

W29

3.5

400

LEVEL

Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

MINUTES	LKS.	MINUTES	LKS.	MINUTES	LKS.
1	2 $\frac{1}{3}$	21	.49	41	95 $\frac{2}{3}$
2	4 $\frac{2}{3}$	22	.51 $\frac{1}{3}$	42	98
3	7	23	.53 $\frac{2}{3}$	43	100 $\frac{1}{3}$
4	9 $\frac{1}{3}$	24	.56	44	102 $\frac{2}{3}$
5	11 $\frac{2}{3}$	25	.58 $\frac{1}{3}$	45	105
6	14	26	.60 $\frac{2}{3}$	46	107 $\frac{1}{3}$
7	16 $\frac{1}{3}$	27	.63	47	109 $\frac{2}{3}$
8	18 $\frac{2}{3}$	28	.65 $\frac{1}{3}$	48	112
9	21	29	.67 $\frac{2}{3}$	49	114 $\frac{1}{3}$
10	23 $\frac{1}{3}$	30	.70	50	116 $\frac{2}{3}$
11	25 $\frac{2}{3}$	31	.72 $\frac{1}{3}$	51	119
12	28	32	.74 $\frac{2}{3}$	52	121 $\frac{1}{3}$
13	30 $\frac{1}{3}$	33	.77	53	123 $\frac{2}{3}$
14	32 $\frac{2}{3}$	34	.79 $\frac{1}{3}$	54	126
15	35	35	.81 $\frac{2}{3}$	55	128 $\frac{1}{3}$
16	37 $\frac{1}{3}$	36	.84	56	130 $\frac{2}{3}$
17	39 $\frac{2}{3}$	37	.86 $\frac{1}{3}$	57	133
18	42	38	.88 $\frac{2}{3}$	58	135 $\frac{1}{3}$
19	44 $\frac{1}{3}$	39	.91	59	137 $\frac{2}{3}$
20	46 $\frac{2}{3}$	40	.93 $\frac{1}{3}$	60	140

Old man Conduit
 Pure Book 2
 June 1907

356
 57.985
 50.715
 7.270

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

Angle	in Links	Angle	Cor. in Links	Angle	Cor. in Links	Angle	Cor. in Links
		°		°		°	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

MICROFILMED
 JAN 9 1965

~~Pages - notes~~

~~8 - do~~

~~11 - do~~

~~14 - do~~

~~18 - do~~

~~21 - do~~

Index =

Page

Flume location #2 - Barrett toward Sulzura - Cont. from Book #1	1-14
Check levels on Tunnel #2	15-42
Check levels on Tunnel #4	43-78
Stations and grades	79
Benchmarks on Eaton line	80

Flume Location No 2.
Barrette towards Culzura

	1513.78			
189+20		8.50	5.28	
+39		8.52	5.26	
+49				
		2.76	1511.02	
	8.87	1519.59		
+60		5.0	14.89	5.24
139+30			1503.09	
	7.08	1510.17		
0		4.56	1505.61	
	7.20	1512.81		
0		9.40	1503.41	
	7.50	1510.91		
0		7.63	1503.28	
	11.61	1514.89		
		6.10	1508.79	

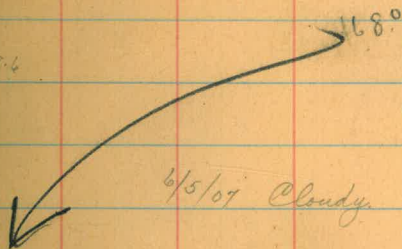
Continued from Book #1.

Stake Loose Rock

"

Side of boulder cut.

Ref. Pt on boulder 10' N 189+49



C 9.6

Hall
Watson
Lane
Beets
Morse
Hutchins

CO

1514.89

31

6.43

1508.46

0.96

1509.42

8.11

1501.31

On rock, line of flume, Sta 186+40

Ref. Pt. Sta. 192+80

189+81

04.10

5.32

On Rock

190+01

4.12

5.30

Stake

+20

4.14

5.28

"

+40

4.16

5.26

"

+60

4.18

5.24

"

+88

0.9

8.5

4.20

5.22

C 3.2 Loose Rock

191

4.22

5.20

Stake

+20

4.24

5.18

"

+40

4.26

5.16

"

+60

4.28

5.14

"

+80

4.30

5.12

"

192

4.32

5.10

"

+20

4.34

5.08

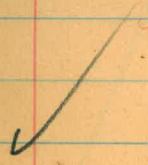
"

+40

4.36

5.06

"



1509.42

192+60		4.38	5.04	Stake
193+80		4.40	5.02	" Stake
0		8.11	1501.31	

8.74

1510.05

193		5.05	5.00	Not set
+20		5.07	4.98	Stake
+40		5.09	4.96	"
+60		5.11	4.94	"
+80		5.13	4.92	"

194		5.15	4.90	"
+20		5.17	4.88	"
+40		5.19	4.86	"
+60		5.21	4.84	"
0		4.97	1505.08	

8.07

1513.15

+80		8.33	4.82	Stake
195		8.35	4.80	

1513.15

195+20	8.37	4.75	Stake
+40	8.39	4.76	"
+60	8.41	4.77	"
+80	8.43	4.72	"
196	8.45	4.70	"
+20	8.47	4.75	"
+40	8.49	4.66	"
+60	8.51	4.64	"
+80	8.53	4.62	"
197	8.55	4.60	"
+20	8.57	4.58	"
+40	8.59	4.56	"
⊙	10.54	1502.61	
8.78	1511.39		
+60	6.85	4.54	"
+80	6.87	4.52	"
198+01	6.89	4.50	"



5
15/1/39

198+20	6.91	4.28	Stake
+40	6.93	4.46	"
+60	6.95	4.44	"
+80	6.97	4.42	"
199	6.99	4.40	"
+26	7.01	4.38	"
+40	7.03	4.36	"
+60	7.05	4.34	"
+80	7.07	4.32	"
200	7.09	4.30	"
+20	7.11	4.28	"
+40	7.13	4.26	"
+60	7.15	4.24	"
+80	7.17	4.22	"
201	7.19	4.20	"
+20	7.21	4.18	"
+40	7.23	4.16	"

15/11.39

201+60	7.25	4.14	Stake Dry gulch
+80	7.27	4.12	"
202	7.29	4.10	"
+20	7.31	4.08	"
+40	7.33	4.06	"
+60	7.35	4.04	"
+80	7.37	4.02	"
203	7.39	4.00	"
+20	7.41	3.98	"
+40	7.43	3.96	"
+60	7.45	3.94	"
0	8.92	1502.47	
	9.13	1511.60	
+80	7.68	3.72	"
204	7.70	3.90	
+20	7.72	3.88	
+40	7.74	3.86	

1511.60

204+60	7.76	3.84
+20	7.78	3.82
205	7.80	3.80
+20	7.82	3.78
+40	7.84	3.76
+60	7.86	3.74
+80	7.88	3.72
	7.42	1504.18
206	8.00	3.60
+20	8.02	3.58
+40	8.04	3.56
+70	8.07	3.53
+80	8.08	3.52
207	8.10	3.50
+20	8.12	3.48
+40	8.14	3.46
+60	8.16	3.44

159.81-205+80 1504.18

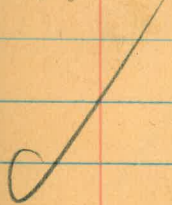
Ref. Pt. 3' R 207+60

3 P.M.

Slake

6/4/07

Dry gulch



1571.60

207+80	8.18	3.42
208	8.20	3.40
+20	8.	

