

FIELD BOOK

19

MINING
TRANSIT BOOK

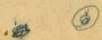
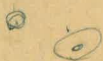
384

W137

MICROFILMED

JAN 8 1965

2811
88



107

Location of Forms from 1+73.20	
Concrete Topog. & Flight Abut.	31
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Transferred
BK 18-P-7

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Quarry Reference Points	67
<u>Filled</u>	

El. For gauge - Barrett Dam - P 0

Set Gauge - Barret Dam

B.M.	1.44	175.32		173.88	
	1.48	172.38	4.42	170.90	
			1.38	171.00	
			3.52	168.86	
8.13	179.38	1.13		171.25	
		5.52		173.86	173.85

9-21-49

KING
Shipman
West

2

Top Tower Floor

Set Nails on gauge
Top Gates - Spillway

3-16-21
Bub
Fisher
Mixer

New Location of West Tangent.
C28 = P.T.

At D-1 + 36.58 Chained North
12.16 = D-136.58 = 412.16

Nail in Rock.

Hub R.P. about 100' North -
+ on Rock ~~RP~~ 1+36.58 RP 1+36.58

Chained 87.30 South = 3+12.70 =
1+36.58 = 312.70

At D 18 Chained South 93.45 =
D 18 - 3+06.55

Nail in Rock

Chained North - 14.23 =
D-18 - 4+14.23

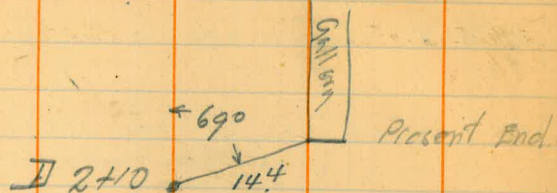
(set Hub ^{RP D 18} about)

At D 10 Sight Tangent
Turn 90° Chained 92.54 - South -
= D-10 - 307.49

Chained North - 9.78 =
D 10 - 409.78

3/18/21 End.
 Bah Minter Tie to Present Gallery
 Flag in • W. Tang.

76
 2391
 1885



	2376	
Nail C-28	545	4368
Grade End P. Gallery	436	19.32

Nail Bm Sw Cor. Tower 0/8	2436	2418
Nail C-28	605	1831
Nail in Top of Dam near Tower	548	1888
Grade End Gallery	498	19.38

100' R 394' R 390' R
 2+1270 2+1253
 1331 1324

1+99 39 1+99 285
 13 245

- 1+86.07 1+86 040

9
 6
 5
 0
 %

Grade = 1519.38

1528.21
 8.83

1537.04

set 3-26-21.
 see page 11

1536.98 End of Present Gallery.

1181
 1222
 7313

28
 28
 2480
 30
 2+10

2

C-28 482 23.13 18.31
 1+99 39 gallery 589 17.24

Grade 1+99 39 = 1528.21
 17.24

Fill - 10.97 = 10' - 11 5/8

3/19/21

Mittal
Sub.

Up Stream Points

Set C 50 by Intersection

Set Nail in fums at 5+49¹³

Set Nail in Whole at 5+50⁰⁰

Set Nail in Whole at 6+06²³

Set Nail in Cove 4+90

" Nail in Whole West at 4+87.67

om. nail
in Stump above 52 line 963 47.40

Top Groot Pipe

1227 153777
35.13

Top front fums

445
445 42.95
458

$$E1 = \frac{42.95}{51} = 1.71 \text{ out}$$

Top Groot
Pipe

0.61 35.74 153513

295

288

288

Average 290 3284

$$E6 = \frac{32.84}{50} = 2.72 \text{ out}$$

5450
5623
6+06 73

5673

3

3/21/21

Mixer
Sub

Contr. Joints

Set on C-28 Set nail on form
Contr Joint 2+73.08

Sight W Tang for zero Az Pt.

7.7 32-50

23.9 298-45

Platted
K⁵⁻²¹

Nail
C-28

483 23.14

518.31

Average Bottom El. Contr Joint 530 17.8

Set nail top Contr Joint at 3+25.83
Sight 32-16'-55"

23.14

Top form.

492 18.22

18.22

El $\frac{5}{23.22}$ Dist out = 4.18

Dist across at Ele 18.22 from 400' R

3+20 21.08

3+10 21.85

3+00 22.28

2+90 22.56

2+80 22.54

2+73.08 22.38

Contr Joint

5

at 028 Sight Flag East
for Zero Az Pt.

49.07 78°

46.15 357°20'

Platted 4-3-21

At = 23.14

Bottom Joint

9.6 13.5

Set on C 28

Set nail in Contr Joint at
Dist 101.75 = Sta 3+81.75

Sight = 70-14'-14"

Set nail in Conc 110 = 3+90 Sight = 7-52'-41"

Set on 4+40 and set 4+80

7.72 +

4+80

4+87.72 Nail in White Set from C-50 Page 3

= 4+87.67 from C-50 Error .05 in Chaining

Sight for 4+87.72 = 30-23'-3.45"

56-450

7.85 58.19

1550.34

Top form

Average El.

$53.12 + 5 = 5158.12$ Dist out = .069'

53.12

Top form

Average El.

$48.46 + 5 = 5346$ Dist out = 1.15'

48.46

3/22/21

Upstream Points Rt Abut.

Byson
Sub
Number. 2+18.43 = Contr Joint Ave. El. = 1518.30

Nail SW Cr Tower. 4.41 1528.59 1524.18

Form. 5.28 1523.31

5.19 1523.40

5.23 1523.36

5.25 23.36

Average

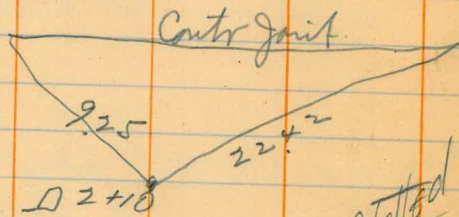
Dist out = 4.16

2336

5
28.36

Dist out 366 at El. 2836

Dist to form at LR from 2+10 = 397
at El 1523.31



Platted
3/22/21

528
519
523.
1570
523

1565
1523.36
4.176
4.160

1565
28.36
28.64
3
366

3-3-21

Bud
Fisher
Marker

Upstream Face. Pts.

Nail SW on Tracer	At C 38	Sight C 33	for 3°-35	Turn
53.05	5.26	1529.44		1524.18
60	3-48			
70	4-18	6.19	23.28	
80	5-01		5	
90	5-44		28.25	368
100	6-27			
	7-10			

6.3
6.18
12.1
18.57
6.19.

Dist out

3-73-21

Bud
Fisher
MarkerAt C 28 Sight Center for zero
Chained

24' =	28-376	Nail in whole	
1.5 =	28-374.50	Nail E of Lift # 3	Curtain Wall -
	28-369.00	Nail E of Lift # 2	Curtain Wall -
	28-364.0	Nail E of Lift # 1 in	Curtain Wall
	28-310	Nail in Concrete	14.89
	28-260	Nail in Lift # 1 -	14.65
	28-252	" " " 1	EI-1459.6
	28-248	" " " 1	"

7

3-23-21

Burb
Fisher
M. Stur

At 38-250 Sight 46-250 for 80'
5°-43'-46" Turn

140'

10°-01'-36"

At 38-250 Sight 48-250 for
7°-09'-43"

Chained from 38-325 - North 33.75 =
38-358 75

38 - 365 ⁰⁰ Lift #1 in Curtain Wall

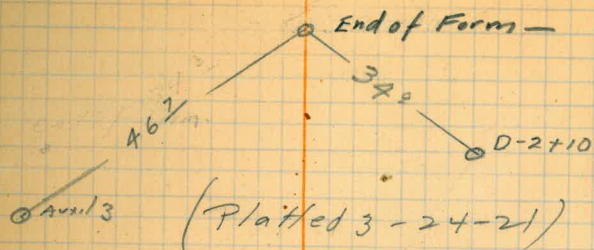
38 - 370 Lift #2 in Curtain Wall

38 - 375 ⁵ Lift #3 in Curtain Wall -

3-23-21

Tie to end of Form.

8



3-24-21
Bvd
Fisher
SW in Town

Upstream face Pts

7.93 32.11 1524.18

3.71 28.40

5

33.40

Dred cut 37.1

3.16

3.70

370

374

114

3-24-21

Bub
Fisher

D Line West Tangent - R.P.s

At D 0+60. Sight RP East for
Zero Turn 90° Set Hub at
 $82.24' = D-60 - 317.76$

Chained North 18.42 =

D-60 - 418.42 Hub -

set D-0+80 - Nail in Rock.

Set D-0+40 - Hub

Set D-0+20 - Hub -

D-0+20
371.28 Post on Landing Platform - Nail RP To

Nail in Cement House } 0+20

D-0+20
425.73 Iron Pin under Blacksmith shop = 0+20

10

425.73 RPD-0+20

28.72

71.48

1
0

3-21-21

Bryson
Fisher
Master

Upstream face Pts.

B.M.	12.31	1536.49	1524.18
Pipe			
Forms O.T. (outlet Valve)	3.77		1532.72
Forms Dam	8.25		1528.24
		5	

Gallery			33.24
---------	--	--	-------

B.M.	10.03	1534.21	1524.18
------	-------	---------	---------

Gallery.

U.S. Form			5.83	1528.38
-----------	--	--	------	---------

1537.04

	4.59		1529.62
--	------	--	---------

= 7.42 = 7'-5"

3-29-21

Bryson
Fisher
Master

Upstream Face Pts.

