10 $\frac{1}{2}$	39	1014
D	10	26	20	.18	33 $\frac{1}{2}$	871
E	68	20	12	.25	24 $\frac{1}{2}$	490
F	10	20	14	.10	12 $\frac{1}{2}$	250

Average depth, 26 ft.; value 21-1/5¢ per cubic yard by pan test
 Ground probably contains not less than 26¢ per cubic yard.
 This pit has produced in gold \$99,808.29.

G 1 60 .03 $\frac{1}{2}$ 19 mud balls in tail pile.

Note: 1 milligram equals .06 cents when gold \$19 per ounce
 By three measured tests 1 cu. yd. equals 150 pans, and
 0.64 cu. yd. solid equals 1 cu. yd. broken.

The dumps from shafts numbered 5, 11, 23, 35, 38, 42, 48, 50, 60, 68, 77, 80, and 82 were washed.

Values per cu. yd. for these shafts are as per clean-ups which in each case are much higher than panning tests.

Values per cu. yd. for other shafts are computed by proportion and multiplying pan test results by the proportionate amount that the sluicing results ran over the pan test results for the clean-up shafts.

The difference between sluicing and panning results is due to the difficulty in thoroughly washing heavy sticky clay in a gold pan, also most of the gold is extremely fine. The dumps that were sluiced were thoroughly disintegrated and washed in puddling boxes before going over the riffles.

RECAPITULATION:

Area south of pit averages 12 ft. deep, value 20¢ per c.y.

Area north of pit " 16 $\frac{1}{2}$ ft. " " 11¢ " "

Area north end of field averages 20 ft. deep, value 10¢ per c.y.

For acreage and yardage see map.

Only gold values figured in estimates, platinum not accounted for, which amounts to probably 1/30 to 1/40 of the gold contents.

LOGAN'S PIT

Average Depth	28-1/3 ft.
Value per cubic yard	22 $\frac{1}{2}$ ¢
Acreage	9.903 acres
Cubic Yards	442,037
Production	\$100,000.00
Approximate	\$10,000 per acre

VALUATION & YARDAGE

Location	Average Depth	Value Per C.Y.	Acreage	Cubic Yards	Total Value
South of pit	12 ft.	20¢	15	290,000	\$58,000.00
S.W. of pit	15 ft.	15¢	4	100,000	15,000.00
N. E. of pit	30 ft.	10¢	3	150,000	15,000.00
N. W. of pit	16 ft.	10 $\frac{1}{2}$ ¢	20	500,000	52,500.00
North end of field	18 ft.	10¢	<u>10</u>	<u>260,000</u>	<u>26,000.00</u>
Proven Ground			52	1,300,000	\$166,500.00

No estimate was made of the unprotected acreage which embraces some 2000 acres, 400 acres of which was located in 1916. Probably half of this total acreage is gold bearing but how much of it will pay to work is yet to be determined. We are now operating one Empire drill and will prospect as much acreage as possible during this season.

Respectfully,

L. A. Levensaler (Signed)

A G R E E M E N T

THIS AGREEMENT Made this fifth day of April, A.D. 1916,
between Jane Simmons and J. T. Logan, of Grants Pass, Oregon,
parties of the first part, Optionors, and George M. Esterly, of
Seattle, Washington, party of the second part, Optionee,

WITNESSETH:

That the Optionors, in consideration of the sum of One
Dollar to them in hand paid, the receipt whereof is hereby ac-
knowledged, and of the covenants to be performed by the Optionee,
grants to and confers upon the Optionee, his heirs and assigns,
the exclusive right and option to purchase the following described
mining property:

- ✓ The N.W. $\frac{1}{4}$ of Section 10, consisting of about 160 acres
 - ✓ ~~The S.W. $\frac{1}{4}$ of Section 14, consisting of about 160 acres~~
 - The N.E. $\frac{1}{4}$ of the N.E. $\frac{1}{4}$ of Sec. 22, con. of about 40 acres
 - The S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$ of Sec. 15, consisting of about 40 acres
 - The N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Sec. 27, consisting of about 33 acres
 - W $\frac{1}{2}$ The N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Sec. 27, consisting of about 80 acres
 - Lots 2, 3, 4 and 5 in Sec. 27, consisting of about 154 acres
 - The N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ of Sec. 27, consisting of about 19 acres
- known as the Simmons' Home Place.

