

4

Contour survey City Park

City Park San Diego Cal.

158

400

LEVEL

F.B. 158

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

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

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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.

**MICROFILMED**

Angle	COR. IN LINKS						
0		0		0		0	
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

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Contours Survey City Park

Contours Survey City Park  
No. 4

2128103  
Alverson  
McLaren  
Cayinsola  
Lutke

△ Pt. on Round Canyon baseline  
210 ft. from Sta. 55 at angle  $47^{\circ}00'$  L.  
→ line produced  
195 ft. Contours.

820'	$67^{\circ}55'$ R. 238	233	✓
850'	$62^{\circ}30'$ R. 220	215	✓
880'	$57^{\circ}17'$ R. 230	225	✓
745'	$54^{\circ}00'$ R. 252	247	✓
700'	$51^{\circ}25'$ R. 277	273	✓
630'	$48^{\circ}45'$ R. 300	296	✓
620'	$47^{\circ}00'$ R. 341	337	✓
600'	$45^{\circ}26'$ R. 364	360	✓

Vertical Hoop Rod.

5'35"	42°25' R. 3.57	354	✓
6'00"	39°46' R. 3.23	319	✓
7'15"	35°30' R. 2.96	291	✓
7'30"	34°10' R. 2.59	254	✓
7'15"	28°20' R. 2.23	217	✓
10'35"	22°29' R. 1.83	177	✓
12'00"	10°35' R. 1.67	160	✓
11'30"	3°25' R. 1.78	171	✓
10'55"	6°45' L. 1.80	174	✓
10'00"	11°12' L. 1.93		✓

200 ft. Contour

11'30"	4°45' L. 1.96	187	✓
12'10"	4°00' R. 1.87	179	✓
12'00"	13°55' R. 1.88	180	✓
10'50"	22°04' R. 2.18	210	✓
9'00"	29°00' R. 2.50	244	✓

8'30"	31°52' R. 2.77	271	✓
8'30"	33°18' R. 3.13	306	✓
6'50"	38°00' R. 3.47	339	✓
6'00"	41°46' R. 3.84	380	✓
6'00"	45°15' R. 3.86	382	✓
7'00"	49°40' R. 3.53	348	✓
7'20"	50°50' R. 3.13	308	✓
8'10"	53°45' R. 2.82	277	✓
13'50"	59°20' R. 2.60	245	✓
14'00"	62°25' R. 2.57	242	✓
13'30"	65°38' R. 2.67	252	✓

Δ Pt. on 8<sup>th</sup> ft. range line at H<sub>0</sub>+80 R

→ H line produced easterly.

205 ft. Contour

8'10"	5°30' R. 2.50	245	✓
8'10"	9°45' R. 2.36	231	✓
9'20"	9°36' R. 2.13	207	✓

10 <sup>50</sup> '	137 <sup>R</sup>	1.87	180	✓
10 <sup>50</sup> '	540 <sup>L</sup>	1.80	174	✓
11 <sup>00</sup> '	1670 <sup>L</sup>	1.78	172	✓
11 <sup>00</sup> '	7840 <sup>L</sup>	1.70	164	✓
13 <sup>30</sup> '	3252 <sup>L</sup>	1.42	133	✓
13 <sup>50</sup> '	3452 <sup>L</sup>	1.19	110	✓
20 <sup>30</sup> '	2645 <sup>L</sup>	0.99	85	✓
21 <sup>25</sup> '	310 <sup>R</sup>	0.93	81	✓
28 <sup>00</sup> '	7847 <sup>R</sup>	1.02	90	✓
18 <sup>25</sup> '	4100 <sup>R</sup>	1.10	99	✓
14 <sup>20</sup> '	4635 <sup>R</sup>	1.43	134	✓
12 <sup>00</sup> '	5932 <sup>R</sup>	1.68	161	✓
10 <sup>00</sup> '	5955 <sup>R</sup>	2.04	198	✓
8 <sup>30</sup> '	6375 <sup>R</sup>	2.30	225	✓
7 <sup>45</sup> '	6952 <sup>R</sup>	2.43	239	✓

