

3-30 17.14

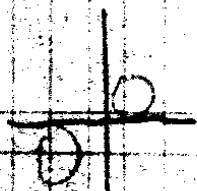
17-36

1st av. H. A. 39° 53'

U. C. 42° 50' 45"

2nd H. A. 39° 31'

U. C. 42° 49' 30" V. C.



H. A.

39° 46'

43° 35' 2"

U. C.

42° 46'

40° 07'

42° 46'

39° 31'

39° 33'

R

38° 55'

42° 53'

38° 20'

42° 06'

38° 43'

Normal

38° 06'

42° 12'

38° 31'

41° 43'

1st

~~N 80° 11' 19" W. N 65° 30' 24"~~

N 65° 32' 24"

XS River  
53

0  
0+10  
0+15  
0+20  
+25<sup>b</sup>  
+30  
+35  
+40  
45  
50  
55  
60  
62

1502  
162  
300  
900  
1200

57.71  
72  
11842  
40397  
41551

5771

1520  
39  
13680  
25660  
59280

58  
625  
690  
785  
730  
675  
720  
730  
710  
710  
60  
53

u 50

Depth Area

05 25  
145 490  
160 762  
255 1037  
200 1110  
145 862  
190 837  
200 975  
180 950  
180 900  
07 620  
0

217  
1855  
240  
2845  
2433  
412

20 sec. 100ft

240

= .72 ft per sec

Rt Bank .62

4-12 = .39

Total 69.4 cu ft x .80 = 55.5 c.f. per sec

3468.75 lbs per sec

35 ft head = 2200 h.p.

17-36

17-36

①

T29S R1W

Began at cor. 27-28-21-28

Sun 273° E

737

N76° E ~~N76° 55' E~~

set no. 1. hub. 9

N

of

H 148° 45' left to SW  
43° 58'

to

149° 11'  
44° 44'

av. H = 148° 58'

av. V = 44° 21'

ref. 01' ~~2220'~~

of N

147° 55'  
44° 36'

w. H = 148° 09' 1/2

av. V = 44° 58'

ref 44° 57'

to R

148° 24'  
45° 20'

9.15 July 31

Lat  $43^{\circ}02'$   
Dec = N  $18^{\circ}74'37''$

July 31 9<sup>15</sup> AM

log sin $18^{\circ}74'37''$	9.499436
co log $43^{\circ}02'$	.136108
co log $44^{\circ}20'$	.145520
<hr/>	
	9.781064
	.604037

Tan $43^{\circ}02'$	9.970162
Tan $44^{\circ}20'$	9.989893
<hr/>	
	9.960055
	.912127
	.604037
<hr/>	
	.308090

S  $72^{\circ}03'21''$  E

Bearing = S  $76^{\circ}54'29''$  W

sin $18^{\circ}74'37''$	9.499436
co log $43^{\circ}02'$	.136108
co log $44^{\circ}57'$	.150136
<hr/>	
	7.785680
	.61049

Tan $43^{\circ}02'$	9.970162
" $44^{\circ}57'$	9.999542
<hr/>	
	9.969704
	.93197
	.61049
<hr/>	
	.32148

S $71^{\circ}14'50''$
148 09 30
<hr/>

S  $76^{\circ}55'40''$  W

average = S  $76^{\circ}55''$  W

2 sec cor

1		-	73 <sup>7</sup>		N76°55'E
2	23°05'R 46°11	6°	74 <sup>3</sup>	S80°E	S79°57½E
3	7°34'L 15°09	14°	73 <sup>8</sup>	S86½E	S87°34'E
4	2°38'L 5°07	11	221 <sup>8</sup>	E 90°	N89°57½E
5	2°13'L 4°26	24½	66 <sup>8</sup>	N88½E	N87°39½E
6	2°10'R 4°21	27½	47 <sup>5</sup>	S89°E	N89°50E
7	2°50'R 5°39	31½	134 <sup>7</sup>	S86°E	S87°20½E
8	2°50'L 5°39	14½	147 <sup>2</sup>		N89°50E
9	2°39'R 5°19	21°	162 <sup>5</sup>	S85°E	S87°30½E
10	2°22'L 4°42	10°	218 <sup>2</sup>	S89°E	S89°51½E
11	0°02'R 0°05	13	155°		S89°49'E
12	1°34'L 3°07	27°	132 <sup>4</sup>	N89°E	N88°37½E
13	4°37'R 9°16	14°	143 <sup>8</sup>		S86°44½E
14					