All in Township forty (40) south, Range eight (8) west of the
Willamette Meridian, including all buildings and mining equipment
and also all personal property, except such as Mrs. J. T. Logan
or Mrs. Jane Simmons elect to reserve,
situated in the vicinity of Waldo, in Josephine County, Oregon.

The total consideration to be paid in case this option is
exercised shall be Twenty-Thousand (\$20,000.) Dollars as herein
below set forth, at The First National Bank of Southern Oregon.
On or before December 1, 1916, Twenty-thousand (\$20,000.) Dollars.

It is understood that the Optionee may make said payment

by certified check or bank draft, or by deposit to the credit of the Optionors in the above named bank.

On condition that said payment is made as above provided the Optionors agree to convey the property above described to the Optionee by a good and sufficient bargain and sale deed, conveying the same free from all liens, claims and encumbrances, save only the paramount title of the United States in cases where patent has not been issued.

The Optionee shall be let into possession of the above described property on the execution hereof for the purpose of prospecting, exploring and examining the same, in order that its value for mining purposes may be determined, such possession to be allowed during the life of this option.

In consideration of the granting of this option the Optionee agrees that as soon as practicable, and not later than November, 1916, he will commence examination of the above described property to be conducted at his expense to determine the value of said property. The Optionee shall have until the date when the payment above provided is to be made in which to make such final examination.

Upon notice by the Optionee to the Optionors that he intends to make the payment provided for in this agreement and take over said property said Optionors shall within thirty days from date of such notice furnish an abstract of title to be prepared at their expense, which abstract of title shall show a good marketable title to the above described property. In case the Optionee, after examining the abstract of title, points out any defect in the title the Optionors shall at their own expense promptly cure and remedy such defect.

It is agreed that the Optionors may continue their mining operations as heretofore conducted by them until the payment as above provided is made. In ~~case~~ the Optionors do continue their mining operations for 1916 and 1917, commencing on or about October

1, 1916, in that event the proceeds resulting from said operations shall be applied as follows: There shall first be deducted from the gross proceeds recovered the actual cost of labor and supplies used or improvements made in the course of said mining operations. The balance in value remaining shall be deducted from the purchase price as herein specified- the said balance representing the depletion in the value of the optioned property due to said mining operations

In the event that prior to the first day of December, 1916, the Optionors do not do any mining on said property then and in that event the Optionee agrees to pay the actual cost of any improvements that are made in the way of flumes or equipment that is put on the property necessary to carry on their mining operations for the season of 1916 and 1917. After the Optionee has made the payment of the purchase price no further mining on the premises shall be done by the Optionors. The Optionee shall have access to all books and records of the Optionors relating to the amount and value of the proceeds extracted from the optioned ground and the cost of labor and supplies used in mining the same, and may be present at all cleanups and at the workings of the Optionors.

If the payment of the purchase price, amounting to Twenty Thousand (\$20,000.00) Dollars, is not made as above provided, all obligations of all the parties hereto under the terms of this option agreement shall, upon such failure, without any action or process of law on the part of either of the parties hereto, be terminated.

This option agreement shall enure to the benefit of and be binding upon the heirs, executors and assigns of the prospective parties hereto.

WITNESS our hands the day and year first hereinbefore written.

WITNESSES:

(Sgd) Mertie E. Revenaugh

(Sgd) Jane Simmons (Seal)

(Sgd) J T Logan (Seal)
Optionors

(Sgd) George M. Estabrook (Seal)

THIS AGREEMENT Made this fifth day of April, A. D. 1916,
between Jane Simons, C. D. Cameron, J. T. Logan and Rose L. Logan,
of Josephine County, Oregon, parties of the first part, Optionors,
and George M. Esterly, of Seattle, Washington, party of the second
part, Optionee, WITNESSETH:

That the Optionors, in consideration of the sum of One
Dollar to them in hand paid, the receipt whereof is hereby ac-
knowledged, and of the covenants to be performed by the Optionee,
grants to and confers upon the Optionee, his heirs and assigns,
the exclusive right and option to purchase the following de-
scribed mining property:

M.L. ✓ The southwest quarter ($\frac{1}{4}$) of Section 10, consisting of about
160 acres.

✓ The east half ($\frac{1}{2}$) of S. E. $\frac{1}{4}$ of Sec. 9, consisting of about
40 acres.

The east half ($\frac{1}{2}$) of N. E. ($\frac{1}{4}$) of Sec. 16, consisting of
about 80 acres.

The west half ($\frac{1}{2}$) of N. W. $\frac{1}{4}$ of Sec. 15, consisting of about
40 acres.