210 ft Barton

8 <sup>30</sup> '	6355 <sup>R</sup>	1.99	195	✓
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9 <sup>30</sup> '	5830 <sup>R</sup>	1.78	173	✓
11 <sup>30</sup> '	5930 <sup>R</sup>	1.44	138	✓
15 <sup>00</sup> '	5045 <sup>R</sup>	1.14	106	✓
13 <sup>30</sup> '	4520 <sup>R</sup>	0.93	88	✓
20 <sup>20</sup> '	2115 <sup>R</sup>	0.85	75	✓
20 <sup>55</sup> '	3145 <sup>R</sup>	0.80	70	✓
20 <sup>45</sup> '	3215 <sup>L</sup>	0.80	70	✓
14 <sup>30</sup> '	4630 <sup>L</sup>	1.20	113	✓
11 <sup>00</sup> '	4200 <sup>L</sup>	1.55	149	✓
9 <sup>00</sup> '	3740 <sup>L</sup>	1.88	183	✓
8 <sup>00</sup> '	3155 <sup>L</sup>	2.04	200	✓
8 <sup>00</sup> '	2130 <sup>L</sup>	2.00	196	✓
8 <sup>00</sup> '	1040 <sup>L</sup>	1.93	189	✓
7 <sup>50</sup> '	140 <sup>L</sup>	1.97	193	✓
7 <sup>50</sup> '	330 <sup>R</sup>	2.20	216	✓
7 <sup>00</sup> '	275 <sup>L</sup>	2.37	233	✓

## 215 ft Bantow.

550'	43°22' L	238	✓
545'	44°22' L	218	✓
635'	48°00' L	185	✓
830'	53°30' L	145	✓
1010'	59°35' L	121	✓
1310'	53°50' L	91	✓
18°25'	38°15' L	58	✓
15°05'	7°35' L	60	✓
20°30'	23°10' R	61	✓
19°00'	43°25' R	64	✓
16°00'	58°00' R	83	✓
11°30'	56°37' R	116	✓
8°10'	64°15' R	167	✓

## 220 ft Bantow.

10°00'	66°00' R	110	✓
12°25'	64°35' R	84	✓

5°10'	61°10' R	070	65	✓
18°45'	38°03' R	058	52	✓
20°30'	7°18' R	053	47	✓
20°30'	29°38' L	052	46	✓
14°10'	51°55' L	077	72	✓
10°00'	65°10' L	110	107	✓
8°00'	62°50' L	147	144	✓
6°30'	59°15' L	170	168	✓
5°00'	52°22' L	210	208	✓
4°30'	51°50' L	243	243	✓

## 225 ft Bantow.

5°30'	56°45' L	240	240	✓
3°30'	59°40' L	210	210	✓
4°30'	62°35' L	178	178	✓
4°30'	70°05' L	150	150	✓
6°00'	78°20' L	126	125	✓
8°00'	71°37' L	101	99	✓

10°40'	63°48' L	0.72	70	✓
16°00'	54°20' L	0.48	44	✓
18°30'	22°20' L	0.39	35	✓
18°00'	4°48' R	0.40	36	✓
16°00'	48°35' R	0.48	45	✓
12°00'	71°00' R	0.74	70	✓
9°30'	77°32' R	1.10	108	✓

## 230 ft. Contour.

4°00'	82°18' R	1.08	108	✓
4°10'	78°55' R	0.81	81	✓
6°20'	77°52' R	0.56	56	✓
12°30'	41°55' R	0.32	31	✓
15°30'	10°35' L	0.26	24	✓
14°30'	59°25' L	0.33	31	✓
8°20'	78°42' L	0.64	63	✓
4°50'	79°35' L	1.05	105	✓
4°10'	75°40' L	1.21	121	✓

3°40'	77°00' L	1.47	147	✓
3°00'	71°25' L	1.71	171	✓
2°45'	64°12' L	1.98	198	✓
2°30'	61°25' L	2.22	222	✓
2°00'	61°25' L	2.55	255	✓

## 235 ft. Contour.

100'	65°08' L	2.58	258	✓
100'	65°00' L	2.25	225	✓
100'	71°00' L	1.93	193	✓
110'	75°15' L	1.74	174	✓
120'	81°00' L	1.54	154	✓
115'	82°40' L	1.32	132	✓
115'	86°30' L	0.92	92	✓
700'	81°22' L	0.63	63	✓
230'	79°05' L	0.37	37	✓
200'	72°15' L	0.24	24	✓
910'	7°25' L	0.14	14	✓

225'	77°25'R	0.31	31	✓
210'	88°45'R	0.58	58	✓
200'	86°15'R	0.91	91	✓
200'	86°15'R	1.12	112	✓

240 ft. Bottom.