Stake



1504.15

Ref Pt. 3' R 207+60

9.13 1513.31

+20	9.93	3.38
+40	9.95	3.36
+60	9.97	3.34
+80	9.99	3.32
209	10.01	3.30
+20	10.03	3.28
+40	10.05	3.26
+60	10.07	3.24
+80	10.09	3.22
210	10.11	3.20
+20	10.13	3.18
+40	10.15	3.16

Stake

"

"

"

"

"

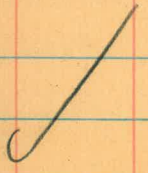
"

"

"

"

"



	1513.31				
B. 7m #32		6.45	1506.86		
0		10.81	1502.50		
	1.71	1504.21			
210+40		3.7	0.5	3.16	F 2.7 On Rock
+65		7.3	96.9	3.14	F 6.2
+89		4.95	99.26	3.11	F 5.8
211		3.5	00.7	3.10	F 2.4
+20		1.13		3.08	Stake
0		2.05	1502.16		
	6.07	1508.23			
+40		5.17		3.06	Stake
+60		5.19		3.04	"
+80		5.21		3.02	"
212		7.25	0.98	3.00	F 2.0
+20		7.25	1.0	2.95	F 2.0
		1.38	6.85		
+40		6.81	1.4	2.96	F 1.6

Ref Pt on Boulder Sta. 212+40-5' R.

On Rock

Boulder gorge (Dry)

Stake

Stake

"

In front of large boulder, above.

Small flat draw.

Ref Pt on rock 5' R 212+40

1508.28

212+60	5.27	2.94
+80	5.31	2.92
213	5.33	2.90
+20	5.35	2.88
+40	5.37	2.86
+60	5.39	2.84

1506.86

8.65 1515.51

+80	12.29	2.82
214	12.71	2.80
+20	12.73	2.78
+40	12.75	2.76
+60	12.77	2.74

8.22 1507.29

5.97 1509.54

+80	12.79	2.72
215	12.81	2.70

Stake

C 1.2

Stake

"

"

B. 7th 37

Stake

"

"

"

"

Ref Pt on knoll 200 C ²¹⁵⁺⁴⁰₂₁₄₊₆₀Ref Pt. Stake 75' E of Sta ²¹⁵⁺⁴⁰₂₁₄₊₆₀

"

"

	1515.51		
215+20		12.83	2.68
+40		12.85	2.66
			(1509.54)
	12.48	1522.02	
+30+70 0		1.59	1520.43 (22)
	12.27	1532.70	
215+90 +50 0		0.89	1531.81
	11.93	1543.74	
216+10 0		1.04	1542.70
	12.82	1555.62	
+32 0		1.18	1554.44
	12.82	1567.26	
+57 0		0.90	1566.36
	8.09	1574.45	
217+15 0		12.57	1561.88
	1.04	1562.92	
+39		12.63	1550.29

Stake

Ref. Pt. 75' L 215+40

217+50			1550.29
	0.72	1551.01	
+61 0		12.32	1538.69
	1.09	1539.78	
+74 0		12.27	1527.56
	1.05	1528.61	
218+03 0		12.41	1516.20
	2.75	1518.95	
+21 0		12.53	1506.42
	6.73	1513.15	151
218+26	5	10.77	1502.37
+40		10.78	2.36
+60		10.80	2.34
+88		10.83	2.32
219+		10.85	2.30
		6.39	1506.76
+20		10.87	2.25
+40		10.89	2.26

Journal #3

Evidence of hard ground

6/8/07 Cloudy & wet.

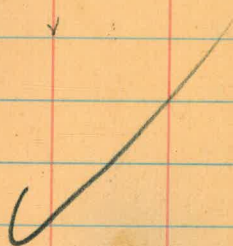
Small gulek

Small gulek

Ref. P. 10 P. 219 This

	1513.15				
219 + 60		10.91	2.21	Old stake	
		11.19	1501.96	Ref. Plover boulder	
+ 80		10.93	2.22	"	
220		10.95	2.20	"	
+ 20		10.97	2.18	"	
+ 40		10.99	2.16	"	
+ 60		11.01	2.14	" Small gulch	
+ 80		11.03	2.12	"	
221		11.05	2.10	"	
			1502.08	Sta 218 + 26	
	7.82	1510.20			
220 # 33		8.26	1501.94	Sta 221 10' R.	
+ 19		8.12	2.08	Stake	
+ 40		8.14	2.06	Paint mark on rock	
+ 55		8.155	2.04	" " " Boulder-waterway from gulch	
+ 85		8.18	2.02	Stake	
222 + 10		8.21	1.99	"	

Priority noted



1510.20

222 +20	8.22	1501.98
+40	8.24	1.96
+60	8.26	1.94
+80	8.28	1.92
223	8.30	1.90



1501.94

9.22

1511.16

+20	9.28	1.88
+40	9.30	1.86
+60	9.32	1.84
+80	9.34	1.82
224	9.36	1.80
+20	9.38	1.78
+40	9.40	1.76
+60	9.42	1.74
+80	9.44	1.72

10.26 1500.90

Paint mark on rock

" " " "

Stake

"

B. M. 33

Stake

"

"

"

"

"

"

"

"

Hub. Sta 225



Chick levels on Summit '3

			1507.29
6.71	1514.00		
0		4.46	1509.54
12.22	1521.76		
0		1.33	1520.42
12.71	1533.13		
0		1.33	1531.80
11.93	1543.73		
0		1.04	1542.69
12.12	1554.81		
0		0.39	1554.42
12.44	1566.86		
0		0.51	1566.35
6.59	1572.94		
		0.58	1572.36
0		11.07	1561.87
0.52	1562.39		
0		12.11	1550.28

Ref Pt on Knoll 200' E 215+40

Ref Pt 70' E of 215+40

1520.43

Summit

1550.28

0.66 1550.94

0 12.25 1538.69

0.83 1539.52

0 11.95 1527.57

1.10 1528.67

0 12.45 1516.22

1.33 1517.55

0 11.11 1506.44

1.27 1507.71

5.32 1502.39

5.74 1501.97

1501.94

9.40 1511.34

0 10.44 1500.90

6.76 1507.66

2.25

5.96

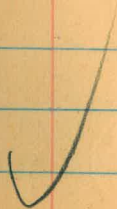
1.70

at to be

1502.39

1502.38

.01 Ref.



1507.66

225+20

5.98

1.68

Haki

+40

6.00

1.66

"

+60

6.02

1.64

"

+80

6.04

1.62

"

226

6.06

1.60

"

+20

6.08

1.58

"

Dry gullhamell.

+40

6.10

1.56

"

+60

6.12

1.54

"

+80

6.14

1.52

"

227

6.16

1.50

"

+20

6.18

1.48

"

+40

6.20

1.46

"

+60

6.22

1.44

"

+80

6.24

1.42

"

7.65

1500.01

Ref. P on ridge of R 228+80 = T.P.