The west half ($\frac{1}{2}$) of S. W. $\frac{1}{4}$ of Sec. 15, consisting of about
80 acres.

The N. E. $\frac{1}{4}$ of S. W. $\frac{1}{4}$, of Sec. 15, consisting of about 40
acres.

The W. $\frac{1}{2}$ of S. E. $\frac{1}{4}$ of Sec. 15, consisting of about 80
acres.

M.L. The W. $\frac{1}{2}$ of Sec. 22, consisting of about 320 acres

The W. $\frac{1}{2}$ of the N. E. $\frac{1}{4}$ of Sec. 22, consisting of about
80 acres.

The W. $\frac{1}{2}$ of the S. E. $\frac{1}{4}$ of Sec. 22, consisting of about
80 acres.

And a two-fifths interest in the following:

The east half ($\frac{1}{2}$) of N. E. $\frac{1}{4}$ of Sec. 21, consisting of about
80 acres.

about 40 acres.

The N. E. $\frac{1}{4}$ of the S. E. $\frac{1}{4}$ of Sec. 21, consisting of about 40 acres.

All of the above property being situated in Township forty (4) Range eight (8) west of the Willamette Meridian.

Also mining claims Lot A and Lot B situated in section 3, Twonship 41 south, Range eight (8) west of the Willamette Meridian. *40 acres*

Also including all ditches, water rights, pipe lines, mining equipment, buildings and personal property now belonging to the above described mining property, situated in the vicinity of Waldo, in Josephine County, Oregon.

The total consideration to be paid in case this option is exercised shall be One Hundred and Twenty (\$120,000) Dollars as herein below set forth, at the First National Bank of Southern Oregon, Grants Pass, Oregon.

On or before December 1, 1916 \$120,000.00

It is understood the Optionee may make said payment by certified check or bank draft, or by deposit to the credit of the Optioners in the above named bank.

On condition that said payments are made as above provided the Optioners agree to convey the property above described to the Optionee by a good and sufficient bargain and sale deed, conveying the same free from all liens, claims and encumbrances, save only the paramount title of the United States in cases where patent has not been issued.

The Optionee shall be let into the possession of the above described property on the execution hereof for the purpose of prospecting, exploring and examining the same, in order that its value for mining purposes may be determined, such possession to be allowed during the life of this option.

In consideration of the granting of this option the Optionee agrees that as soon as practicable, and not later than

value of said property. The Optionee shall have until the date when the payment above provided is to be made in which to make such final examination.

Upon notice to the Optionee by the Optionors that he intends to make the payment provided for in this agreement and and take over said property said Optionors shall within thirty days from date of such notice furnish an abstract of title to be prepared at their expense, which abstract of title shall show a good marketable title to the above described property. In case the Optionee, after examining the abstract of title, points out any defect in the title the Optionors shall at their own expense promptly cure and remedy such defects.

It is agreed that the Optionors may continue their mining operations as heretofore conducted by the until the payment as above provided is made. In case the Optionors do continue their mining operations for 1916 and 1917, commencing on or about October 1, 1916, in that event the proceeds resulting from said operations shall be applied as follows: There shall first be deducted from the gross proceeds recovered the actual cost of labor and supplies used or improvements made in the course of said mining operations. The balance in value remaining shall be deducted from the purchase price as herein specified - the said balance representing the depletion in the value of the optioned property due to said mining operations.

In the event that prior to the first day of December, 1916, the Optionors do not do any mining on said property then and in that event the Optionee agrees to pay the actual cost of any improvements that are made in the way of flumes or equipment that is put on the property necessary to carry on mining operations for the season of 1916 and 1917. After the Optionee has made the payment of the purchase price no further mining on the premises shall be done by the Optionors.

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If the payment of the purchase price, amounting to One Hundred and Twenty Thousand (\$120,000) Dollars, is not made as above provided, all obligations of all the parties hereto under the terms of this option agreement shall upon such failure, without any action or process of law on the part of either of the parties hereto, be terminated.

This option agreement shall enure to the benefit of and be binding upon the heirs, executors and assigns of the prospective parties hereto.

WITNESS our hands the day and year first hereinabove written.

WITNESSES:

Mertie E. Revenaugh

S. O. Hooper

(Signed) Jane Simmons (SEAL)

" C. D. Cameron "

" J. T. Logan "

" Rose L. Logan "
Optionors

" George M. Esterly (SEAL)
Optionee

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