200'	90°10'R	1.08	108	✓
200'	92°20'R	0.84	84	✓
245'	99°15'R	0.58	58	✓
1°40'	101°25'R	0.34	34	✓
1°15'	95°52'R	0.18	18	✓
0°00'	7°30'R	0.06	6	✓
130'	96°55'L	0.16	16	✓
200'	93°25'L	0.43	43	✓
100'	92°15'L	0.74	74	✓
100'	92°25'L	1.00	100	✓
100'	89°05'L	1.38	138	✓
100'	86°00'L	1.58	158	✓

100'	79°05'L	1.76	176	✓
100'	74°09'L	1.96	196	✓
100'	68°50'L	2.22	222	✓
100'	67°40'L	2.58	258	✓

245 ft. Bottom.

0°30'	09°42'L	2.57	257	✓
0°30'	71°05'L	2.28	228	✓
130'	76°13'L	2.04	204	✓
100'	84°50'L	1.74	174	✓
100'	90°30'L	1.64	164	✓
100'	95°15'L	1.26	126	✓
120'	101°22'L	0.92	92	✓
100'	102°55'L	0.57	57	✓
100'	104°20'L	0.30	30	✓
0°00'	156°00'R	0.11	11	✓
100'	119°18'R	0.29	29	✓
0°40'	107°45'R	0.59	59	✓

0°30' 98°40'R 0.83 ✓

△ Pt. on Round Canyon base line  
at Sta. 59  
→ Sta. 56

145 ft. Contour.

7°00' 0°25'R 3.07 307 ✓

7°00' 1°00'R 2.78 278 ✓

1°45' 3°05'R 2.47 247 ✓

2°30' 3°25'R 2.10 210 ✓

2°30' 4°25'R 1.86 186 ✓

2°30' 10°10'R 1.71 171 ✓

2°30' 13°20'R 1.78 178 ✓

2°30' 21°18'R 1.73 173 ✓

2°30' 24°20'R 1.55 155 ✓

2°30' 23°00'R 1.34 134 ✓

3°10' 14°20'R 1.12 112 ✓

3°15' 6°50'R 1.02 102 ✓

150 ft. Contour.

4°15' 6°20'R 0.52 52 ✓

3°30' 20°00'R 0.78 78 ✓

2°30' 22°00'R 1.06 106 ✓

1°30' 27°35'R 1.38 138 ✓

1°10' 26°03'R 1.66 166 ✓

155 ft. Contour.

0°00' 28°15'R 1.68 168 ✓

0°00' 29°50'R 1.48 148 ✓

0°30' 30°20'R 1.20 120 ✓

0°30' 29°12'R 0.97 97 ✓

0°45' 35°20'R 0.66 66 ✓

0°15' 45°50'R 0.38 38 ✓

0°15' 82°38'R 0.15 15 ✓

0°15' 160°46'R 0.26 26 ✓

0°15' 169°25'R 0.54 54 ✓

△ Pt. on Pounds Canyon baseline  
at Sta. 61.

→ Sta. 56.

160 ft. Contour.