1074  
3573<sup>9</sup>71<sup>6</sup>217<sup>7</sup> ✓60<sup>7</sup>42<sup>2</sup>114<sup>9</sup> ✓142<sup>5</sup> ✓151<sup>7</sup> ✓214<sup>9</sup> ✓151<sup>0</sup> ✓118<sup>0</sup> ✓139<sup>5</sup> ✓

3

13

7°23' L  
14°46'

14 1/2

1705

N86°05' E

S86°44' 2 E  
N85°52' 2 E

14

8°04' R  
16°08'

13

1058

S85 E

S86°03' 2 E

15

12°49' L  
25°30'

15

996

N82 1/2 E

N81°08' 2 E

16

15°50' R  
31°41'

15

1356

S87°01' E

17

30°05' L  
60°08'

18 1/2

440

N66°55' E

18

20°47' R  
41°34'

-

345

N85 2 E

N87°42' E

19

7°41' R  
15°22'

11°

1435

E

S84°30' E

20

49°09' L  
98°17'

-

483

N46°09' 2 E

21

21 is Top Rock and down  
about 20' west from edge cliff  
(Run) Station tower

78°39' L

17 1/2

1870

N35°40' W

N32°25' 2 W

22

18°18' R

2 1/5

1280

N75° W

N4°07' 2 W

23

55°25' R

-

1710

S16 1/2 E  
N39 1/2 E

N41°18' 2 E

24

40° W

17-36  
300  
25.7  

---

48.3

176.5  
102

299

165<sup>1</sup>

103<sup>1</sup>

96<sup>3</sup>

131<sup>0</sup>

41<sup>2</sup>

34<sup>5</sup>

140<sup>9</sup> ✓

170<sup>2</sup>

128<sup>0</sup>

17-36

(4)