228

6.26

1.40

"

+20

6.28

1.38

"

Light sand

Dr. sub. of granite hill

18

1507.66

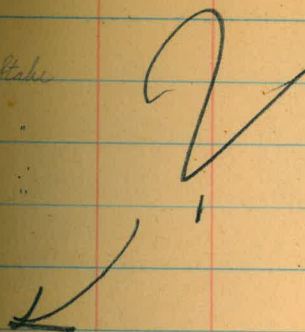
228+40	6.30	1.36
+ 60	6.32	1.37
+ 80	6.34	1.32

1500.01

5.63 1505.64

229	4.34	1.30
+ 20	4.36	1.28
+ 40	4.38	1.26
+ 60	4.40	1.24
+ 80	4.42	1.22
230	4.44	1.20
+ 20	4.46	1.18
+ 40	4.48	1.16
+ 60	4.50	1.14
+ 80	4.52	1.12
231	4.54	1.10

Stake



= Ref Pt. 5' L. 228+80

Stake

Bread

1505.64

12.18 1493.46

1506.10

9.15 1570.25

231+20

9.17 1.08

+40

9.19 1.06

+50

9.21 1.04

1493.46

9.52 1502.98

+96

1.96 1.02

232+20

2.00 0.98

+55

2.04 0.94

+80

2.06 0.92

233

2.08 0.90

+15

2.10 0.88

B.M. +34 0

6.35 1496.63

12.42 1509.05

+44

4.9 04.5 0.55

Ref Pt on rock 10' h. 231+55

Sub Sta 231

Paint mark on rock

" " "

" " Boulder

Ref Pt on rock = T.P. 10' h. 231+55

Paint mark on rock

" Boulder

" " " "

Stake

"

On rock 10' h. 234+20

In front of projecting boulder

Turtle Ht. No. 1

6/10/02

Hall
Nation
Lans
Belle
Mass.

Orange Lake

232+20 - 232+55

Flume to turtle on height 3'0"



C 3.6

1509.05

233+64		8.21	0.84
234		8.25	0.79
+10		8.26	0.79
+20		8.27	0.78
+40		8.29	0.76
+60		8.31	0.74
+84		8.33	0.72
235		8.35	0.70
+20		8.37	0.68
+40		8.39	0.66
+53		8.40	0.65
0		8.73	1500.32

9.14 1509.46

+68		8.1	0.13
+85		8.85	0.61
+94		2.6	6.7 0.60
236 104.8		8.7	0.60

Stake 233+15 233+14 Boulder to be cleared

Stake 233+79 Boulder gorge, dry

Stake

"

"

"

"

"

On rock

On rock promontory 20' 235+53

C 7.5 on boulder. Line extends back of boulder

C 7.5 Stake

C 6.3 Grant slab to be cleared

1509.46

286 + 39

0.56

Paint mark on rock, approx.

1500.32

7.99

1508.31

+ 60

λ

7.77

0.52

Stake divided of gulch

+ 80

7.79

0.52

"

237

7.81

0.50

"

+ 09

1.2

7.1

C 6.6

+ 20

7.83

0.48

+ 27

6.8

1.5

0.49

C 1.0

Between boulders

+ 40

7.85

0.46

Paint mark on rock

+ 47

7.86

(12)

Boulder

+ 60

1.12

7.19

0.44

C 6.8 on top of boulder

+ 75

1.00

7.31

0.42

C 6.9 Between boulders

0

2.97

1505.34

Different stations

2.97

1508.31

238

7.91

0.40

+ 15

3.8

4.5

0.38

C 4.1

Boulders

205+94 - 236+38 Natural shelf 15' below.

2

	1508.31				
238 +40		7.95		0.36	Stake Between boulders
+60		7.97		0.34	"
+80		7.99		0.32	"
0		4.04	1504.27		On boulder
	7.15	1511.42			
+95		11.12		0.30	edge of boulder
+99		7.2	4.2	0.30	C 3.9 On top of boulder
239 +20		11.14		0.28	Stake
+35		11.16		0.26	"
+60		7.4	04.0	0.24	C 3.7 Back of large boulder
+80		11.20		0.22	
240		11.22		0.20	On rock
+20		11.24		0.18	" "
+40		11.26		0.16	Not set
+60		11.28		0.14	Stake
+80		11.30		0.12	"
241		11.32		0.10	"

Boulder

Pebbles on cliff above

1511.42

241+20

11.34

0.08

Stake

B.M. #350

12.02 1499.40

On rock 20 N of perpendicular sugar

4.48 1503.88

+40

3.52

0.06

Stake

+69

3.85

0.03

0

10.89 1492.99

3.75 1496.74

0

12.61 1484.13

1.33 1485.46

0

11.55 1473.91

Ref. Pt. on boulder

2.63 1476.54

11.76 1464.78

242+49

4.36 1469.14

1.89 1467.25

On Boulder

12.88 1480.13

3.64 1476.87

Perpendicular cliff above

23 1/2

1467.25

6/10/07

11.22 1478.47

1.98 1476.49

12.35 1489.34

3.09 1486.25

4.64 1490.89

7.05 1483.84

7.76 1491.60

2.17 1489.43

12.41 1501.54

1.06 1500.78

12.55 1513.33

B.M. #36

6.21 1507.12

White granite boulder west side of open gulch

4.24 1511.36

6.43

Stake on old survey.

259 + 80

13.14

98.22

240

13.11

98.20

C 103

3.22

1508.14

1508.14

1.48

1509.0

261 11.52 98.10

Stake

262 11.62 98.00

263 11.72 97.90

264 11.82 97.80

11.84 14 97.78

8.94

1506.72

265 9.02 97.70

266 7.12 97.60

267 9.22 97.50

268 9.32 97.40

1.04 1505.68

5.49

1511.17

0.84 1510.33

0.20

272 96.80

On large boulder west end of cam on
Stake on boulder

1507.12

0.17 1507.29

7.70 99.59

1507.12

1.27 1508.61

245+45 99.65

+90 9.00 99.67

246 9.01 99.60

+20 9.03 99.58

1507.12

3.28 1511.07

+40 11.51 99.51

+60 11.53 .54

+80 11.55 .52

247+99 11.57 .50

247+20 11.59 .48

+40 11.61 .46

+60 11.63 .44

4/15/07

B.M. #36 Currock 245+50

Stake - Exit of Tunnel #3.

B.M. #36

C

Small gulet from landslide

26.

2

1511.07

247 + 80 11.65 149.42

Stake

248 11.67 .40

"

+ 20 11.69 .38

"

+ 40 11.71 .36

"

0 5.49 1505.58

5.44 1511.02

+ 60 11.73 99.34

Stake

+ 80 11.70 99.32

"

249 11.72 99.30

"

+ 20 11.74 99.28

"

+ 40 11.76 99.26

"

+ 60 11.78 99.24

"

+ 80 11.80 99.22

"

250 11.82 99.20

"

+ 20 11.84 99.18

"

+ 40 11.86 99.16

"

+ 60 11.88 99.14

"

✓

Landslide

27.