100' 14°5'R 358 358 ✓

110' 14°30'R 322 322 ✓

100' 15°22'R 265 265 ✓

100' 17°35'R 213 213 ✓

125' 21°00'R 167 167 ✓

115' 31°40'R 120 120 ✓

130' 53°52'R 91 91 ✓

300' 85°12'R 77 77 ✓

300' 116°00'R 75 75 ✓

130' 136°10'R 99 99 ✓

130' 148°10'R 136 136 ✓

130' 152°00'R 174 174 ✓

120' 154°15'R 205 205 ✓

100' 159°07'R 246 246 ✓

150' 159°25'R 290 290 ✓

145' 159°30'R 330 330 ✓

145' 159°35'R 388 388 ✓

165 ft. Contour

150' 156°10'R 386 386 ✓

300' 153°40'R 347 347 ✓

300' 156°05'R 296 296 ✓

300' 154°40'R 250 250 ✓

200' 148°55'R 207 207 ✓

330' 148°15'R 169 169 ✓

110' 134°20'R 141 141 ✓

500' 120°00'R 117 116 ✓

500' 101°30'R 106 105 ✓

515' 76°10'R 106 105 ✓

130' 57°20'R 120 120 ✓

400' 40°12'R 150 150 ✓

330' 31°25'R 183 183 ✓

330'	76°30'R	218	218	✓
245'	71°20'R	262	262	✓
230'	18°38'R	300	300	✓
220'	17°25'R	330	330	✓
215'	16°45'R	364	364	✓

## 155 ft. Contour

120'	9°38'R	121	121	✓
130'	21°56'R	90	90	✓
130'	51°20'R	51	51	✓
145'	100°55'R	36	36	✓
200'	148°46'R	60	60	✓
200'	156°20'R	108	108	✓
030'	158°48'R	148	148	✓
045'	163°05'R	189	189	✓
045'	164°30'R	207	207	✓

## 170 ft. Contour

245'	153°25'R	387	387	✓
240'	152°55'R	354	354	✓
245'	152°35'R	313	313	✓
300'	151°00'R	268	268	✓
330'	146°52'R	230	230	✓
400'	139°35'R	194	194	✓
440'	129°30'R	163	163	✓
600'	112°20'R	140	139	✓
600'	96°00'R	129	128	✓
540'	73°15'R	133	132	✓
515'	60°20'R	148	147	✓
430'	45°55'R	172	172	✓
345'	35°05'R	210	210	✓
330'	28°30'R	238	238	✓
300'	24°50'R	275	275	✓
230'	21°45'R	307	307	✓
230'	21°00'R	326	326	✓

315' 19°45'R 3.68 368 ✓

## 175 ft. Contour

300' 20°30'R 3.55 355 ✓

315' 22°55'R 3.27 327 ✓

330' 24°15'R 2.96 296 ✓

400' 29°00'R 2.64 264 ✓

430' 30°45'R 2.47 247 ✓

450' 37°37'R 2.18 218 ✓

530' 47°00'R 1.94 192 ✓

600' 58°15'R 1.74 172 ✓

645' 73°35'R 1.56 154 ✓

700' 89°50'R 1.52 150 ✓

635' 106°00'R 1.57 155 ✓

600' 120°00'R 1.77 175 ✓

500' 133°20'R 2.04 202 ✓

430' 141°10'R 2.40 240 ✓

400' 145°46'R 2.73 273 ✓

330' 149°05'R 3.04 304 ✓

315' 150°42'R 3.37 337 ✓

300' 159°42'R 3.73 373 ✓

300' 152°05'R 3.90 390 ✓

## 180 ft. Contour

350' 149°45'R 3.90 390 ✓

400' 149°08'R 3.54 354 ✓

420' 146°25'R 3.17 317 ✓

500' 141°15'R 2.77 275 ✓

530' 134°35'R 2.43 241 ✓

630' 128°12'R 2.11 208 ✓

655' 117°25'R 1.97 194 ✓

720' 108°40'R 1.87 184 ✓

735' 95°37'R 1.76 173 ✓

745' 81°50'R 1.76 173 ✓

730' 69°36'R 1.81 178 ✓

700' 55°10'R 1.96 193 ✓

630'	144°40'R	213	210	✓
530'	35°30'R	247	245	✓
450'	29°30'R	284	284	✓
430'	25°42'R	320	320	✓
400'	23°20'R	341	341	✓
400'	22°30'R	360	360	✓

## 185 ft. Bantow

450'	25°05'R	348	348	✓
510'	17°30'R	325	322	✓
540'	31°00'R	292	289	✓
400'	37°55'R	253	249	✓
730'	47°20'R	224	220	✓
800'	58°15'R	205	201	✓
830'	68°30'R	196	192	✓
830'	78°32'R	194	190	✓
815'	93°35'R	196	194	✓
800'	106°07'R	213	209	✓