24

6°45R

2

70°

N46<sup>3</sup>/<sub>4</sub> E

N41°18' E

N48°03' E

25

16°55R

-

106°

N64<sup>1</sup>/<sub>2</sub> E

N64°58' E

26

7°37L

-

200°

N58<sup>1</sup>/<sub>2</sub> E

N57°21' E

27

15°40R

-

435°

N72<sup>3</sup>/<sub>4</sub> E

N73°01' E

28

13°57R

-

197

N87<sup>1</sup>/<sub>4</sub> E

N86°58' E

29

6°37L

-

123

N79<sup>1</sup>/<sub>2</sub> E

N80°21' E

30

12°48L

-

200

N67<sup>1</sup>/<sub>2</sub> E

N67°33' E

31

11°13L

-

191

N56<sup>1</sup>/<sub>2</sub> E

N56°20' E

33

21°12L

-

217

N35<sup>1</sup>/<sub>2</sub> E

N35°08' E

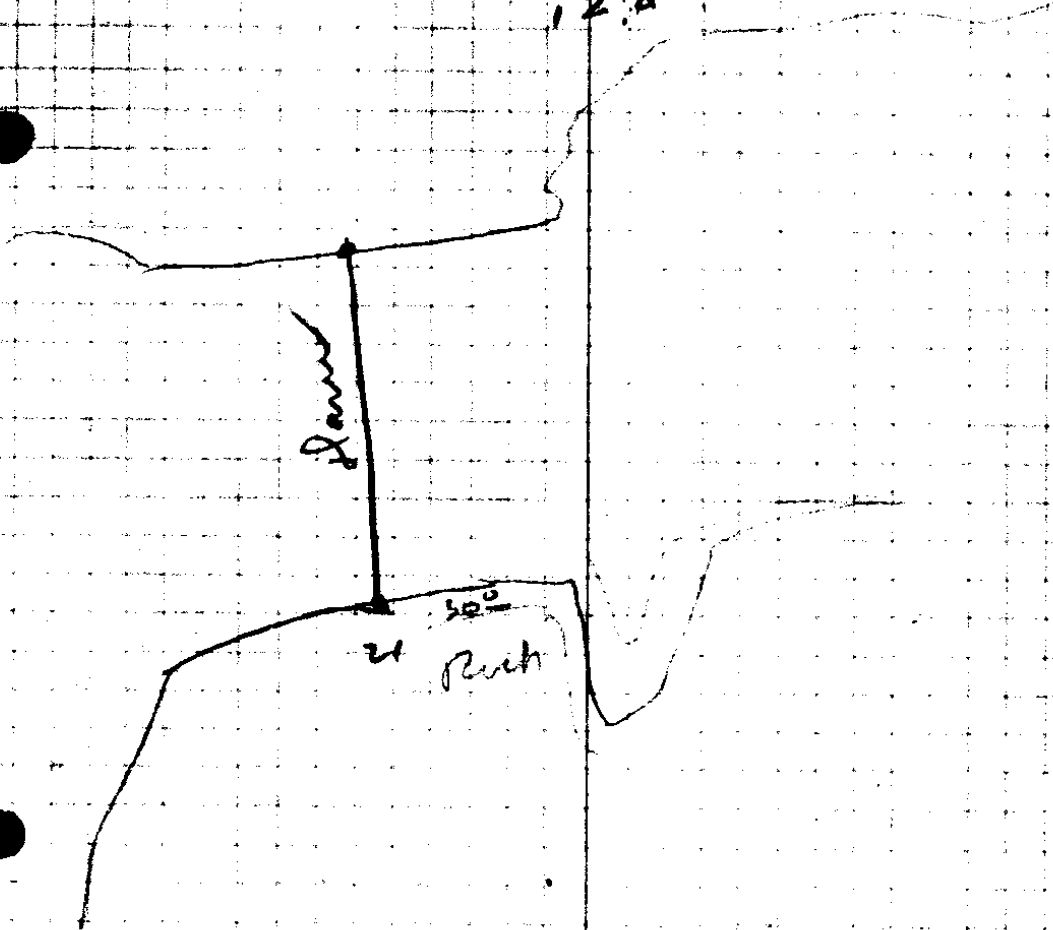
34

17-36

95.36

82.49

12.87



17-36

⑥

$\frac{250^0}{250^0}$

1 Mouth

Mag.

28<sup>4</sup>

539°04'E

2

33°29'L  
66°57'

20<sup>7</sup>

572°E

572°32'2"E

3

18°34'R  
37°08'

37<sup>8</sup>

553<sup>1</sup>/<sub>2</sub>E

553°58'2"E

4

16°10'L  
32°18'

57<sup>7</sup>

570°E

570°07'2"E

5

10°49'R  
3°38'

73<sup>3</sup>

567°E

668°18'2"E

6

32°55'R  
65°50'

32<sup>1</sup>

535°E

535°23'E

7

23°15'R

10ft

512°08'2"E

8

place shaft 4 ft Right +  
at Pt Ls to 7-8

R 9<sup>11</sup>

152°00 R To No 1

9<sup>14</sup>

303°59'

526°45'E

9<sup>12</sup>

41°18'E

12°19 L 1 to 2

539°04'E

294  
1739  
-----  
2038

1736

595  
160  
-----  
435

set 31 mile 30  
4:15 AM

N

of

3° 25

Left To Sun

583'20"