1511.02

250 + 80 11.90 99.12 Stake

251 + 01 11.92 99.10 "

+ 20 11.94 99.08 "

+ 40 5 8.7 11.96 2.9 99.06 C 3.8 "

Point of landslide ~~lower~~ ~~lower~~ ~~lower~~

0 11.01 1500.01

10.16 1510.17

+ 80 11.15 99.02 On rock *Trochilina irregularis*

252 11.17 99.00 Stake

+ 20 11.19 98.98 "

+ 40 11.21 98.96 "

+ 60 11.23 98.94 "

+ 80 11.25 98.92 "

253 + 05 11.27 98.90 On rock

+ 20 11.29 98.88 Stake

+ 40 11.31 98.86 "

+ 60 11.33 98.84 "

+ 80 11.35 98.82 "

Lower Branch

28

1510.17

2.54		11.37	98.80	stake
+20		11.39	98.78	"
+40		11.41	98.76	"
+60		11.43	98.74	"
+80		11.45	98.72	"
2.55		11.47	98.70	"
+20		11.49	98.68	"
+40		11.51	98.66	"
+60		11.53	98.64	"
+80		11.55	98.62	"
2.56		11.57	98.60	"
+20		11.59	98.58	"
+40		11.61	98.56	"
+60		11.63	98.54	"
0		7.745	1502.42	
5.675	1508.10			
0		5.435	1502.66	

Dred slide →

1502.66

1.78 1504.44

256+80	5.92		98.53	Stake	
257	5.94		98.50	"	
+20	5.96		98.48	"	Loose rock
+40	5.98		98.46	"	
+60	6.00		98.44	"	
+80	3.7				
	1.02	0.7	98.42	C 2.3	Loose rock cut
0	1.75				

1502.66

7.16 1509.82

258	7.7		98.40	C 3.7	
	11.42			On rock	Loose rock cut
+20	11.44		98.38	Stake	
+40	11.46		98.36	"	
+60	11.48		98.34		On shoulder in center of gulch. Flume built at 15'
+80	11.50		98.32	Stake	
259	11.52		98.30	"	
+20	11.54		98.28	"	
+27	8.1	01.7	98.27	C 3.4	Disintegrated cut

	1509.32	8.1	01.7		
259 +40			98.21	C 3.4	Disintegrated & loose rock
+60		11.58	98.24	Stake	
0 280		11.93	1497.59		
	5.11	1503.00			
+80		4.78	98.22	"	
260		4.80	98.20	"	
		9.9	93.1		
+20		4.82	98.15	F 5'	Spans over small gulch, loose rock
+40		4.84	98.16	Stake	
+60		4.86	98.14	On loose rock	
+80		4.88	98.12	Stake	
261		4.90	98.10	"	
+15		4.92	98.08	"	8 ft boulder to be removed
+40		4.94	98.06	"	
+60		4.96	98.04	"	
+80		4.98	98.02	"	261+90 6 ft boulder to be removed
262		5.00	98.00	"	
+20		5.02	97.98		

Boulder

	1503.00		
0		3.79	1499.21
	6.71	1505.92	
262+40		7.96	97.96
+60		1.4	
		7.98	
+80		8.00	97.92
263		8.02	97.90
+20		8.04	97.88
+40		8.06	97.86
+60		8.08	97.84
+80		8.10	97.82
264		8.12	97.80
+20		8.14	97.78
13.96.37 0		8.59	1497.33
	11.32	1508.15	
+42		10.89	97.74
+60		8.83	1497.82 97.74

C 5.6 Dia & loose rock

Stake

Open gulch

One boulder 15' L. (Superceded)

Stake

C 2.1

1503.65

264 +80

6.9 01.8 97.72

C 41

N of large boulder W end of course

265

6.3 02.4 97.70

C 47

" " " " " " " "

+20

12.0 96.7 97.65

F 10

W " " " " " " " in embankment

B.M. 37

3.17 1505.48

B.M. on previous survey elevation

On old survey

C.C. 244+39.8

3.2 1505.45

marked 1459.45 & 1459.34

E 244+90 F.1.

2.72 1505.93

Survey - Eaton Harris

80 contours

↓ ↓
1480. = 1526.143

Elev of B.M.

1459.45

1505.593

20.55

1505.48

.113 Dif.

1480

1459.34

20.66

1505.483

1505.48

.003 Dif.

1505.48

B.M. 37

11.10

1516.58

3.30 1513.28

11.53

1524.31

0.16 1524.65

5.36

1530.01

2.98 1527.03

1527.03
1526.143
887

1480.
1480.887

Old B.M. on boulder marked B.M. 80.88

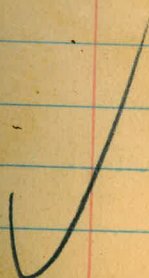
33
 W. W. W. W.
 B.M. 37 1505.48
 238 1507.86
 265 + 40 4.4 1508.2 97.66 +5.8
 +51 1.7 1506.2 97.65 +8.5
 0 1.34 1506.47
 11.70 1518.17
 +56 4.5 1513.7
 +66 2.1 1515.1
 +80 6.55 1511.62 97.62 +14.0
 266 5.60 1512.57 97.60 +16.0
 +20 0.20 1517.97 97.58 20.4
 0 0.235 1517.935
 11.94 1529.875
 +24 1.90
 0 2.84 1527.035 ✓
 11.53 1538.565
 +51 1.41 1537.55
 12.59 1497.45

6-12-07
 R. W. W. W.
 Max Watson
 Goddard
 Fred Bube
 I
 Transit } M. Hall
 } E. W. Moss
 } R. W. W. W.
 on Pack 3 R 265 + 51

✓
 = Tunnel Entrance
 = Old B.M. on boulder marked B.M. 30.88
 on Pack

to min

	1549.705			
266+70	0.47	1549.275		on hub
	12.685	1561.960		
267+60	0.78	1561.180		" Reef
	12.075	1573.205		
268+04	1.490	1571.715		" hub
	12.390	1584.105		
+27	0.36	1583.725		" hub
	12.225	1595.950		
+44	0.18	1595.770		on Reef
	12.18	1607.870		
+71	0.40	1607.470		on hub
	11.78	1619.250		
269+04	0.85	1618.400		on hub
	12.055	1630.485		
+34	0.64	1629.845		on hub
	12.555	1642.400		
+69	1.055	1641.345		" hub



1641.345

12375 1653.720

270 +03

155 1652.170

on hand

12440 1664.570

+35

0345 1664.225

on hand

12576 1677.100

+65

022 1676.880

on hand

12552 1689.400

+92

157 1687.830

on hand

1262 1700.660

271 +22

016 1700.300

on hand

11935 1712.235

+48

0.8 1711.755

on hand

1228 1724.035

+78

0.21 1723.825

on hand

12155 1736.010

272 +05

020 1735.810

on hand

1210 1747.910

C

h = min

1747910

272+34

105 1746860

on hat

12445 1759305

+64

1235 1758070

on hat

1237 1770440

273+04

048 1769960

on hat

1.83 1771790

+72

1253 1759260

on hat

083 1766890

274+12

1221 1747850

on hat

0645 1748195

+66

996 1738555

on hat

463 1743165

277+976

955 1733315

on deck

1273 1746045

279+49

193 1744115

on hat

12505 1756620

279+99

174 174960

on hat



37.

"w" hin

1754.880

449 1759.30-

280+26

0.81

1756.56-

= Summit

+62

12.61

1746.60

Summit

on hill

0.69 1747.150-

281+39

12.82

1734.630-

on hill

3.06 1737.690-

282+27

12.735

1724.955-

on hill

1.79 1726.745-

+72

12.715

1714.530-

on hill

0.23 1714.780-

283+15

12.39

1702.390-

on hill

2.06 1704.450-

+42

12.785

1691.665-

on hill

0.965 1692.630-

+67

12.23

1680.400-

on hill

0.85 1681.235-

Cherry

283+94

12.35

1668.585-

on hill

Commercial work at 2 1/4 + 5 1/4
6-19-07.

Red note
max value
Geo. ...
and ...
SW ...

Tramit
a. h. } on track
P. ...