Top of pipe outlet -	5.07	1538.47	1533.40
Forms U.S.F.		5.10	1533.37

Off set for 1538.4 = 2.66

R3-29-21
Fisher
Mixer

Upstream face pts

5.09
5.04

12

Top of Pipe

Outlet Tower

U.S. Face

Lower Lift

U.S. Face

O.T. Bracket

10.02 1543.43

1533.40

10.04 1533.39

1538.39 = 2.66

5.04 1338.39

1543.39 = 2.16

3452

8.91 3452

3-21-21
Fisher
Mixer

Downstream Form Curtain
Wall - Average Elev 1531.9

D22
D24
D26
D28
C30
C32

Patrol 3-29-21

10.3	43.7	1533.40
14.2 ✓	11.6	Average Elev 31.9
14.3 ✓	11.7	
14.3 ✓	11.8	
14.9 ✓		
15.2 ✓		
14.5 ✓		

3/31/21

Bob

Miter

Up Stream Points

Set on C 28 Sight Flag East on Tan
Set nail in Whole Sta 3+26.19

40		Defl = 3° 19'
<u>6.19</u>	3+26.19	
46.19	<u> </u>	
2+80	3+27.09	
<u>3+76.19</u>		

Set nail in Side of form at 3+27.09
Defl = 3° 22' +

Set on 3+27.09 Sight nail in form
Contr Joint 3+81.76 Dist = 54.67

3+81.76
3+27.09
54.67

Defl for 54.67 = 50. = 3° 34' 52"
4. = 0 - 17 11.32
 .7 = 0 - 3 00.48

 3° 55 - 03.80

Dist 12.91 = Sta 3+40 2-21-22.61
10 = 0-42-58.30 42 58.3
2 = 0-8-35.66 3+70 = 3-04 20.91
 .9 = 0-3-52.05 42 58.3
 3+80 3-47 19.21

3+40 12.91 = 0-53-146.01

 0-55-26.01
 42-58.3
3+50 1-38-24.31

 42-58.3
3+60 2-21-22.61

B48 11.73 1574.51 - El. 1572.78

Top Forms 1.12 23.39
" " 1.10 23.41
" " 1.20 23.31

15.65
23.37
41.63 = Dist out. 3/70.11
 23.37

Average Ele. for Block March Esti 19.5

Front Face 6.11 18.40
 4.80 19.71
 4.5 20.01
 4.45 20.06
 4.45 20.06

19.65
19.45
2/39.10
19.55

5.7 18.8
5.2 19.3
4.6 19.9
4.7 19.8
4/7.78
19.45

Rear Face

3/31/21

152451

Nail in
Wood Drain over Gallery 11.76 3627 00 152451

TBM
Nail in 4th Cliff Cell 20' w Center point ^{4.80} 3+25+ 31.47

Average Ele 4th Step Curlew Cell 31.94

4.45 3182

4.5 3177

4.45 3182

4.35 3192

4.00 3227

4.20 3207

4.35 3192

7 | 223.59

31.94

3/31/21

15

Top El. of Cor in tower on March 31
Top Pipe 815 4155 153340

529 36.26

3/31/21
Bob

Set on D-16. Meas East to Nail
in Decomposed Granite Dist 2132 =
Set Hub at 1+78°

332
18.
2132
2160
2132
1581.32
1868

2+0000 Nail in Con
18
2+10 Nail in Con
991
2+1901 Nail in forms

0+2008
2 Out Tunnel
Top Form

864 49.75 1541.11
1140 38.35

38.35 1565
5.85 43.35
43.35 2165 = Dist out.

Average E1 for Block 2+1901 to 2+7291
4975

11.1 38.8
Average for Sect 398 10.4 39.4
9.7 40.1
9.0 40.8

Transferred

Book 3 Page 52

Average E1 for Block 2+901 to 2+7291
4975

Ave for Sect 40.4 11.2 38.6
10.0 39.8
8.3 41.5
8.1 41.7

Ave for Sect 40.1 11.3 38.5
10.3 38.5
8.2 41.6
8.0 41.8

Ave for Sect 40.0 11.6 38.2
10.1 39.8
9.0 40.8
8.6 41.2

Average for Block
1540.1

Transferred

Book 5 Page 52

Block from 2+1901 West to Rock Contact
4975

11.4 38.4
11.2 38.6
Ave for Sect 38.9 10.3 39.5
10.6 39.2

11.4 38.4
11.0 38.8
Ave for Sect 38.9 10.6 39.2
10.7 39.1

Average for Block
1538.5

11
Average El. for Block 2+1901 to Rock Contact
4975

	10.6	38.2
Ave for sect 378	11.4	38.4
	12.3	37.5
	12.6	37.2

Ave El. Block 2+7291 to 3+2619

El = 1532.6

Hub	8.48	49.60	1541.11
Q Tunnel			
TP Rock	0.89	37.71	1278
TP Rock	6.94	33.17	1153
		0.5	32.6

Transferred
Book 13 - Page 52

4/1/21
 Bud
 Mitter

Outline Concrete + Rock Contact
 Rt About for March Estimate

Set on D 2+00 Sight Tang
 West for zero Az Rt.

Q Tunnel
 Hub
 0+20.25

21.
 1.98 43.09 1541.11

F. Face R. Cont

3.3	51-15	48	383
4.4	23° ✓	45	386
12.6	26° ✓	3.7	394
15.0	13-15 ✓	41	390
18.7	357-30 ✓	52	379
24.2	340 ✓	5.8	373
29.8	331° ✓	6.1	370
35.1	325-30 ✓	6.5	366

End Form
 R. Contact

Platted
 4-321

1407
 5.1 38.0

Set on 66-325 meas 35 ft
 north & set hub = 66-360 for X Sections
 meas 20.14 South from 66-450 and
 set hub = 66-429.86 for X Sections

Hub 66-325	1.15	1603.73	1602.58
66-360		5.25	984.8
66-429.86		8.37	95.36
66-450		0.40	1603.33

18
 18

Crosssection 66 line for
 March Estimate

1603.73

Edge of Cut 66-370

66 1597.1

66-429.86

0.3 95.7

95.36

374.6

50+

14.0

81.7

387.4

32+

15.0

80.7

397.4

22+

15.0

80.7

403.9

15.5+

11.0

84.7

409.4

10+

3.5

92.2

414.9

4.5+

4.2

91.5

424.6

0.6

95.1

Platted
 4/1/21

64 line

64-450

1.9 90.5

1588.64

64-426 Edge of Cut

5.6

84.9

Straight Slope to Bottom

Platted
 4/1/21

1603.56 Error 23

4/1/21

Sub

Miter

Sections for March Estimate

11 Abut.

Set on 68-325 was north 35'
to hub = 68-360

Set hub at 86.96' north =
68-411.96

Hub 68-325	0.96	1613.43	1612.52
Hub 68-360		5.63	1607.80
68-411.96		12.90	1600.53

4/1/21

Section on 68 line H. Level El.

68-411.96	5.6	1606.1	1600.53
407		4.0	02.1
396		16	12.0
387		30	130
374		28	80
370			00

Platted
4/1/21

End of Cut 69 line = 00

19

1607.80
4.30
1612.10
6

4/2/21
Bob
meter

Set on 2+00
 Set nail on Contr from 2+19¹³

$$\begin{array}{r} 4087 \\ 2+6000 \\ 10 \\ \hline 2+70 \\ 33 \\ 67 \\ \hline 2+800 \text{ PC} \end{array}$$

Set on 2+80
 Nail in Yohale at 46.30 =

$$\begin{array}{r} 2+80 \\ \hline 3+26.32 \end{array}$$

at 20th Tunnel line 756 48.67

		1541.11
	524	4343
	535	4332
	530	4337
		<u>513012</u>
43.37		
<u>5</u>		
48.37	1565.00	43.37
	<u>48.37</u>	
	1.663 = Dist out.	

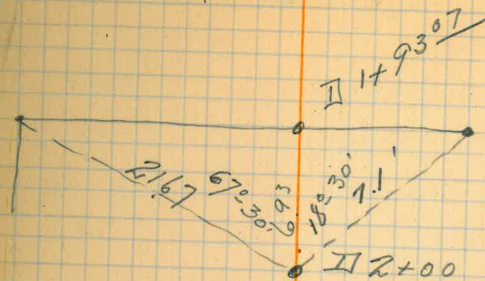
TP on drain over Jelly

		1093	37.74
Top forms.	1565.00	1045	38.22
" "	Average 38.26	1042	38.25
" "	<u>2.674 = Dist out</u>	1035	38.32

4/2/21

Bob
meter. Contr Joint.

20



Ave-Elevation Bottom Joint 1538.5

4-4-21
Sub

Outlet Tower
0+20⁰⁸

41C 28 Sight Flag East on Tangent-

1.86 42.97 1541 11

2+90
10 0-48
3+10
20 1-26
3+10
30 2-09
3+20
40 2-52
45.51
3-15.31
44.0
3-09
48.0
3-26

4.71 38.26
5
43.26

Distord 467
211 473
473
3/1413
4.71

1-09
42.58

1 51-58

42.58

1-9 3 116

2-34 56

42.58

2-76 114

3 17 54

42.58

3-59 11.2

4 00-52

1465
2803
3.657

Top of Box
T.P

AT 3+44 Sight R+80 for 3-09

2.81 31.42 12.36 30.61

16' 1-09
26 1-52
36 2-36
46 37 3-18-0
56 4-01

799 7343
50
28.43

Distord 805
794
258
366 3/2397
7.99

4-5-21

Bub

Fisher;

30' North

3700 W cableway
on side drum

T.P.