✓ 34° 30

R

of

3° 05 ✓

av H = 3° 15 ✓

33° 39

av V = 34° 04 ✓

580'20" w bearing

R

of

3° 56

av H = 3° 42' ✓

33° 57

av U = 33° 44' 30" ✓

N

of

3° 29

33° 37

Dec = July 31 N 18° 20' 30" ✓

⑤ 33 left out 7

34	0 <sup>19</sup>	100 <sup>19</sup>		100 <sup>20</sup>	B.17.
	W.S		4 <sup>83</sup>	95 <sup>36</sup>	
33=32			4 <sup>92</sup>	95 <sup>27</sup>	
TP	2 <sup>51</sup>	96 <sup>42</sup>	6 <sup>28</sup>	93 <sup>91</sup>	✓
32=31			2 <sup>65</sup>	93 <sup>77</sup>	
31=30			5 <sup>77</sup>	90 <sup>65</sup>	
W.S			6 <sup>42</sup>	90 <sup>00</sup>	
TP	7 <sup>69</sup>	97 <sup>72</sup>	6 <sup>39</sup>	90 <sup>03</sup>	✓
30=29			5 <sup>95</sup>	91 <sup>77</sup>	
TP	2 <sup>16</sup>	94 <sup>35</sup>	5 <sup>53</sup>	92 <sup>19</sup>	✓
28	Top still		0 <sup>97</sup>	93 <sup>38</sup>	
W.S			8 <sup>10</sup>	86 <sup>25</sup>	
TP	8 <sup>10</sup>	95 <sup>54</sup>	6 <sup>91</sup>	87 <sup>44</sup>	✓
27			7 <sup>85</sup>	87 <sup>69</sup>	✓
26	4 <sup>37</sup>	92 <sup>21</sup>	7 <sup>70</sup>	87 <sup>84</sup>	✓
25	TP		2 <sup>22</sup>	90 <sup>00</sup>	
TP	5 <sup>39</sup>	96 <sup>87</sup>	1 <sup>03</sup>	91 <sup>18</sup>	✓
24	P. sek		4 <sup>50</sup>	92 <sup>07</sup>	
23	TP	2 <sup>51</sup>	4 <sup>09</sup>	92 <sup>48</sup>	✓
22	T. sek		10 <sup>86</sup>	84 <sup>13</sup>	
W.S			12 <sup>5</sup>	82 <sup>49</sup>	
B.M. by dam			3 <sup>31</sup>	91 <sup>68</sup>	
H. Water is		97 <sup>00</sup>			

Polaris

July 31

9<sup>h</sup> 12<sup>m</sup> 30<sup>s</sup> P.M. STIME $\frac{13}{8\ 59\ 30}$  L.M.T.

U.C.

5<sup>h</sup> 3<sup>m</sup>- 1.3 ~~20 59 30~~

---

5<sup>h</sup> 1<sup>m</sup> 7<sup>s</sup>

---

12

17 61.7

8 59.5

---

8 02.2 H.A.

U.Z. = E 1° 16'

⑦ Traverse up R.V.C.V

34	2°04'R	232°	N38°E	N35°08'E N37°12'E
35	53°03'R	734°	E	S89°45'E
36	0°29'L	317°		N89°46'E
37	10°56'L	270	N79°E	N78°50'E
38	5°08'R	550	N85°E	N83°58'E
39	12°22'R	190	S83°E	S83°40'E
40	5°45'R	715		S77°55'E
41	9°45'L	176	S89°E	S87°40'E ✓
42				

42	0 <sup>68</sup>	Levels	100 <sup>68</sup> ✓	100° = 120 <sup>29</sup> 1317
W.S			405	96 <sup>63</sup> ✓ 11692
41			35	<del>97</del> 117 <sup>5</sup>
TP	415	✓	43	96 <sup>28</sup> ✓
40			749	92 <sup>94</sup>
W.S			1135	89 <sup>08</sup> 109 <sup>37</sup>

$$\begin{array}{r} 1736 \\ 274 \overline{) 4748} \\ \underline{548} \end{array}$$

$$\begin{array}{r} 3 \checkmark 3 \\ 110 \overline{) 330} \\ \underline{232} \end{array}$$

$$\begin{array}{r} 305 \\ 369 \overline{) 734} \\ \underline{734} \end{array}$$

⑧ left

stadia.