Handwritten signature or scribble

166885

0.315 1669200-

284+22

12970 1656230

on list

0.77 167000-

+39

12950 1644215-

on list

0.745 1644960-

+61

1298 1631980-

on list

0.175 1622155-

+86

12495 1619660-

on list

0.17 1619830-

285+04

11865 1607865-

on list

0.165 1608030-

+15

1130 1596730-

on list

0.35 1597080-

+37

11975 1585105-

on list

0.13 1585235-

+55

1253 1572705-

on list

0.13 1572835-

39.

W W

1572.835

285 + 73

12.55 1560.200 ✓

On hub

0.55 1560.750

285 + 90

12.35 1548.375 ✓

on hub

0.26 1548.685 ✓

286 + 01

10.72 1537.920 ✓

on hub

0.06 1538.005

+0991

11.51 1526.490 ✓

= Tunnel center

12' P

0.45 1527.335 ✓

+28

12.47 1514.860

0.49 1515.350

+79

12.51 1502.840

0.70 1503.540

286 + 93

9.04 1494.50

- Reference pt. on Tunnel Side

✓

10.65 1503.700 10.49 1493.050

5.78 1508.200 12.85 1502.15

12.15 1506.985

= at Pm in double Rocks

40
T. hin

1494.50

141 150290

255			8.50	1495.00	Slake
+20			8.52	528	"
+40			8.54	530	"
+60			8.56	532	"

0 10295 1511.525 168 1501.23

209 1509435 ✓

179 1503.02 1501.23

258 +50			8.69	532	Slake
259 +03			8.71	530	wash
+20			8.73	528	"
+40			8.75	526	"
+60			8.77	524	"
+80			8.79	522	"

0 734 1495.65

3935 1499.615

3/0 541 520

= Ref. Pt on preceding page

Doubtful point - hillside facing south

= Ref. Pt

= B.M. 25 Eaton Hill

= Ref. Pt just above

on page 4 P 289+60

H.I.
" " min

1499605

290+20

543

1499605

Stake

+40

545

9576

+80

547

9574

on Path

+120

549

9572

291

551

9570

Stake

B.M. 38

294

1499575

on Path H.P.

290+60

+20

553

9568

+40

555

9566

+60

557

9564

+80

559

9562

292

561

9560

+20

563

9558

+40

565

9556

+60

567

9554

+80

569

9552

293

571

9550

+21

4725

9549

used corrected H.I. (tunnel entrance)

+2
W min

11.85 1506.74 1494.89

~~293+40 0.42 1506.32~~

~~12.19 1518.61~~

~~+63 120 1517.31~~

~~12.59 1529.80~~

~~+90 137 1528.48~~

~~6.47 1534.90~~

~~294+13 0.3 1534.6~~

~~+51 120.25 1528.65~~

~~0.30 1522.65~~

~~+75 126.5 1510.510~~

~~0.02 1505.80~~

~~+99 11.85 1498.80~~

~~294+75 12.45 1518.85 1510.510~~

~~1.46 1514.39~~

on hub

on hub

on hub

= Summit

on hub

on hub

on hub

= 91m 26 later Sun

43
CHECK LEVELS TUNNEL #4

			1537.03
268+20			
	7.99	1535.02	
			10.37 1524.65
o			0.74 1534.28
	11.59	1545.37	
o			2.74 1543.13
	10.77	1553.70	
o			0.57 1553.33
	9.39	1562.72	
o			1.54 1561.18
	12.00	1573.18	
o			1.46 1571.72
	12.45	1584.17	
o			0.44 1583.73
	12.36	1596.09	
o			0.32 1595.77
	12.33	1608.10	

6-20-06

M. H. Hall
Mar. Watson

Old B. 70 on boulder marked 80.85

Measurements checked by

P. White
Geo Lane
For. Reck.

-268+04

= 268+27

21 July 1907
C. J.

1608.10

0 0.63 1607.47

11.43 1618.90

0 0.50 1618.40

12.22 1630.62

0 0.78 1629.84

12.39 1642.23

0 0.83 1641.34

11.55 1652.89

0 0.73 1652.16

12.85 1665.01

0 0.79 1664.22

12.93 1677.15

0 0.27 1676.88

11.70 1688.58

9.86 1678.72

0 0.75 1687.83

12.75 1700.88

1692.69

27 July 1907
C/O

45.
L

	1700.58		
o		0.28	1700.30
12.00	1712.30		
o		0.55	1711.75
12.95	1724.70		
o		0.88	1723.82
12.24	1736.06		
o		0.25	1735.81
11.52	1747.63		
o		0.76	1746.87
11.76	1758.83		
o		0.76	1758.07
12.24	1770.31		
o		0.34	1769.97
2.19	1772.16		
o		12.89	1759.27
1.50	1760.77		
		12.91	1747.86

= 1271.78

= 272.64

CO
21 July 1957

46.
L

1747.86

0.72 1748.58

10.04 1738.54

5.66 1744.20

10.89 1733.31

8.79 1742.10

1.51 1740.39

12.76 1753.07

0.44 1752.63

7.01 1759.64

4.78 1754.86

= 279+85?

1.10 1758.54

= Summit?

13.90 1746.74

0.73 1747.47

12.86 1734.11

= 281+39

2.27 1736.89

11.94 1724.97

= 282+27

2.17 1727.11

CV

1727.11

0 12.60 1714.51

0.48 1714.99

0 12.61 1702.38

= 283+15

1.36 1703.74

0 12.08 1691.66

= 283+92

0.76 1692.42

0 12.02 1680.40

= 283+47

0.66 1681.06

0 12.18 1668.88

0.05 1668.93

0 12.70 1656.23

= 284+22

0.57 1656.80

0 12.58 1644.22

= 284+37

0.19 1644.41

0 12.42 1631.99

= 284+61

1.53 1633.52

12.94 1620.88

H8.

L

1620.58

1.41 1621.99

2.33 1619.66

9.88 1612.11

1.10 1613.21

12.78 1600.43

0.52 1600.95

4.22 1596.73

=L 285+15

0.57 1597.30

12.20 1585.10

0.71 1585.81

12.23 1573.58

1.30 1575.38

2.68 1572.70

=285+55

12.21 1563.17

1.52 1564.69

4.50 1560.19

=286+73

1.05 1561.24

	1561.24		
0		12.88	1578.36
0.77	1549.13		
0		11.22	1537.91
0.46	1528.37		
0		11.87	1526.49
1.52	1528.00		
		3.98	1525.02
			1526.48
0.72	1527.30		
0		12.46	1514.84
2.14	1516.98		
		9.39	1507.59
0		7.56	1509.42
2.40	1511.82		
		9.00	1502.82
1.30	1504.12		
		8.61	1495.51

=L 286+01

=

Tunnel Exit

=L 286+29

=L 286+59

Old B 7th 25

=L 286+79

=L -286+91

Below grade point of tunnel

50.
"h" him

1504.12

287+80	8.70	1495.42
288	8.72	520
+20	8.74	520
0	9.13	1494.99

943 1504.12

+40	9.06	530
+50	9.07	530
+85	9.10	530
289	9.12	530
+20	9.14	520
+40	9.16	520
+60	9.18	520
+80	9.20	520
290	9.22	520
+20	9.24	510
+35	9.26	510
+60	9.28	510

Slake

005 hours

Slake

dry on feet

288+50 - 288+85 Dry Wash - Trench Ht. 9'

on list

Commoned work

6-21-06.