Nail in
ground

Stake

North End

Top of concrete
South End

Top of concrete

Bottom of
ReservoirBottom of
Reservoir

Nail in Ground

Cable in
Tower

End of P Line

Hub

Top of wheel

T.P.

Brake of
Road at crusher

Top of

8 Crusher

Bottom of

Head Tower

Cable in

Tail Tower

Top of # 8

Top of concrete

Base # 8

Lower End of

Screen

T.P. on step

Elevations Plant

Layout

12.26 76.59 1764.33

11.02 86.77 0.84 75.75

12.71 99.22 0.26 86.51

10.71 1807.80 2.13 97.09

39

3.92 1803.88

1.40 1806.40

13.04 1794.76

13.20 74.60

10.29 1796.80 1756.51

0.0 96.80

3.70 1755.37 1751.67

0.75 1745.77 10.35 1745.02

5.82 1739.94

4.56 1741.45 8.88 1736.89

0.0 1741.45

+0.20 1741.65

0.94 37.80 1736.89

5.70 33.43 10.07 27.73

7.37 26.06

9.01 24.42

12.31 21.11

22

374

930

1304

4-5-21
 Bob
 Fisher

Elevations Plant Layout

23

On Step -

T.P.	1.84	22.95		1721.11
Top of #5			8.47	14.48
Top of #4			9.19	13.76
Top of #1 Conveyor - Belt -			8.90	14.05
Ground Elev #8 Foundation			2.62	20.33
T.P. Peg	0.70	11.62	12.03	10.92
Ground Elev For #5 Crushed			8.10	03.52
Top of Concrete Base #5 Crushed			4.70	06.92
T.P.	0.0	04.58	7.04	04.58
			1.60	02.98

HI

		11.62		
Bottom of Tall Tower	1.28	1706.55	6.35	05.27
			0.0	1706.55

Top of Sill #9 Bent	3.09	1654.30		1659.21
Top of Belt Conveyor #2			3.53	50.77

Top of Sill #9 Bent	12.37	62.58		1650.21
------------------------	-------	-------	--	---------

Conveyor #2 Top of Belt	3.32	65.56	0.34	62.24
			1.74	64.16
				63.82



046
 70
 11.6

4-5-21			
Height of Tower #1 + 2			
8ub Fisher			
Top of Bottom of 6x10 Sheave Beams	59.04		1659.04
Tower #2	00	8384	00 1683.84
		48.97	47.40
	1.52	73.72	11.64 72.20
F.P. Cement Base on Road - Nail Near			14.26 1659.46
Nail in footing about Road level			34.66
8-450 Top of 8x12 or Bottom 6x10 Sheave Beams	10.65	1612.54	1601.89
Tower #1			00 1612.54
4-12-21			
Sag in Cable for Shutes.		70.17	
			00 70.17
	0.94		11.91
	1.39		11.83
Nail in Bulkhead at wire storage.	0.91		12.75
			5.66 31.26
Top of #5 Crusher			
	10.60	25.08	1714.48
Sag in Cableway Cable			
			00 1725.00

24

$$\begin{array}{r} \text{Top of 12x12 Post} = 1659.04 \\ \underline{2.08} \\ 1656.96 \\ \underline{1465} \\ 191.96 \text{ Height \# 2 tower} \end{array}$$

$$\begin{array}{r} \text{Top of 12x12 Post} = 1612.54 \\ \underline{2.08} \\ 1610.46 \\ \underline{1525.00} \\ 85.46 \text{ Height \# 1 tower} \end{array}$$

Now 160

4-6-21
Bub
Fisher.

At D 16 Sight Flag on Tangent - East.
Set Nail at 1+73.73

18-438.09

0.69 54.81

1554.12

Form-
1+9406

2+00

Elev 48.3

2+10

2+20

2+40

2+60

Elev 53.3

2+70

6.50

48.31

Dustent

53.31

1.17

48.31

1.67

6.51

4.48

2.51

119.50

6.50

65000

5331

71.69

20,33

1373

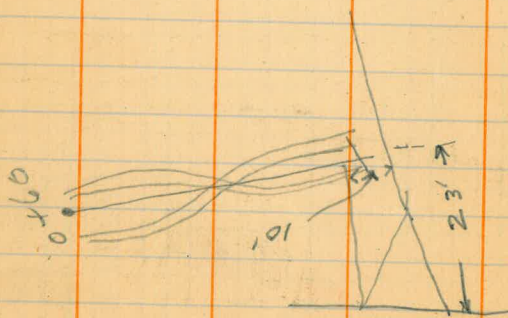
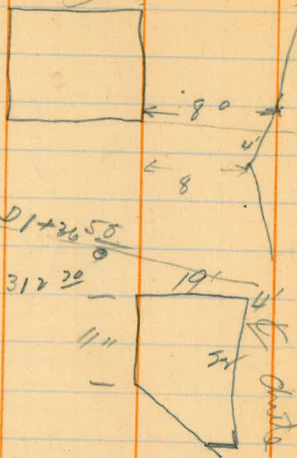
34.06

5794

4-7-21
Bue
Fisher

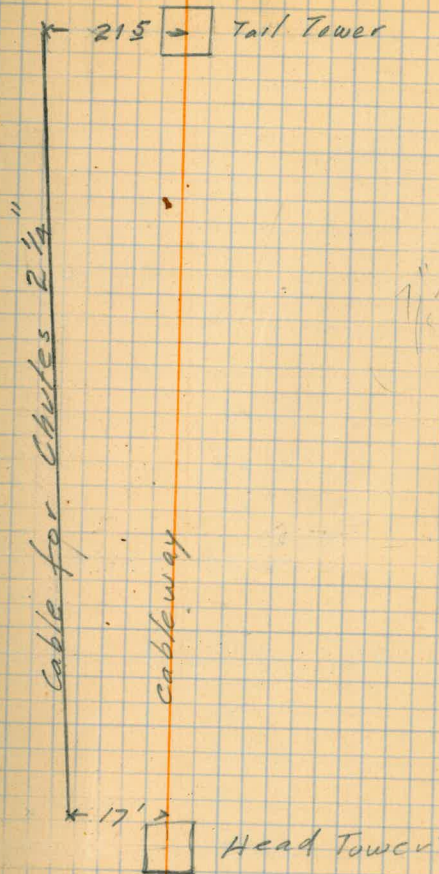
Location of Plant Construction
Buildings along concrete chute

Concrete tower #1



4-7-21
Fisher

Location of cable for
chutes - from Cableway Towers



E 75 - 436 End o cable from
Concrete Tower #1 = 7/8\"/>

4-29-21

Bub
Fiber
Mixer

Upstream Falls

Ran Intersection + Set nail C 50
At C 50 Sight East Tangent.

0.54 1550.88 1550.34.

C 50

C 51

52

53

54

55

Nail in hole.

5150.45

10'

12.38

C 48

20-0

TP

Top of Air Vent

0-43

0-53

1-26

12.49 63.13 0.24 50.64

2.81

48.07

5

53.07

At C 48 Sight C 50 for 1-26 Turn

C 45

10'

C 47

C 46

C 45

C 44

160'

~~620~~

0.43

1-26

2.09

2-52

11-2733

~~506~~

498

58.15

5

63.15

9.83 53.30

2.76

2.76

2.90

31842

2.81

65.00

53.07

11.93

6313

498

5815

58.15

5

63.15

6500

6315

185

506

497

491

31494

4.98

4-9-21
8.6
Mixer

ATC 44 Sight C 48 for 2-52

Top of Air Vent	Turn		
T.P.	2 07	55.37	53.30
160			
C28	11-27.33	Checked $\text{\textcircled{X}}$	
6.2	0-27		
10 43	0 43		
20 42	1-26	6.82	55
30 41	2-09	5	
40 40	2-52	53.55	
$\text{\textcircled{0}}$ 39	3-35		
58.26	4-10		

4-9-21
8.6
Mixer

Upstream Face Pts.

At C 3+24 - Sight C28 for 30-09

12.54	43.15	30.61
6' $\text{\textcircled{33}}$	0-26'	
16' $\text{\textcircled{34}}$	1-09	
26' $\text{\textcircled{35}}$	1-53	9.71 33.44
36' $\text{\textcircled{36}}$	2-36	
46' $\text{\textcircled{37}}$	3-19	
56' $\text{\textcircled{38}}$	4-02	

6.67
6.84
6.94
1.15 3 $\text{\textcircled{20}}$ 4.5
6.82

1-0845
42.58
1-51103
1-5243
4258
194101
23841
4258
27799
31839
4258
86197
4-0137

6500
3844
3.656
216

9.74
9.67
19.41
9.71

4-9-21

13 Bub
Fisher
Mater.

18-43F 02

Downstream Face

At 312.70 - D1136⁵⁸ - Turn 90°

3.08 57.20

1554.12

D.S.R.

5.15

52.05

13.1 44.1

8.2 49.0

3434

1525

3280

At D-1136⁵⁸

D-1136⁵⁸ Line Set

Nail 3+2F

153

23'0 1+ub. 3+357

30.7 Herb. 3+434 -

Outlet Tower
0+20.05

2.08 43.19

1541.11

Nail D.S.F

11.06 41.54 12.71 30.48

4.23

12.57 28.97 ✓

F.6.2

2/11/4
Sub
Mitter.

Block 3+27⁰⁰ to 3+81⁵⁰
Set Points from 3+20
Dist out 2.17' EI = 43.83

~~Downstream Face. Lift 1525 - 1535~~

Nail D.S.F.