x sections

d

RT

Δ 41 W.S 4' +  $\frac{142}{30}$   $\frac{128}{W.S}$

0 +  $\frac{20}{14\frac{1}{2}}$   
 $\frac{4\frac{1}{2}}{19}$

39  $\frac{119}{+2\frac{1}{2}}$   $\frac{95}{0}$   $\frac{40}{27}$   $\frac{27}{W.S}$

	Tunnel.	Surface	Traverse
at No. 1.	site A		
	29°55' L 34 <sup>30</sup>	(61 <sup>6</sup> ) 74 <sup>8</sup>	526°45' E 556°40' E
B	301' R 20	(108 <sup>2</sup> ) 115 <sup>6</sup>	554 <sup>6</sup> 553°39' E
C	9°36' R 16 <sup>10</sup>	(161 <sup>9</sup> ) 168 <sup>5</sup>	554 <sup>6</sup> 544°03' E
D			

Raise				
	0 <sup>2</sup>	100 <sup>2</sup>		100
	0 <sup>7</sup>	89 <sup>0</sup>	11 <sup>9</sup>	88 <sup>3</sup> ✓
	1 <sup>1</sup>	78 <sup>7</sup>	11 <sup>4</sup>	77 <sup>6</sup>
	1 <sup>3</sup>	68 <sup>15</sup>	11 <sup>5</sup>	67 <sup>2</sup>
	0 <sup>8</sup>	57 <sup>9</sup>	11 <sup>5</sup>	57 <sup>1</sup>
	0 <sup>8</sup>	47 <sup>1</sup>	11 <sup>6</sup>	46 <sup>3</sup>
	0 <sup>6</sup>	35 <sup>6</sup>	12 <sup>1</sup>	35 <sup>0</sup>
	0 <sup>9</sup>	25 <sup>6</sup>	10 <sup>0</sup>	24 <sup>7</sup>
	0 <sup>9</sup>	14 <sup>4</sup>	11 <sup>2</sup>	13 <sup>2</sup>

$$\begin{array}{r} 2.1 \\ \hline 9.4 \end{array}$$

$$\begin{array}{r} \pi \\ 148 \\ \hline 5.1 \end{array}$$

$$\begin{array}{r} 11.8 \\ \hline 8.2 \end{array} \quad \begin{array}{r} 3.0 \\ \hline 3.6 \end{array}$$

$$\begin{array}{r} 20.5 \\ 925 \\ \hline 113.0 \\ 9.5 \\ \hline 103.6 \end{array}$$

⑨

{ 39 TP  
u.s  
TP

275 ✓  
100 ✓  
94 27 ✓  
555 ✓  
91 88 ✓

891  
773  
794  
562  
92

91 52 ✓  
86 54 ✓  
86 33 ✓  
86 26 ✓  
82 2 ✓  
86 22 ✓

{ 38  
u.s  
38

4 30 ✓  
90 56 ✓

840  
741  
497

82 16 ✓  
83 15 ✓  
81 35 ✓  
80 04 ✓  
81 46 ✓

{ u.s  
37  
36

317 ✓  
8 32 ✓

6 28  
486

102 45 ✓  
103 44 ✓  
101 64 ✓  
100 33 ✓  
101 45 ✓

TP u.s

375 ✓  
85 21 ✓

405  
700  
550

81 16 ✓  
88 21 ✓  
89 71 ✓  
100 ✓

35 TP u.s

34

Dam

X.S.