750'	119°05'R	220	216	✓
700'	128°42'R	237	233	✓
640'	132°15'R	257	254	✓
600'	137°00'R	282	279	✓
520'	142°35'R	317	314	✓
500'	146°04'R	347	344	✓
475'	147°45'R	391	391	✓

## 190 ft. Bantow

520'	145°20'R	394	391	✓
520'	144°35'R	365	362	✓
550'	142°15'R	338	335	✓
650'	137°10'R	306	302	✓
705'	131°42'R	276	272	✓
750'	126°05'R	253	248	✓
820'	119°10'R	235	230	✓
830'	110°30'R	230	225	✓
815'	105°50'R	236	233	✓

9 <sup>00</sup> '	94°45'R	221	216	✓
9 <sup>20</sup> '	80°25'R	210	204	✓
9 <sup>30</sup> '	66°50'R	210	204	✓
8 <sup>45</sup> '	55°35'R	223	219	✓
8 <sup>15</sup> '	46°25'R	241	236	✓
7 <sup>40</sup> '	39°38'R	258	253	✓
7 <sup>00</sup> '	34°15'R	285	281	✓
6 <sup>30</sup> '	30°50'R	312	308	✓

195 ft. Contour

4 <sup>00</sup> '	31°25'R	324	319	✓
8 <sup>00</sup> '	35°45'R	292	286	✓
8 <sup>30</sup> '	40°20'R	269	265	✓
9 <sup>15</sup> '	48°00'R	247	241	✓
9 <sup>35</sup> '	51°55'R	236	230	✓
10 <sup>00</sup> '	65°00'R	221	214	✓
10 <sup>10</sup> '	74°45'R	222	215	✓
10 <sup>10</sup> '	83°20'R	225	218	✓

9 <sup>30</sup> '	94°20'R	240	233	✓
9 <sup>15</sup> '	100°22'R	243	237	✓
9 <sup>00</sup> '	105°00'R	260	254	✓
9 <sup>00</sup> '	110°48'R	250	244	✓
9 <sup>10</sup> '	119°10'R	250	244	✓
8 <sup>40</sup> '	125°20'R	261	255	✓
8 <sup>15</sup> '	130°00'R	281	275	✓
7 <sup>15</sup> '	136°00'R	316	311	✓
6 <sup>30</sup> '	141°00'R	347	343	✓
6 <sup>00</sup> '	143°00'R	370	366	✓
6 <sup>00</sup> '	143°15'R	394	390	✓

200 ft. Contour

6 <sup>50</sup> '	141°20'R	392	386	✓
7 <sup>00</sup> '	141°15'R	370	364	✓
7 <sup>30</sup> '	139°40'R	346	340	✓
8 <sup>00</sup> '	133°50'R	317	311	✓
8 <sup>30</sup> '	130°35'R	301	294	✓

9 <sup>10</sup>	125°20'R 2.75	268	✓
10°00'	120°30'R 2.61	253	✓
10°00'	114°45'R 2.60	252	✓
9°15'	106°25'R 2.80	273	✓
9°50'	100°38'R 2.60	252	✓
10°00'	96°08'R 2.60	252	✓
10°20'	90°10'R 2.53	245	✓
10°35'	82°55'R 2.38	236	✓
11°00'	74°25'R 2.34	225	✓
11°00'	66°00'R 2.31	228	✓
10°35'	60°05'R 2.43	235	✓
10°20'	53°33'R 2.50	242	✓
9°40'	45°30'R 2.61	254	✓
9°00'	39°25'R 2.84	277	✓
8°50'	35°55'R 3.10	303	✓

205 ft. bottom

9°45'	42°05'R 2.96	288	✓
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10°30'	46°35'R 2.74	265	✓
11°00'	54°05'R 2.62	252	✓
11°30'	62°38'R 2.50	240	✓
11°45'	67°25'R 2.46	236	✓
11°45'	76°05'R 2.43	233	✓
11°30'	83°35'R 2.53	243	✓
10°45'	91°20'R 2.68	259	✓
10°30'	97°00'R 2.73	264	✓
10°15'	101°18'R 2.77	268	✓
9°45'	105°20'R 2.93	295	✓
10°00'	112°30'R 2.84	275	✓
10°30'	119°08'R 3.71	261	✓
10°00'	125°35'R 2.91	282	✓
9°00'	130°15'R 3.17	309	✓
8°30'	134°45'R 3.38	231	✓
7°50'	138°30'R 3.63	356	✓
7°40'	139°05'R 3.88	381	✓