~~3.21 32.18 28.97~~

~~4.31 27.87~~

4-12-21
Fisher
Mixer

Outline of Concrete -
Right Abutment.

At D 1+73.70 - Nail Sight RR East

Auxil Pt
Turn
54.93 78°

At Auxil Pt from D 1+73.70 -

D.S.F. Pt. Sight D - 1+73.70
compute Contact 3.4 0 32.37 ✓ 28.97
46.7 56-30 ✓
Cor of Form 14.8 92-0 ✓
D.S.F. Cor of Form 18.3 137-45 ✓ 4.7 27.6
D.S.F. Cor Form 14.2 232-15 ✓
R.C. Form 15.0 299-0 ✓

R.C. of Concrete

11.7 187-15 ✓ 5.0 27.4
12.4 196-15 ✓ 4.9 27.5
12.1 211-0 ✓ 4.8 27.6
15.8 235-0 ✓ 4.7 27.7
14.1 248-15 ✓ 4.7 27.7
13.2 274-45 ✓ 4.6 27.8
15.5 293-30 ✓ 4.4 28.0
D.S.F. Pt. 15.0 299 ✓ 4.4 28.0
0.0 28.97 28.97
12.9 16.0

4-12-21
Fisher
Mixer

Line of Forms

5+50.5

17.9 ✓

5+60

18.9 ✓

5+70

19.7 ✓

5+90

22.0 ✓

6+00

23.2 ✓

Platted

4-12-21

At 6+015 Sight c 50 for zero

A2 Right

Auxil pt

27.9

262-30

At Auxil Pt Sight c 6+015 for zero

13.4

103-45

Platted 4-12-21

4-13-27

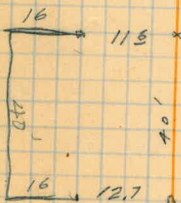
ATC 28 sight R.P. East - Turn

32	40'	12-24	42.69	1530.45
		2-52	✓	
33	50	3-35	✓	4.30 38.39
34	60	4-18	✓	5
35	70	5-01	✓	43.39
36	80	5-44	✓	
37	90	6-27	✓	
(38)	100	7-10		

Distout.

216

Line of Bull Head



566

~~4-13-21~~

16.95

10-51' ✓

34

Down Stream Elev -
1535 - Lift

15-438.09

9.52 54.64

1554.12

5.05 47.02

12.67 41.97

2.85 37.38

12.49 34.53

Nail
T.P.

1535.00

2.38 35.00

4.23 38.02

3.59 33.79

1535.00

3.02 35.00

- Check Levels -

4-14-21
Fisher
Mixer

10
M¹ in stump
BM 488

0.805 73.74.5 1572.9

T.P. 0.52 61.62 12.645 61.100

15-43809

7.51 54.11

T.P. Hub

13.055

TP Peg

0.86 49.75 12.70 48.92

& Outlet Tower

1541.12

0.7

8.69 41.09

Peg

1.27 38.53 12.52 37.26

on stump

Fillet NW corner
Outlet Tower

2.365 32.47 9.425 30.10.5

8.20 24.27

Fillet NW corner
Tower

8.205 32.505 1524.30

Top of Even

11.94 42.05 2.365 30.140

top for cable

0.92 41.18

4-21
Fisher
Mixer

Location of Form's

+
Location End of Gallery.

At D1786. 87 Sight D16 for Zen

T.P.
End of
Gallery
cor of form

1915 43.94 33.79
12.64 97.37 696 36.98

57.0 84-40 cor of form 1435

R.C. Form.

49.8 69-0 7.10 1433


Plat'd 4-15-21

Right-Abutment

At C 50 Sight East Tangent
 chained 49.83 Nail in Brace

5749.83
 Nail in Concrete
 5+70
 Nail in Concrete
 5+90
 (15.65)
 Nail in hole
 6+05 65
 14 35
 Nail in Concrete
 6+20
 Nail in Rock
 6+35

52-46811
 B.M.
 Nail in Rock
 6+35

Transferred Book 18 page 6


8.90 41.73 1532.83
 652 6.76 34.97

At C 5+70 Sight East Tangent for
 zero Az Right

Nail in Rock 6+35	6.52	41.49	1534.97
rod 6.5	23.0	295-40 ✓	40.5 352-0 ✓
1535	21.6	303-15 ✓	43.5 353-30 ✓
"	20.1	312-15 ✓	46.5 352-45 ✓
"	21.3	322-15 ✓	56.2 358-0 ✓
"	25.2	331-15 ✓	62.5 359-45 ✓
vert 10'	30.5	332-45 ✓	64.5 1-0 ✓
"	33.5	337-0 ✓	66.5 2-30 ✓
"	38.8	346-15 ✓	67.8 6-30 ✓

1435	64.8	11-30 ✓	1540	46.0	350-30 ✓
"	59.9	21-0 ✓	"	43.5	350-30 ✓
"	57.8	27-0 ✓	"	39.0	343-0 ✓
"	57.0	32-0 ✓	"	34.7	336-30 ✓
"	56.0	37-15 ✓	"	32.0	332-45 ✓
vert 5	70.0	63-0 ✓	"	26.5	328-0 ✓
vert 1.5			"	24.5	319-30 ✓
"			"	26.0	308-0 ✓
1540	69.3	59-15 ✓	"	25.5	299-0 ✓
"	59.0	37-45 ✓	"	22.5	262-0 ✓
"	58.9	31-45 ✓	"	22.0	243-0 ✓
"	60.0	25-30 ✓			
"	62.5	23-30 ✓			
"	64.0	16-15 ✓			
"	66.7	11-45 ✓			
"	68.8	8-0 ✓			
"	68.3	5-45 ✓			
"	70.0	1-15 ✓			
"	68.2	0-0 ✓			
"	64.65 ⁰	357-0 ✓			
"	57.0	353-0 ✓			
"	54.5	356-0 ✓			
"	49.5	355-15 ✓			
"	49.5	353-30 ✓			
"	47.5	352-30 ✓			

Average Elev
 for L.I.P.

12.8	28.7
12.8	28.7
11.9	29.6
11.3	30.1
10.2	31.3
10.0	31.5
10.0	31.5
} 2114	
} 30.2	

4-15-21

524
Fisher
Mixer

At B-56-450 Sight Center for Zen
Az Right

856		425	54.59	155034
Rod 9.6	21.3	30-0 ✓		
1545	23.0	25.45 ✓		
"	24.1	9.0 ✓		
"	27.9	345-30 ✓		
"	29.5	334-0 ✓		

At B58 Sight Center for Zen Az Right.

1550		12.94	1563.24	155034
Rod 132				
1550	22.7	50-30 ✓		
"	24.2	41-0 ✓		
	22.8	26-0 ✓		
	22.7	9-30 ✓		
	22.3	358-15 ✓		

4-16-21
Fisher
Mixer

Gallery Pt.
5+59.0L

on 400' R

At C 5+70 chained North 4.99 set

50°-65'
14.31 = 16'0"

Nail = 5+65.0L = Set on 5+65.0L Turn

90° chain 8.2' = 5+59.0L-392R-Gallery Pt.

Nail in Bank
6+35

6.80 41.77 1534.97

Gallery Pt.
5+44.70

1540.016 1.81 39.96

Gallery Pt.
Nail.

1547.171 F7.88 = 7'-10 1/2" 2.48 39.29

Grade next 16' sec. 1554.326.

Upstream Face Pts

5+49.83 to 6+04.25

6+35 7.90 42.87 1534.97

4.91 37.96

5-

43.00

483

490

500

1073

491

4-16-21

Fisher
Mixer

Check Levels across Dam-

40

16-468 B.M.	0.54	1573.48		1572.94
on Rock T.P.	1.32	62.44	12.36	61.12
Nail in Post	0.34	50.76	12.02	50.42
Outlet Tower			9.62	41.14
0+20 of T.P. Peak 17' above			9.66	41.10
Nail in Lift			5.99	
Grade for Lift in Dam			2.17	
Nail in Board for measurement down			5.76	45.00
Nail in Concrete - Cover at Runway			10.20	40.56
Nail in Post	3.38	53.80		50.42
Top of Air Vent			0.54	53.26
Top of Air Vent			6.90	46.90
Top of Air Vent	9.33	62.61	0.52	53.28
Top of Air Vent			0.08	62.53
			3.09	59.52

4-16-21
Fisher
Mixer.

D.S. F Lift

-EI-1465-1475-

Ran Intersection of 28-287.13 -
Occupy Pt. Sight 10' for 10' -
measured 17' - Turned 10' - 51' for
Intersection -

Occupy 28-287.13 Sight Center
for 90°

23'	2°-29	check nail by 0.02
33	3°-29	
41	4-09	Intersection of Forms

287.13 | 5.9864 = Deflection 1' ft

1718.870000	
143565	
283220	
258417	
248030	
229704	
183260	
172278	
109820	

*1

59.864
60
51.840
0°-59-51.84"

3+40	400 ; 20 ; 287.12 ; x
2+80	20
60	4 574240
	14.356 cord ✓
	7.178 end ✓

4/19/21
Bub
Mixer

Upstream Points Rt Abut.

Set on Nail 1+73⁷⁰

meas 2048 East 1/2 nail in Form = 494¹⁸

Set 2+00 - 2+10

1288 53.99 1541.11

568 48.31

562 48.37

546 48.53

Average EI 48.34

1565.00

48.34

1.666 - 0.50 = 1.17 out.