B.M  
0+45

1066  
102 34 ✓

1101  
634

91 68 ✓  
91 32 ✓

0+35  
TP

631  
108 03 ✓

062

95 80 ✓  
101 72 ✓

TP

1152  
118 06 ✓

649

106 54 ✓

0+27

1161  
128 86 ✓

225

115 81 ✓

TP

1161  
128 86 ✓

081

117 25 ✓

17-36

100  
82.49  
17.51

96.63  
79.71  
16.92  
17.51  
34.43

17-36

10

Dam S

0+22		128 <sup>86</sup>	10'	118 <sup>88</sup>
0+12	11 <sup>28</sup>	138 <sup>35</sup>	179	127 <sup>07</sup>
0+10			594	132 <sup>41</sup>
Top Rock			175	136 <sup>60</sup>
0+00=				
Sta 21 traverse			500	133 <sup>35</sup>

### Course Dam N 63 E

set A 0+45 stadia 91<sup>33</sup>

W.S. -8°05' 62°  $\frac{609}{840} = 82\frac{73}{100}$   
 ' 54° u.s. Pt Rock Run

0+58		9° Below u.s.	
0+68		0 <sup>46</sup> "	4.9
0+84 <sup>5</sup>		3 <sup>00</sup> "	
0+96		11 <sup>6</sup> "	

1+07	stadia	66°	$\frac{652}{725}$	91 <sup>33</sup>
	- 6°45'	70°	$\frac{170}{180}$	83 <sup>61</sup>
	- 1°30'	92°	42	89 <sup>53</sup>
	- 0°30'	97°	0.83	90 <sup>50</sup>
	+ 1°50'	109	97	94 <sup>44</sup>
	+ 5°10'	109	311	100 <sup>58</sup>
	+ 9°50'	119	1028	109 <sup>68</sup>
	12°15'	132	925	116 <sup>03</sup>
	13°30'	156	1058	121 <sup>33</sup>
	14°10'		1835	127 <sup>45</sup>
			1136	
			2470	
			1255	
			3000	
			147	
			2662	



Right + left from Q		Survey	Dist.	Elev
(11)	KS. Channel			
Δ 22	Right - 0°35	112°	112 <sup>2</sup>	-1 <sup>1</sup>
	+1°05	135	135	+2 <sup>6</sup>
stream 10' deep	+5°20	155	153 <sup>8</sup>	14 <sup>4</sup>
	11°50	195	186 <sup>8</sup>	39 <sup>1</sup>
	RT Bank	6°		
	Left			
	-4°30	10°	10	-0 <sup>8</sup>
	+22°20	16°	13 <sup>7</sup>	5 <sup>6</sup>
	+14°50	25	23 <sup>4</sup>	6 <sup>2</sup>
	+29°00	52	40 <sup>2</sup>	22 <sup>0</sup>
	30	75	56 <sup>2</sup>	32 <sup>5</sup>
	Trail 29°45	90	67 <sup>9</sup>	38 <sup>8</sup>
Δ 23	Right -12°35	42	40	-8 <sup>9</sup>
	-13°20	36	34 <sup>1</sup>	8 <sup>1</sup>
	-4°25	122	121 <sup>2</sup>	9 <sup>4</sup>
	-3°10	146	146 <sup>2</sup>	8 <sup>1</sup>
	+1°10	184	184	32
	8°15	230	225	32 <sup>3</sup>
	8°20	240	235	34 <sup>5</sup>
	then flat 80 ft. then up at 10%			
	Left +11°35	27	25 <sup>9</sup>	5 <sup>3</sup>
	25°30	56	45 <sup>6</sup>	21 <sup>8</sup>
	29°40	70	52 <sup>8</sup>	30 <sup>1</sup>
	20°30	97	72 <sup>1</sup>	42 <sup>5</sup>

24A, Right

-7°	74 w.s	73	8°
+2°30	125	124	5 <sup>1</sup> / <sub>2</sub>
+6°10	160	158	17 <sup>1</sup> / <sub>2</sub>

~~left~~

-14°10	35	w.s	33	8 <sup>3</sup> / <sub>2</sub>
--------	----	-----	----	-------------------------------

left

+15°15	25 Trail	23 <sup>3</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>
+33°40	65	45	30°