Mr. Hall

R. Wiest

Mr. Watson

Geo. Sam

W. W. Moss

R. Hutchins

Dry wash 290+35 - 290+60 Trench Height 5.5'

51.
L. hme

1504.42

290+80	9.30	1495.00	slake	✓
291	9.32	5.00	"	✓
+20	9.34	5.00	"	✓
+40	9.36	5.00	"	✓
+60	9.38	5.00	"	✓
+80	9.40	5.00	"	✓
292	9.42	5.00	"	✓
+20	9.44	4.98	"	✓
+40	9.46	4.96	"	✓
+60	9.48	4.94	"	✓
+80	9.50	4.92	"	✓

Disintegrated granite full size

9.52 1494.90 on hub = grade point at tunnel entrance

Bm 38

6.855 1497.565

on Boulder 4' P 290+35

o

1.00 1503.42

hub

on peg 15' P 290+95

11.71 1514.83

o

3.07 1511.76

hub

7.77 1519.53



52
L min

1519.53

293+13

11.3 1508.2 1494.9

+ 13.3

= Tunnel Entrance Proper

+23

3.35 1516.18

12.15 1528.93

+60

1.64 1527.29

645 1533.73

+

+ 1533.74

+83

0.16 1533.57

= Summit

294+20

11.92 1521.81

0.32 1522.13

B.M. 39

8.58 1513.55

0.43 high (1513.593) = B.M. 26 Eaten. min ✓

294+44

12.68 1509.45

0.14 1509.59

+68

11.97 1497.62

255 1500.17

+77

5.44

Peak

= Tunnel exit

295+68

5.34

+80

5.55

946

Stake

296

5.57

946

150017

296+20

5.59

1494.58

296

0

5.03

1495.14

854

150368

299

298

296+12

Discontinued quantity

+40

9.12

9436

+60

9.14

9434

+80

9.16

9432

297

9.18

9430

+20

9.20

9428

Dry block 297+20=297+45 Pent height 3'

+40

9.22

9426

+60

9.24

9424

+80

9.26

9422

298

9.28

9420

+20

9.30

9418

on Rock

8' above base of rock

+40

9.32

9416

4'

0

1237

1491.31

✓

on Rock

4' below

298+40

696

149827

+61

8.93

9414

1498.27

356 1494.71 3m

947 1504.19

298+9 04 1503.3 1494.32 pt on Rock + 9.5

299+02 9.85 94.80 Stake

+26 7.7 1496.5 94.28 pt on Rock + 2.2

+40 9.92 94.26 pt on Rock

10.79 1493.39

on Rock 8: + 299+26

1065 1504.04

+65 9.80 94.24 on Rock

+80 9.82 94.22 Stake

+97 9.84 94.20 on Rock

300+60 9.90 94.14 Stake

+80 9.92 94.12

301 9.94 94.10

+20 9.96 94.08

+40 9.98 94.06

+60 10.00 94.04

299+97 - 300+60 = long chord
cannot breathe across quick
height of fence on chord at center

✓
Dumbbell-shaped hills
with flatish western slopes

Christal Point Ground

150404

301+80 10.02 1494.02 Stake ✓

302 10.04 94.00 ✓

+20 10.06 93.98 ✓

+40 10.08 93.96 ✓

+60 10.10 93.94 ✓

+86 10.12 93.92 ✓

303 10.14 93.90 ✓

+15 11.29 1492.75 ✓

+20 10.16 93.88 ✓

+40 10.18 93.86 ✓

+60 10.20 93.84 ✓

+77 10.22 93.82 on Rock ✓

304 10.24 93.80 Stake ✓

0 928 1494.76 6mm ✓

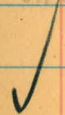
861 1503.37

0 685 1496.52 ✓

607 1502.59

on Rock

-TP on old line on pay 3' P 303+47



on pay 3' P 304+70

Discontinued Well

= Old BC Back 1/2 Day

56.

150259

304+20	881	149376	Stake
+40	883	9376	"
+60	885	9376	"
+80	887	9376	"
305	889	9376	Mid. in RR
+20	891	9368	Stake
+40	893	9366	"
+60	895	9364	"
+80	897	9362	"

306	899	9360	"
+20	901	9358	"
+30	902	9357	"

080 150179

0	1184	1490.71	
087	1491.58		
+30	23	14893	9355

Disintegrated

305+80 - 306+80 same day plot

= Red IP in Rock

CP

-43

57.

1491.58

~~306+60~~~~64~~~~1485.2~~~~1493.58~~~~-8.3~~~~+73~~~~11.7~~~~1479.9~~~~935.2~~~~-13.6~~~~+91~~~~52~~~~1486.4~~~~935.1~~

178

1503.57

1501.79

o

11.5

1491.82

387

1495.69

305+90

2.08

1493.61

306

4.2

1491.5

936

-21

+10

8.4

1487.3

935.9

-63

+20

13.0

1482.7

935.8

-10.9

o

12.0

1483.59

313

1486.72

+30

9.5

1478.2

935.7

-15.4

+40

11.6

1475.1

935.1

-19.5

o

12.4

1474.23

636

146.59

Down through step which requires a 'round' to 500

= P.P. on preceding page

200

Continued work at
Sta 306+60

6-22-07

Revised grades

M. L. Hall

R. W. West

Max Watson

Geo. Ham

E. W. Moss

58.					
L					
	1180.59				
306+50		135	1466.8	1493.5	
+60		85	1472.1	935.6	
+70		19	1472.7	935.3	
0		105	1479.54		
	1197		1491.51		
+78		65	1485.0	935.2	
+81		09	1490.6	935.2	
0		108	1490.43		
	1247		1502.90		
		110	1501.80		
	1110		1502.79		
+85		937		935.2	slake grade
+91		28	1500.1	935.1	+6.6
		949	1493.40		
0		074	1502.15		
	755		1509.70		
307+03		66	1503.1	936.0	+9.6

(1501.79) = Proj Pt. = paper mark

= hub on grade at Sta 308

C. O. J.

59.

"L"

1509.70

307+13

6.3 1503.4 1492.4

Stds +99

chaff

+33

11.3 1505.4 934

+11.9

little

+59

6.3 1503.4 934

+9.9

o = Bc. 287+86.4

+60

7.1 1502.6 934

+9.2

Over

+90

12.8 1496.9 934

+3.5

0

11.89 1497.81

441 1502.22

8.78 1493.44

(1493.40) = that at 308

8.78 1502.18

1493.40

308+20

12.5 1490.0 933

880 -34

+40

882 933

Stds

+60

884 934

+80

886 935

309

888 936

12.48 1489.70

0.13 high (1489.13) = Bm 27 9.00 am

+20

890 937

+40

892 938

C 10

Disintegrating willow
with occasional mudline

60.

-2

150218

309+60

894

1493.21

Stake

+90

896

9322

310

898

9320

+20

9.00

9318

+40

902

9316

+60

904

9314

+80

906

9312

311

908

9310

+20

9.10

9308

+40

9.12

9306

on Peg

+60

9.14

9304

Stake

+70

6.3

1493.9

9303

+2.9

+80

8.4

1493.8

9302

+0.8

312

9.18

9300

on Peg

0

6.82

1493.36

831 1503.75

0

1006

1493.69

450 Hiloid Dainly and chively and

clump of Golden Granite *

COJ

on Peg 4' P 309+00

on Peg 5' L 311+85

61.