18-438⁰⁹

122 55.34

1554.12

4/19/21 Bub-Mixer

42

Downstream Exc Points

60-250	407	72.28		68.21
Hub 58-325	0.36	62.39	1025	62.03
Hub 56-325			852	53.87

Set 58-328 - 56-328 - 55-328 for
Downstream Exc, using EI 1515 as
solid rock.

Block - 4+86.5 to 5+50.8 $\frac{8.5+50.8}{5}$
to 6+05.8

Upstream Face Points Lt Abut

Set C-50 by Intersection

Set C-4+90 - 5+10 - 5+20 - 5+20 - 5+40 - 5+44

5+50 - 5+60 - 5+70 - 5+80 - 5+90 - 6+00

Block 5+50.8 to 6+05.8

B-450-56 280 53.14 1550.34

Ave EI = 43.09

1565.00

48.09

1.691 = dirt out.

10.13 43.01

10.05 43.09

9.95 43.19

Block 4+86.5 to 5+50.8

Average EI = 48.07

1565.00

53.07

1.193 = dirt out.

5.15 47.99

5.09 48.05

4.98 48.16

4/19-20-21

Bub
Fished
Mixed

Upstream Points Center

Block 3+27 to 3+81⁵⁰

Set on 3+80 set nail in form
at 46.3 = 3+26³⁰

diff $\frac{46.3}{3.7} = 3-18-57$

50.0 3-34-52

3+30

3+40

3+50

3+60

3+70

3+80

4-17-50

5-00-48

5-43-46

6-26-45

7-09-43

Top of
AW Vent

1.07

54.33

1553.26

10.73

43.60

500

48.6

Distrod 10.70

10.69

10.72

164 10.80

429'1

10.73

4-20-21

Tie to Forms Construction Joint

At 34-274.14 sight C34 for

Zero Az Right.

37.9 350-20

At 34-360' chained west 12' west

To Form.

Apr 20-21
Bub
Fisher
Mixer

34-Line Pts

At 34-274.14 - chained

49.40 = 34-273.54

50.87 = 34-325 - + on Rocks. 325.06

Face First
Lift of Curtain
wall

85.96 - 34-360-10

Pencil
+ on Concrete

85.73 = 34-359.87

38.94
22-25

At. 34-325 - chained

Vert Angle.

- 38.94 22°-25 corrected Dist. 36.00

4-20-21

Bob
Fisher
Mixer18-438⁰⁹

1794.33

20 67

21 00

26.30

2 10

36730

45.30

2+19

4-21-21

Bob
Fisher
Mixer.

At D. 1+73.70 - Chained

6.62

60.74

1554.12

7.31

53.43

5 00

58.43

58.43

Set C28 Measured from D27-10'-set nail

At C28 Sight R.P. East for Zero Turn.

D 2770

C29

10

C30

20

C31

30

C32

40

C32+9

44.9

5.81

1554.64

1548.85

0-46

11.37

43.27

1-26

Elev

48.27

2-09

2-52

3-03

7.42

7.36

7.16

7.94

7.31

Distant

0.86

Distant

1.67

45

Bob 4/23/21
Fisher
Mixer

Set nail at 1+86⁸⁶ - 400' Radius.

1+86⁸⁶

At C 28 - Sight A.P. East for Zero Turn

D 2+70	4.70	53.55	1548.85
10	0-43 ✓		
20	1-26 ✓		
30	2-09 ✓	528	48.27
40	2-52 ✓		<u>5</u>
50	3-35 ✓		48.3
60	4-18 ✓		
70	5-01 ✓	488	48.67
80	5-44 ✓		<u>5</u>
90	6-27 ✓		53.7
1+00	7-10 ✓		
1+10	7.53		

Nail in Concrete

Outout.	5.24
	<u>53.1</u>
	108.5
	<u>528</u>
1.17	
	4.88 ✓

1.13

4/21/21
Bvd
Fisher
Mixer.

Outline of Concrete

6+35

At C 6+30 Sight 50 ft Zero

6+35

2.93 37.90 1534.97

20.1	16-10 ✓	5.1	32.8
15.9	13-45 ✓	5.1	32.8
14.5	17-0 ✓	5.1	32.8
3.8	150-0 ✓	4.3	33.6
3.2	224-45 ✓	5.6	32.3
8.7	249-0 ✓	5.9	32.0
11.9	269-0 ✓	6.1	31.8
16.6	269-0 ✓	5.9	32.0
22.3	281-0 ✓	5.7	32.2
27.8	285-30 ✓	6.5	31.4

Platted
4-26-21

Final Topog -

At B-58-450 - Sight 50 ft for Ben

Auxil Pt.
1206

15.07 349.05

At Auxil Pt Sight B-58 for Zero

B 58

4.1 63.60 1559.50

Red 135

Red 85

15.50

9.5 198-30 ✓ 22.5 146-45 ✓

11.0 173-30 ✓ 18.7 152-45 ✓

18.0 156-30 ✓ 13.4 159-0 ✓

22.6 149-0 ✓ 8.8 171-45 ✓

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1555

5.7 178-30 ✓

3

4.5 225-15 ✓

"

8.5 268-30 ✓

"

11.8 306-30 ✓

Red 3.5

1560

7.2 2-15 ✓

"

2.3 112-15 ✓

"

6.2 130-0 ✓

"

11.1 145-30 ✓

"

15.9 152-10 ✓

"

21.5 144-30 ✓

"

26.4 140-0 ✓

"

29.5 136-30 ✓

"

31.5 133-15 ✓

"

39.3 134-0 ✓

(55)

43.0 138-45 ✓

(55)

43.5 136-30 ✓

Transferred Book 19 page 7

Platted
ap 7 ay 3 1921

42-621

Bub
Fisher
Mistral

Final Topog

Nail in Rock		71.30	82.76		1571.46
62-428				6.55	75.91
	AP 62	-428	Sight Center for Zero	Az	Rt
62-428	3	3.57	79.48		75.91
Rod 14.5					8
1565	23.5	91-15	✓	10.0	82-45
"	19.0	74-30	✓	12.7	98.0
"	14.7	62-30	✓		
"	11.2	53-0	✓	15.75	44
	9.3	25-0	✓	"	3.0
	11.1	7-0	✓	"	4.2
	11.8	346-45	✓	"	9.9
	14.5	321-45	✓		
	17.2	314-30	✓		
1560	(20.0)	328-0	✓		
1565	25.4	366-45	✓		
1560	(25.3)	313-15	✓		
Rod 9.5					
1570	24.7	300-0	✓		
	17-0	308-15	✓		
	14-0	309-30	✓		
	13-0	329-30	✓		
	7.9	355-0	✓		
	7.6	25-30	✓		
	9.3	57-45	✓		

Platted
May 3 1971

4-24-21

Bub
Fisher
Mistral

Final Topog

48

At 64	=	428.92	Sight center for Zero	Az	Right
64-450		1.27	89.65		1588.48
Rod 14.5					
1575	10.2	45-15	✓		
"	5.5	12-15	✓		
"	18.0	340-30	✓		
1580	17.8	322-45	✓		
"	13.8	327-45	✓		
"	10.1	331-30	✓		
"	6.9	8-30	✓		
"	8.1	55-0	✓		
"	13-0	69-30	✓		
"	14.7	86-30	✓		
At 66	-429	56	Sight Center for Zero	Az	Rt
		3.43	78.94		1595.41
Rod 13.8					
1585	23.4	95-30	✓	16.7	354-30
	23.5	81-0	✓	14.2	1-0
	16.5	62-30	✓	11.0	17-0
	16.9	29-0	✓	11.0	37-30
	18.5	16-0	✓	9.9	57-0
	23.5	3-30	✓	15.2	71-0
1590	22.9	345-0	✓	17-0	78-15
	21.2	356-0	✓	13.7	87-0
				14.5	112-30

Platted
May 3 1971

4-26-21
806
Fisher
Hinter

RP 34- Line - Pts

At 34-32501 Chained -

Curtain Wall

	325.01	
^	<u>34.86</u>	
Nail Butt Gfl.	359.87	
	<u>1.15</u>	
+ on concrete.	361.02 ✓	
Lift #1	<u>2.49</u>	
Nail & Lift	363.51 ✓	
#1	<u>3.02</u>	
+ Cross-Butt #2	366.53	
Lift	<u>0.78</u>	
+ Lift #2	367.31	
	<u>2.27</u> - 2.27	
Nail & Lift #2	369.58	
	<u>2.39</u> ✓	
+ Butt Lift #3	371.97 ✓	
	<u>70</u> ✓	
+ Lift #3	372.67	
	<u>2.61</u> ✓	
& Lift #3	375.28	
Nail -	<u>3.96</u> ✓	
+ Butt Lift #4	379.24	382.36
	<u>3.12</u> ✓	<u>2.64</u>
Nail & Lift #4	382.36	385.00
	<u>1.34</u> ✓	
Butt Lift #5	383.70 ✓	
	<u>1.9</u>	
	383.89	
	<u>16.04</u>	
	399.93	

These Distances are Correct -

Use

Nail
Face
Lift #5

4/26-21
Sub
Fisher
Mixter

At 34-274 1/4 Sight 34-360 1/2
for Zen A-2 Right.