S.S

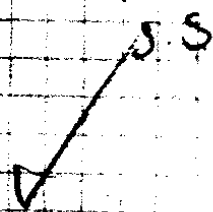
+35°45	82	54	38 <sup>8</sup> / <sub>2</sub>
--------	----	----	--------------------------------

26A left

+3°50	52	52	3 <sup>5</sup> / <sub>2</sub>
+11°30	91 Trail	87 <sup>5</sup> / <sub>2</sub>	17 <sup>8</sup> / <sub>2</sub>
+17°10	128	116 <sup>5</sup> / <sub>2</sub>	36 <sup>2</sup> / <sub>2</sub>

Right

water	6 ft	down	5 <sup>0</sup> / <sub>2</sub>	ft
-16°0	16°	w.s	15	4 <sup>2</sup> / <sub>2</sub>
+4°30	72°		72	5 <sup>6</sup> / <sub>2</sub>
+11°15	110°		106	21 <sup>0</sup> / <sub>2</sub>
12°00	142°		136	29 <sup>0</sup> / <sub>2</sub>



12

		?	10 u.s		
	27 Δ	Right	-1°30	49° u.s	49
			+2°25	72	72
			+13°30	95	89 <sup>8</sup>
N25°W		left	+4°40	40°	39°
			+11°15	60°	57 <sup>7</sup>
		A → +	9°50	110° trail	106 <sup>8</sup>
	Δ A	(B)	+18°30	78	75
	Δ B		+18°25	50	45
					13
					31
					21 <sup>6</sup>
					3 <sup>2</sup>
					11 <sup>5</sup>
					18 <sup>5</sup>
					15 <sup>2</sup>
					15

			28 + 60	Dumont	Creek com	high in m
			left	45	N230°E	
	28	Right	-15°45	20°	18 <sup>5</sup>	5 <sup>2</sup>
			-5°15	62° u.s	62	5 <sup>7</sup>
		with	+0°55	85	85	1 <sup>4</sup>
		3/4 up	+6°45	110	108 <sup>5</sup>	12 <sup>9</sup>
			Face cliff 1/4	1 slope	100' high	

N8°W		left	+15°35	64° (A)	59 <sup>4</sup>	16 <sup>6</sup>
		Δ (A)	0	56 trail	56	
			+3°50	85 (B)	84 <sup>6</sup>	5 <sup>7</sup>
		Δ B	+20°30	90	78 <sup>9</sup>	29 <sup>5</sup>

N14°W		Right	-6°40	20° u.s	19 <sup>5</sup>	2 <sup>3</sup>
			-1°35	70 u.s	70	1 <sup>9</sup>
			+8°0	102°	100	14 <sup>1</sup>
			1/2' 1 Rock	slope		

29. left +12°55'

ΔA +0°05'

ΔB -12°35'

-5°55'

~~-7°05'~~

ΔC +10°25'

✓ ΔD +6°15'

S.S. for 50 ft

12° A

77 (B) bank 77 0

65 & creek <sup>62</sup> <sup>138</sup> Diment

114 (C) bank <sup>107</sup> <sup>118</sup> Trail

61 D. Foot hill <sup>59</sup> <sup>109</sup> 580' w  
about 30 ft then banks  
gradually

188 then up 20% slope 186 20<sup>3</sup>

Dist Elev

68<sup>4</sup> 152

Right

A30

0°

40 u.s

0.

45 u.s

+3°50'

62

61<sup>8</sup>

41<sup>1</sup>

+14°

86

S.S. <sup>81</sup> <sup>20<sup>3</sup></sup> <sup>4.1</sup>

Left

+14°

83 A

78 195

ΔH +0°25'

127

127 12

not complete

Δ31 Rt.