7

1492.69

763 1501.32

312+25

834

1492.69

Stake

+40

836

929

+60

838

928

+80

840

927

313

842

926

+20

844

925

+40

846

924

+60

848

923

0

897

1497.35

663 1504.18

+76

07

+95

9.1

1495.1

922

Stake

+ 2.3

= Top of 12' Boulder
(#1 in report)

314

1135

921

+20

1140

920

+40

1142

919

+65

1144

918

CFO

Disintegrated and Rotten Boulder *

Don't pick on line 313+71

62.

2

130418

314 + 80 1146 9270

315 1148 9270

+20 1150 9270

+40 1152 9270

+60 1154 9270

+75 1156 9270

316 + 05 1158 9270

+20 1160 9270

+35 1162 9270

+60 1164 9270

+80 1166 9270

317 1168 9250

+20 1170 9245

+40 1172 9240

+60 1174 9244

+80 1176 9242

0 1052 1493.65

Take

Series - Curculion Point 45° slope

315 + 75 - 316 + 05 Small Bay Beakles Gulls

316 + 35 - 316 + 60 Two 8' Beakles

on next line 317 + 00

63

L

1493.65

545 1499.06

318

6.66

1492.40

Stake

+20

6.68

9236

+26

+40

6.70

9236

+60

6.72

9234

on rock

+79

6.74

9232

Stake

319

6.76

9230

+20

6.78

9228

+40

6.80

9226

+60

6.82

9224

+80

6.84

9222

320

6.86

9220

0

6.88

1492.21

1043 1502.64

+20

1046

9218

+40

1048

9216

Circular points containing settling boulders

Dry bath wash

00

peg line 319+80

64.

"L"

1502.64

320+60

1050

1492.14

Stake

+81

1052

92.12

Bomfo

993 1492.69

233 high (1492.723)

= BM.

321

1054

92.10

+20

1056

92.08

+40

1058

92.06

+60

1060

92.04

+80

1062

92.02

+96

7.5 1493.1

92.00

+31

Flat Boulder

322

1064

92.00

+20

1066

91.98

+40

1068

91.96

0

767 1494.97

on Rock

him

322+45

178 1496.75

+60

481

91.94

+80

483

91.92

323

485

91.90

Anchor

Commenced work at

Sta 322+60

6-24-07

7th Ave

Redwood

Max Watson

Geo Sam

Ford Bealy

Turn Moss

28 Eaton Hill

on Boulder

5' h

320+95

Platting

Team

BM

on Boulder

5' h

320+95

on Rock

him

322+45

CO

65.

1496.75

323 +20

487

1491.86

Stake

+40

489

91.86

+60

491

91.86

+80

493

91.86

324

495

91.86

+20

497

91.78

on mark

+40

499

91.76

Stake

+60

501

91.74

+80

503

91.72

325

505

91.70

+20

507

91.68

+40

509

91.66

+60

511

91.64

+80

513

91.62

0

847 1488.28

1152 1499.80

326

520

91.60

30°
Dining ground hillside facing south-sprinkling & Boulder

178 Boulder

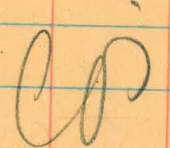
on Peak 10.5 327420

	1499 80		1491.8
326+20	822		9158
+40	824		9156
+60	826		9154
+80	828		9152
327	830		9150
+20	832		9148
+40	834		9146
+60	836		9144
+80	838		9142
328	840		9140
+20	842		9138
+40	844		9136
0	11.52	148829	
	693 149621		
+60	3.87		9134
+80	3.89		9132
329	3.91		9130

Stake

Caul.

South hillside

*

 = T.P. on page 10 on RR 10 L 327+30

67

149521

203 1493.18

213 high (1493.39) - Bm 29 Eaten kin

329+24

78 148.74 149128

Graben Ref - 3.9

+25

3.95 91.26

+40

+50

21 93.1 91.25

+ 1.8

0

374 1491.47

around Point 25% Granite Boulder
on Rock 5' +

936 150083

329+57
12
11

+80

9.61 91.22

Stake

330

9.63 91.20

+20

9.65 91.18

+40

9.67 91.16

+60

9.69 91.14

+80

9.71 91.12

331

9.73 91.10

+20

9.75 91.08

+40

9.9 91.06

+0.85 = crossing on top of Boulder in dry gulch

+52

9.78 91.05

*

@00

150083

331+72

34 1497.4 1491.03

stake + 6.4

B.M. #1

11.41 1489.42

on Boulder RR L⁺ 331+75

+80

4.5 1496.3 9102

+ 53

332

982 9100

+20

985 9098

+40

987 9096

+60

989 9094

+80

991 9092

332

993 9090

+17

+25

995 9088

+40

997 9086

+60

999 9084

+80

10.01 9082

334

1003 9080

+20

1005 9078

+40

1007 9076

30' Whistle - 30' white grouted granite. soil - occasional boulders.

gully 5' deep

1500.83

334+60	10.09	1490.74
+70	10.10	9073
+80		
+90	10.12	9071
0	4.05	1496.78
663	1503.41	

335	12.71	9070
+20	12.73	9068
+40	12.75	9066
+60	12.77	9064
+80	12.79	9062
336	12.81	9060
+20	12.83	9058
+40	12.85	9056
+60	12.87	9054
+80	12.89	9052
+98		

Stake

Dry gully 5' Deep

Disintegrated hillsides on aug 12th 334+17

Boulders gully 7' Deep

70.

150341

337+07	1291	1490.50	Stake	
	7.09	1496.32		
+20	1292	9048		
+41	1294	9046		
+60	1296	9044		
+80	83	14951	9042	+4.7
+96	56	14978	9040	+7.4
338+16	13.03		9038	
+38	10.6	14929	9036	+2.6
+60	13.07		9034	
+80	10.0	14934	9032	+3.1
339	13.11		9030	
o	9.22	1494.19		
	6.64	1500.83		
+20	10.55		9028	
+40	10.57		9026	
+60	9.9	1490.9	9024	+0.7

Commenced work at

Sta 337+20

6-25-07.

N. L. Hall Mar. 1880

Pittsfield 900 ft

Ford Brook

S.W. Mass.

Ref 1 on Pitk 337+41

Stages (450)

Top of Boulder

on Boulder in steep gully

on Pitk 5' Pit 339+35

COO

71

1500.83

339+74	5.8	1495.0	1490.23	+ 4.8
+92	5.8	95.0	9021	+ 4.8
340+06	6.6	942	9020	+ 4.0
+20	10.65		9018	
+40	8.1	1492.7	9016	+ 2.5
+55	22	98.6	9014	+ 8.5
+80	3.0	97.8	9012	+ 7.7
341	5.1	95.7	9010	+ 5.6
+25	5.8	95.0	9008	+ 4.9
+40	5.8	95.0	9006	+ 4.9
+60	10.79		9004	
0	4.76	1496.07		

Line crossed talus slope near top - went hand to 60°

493 1501.00

+80	10.98		9002	
342	11.00		9000	
+20	11.02		8998	
+40	11.04		8996	

peg 3' h + 34.45°

W

72

1501.00

342	160	1106	1489.94	STAKE	✓
	+80	1108	8992	"	✓
343		1110	8990	"	✓
	+20	1112	8988	"	✓
	+40	1114	8986	"	✓
	+60	1116	8984	"	✓
	+80	1118	8982	"	✓
344		1120	8980	"	✓
0		1139	1489.61		
	9.83	1499.44			
	+20	9.66	8978	"	✓
	+40	9.68	8976	"	✓
	+60	9.70	8974	"	✓
	+80	9.72	8972	"	✓
345		9.74	8970	"	✓
	+20	9.76	8968	"	✓
	+40	9.78	8966	"	✓

Disintegrated material - 20° - occasional boulders

00

on north bank 15' W 344+05

73.