34-274 1/4 5.09 72.14 1467.05

1465-75-
Cor Form 17.3 316-45 2.1 70.0

Cor For
Contract on 7. 21.5 325-30 2.1 70.0

Cor Form 18.8 346-45 2.1 70.0

Platted
4-30-21

34-274 1/4 11.31 78.36 1467.05

TOT

1475.00 3.36 1475.00

4/26/21
 78
 T. N. H. H.
 N. K. P.
 Tip of Rock

Section 5 in Bottom
 For Concrete Est.
 East of Contraction Joint

1.24 74.06 1472.82

Curtain Wall = 0-0 on Station

Contraction Joint = 0-0 Section

0-0 Section (4.7)

0.0	6.9	67.2 ✓
10.1	7.6	66.5 ✓
18.2	7.5	66.6 ✓
25.0	6.1	68.0 ✓
35.4	5.2	68.9 ✓
43.6	5.7	68.4 ✓
52.0	6.7	67.4 ✓
52.0	9.8	64.3 ✓
58.9	10.0	64.1 ✓
70.0	10.7	63.4 ✓

12' between sections

Section 1

0+12

70.6	9.7	64.4 ✓
62.6	10.7	63.4 ✓
50.2	9.4	64.7 ✓
50.2	5.0	69.1 ✓
35.0	4.6	69.5 ✓
22.0	5.7	68.4 ✓
10.8	7.3	66.8 ✓
0.0	6.3	67.8 ✓

Post 18 = 0+28 ✓

Section

74.1

51

0+28

74.06

0.0	6.3	67.8 ✓
9.0	5.4	68.7 ✓
18.2	4.1	70.0 ✓
31.6	3.8	70.3 ✓
48.2	3.9	70.7 ✓
48.2	8.7	65.4 ✓
58.8	10.2	63.9 ✓
65.0	10.0	64.1 ✓
73.6	6.3	67.8 ✓
85.9	8.7	65.4 ✓

0+38

Section 3

0.0	6.2	67.9 ✓
7.2	5.0	69.1 ✓
15.2	4.9	69.2 ✓
27.8	3.3	70.8 ✓
34.5	4.4	69.7 ✓
45.2	4.8	69.3 ✓
45.2	9.7	64.4 ✓
61.2	9.6	64.5 ✓
72.5	2.2	71.9 ✓
76.4	2.3	71.8 ✓
82.7	8.5	65.6 ✓ 75.6 ✓

Platted
 4-27-21

4/26/21
 806
 Fisher
 Mixer

Sections in Bottom
 For Concrete Yardage April EST

0+44.2 line

7406

810	5.5	68.6
788	+0.5	74.6
62.7	88	65.3
52.0	10.2	63.9
38.6	9.3	64.5
38.6	5.3	68.8
23.2	6.0	68.1
12.3	6.0	68.1
00	6.3	67.8

Platted 4-27-21

1.32 7414

(57)

1472.82

0+51 line

10.3	63.8
9.5	64.6
8.2	65.9
6.7	67.4
+0.5	74.6
4.5	69.6

0+61

7.7	66.4
7.1	67.0
8.9	65.2
8.9	65.2
8.9	65.2

Platted
 4-27-21

50
 16.9
 30.0
 3.7
 4.3
 4.8
 (10)
 00
 7.3
 21.2
 38.6
 41.7

52

(7.414)

(71)

0+71

00
 15.2
 33.1
 10
 11.3
 23.5

7.8	66.3
8.8	65.3
9.5	64.6
9.5	64.6
9.8	64.8
9.5	64.6

0+80

Platted 4-27-21

add 8 cu yd to
 sections

add 15 cu yds
 spilled - will not be
 removed

4/27/21
 526
 Fisher
 Mixer
 Top of
 2 ft.

Outline of Concrete.

At D 1+86 E^s Sight 616 for zero Rt

	8.5	43.5	1435.0
7.5	163-10	3.6	39.9
5.8	108-0	4.0	39.5
4.7	3-0	5.0	38.5
9.2	327-30	5.5	38.0
25.7	307-5	6.9	36.6
29.6	308-15	6.9	36.6
33.4	302-45	7.1	36.4
37.6	303-45	7.1	36.4
49.5	291.0	9.6	33.9
53.0	285-45	10.0	33.5
	276-30		
Average Ele Block 1		9.1	34.4
BK 2 Average Ele.		5.5	38.0

Elev of Tower

L Tower 0+20.08	11.18	52.29	1541.11
Top of outside Form		3.46	48.83
Top of Inside Form		3.75	48.51
Top of Concrete Reduction of wall to 28"	4/28/21	4.0	48.3
		11.85	40.44

km

53

Outlet Tower 0+20.05	9.50	50.61	1541.11
Top of Tee		11.71	38.90
Inside Bell		12.10	38.51
Top of Last Horiz. Steel Hoop		4.1	46.5

Inside Ladder - Below Elev. 48.51 =

19 Guards
 36 Steps

Outside Ladder Below Elev. 48.83

1 Guard
 7 Steps

24 rails above Elev. 44.6 - or Concrete.

6 - 255	1
6 - 28.0	
1 - 11	
1 - 1.2	
6 - 13.5	
1 - 22.0	
1 - 22.5	
1 - 15.5	
1 - 10.5	✓

4/27/21
 Sub
 Fiber
 Mix for
 1+99-43

Sections over Top of
 Curtain Wall for Est. April.

	3.13	58.17	55.04
400R-00	2+1843		
-1.7	2+18		
10		9.6	48.6 ✓
5		9.4	48.8 ✓
11.6		8.7	49.5 ✓
		8.0	50.2 ✓
	2+30		
1.7		9.8	48.4 ✓
0.0		9.8	48.4 ✓
4.5		8.5	49.7 ✓
7.8		7.7	50.5 ✓
13.5		7.4	49.8 ✓

	2+40		
-1.7		9.7	48.5 ✓
0.0		9.7	48.5 ✓
5.0		7.2	51.0 ✓
13.5		6.5	51.7 ✓

	2+70	7.0	55.85	1548.85
		2+50		
-1.7		7.4	48.5 ✓	
0.0		6.9	49.0 ✓	
4.5		5.9	50.0 ✓	
13.8		4.5	51.4 ✓	

Platted
 4-27-21

	55.85	
2+60		
-1.7	7.5	48.4 ✓
0.0	7.0	48.9 ✓
7.7	5.9	50.0 ✓
14.0	4.5	51.4 ✓
	2+80	
-1.7	7.3	48.6 ✓
0.0	7.2	48.7 ✓
4.5	6.6	49.3 ✓
8.0	5.6	50.3 ✓
9.7	4.7	51.2 ✓
14.4	5.3	50.6 ✓
	3+00	
-1.7	7.4	48.5 ✓
0.0	7.4	48.5 ✓
4.5	6.5	49.3 ✓
10.6	5.6	50.3 ✓
14.6	5.4	50.5 ✓
	3+20	
-1.7	7.5	48.4 ✓
0.0	7.5	48.4 ✓
5.4	6.5	49.4 ✓
9.3	6.5	49.4 ✓
10.9	5.3	50.6 ✓
14.3	5.3	50.6 ✓

Platted
 4-27-21

4/27/21

55 5585

3+40

1.7	71	48.8 ✓
0.0	71	48.8 ✓
3.8	64	49.5 ✓
9.0	49	51.0 ✓
14.9	50	50.9 ✓

3+60

-1.7	72	48.7 ✓
0.0	68	49.1 ✓
6.0	54	50.5 ✓
10.5	49	51.0 ✓
14.8	49	51.0 ✓

3+80

-1.7	71	48.8 ✓
0.0	71	48.8 ✓
8.5	62	49.7 ✓
14.7	57	50.2 ✓

4+100

-1.7	73	48.6 ✓
0.0	73	48.6 ✓
5.9	67	49.2 ✓
11.5	56	50.3 ✓
15.5	54	50.5 ✓

✓

Plotted 4-27-21

5585

55

4+20

-0.7	73	48.6
0.0	73	48.6
4.9	60	49.9
7.3	54	50.5
10.9	42	51.7
14.9	42	51.7
	44	51.5

4+36 - Joint

1.7	74	48.5
0.0	71	48.8
4.9	53	50.6
10.0	40	51.9
13.7	37	52.2

658

326 65.79

1562.53

-0.7	74	58.4 ✓
0.0	74	58.4 ✓
6.3	62	59.6 ✓
9.6	47	61.1 ✓
13.6	47	61.1 ✓
0.7	75	58.3 ✓
0.0	75	58.3 ✓
2.6	70	58.8 ✓
10.4	46	61.2 ✓
15.5	46	61.2 ✓

4+40

Plotted 4-27-21

24/27/21

65.79

4760

- 0.7	74	58.4 ✓
00	74	58.4 ✓
4.0	67	59.1 ✓
10.0	48	61.0 ✓
13.2	48	61.0 ✓

47865

0.7	7.7	58.1 ✓
0.0	7.7	58.1 ✓
6.2	6.5	59.3 ✓
10.9	5.3	60.5 ✓
13.6	5.3	60.5 ✓

Top of Form

1.18 53.72

47865

1.7	54	48.3 ✓
00	54	48.3 ✓
6.5	38	49.9 ✓
13.4	3.0	50.7 ✓

5100

1.7	57	48.0
00	54	48.3
8.8	2.3	51.4
13.2	2.6	57.1

✓

56

53.72

5720

- 1.7	54	48.3 ✓
00	48	48.9 ✓
8.5	30	50.7 ✓
11.7	14	52.3 ✓
16.5	0.9	52.8 ✓

5740

1.7	54	48.1 ✓
10	50	48.7
8.2	4.5	49.2

11.7	3.6	50.1
17.7	3.8	49.9

5750.5 Joint -

1.7	56	48.1
10	56	48.1
7.4	4.6	49.1
13.2	2.3	51.4
18.3	2.3	51.4

Average readings Block 5750.5 - 6705.80
5377 ✓

average EI 43.7

10.6 43.1

10.4 43.3

10.3 43.4

10.7 43.5

10.7 43.5

Ave EI = 43.5

✓

4/27/21

Block - 5+50.5 - 6+0580

5372

Average EI = 44.40	9.3	44.4
	8.8	44.9
	9.3	44.4

43.7
43.5
44.4
3 | 131.1
EI 43.7 = Ave EI of Block.