## 210 ft. contour

8 <sup>20</sup>	137°10'R	387	379	✓
8 <sup>30</sup>	137°00'R	370	362	✓
9 <sup>15</sup>	132°37'R	343	334	✓
9 <sup>45</sup>	128°35'R	321	312	✓
10 <sup>30</sup>	125°37'R	303	293	✓
11 <sup>00</sup>	120°15'R	288	278	✓
10 <sup>30</sup>	113°00'R	298	288	✓
10 <sup>15</sup>	105°55'R	310	300	✓
10 <sup>50</sup>	100°00'R	293	283	✓
11 <sup>00</sup>	94°05'R	290	279	✓
11 <sup>30</sup>	87°55'R	274	263	✓
12 <sup>00</sup>	77°45'R	260	249	✓
12 <sup>15</sup>	68°50'R	264	252	✓
11 <sup>45</sup>	59°30'R	270	259	✓
11 <sup>05</sup>	48°35'R	288	277	✓

## 215 ft. contour

12 <sup>10</sup>	83°10'R	290	277	✓
11 <sup>40</sup>	90°15'R	300	288	✓
11 <sup>20</sup>	95°55'R	305	293	✓
11 <sup>15</sup>	101°05'R	315	303	✓
11 <sup>00</sup>	105°05'R	321	309	✓
10 <sup>50</sup>	109°15'R	317	306	✓
11 <sup>15</sup>	115°25'R	309	297	✓
11 <sup>30</sup>	121°04'R	305	293	✓
11 <sup>00</sup>	125°08'R	317	305	✓
10 <sup>45</sup>	129°15'R	310	330	✓
9 <sup>30</sup>	132°55'R	363	253	✓
9 <sup>30</sup>	134°45'R	389	376	✓

## 220 ft. contour

9 <sup>15</sup>	132°37'R	396	385	✓
10 <sup>30</sup>	130°45'R	364	352	✓
10 <sup>50</sup>	127°45'R	350	338	✓

11°25'	124°40'R	330	317 ✓
11°45'	120°10'R	324	311 ✓
11°55'	114°50'R	325	312 ✓
11°30'	111°15'R	331	318 ✓
11°30'	109°30'R	333	320 ✓
11°25'	103°50'R	338	325 ✓
11°30'	99°00'R	330	317 ✓
11°50'	94°38'R	320	307 ✓
12°05'	89°20'R	313	299 ✓
12°15'	86°05'R	314	300 ✓

3/2/03

Alverson  
M. E. Karen  
A. A. A. A.  
L. E. E.

## 225 ft Contour

11°06'	138°30'R	390	376 ✓
11°30'	129°32'R	360	346 ✓
12°00'	123°05'R	341	326 ✓

12°00'	117°50'R	338	323 ✓
12°00'	112°40'R	342	327 ✓
11°45'	107°25'R	346	332 ✓
11°45'	102°06'R	348	334 ✓
12°00'	97°34'R	338	323 ✓
12°30'	92°10'R	331	316 ✓
12°25'	89°00'R	333	318 ✓

## 230 ft Contour

12°40'	92°20'R	345	328 ✓
12°30'	99°30'R	350	334 ✓
12°15'	102°30'R	360	344 ✓
12°05'	106°08'R	358	342 ✓
12°25'	110°56'R	360	334 ✓
12°30'	113°30'R	351	335 ✓
12°30'	119°15'R	350	334 ✓
12°05'	123°52'R	363	347 ✓
11°30'	128°30'R	397	381 ✓