149944

345+60		9.80	1499.64	Stake	
+80		9.82	89.62	"	
+90		9.83	89.1	"	
346+06					= Dry wash 8' Dip
+13		9.85	89.57	"	
+23	64	1493.0	89.58	"	+ 34
+60		9.90	89.58	"	
B.M. 42	0.66	1498.58		egg hole	(1498.503) = B.M. 2. station line
	1228	1497.16			= P.P.T. on page
+80					= Dry boulder wash
+99		9.94	89.52		346+60 - 346+99 = long chard) tooth 8 1/2' Bent
347+20	11.6	878	89.46		
+40	10.4	89.0	89.46		
+60	11.9	87.5	89.46		
	320	1490.36	1497.16		= P.P.T. along
+80		73	83.1		- 6.2
0		1237	1477.99		

COO

74-

0.63 1478.62

1477.99

345	27	759	1489.60	Stake	-13.5
+12	8.1	70.5	893.9		-18.9
+33	47	739	893.7		-15.5

= 1327 + 34 - 20 = 1341

0	191	1476.71			
---	-----	---------	--	--	--

1195 1488.66

+50	8.0	80.7	893.5		-8.7
+83	1.0	87.7	893.2		-1.6

0	0.98	1487.68			
---	------	---------	--	--	--

1153 1499.21

349	9.91	893.0			
+20	9.93	892.8			
+40	9.95	892.6			
+60	9.97	892.4			

Series of annual readings. 1 month

000

0	1202	1487.19			
---	------	---------	--	--	--

1184 1492.03

349+98	11.1	80.9	892.0		-0.3
--------	------	------	-------	--	------

(349+60 - 349+98) Dry wood 13 days

149203

350+20

89

831

1489.18

Stake - 6.1

0

486

1487.19

11.74 1498.93

0.39 1498.54

cont. = 30m. 42

check from east permanent T.P. to BM 42 in order

107 1499.63

1498.56

= 30m. 42

0

9.70

1489.93

multiple sightings made on Bull 15' h 250+60

2895 1492.25

350+40

7.3

1485.35

8916

- 3.7

+60

3.69

8914

+60

3.71

8912

351

3.73

8910

+20

5.5

1487.3

8905

- 1.8

351+20-351+5 = 30m. Knot
- 1.8m. anchor

76.

	3.145	1493.075	1489.93		
351+45		76	1485.8	1489.06	- 3.6
+60		74	85.7	89.04	- 3.3
+80		9.1	84.0	89.02	- 5.0
352		73	85.9	89.00	Painted Pk - 3.1
+07		48			Reading Pk
+23		2.1	91.0	89.6	Painted Pk + 2.0
+40		13.0	80.1		
+53		4.13		89.6	Stake
0		160	1491.475		
	4.705	1496.175			
+79		103			
+94		13	94.9	89.0	" + 6.0
353+20		6.7	89.5	89.6	" + 0.6
+31		6.6	99.6		on Pk + 0.7
+43					
+50		733		89.6	Stake
+60		721		89.6	"

Commenced work at
Sta. 351+45

6-26-07

P. W. Watson
Geo. S. Lane
Fred Baker
E. W. Moss

= Small dry wash

P. W. Watson
Geo. S. Lane
Fred Baker
E. W. Moss

= Small dry wash

C. W. Watson
= 332 + 31.2 Eaten by

77

1496.175

353+80	736	1488.82	state	
354+03	738	88.80		
+20	740	88.78		
+40	11.0	88.2		-36
+60	14.0	88.2		-6.5
+80	11.2	88.0		-3.7
355	13.0	88.2		-5.5
0	12.51	1483.665		

4.26 1487.925

+20	93	79.6	8868	-9.1
+40	126	75.3	8866	-13.4
+60	116	86.3	8872	-2.4
+97	04	87.5	8870	-1.2
0	12.2	1482.665		

11.59 1495.255

355+25	86	86.7	8868	-2.0
+40	84	86.9	8866	-1.8

fine powder yellow
 this is just beyond 10' Boulder
 this is just beyond 10' Boulder
 this is just beyond 10' Boulder

000

78

1495.255

355+60	84	869	1489.64	Stake	- 1.7
+40	61	89.2	88.62		+ 0.6
+40	6.66		88.60		
0	1159		1483.665		

1072 1494.385

2875 1491.510 (1491.475)

= T.P. page 76

2875 1494.350 1491.475

+80	42	1490.2	8862	Stake	+ 1.6
+92	3.0	91.4	8861	"	+ 2.8
38+10	64	88.0	8859	"	- 0.6
+20	5.77		8858	"	
+40	5.79		8856	"	
+60	5.81		8854	"	
+80	5.83		8852	"	
357	5.85		8850	"	
+20	5.87		8848	"	
+40	5.89	857	8846		- 2.8

8844
827
5.7

1492 lum

78

Sta	Grade	Sta	Grade	Sta	Grade	
100	1514.20	275	1496.70	293	1499.20	
200	04.20	276	9660	4	94.50	
3554	210	03.20	277	9650	5	94.70
+	220	02.20	278	9640	6	94.60
+	230	01.20	279	9630	7	94.50
0	240	00.20	280	9620	8	94.40
	250	1499.20	281	9610	1 9	94.30
	260	98.20	282	9600	300	94.20
	265	97.70	283	9590	1	94.10
	266	97.60	284	9580	2	94.00
	267	97.50	285	9570	3	93.90
35	268	97.40	286	9560	4	93.80
	269	97.30	287	9550	5	93.70
	270	97.20	288	9540	6	93.60
	271	97.10	289	9530	7	93.50
	272	97.00	290	9520	8	93.40
	273	96.90	1	9510	9	93.30
	274	96.80	2	9500	310	93.20

140

Sta	Grade	Sta	Grade
311	1493.10	329	1491.30
2	93.00	330	91.20
3	92.90	1	91.10
4	92.80	2	91.00
5	92.70	3	90.90
6	92.60	4	90.80
7	92.50	5	90.70
8	92.40	6	90.60
9	92.30	7	90.50
320	92.20	8	90.40
1	92.10	9	90.30
2	92.00	340	90.20
3	91.90	1	90.10
4	91.80	2	90.00
5	91.70	3	89.90
6	91.60	4	89.80
7	91.50	5	89.70
8	91.40	6	89.60

50

Bench on Eaton Line

B.M. 25

B.M. 26 on white boulder 25' L^t 274+25

1467.45 + 46.143 = 1513.593

B.M. 27 on large boulder 20' L^t 289+30

1443.57 + 46.143 = 1489.713

B.M. 28 on boulder 4' L^t 300+95

1446.58 + 46.143 = 1492.723

B.M. 29 on Boulder 7' L^t 309+50

1447.25 + 46.143 = 1493.393

B.M. 30 on Boulder 10' R^t 321+48

1456.30 + 46.143 = 1502.443

B.M. 31 on Boulder 3' L^t 329+27

1452.36 + 46.143 = 1498.503

49
48
95

1445.99
46.143
1492.133

1452.30
46.143
1498.443

1462.11
46.143
1508.253

1746.86
7.27
1754.13

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.46	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

Published by H. S. CROCKER COMPANY, Stationers, Drawing Materials, Mathematical Instruments, etc., San Francisco.