Ave EI of Block 6+0580 to Rock Crct.
1532.0

Ave EI of Block - Rock Contact
to 1+9307

South Half = EI - 344

North Half = EI - 380

Block 1+9307 to 2+183

EI = 1554.3

4/29/21
806
Fisher
Mixer.

Sections in Bottom for Concrete

Est - April
West of Contraction Joint

7.97 80.79 1472.82
Contraction Joint: 00

00	6.9	73.9
24.6	6.1	74.7
32.5	9.0	78.9
50.3	8.8	72.0
67.8	10.7	70.1
67.8	16.0	64.8
72.8	16.0	64.8

0+08

All readings the same to 67.8

67.8	10.5	70.4
67.8	15.5	65.3
72.8	15.5	65.3
79.8	17.0	63.8

0+08

72.8	10.7	70.1
72.8	16.1	64.7
79.8	17.0	63.8

0+18

00	4.4	76.4
15.5	3.4	77.4
28.4	3.8	77.0
40.6	5.7	75.1

808

0+18

56.3	56.5	73.0	73.2	76.1
		Form		RC.

0+28

00	10.7	28.3	35.8
----	------	------	------

54.2

64.6

73.4 Form

0+38

00

22.9

42.4

49.2

63.4

72.7

72.7

82.7

58

54	75.4
95	71.3
108	70.0
15.6	65.2
15.6	65.2

2.9	77.9
2.5	78.3
3.2	77.6
4.8	76.0
5.4	75.4

9.2	71.6
10.5	70.3

4.2	76.6
5.2	75.6
5.0	75.8
7.2	73.6
8.7	72.1

10.6	70.2
	65.0
	69.7

80.8

0+48

00		22	78.6 ✓
4.9		3.2	77.6 ✓
25.7		4.2	76.6 ✓
41.2		3.6	77.2 ✓
55.3		8.0	72.8 ✓
59.4		8.2	72.6 ✓
72.4	Forms	10.6	70.2 ✓
72.4			65.0 ✓
82.4			64.7 ✓
00		7.4	79.4 ✓
16.0		2.4	78.4 ✓
18.9		1.7	79.1 ✓
28.8		3.7	77.1 ✓
33.6		2.4	78.4 ✓
39.2		3.2	77.6 ✓
52.6		7.4	73.4 ✓
72.1	Forms	10.7	70.1 ✓
86.1	0+68		
00		3.0	77.8 ✓
28.8		3.6	77.2 ✓
37.7		5.6	75.2 ✓
47.5		6.3	74.5 ✓
53.3		8.2	72.6 ✓
69.0		9.0	71.8 ✓
72.1		10.2	70.6 ✓

80.8

0+75

59

00		3.6	77.2
23.7		3.8	77.0
31.6		5.5	75.3
51.1		8.4	72.4
65.4	RC	9.3	71.5

0+78

00 section

add Batches of April 30 1921

3-5-31
Fisher
Mixer
Top of
Pipe

Tower Elev

8.61 42.01 ✓

1533.40

1534.52 ✓

7.49 ✓

1534.52

33.52

9.33

32.68

.84 = 10" low -

33.52

9.65

32.36

33.52

9.27

32.74

3

34.52

3-30-21

Fisher
Mixer.Outlet Tower -
Bottom Elev of Saucer Valve

Top of Pipe 9.13 42.53 153340

Bot. of
Saucer Valve 1534.92 (1534.52) 7.61 34.92 (34.52)HI = 44
1846.74

Sect 60' South Hole #1

Cliff Downy	77'	181-45	00	40
	78'	170	about 15' lower	
	78	189-30	00	00
Vert up 13'	80	196-15	+5°	44

Sect 80 South Hole #1

13' out East 20' lower	95	180-30	00	0.7
Downy Cliff	97	173-0	about 20' lower	
1/2 top - 10' higher	95	185-30	+2-45	4.4
Vert up 8	98	193	+6°-52'	4.4

Sect 100 South Hole #1

Edge 6' East 3' lower	115'	179-30	00	2.4
	116'	182	+2°-7'	4.4
Level - 10	115'	184-30	+2°-15'	4.4
Vert 14' up	120'	192	+6-30	4.4

Sect 120 South Hole #1

Edge Cliff	135'	179-15	00	3.6
	135'	184-15	+1°-15'	4.4
Vert 16' up	137'	187-15	+2-50	4.4
Hub 3-5+18 ²² check	110-10			

Copied in Book 20 Pg 10

Job 1
Mittell June 23 1921

61

HI = 4.39
1816.98

Quarry Sections

1812.59

Set on 4+37.5 Sight 3+95

for Zero Az Rt.

Blast Hole #2 129' - 55°-44' - 9.33 Rad. Vert A 00

1847.31

HI = 4.43
1846.74 Set over hole #2 Sight 4+37.5 for Zero Az Rt.

121 48.98 1847.77

Top Plug Hole #2 6.67 1842.31

Section 20' South Hole #1

Dist	Hor Ang	Rad	Vert An.
40'	175°30'	9.0	00
Edge Cliff	41'	170	11.0 00
	38	188	4.7 00
	39	200	4.1 00
	41	202-40	0.9 00

Section 40' South Hole #1

	60	183°	6.5	00
Downy	60	166	20' lower	
	58	187	3.2	00
	60	196	2.1	00
	61	192-40	4.4	+5-30
	63	203-30	4.4	+12°

See Opp. Page

Copied in Book 20 Pg 10

5-2-21
 Fisher
 Mixer

Down stream Radius —
 D.S. F. Dam. Lift 1475-85

At 38-325 Sight Center for 90°

Turn —

(30.47)
 = 34
 6.99
 926
 632

2°-52
 3°-29
 4°-18'

At 32-325 Sight 38-325 for

4°-18'

8.175
 16.250
 50
 28-325
 32.50

0-43
 1-26
 2-09
 2-52

At 28-325 Sight 37-325 for 2°-52

Turn

90°-0

MISS NAIL RP 2.85

Chained
 295.63
 29.37

5
 290.63
 34.37
 for 28-250
 74.96 -

error - 0.04

At 28-295.63 - Sight center For 90° Turn

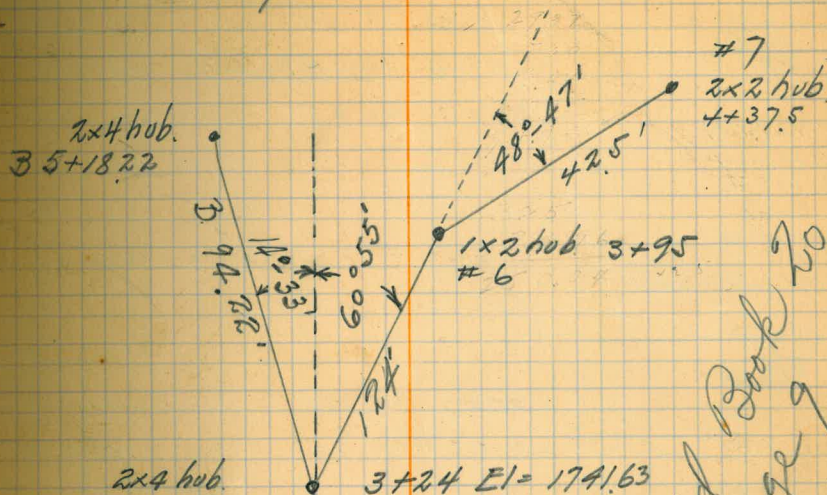
10
 20
 30
 39
 39.5

0-58.14
 1°-56.28
 2°-54.42
 3°-46.76
 3 49

Sub. Mitter. June 23-1921

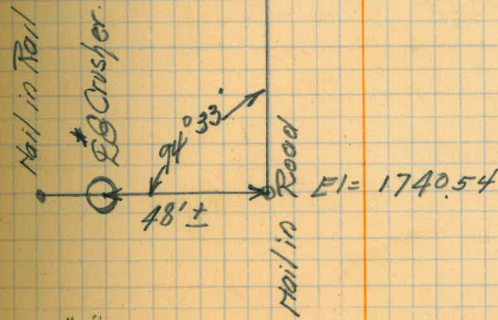
Quarry Reference Points

62



Original Book No
 Page 9

x Cross on Road 2+48.55



See page 64
 for shots

B19 Hub P Line	0.87	1752.54		1751.67
Nail 0+00	53.5	45.89	12.00	40.54
3+24 Hub	6.63	48.26	42.6	41.63
B-4+1822 Hub		264		45.62

5/2/21
Fisher
Mixer

7
on Rock
TP

19' NW Hole #1
B.M. Nail
L.H. # 4
Hole #1
Top of Rock
B.M.
100' North of Drill

5/10/21
Bob
Fisher

NW corner outlet
Tower Fillet

Top of Fillet

Top of Fillet

5/16/21
Bob
Fisher

Top of
casing -
Top of
Hole #2

Levels for Star Blast Hole Drill
Lift # 4

12.96	25.55	1812.59
12.26	37.45	0.36 25.19
13.05	49.97	0.53 36.92
		2.20 847.77
		11.80 38.17
		3.84 46.13