0 -

55 u.s

79 152

+10°50'

82 S.S. 50 ft <sup>79</sup> <sup>152</sup> then up

Left

0°

10 u.s

+8°15'

93 A

A +16°20'

72 B

B +3°00'

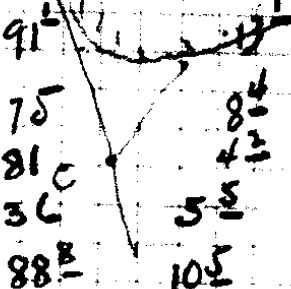
81 C

C +5°45'

36 trail

+6°45'

90 A



N15°00'

N23°00'

N20°00'

not here in Rt & line

17-36

(13)

$\Delta 33$

Rt

$\cup$   
 $+10^{\circ}50$

$42^{\circ}$  WS

80 <sup>then</sup> steeper 77 148

N40W

Left

~~Q~~ WS notation

$+4^{\circ}25$

~~80~~

100

A

44 72

$\Delta A$

$+15^{\circ}$

19

High water mark 79 47

$+10^{\circ}25$

67

B

64 8

11 9

$\Delta B$

$+4^{\circ}15$

35

35

2 6

$+11^{\circ}45$

70

Trail

67

13 9

steeper

$\Delta 34$

Left

$+7^{\circ}30$

45

44 58

$+6^{\circ}25$

92 H.W

91 102

$+14^{\circ}50$

130 Trail

121 32 2

Rt  
N10W

Right

15° Run

channel 8' deep

$-3^{\circ}15$

76 WS

76

4 3

$+3^{\circ}20$

104

103 5

6 0

then 10° vert, 1/4 slope then

$\Delta 35$

Rt

$-1^{\circ}50$

10 WS

85 WS

85

2 7

$+5^{\circ}25$

105

104

9 9

$+9^{\circ}50$

132

128 1

22 2

N10W

Left

$+12^{\circ}25$

55

52 5

11 5

$+17^{\circ}25$

80 trail

72 9

22 9

stream 3' deep 17-36

△ Sta Right

-1°30	49	6" water w.s	49	13
+13°45'	85	s.s	80 <sup>3</sup>	19 <sup>7</sup>

left.

+2°40	40		40	19
+10°15'	60		58	10 <sup>5</sup>
+15°10	102		94 <sup>2</sup>	25 <sup>7</sup>
up 6"		even flat 40 ft		

△ 37 Rt

-		6 w.s		
+8°45'		61 w.s		
	106		103 <sup>5</sup>	15 <sup>9</sup>
	SS		25 ft, then up	

left

-	33			
+13°50	100		94 <sup>2</sup>	23 <sup>2</sup>
		SS on level steeper	50 ft	

△ 38 left.

+7°0'	51		50 <sup>2</sup>	6 <sup>2</sup>
+14°50'	80		74 <sup>7</sup>	19 <sup>8</sup>
		SS	50 ft	

△ 39 Rt.

-	6	w.s	channel 8" deep	
-4°30	54		Rt bank	
+6°50	135		rest 2 ft	54 <sup>2</sup> 4 <sup>2</sup>
		SS	100	1133 16 <sup>2</sup>

△39 Rt.

(14)

	-	10 w		
	-11°15'	28 w.s	26 <sup>9</sup>	5 <sup>3</sup>
	-1°0'	88	88	15
	+6°40'	142	140	16 <sup>4</sup>

left

	+14°25'	12	11 <sup>2</sup>	2 <sup>0</sup>
	+32°10'	50	28 <sup>2</sup>	18 <sup>0</sup>
		58.5 ft		

△40

left	+14°10'	21	20	5 <sup>0</sup>
	+26°50'	51	40 <sup>6</sup>	20 <sup>6</sup>

Rt

	- 10-	w.s		
	-11°00'	22 w.s	21 <sup>2</sup>	4 <sup>1</sup>
	-1°0'	35 Top island	} 35	0 <sup>6</sup>
		100 ft long		
	+1°30'	70	70	1 <sup>8</sup>
	+2°30'	135	135	5 <sup>9</sup>
		4:1 slope	100 ft long	