Elevation Fillet Outlet Tower

6.87	31.17	1524.30
		2.50 28.67
		11.1 20.1

Plotted 5/10-21

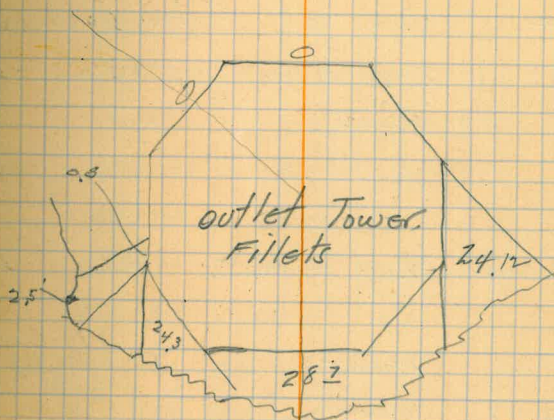
Elevation of Hole #2 Star Drill

1.5	49.27	1847.77
		6.0 1843.3
		7.0 1842.3

30' out to edge

63

Quarry Floor Elev.
1743.5



5/4/21

Bob Witter. Grades for Downstream Forms

plat in lift #1 C wall
34-363⁵¹

115 1489.94 1488.79
4.94 1485.00

5/10/21
BUB
Fisher

— Outline of Fillet East Tangent —

At C 6+30 Sight C 50 for zero

Az Right

2.54 37.51 1534.97

Average El. of Fillet 8.0 29.5

Cor Fillet

R.C.	31.7	19-45
RC	26.8	19-45
RC	23.2	17-45
	21.9	17-45

Plated 5/10/21

June 23/1921

Witter

Shot # 3

BUB

Quarry Topog Blast Drill Holes

MI = 50.78

MI = 4.66

3+4 Hub

On B 5+18²² Sight 3+24 for Zero Sight

865 50.38

1741.63

Stadia Dist Az Vert Angle Rod

158	347°30	0.0	6.8 ✓
160	325°15	00	5.1 ✓
168	319°20	+3°52'	4.7 ✓
160	309°	00	00 ✓
147	302-17	00	36 ✓
135	297-0	+4°10'	4.7 ✓
134	280-20	+10°50'	4.7 ✓
145	272-30	+17°6'	4.7 ✓
142	260-25	+15°22'	4.7 ✓
132	252-10	+11°45'	4.7 ✓
153	241-37	+13°26'	4.7 ✓
153	236-45	+12°27'	4.7 ✓
171	230-08	+13°	4.7 ✓
184	225-52	+13°	4.7 ✓
202	221-30	+12°51'	4.7 ✓
225	218-30	+16°6'	4.7 ✓

See page 61

Copied Book 20 pg 9

5/13/21
Bryson
Fisher
Mixer

Downstream Face -
Elev 1485-95

Obained from 28-290-63

386
294.49
9.24
303.73

Nail in whale

Nail in concrete

Occupy 28-303.73 Sight Center
Turn 90° Set 10' Points West-
Tangent.

5/13/21
Bryson
Fisher
Mixer

Occupy 28-303.73 Sight Center
for 90° Turn

10'	0-56-36
20'	1-53
30	2-50
39.5	3-43

65

303.73 Radius -

10' - 0-56-36

20 - 1-53

30 - 2-50

39.5 = 3-43

40 - 3-46

0-5.6593 m + t

5/16/21

Sub

Fisher

Location of 16" pipe thru Dam

66

At 34-274.14 sight C-34 ft

Zero Az At

Contigut with formate 5.5 72.55 1467.05

Line of Form 30.5 349.30

end of pipe 40.4 39.30

2.1

Bott 4.5 68.1

line thru Elev

line of Form 47.3 53.35

Dist from
Concrete Gate Top 63.4From Lip of
forms to R.C. 13.7

Dist from 27

Tower #2 25

5-16-21 - Elev of Concrete Tower -

0.53 61.64 1561.11

13.00 48.6

Top of Last Hoop. 11.0 50.6 ✓

✓

5/17/21

Bv6
Fisher

Location of Star Drill Hole
Line reestablished -

At $\square 2=3+24$ - Sight $\square 1$ for 180°

HI
4.93

4.93
Vert angle
165 60-52 29-44⁴⁷ 4 10(493) (165)
575

HI
4.46

At $\square 6$ Sight $\square 7$ for 180°

vert angle
29-47⁴⁷ 360 (442) 165
525

1817.05
HI: 4.46

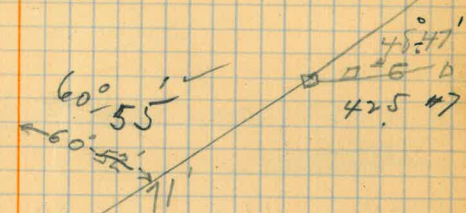
At $\square 6$ Sight $\square 7$ for 180° - Turn

#7

446 17.95 1812.59
69.0 48-47' 38-14' 451-446
412

Corrected Dist. Diff Elev

124.0 71.0



Sub. $\square 2$ 3+24

x on Rock 2+48.55

Bolt at 1+88.8

Bolt at 1700

Walt

Nail on guard rail

Cluster

Cluster 48.0

94
320
324
See Book 70
pages 9-10-11

AT 46

BM	4.62				
4+37.5	4.11	511.88		47.77	
			4.62	47.26	
Hole #1	150"	54-45	11.0	40.9	
Hole #2	129.5	55-45	8.8	43.1	
		56			
Hole #3	110	56-40			
Hole #4	192.0	57-0			
	out at to Face				
Hole #1	29.0	00	40.9	40.9	
Top of cliff	29		9.7	31.2	
	13		27	38.2	
	14		61	34.5	
Hole #2	24	00	43.1	43.1	
	24		12.2	30.9	
	29		21.2	22.0	
	150		7.5	35.6	
Top of Casing #3		435			
	25		14.3	29.2	
	28		19.0	24.5	
	13		6.9	36.6	

6.6

R.P.s & Elevations on 34 line

Nail lift #1-34	363.51	1488.79
Nail " #2-34	369.58	1498.59 ✓
Nail " #3-34	375.28	1508.88 ✓
Nail " #4-34	382.36	1529.79 ✓
Nail in Wall between #4 & #1 lift = 34	385.00	
Nail in Top stringer supporting Concrete Hopper in #7 Concrete Taper	1419.56	
Top of casing #4	00	40.7
		40.7
		8
		46
		23
		13.5
		27.2
		1812.6
		2.5 - 1815.1
		12.5
		02.6
		29
		02.6

- New Points -

28 Line.

28-376 Nail in whale
Nail in Lift #3 curtain Wall
28-374-50 Nail in Lift #2 " "
28-369 Nail in Lift #1 curtain Wall
28-364 Nail
28-310 Nail in Concrete. L
28-260 Nail in Lift #1 Dam
28-250 Nail in Lift #1 Dam

D Line Reference Pts 69

D 0+20
371.28 Nail in Post
Landing Platform
D 0+20
425.73 Iron pin under
Blacksmith Shop
D 0+40
D 0+60
D 0+60 HUB
317.76
D 0+60 HUB
418.42
D 0+80 Nail in Rock
D 1+00
D 1+00
307.49 HUB
D 1+00 HUB
409.72
RP on Rock North
D 1+36.58
D 1+36.58 HUB
312.70
D 1+36.58
412.16
D - RP on Rock North -
D 1+80 HUB
306.55
D 1+50 HUB
414.23

List of BM's.

Harris B.M. Iron Pin set in rock 40' south of Conveyor #2 BARRETT DAM Datum	1626.33
End of "P" Line above Quarry road (Hub)	1751.67
Nail in rock (west Cableway 30' N of 3+00)	1764.33
Nail in 2x8 North side of Tunnel "P" line	1650.97
Nail 10-446 52 End of steel pipe - Sewer joint.	1597.77
Nail in stump 12-330	1570.96
Nail in stump 16-468	1572.94
S.W. Cor. Outlet Tower Fillet nail	1524.18
N.W. Cor. " " " nail	1524.30
Top of Plumb rock 7' east of 34-329	1472.82
Nail in Front face of Dam for Outlet Tower	1506.46
Top of pipe Outlet Tower	1508.67
Nail in stump S E 11' of 52-468 11'	1537.77
Nail in Left #4 near Contr Joint 4+86.5	1530.45
Nail in Rock Auxil from 5+88 71	1512.86
C 6+35 Nail	1534.97

70

1446.12 = 0.00 staff gauge

~~20.16~~
63 21

59	621
184	028
243	676

31.67	251
277	220
3315	0611
114	
4227	

63-46

47.07
2358
6521

1259
3350
4609

94-39

1170 47.77
1020 411
5188
150 462
47.18

949 481
820 412
129 69

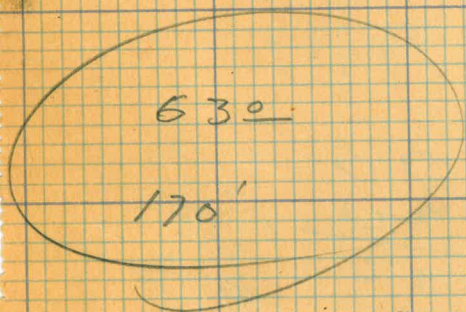
~~1259~~
~~71.00~~

staff gauge

1446.12 = 0.00

27
294

whys 31



~~74~~
50

174
50
3-24

140 - Spoke

1788.2
59.8

2480
1001

3481

3481
1001

2480

font
p38 Gallery GR