## Vertical Horiz. Rod.

## 235 ft. Contour

12 <sup>00</sup> '	126°10'R	4.00	383 ✓
12 <sup>25</sup> '	124°08'R	3.76	362 ✓
12 <sup>30</sup> '	120°55'R	3.72	355 ✓
12 <sup>55</sup> '	116°55'R	3.67	349 ✓
12 <sup>55</sup> '	112°45'R	3.68	350 ✓
12 <sup>30</sup> '	108°35'R	3.68	351 ✓
12 <sup>35</sup> '	104°35'R	3.70	353 ✓
13 <sup>00</sup> '	99°10'R	3.72	353 ✓
13 <sup>00</sup> '	94°25'R	3.65	347 ✓

## 240 ft. Contour

13 <sup>20</sup> '	94°36'R	3.77	357 ✓
13 <sup>00</sup> '	98°55'R	3.83	344 ✓
13 <sup>05</sup> '	103°55'R	3.83	364 ✓
13 <sup>10</sup> '	109°15'R	3.82	363 ✓
13 <sup>10</sup> '	113°30'R	3.77	357 ✓

13 <sup>10</sup> '	118°17'R	3.78	358 ✓
13 <sup>00</sup> '	122°07'R	3.87	367 ✓
12 <sup>30</sup> '	124°10'R	3.98	379 ✓

## 245 ft. Contour

13 <sup>05</sup> '	122°00'R	4.06	385 ✓
13 <sup>25</sup> '	120°00'R	3.96	375 ✓
13 <sup>30</sup> '	116°22'R	3.90	369 ✓
13 <sup>40</sup> '	110°18'R	3.90	368 ✓
13 <sup>30</sup> '	106°00'R	3.92	371 ✓
13 <sup>25</sup> '	101°00'R	3.96	375 ✓
13 <sup>40</sup> '	96°20'R	3.86	344 ✓

## 250 ft. Contour

14 <sup>00</sup> '	96°10'R	4.00	377 ✓
13 <sup>35</sup> '	99°50'R	4.04	382 ✓
13 <sup>45</sup> '	104°20'R	4.04	381 ✓
14 <sup>00</sup> '	108°40'R	4.04	377 ✓

14 <sup>00</sup> '	112°12'R	4.00	377✓
14 <sup>00</sup> '	115°53'R	3.99	376✓
13 <sup>35</sup> '	119°30'R	4.20	397✓

255 ft Bantow

14 <sup>15</sup> '	116°50'R	4.26	399✓
14 <sup>20</sup> '	114°46'R	4.14	389✓
14 <sup>20</sup> '	111°15'R	4.15	390✓
14 <sup>10</sup> '	106°30'R	4.20	395✓
14 <sup>05</sup> '	101°36'R	4.20	395✓
14 <sup>10</sup> '	98°45'R	4.23	395✓
14 <sup>30</sup> '	94°30'R	4.17	391✓

260 ft Bantow

14 <sup>30</sup> '	99°18'R	4.33	406✓
14 <sup>30</sup> '	105°06'R	4.35	408✓
14 <sup>30</sup> '	111°22'R	4.47	419✓

△ Pt on Round Canyon base  
 line Sta. 65  
 → Sta. 73

160 ft Bantow

0 <sup>00</sup> '	93°40'L	0.67	67✓
0 <sup>00</sup> '	68°23'L	0.90	90✓
0 <sup>00</sup> '	51°00'L	1.08	108✓
0 <sup>00</sup> '	41°50'L	1.43	143✓
0 <sup>00</sup> '	26°20'L	1.66	166✓
0 <sup>00</sup> '	16°12'L	1.78	178✓
0 <sup>00</sup> '	8°50'L	1.88	188✓
0 <sup>00</sup> '	5°10'L	1.92	192✓
0 <sup>00</sup> '	0°15'L	1.90	190✓
0 <sup>00</sup> '	4°12'L	1.75	175✓
0 <sup>00</sup> '	9°25'L	1.57	157✓
0 <sup>00</sup> '	14°35'L	1.25	125✓
0 <sup>00</sup> '	15°42'L	0.98	98✓
0 <sup>00</sup> '	4°06'L	0.78	78✓

## 165 ft. Contour

1:30	94°23' L	0.98	98 ✓
2:15	76°00' L	1.10	110 ✓
2:15	69°25' L	1.39	139 ✓
2:15	56°45' L	1.39	139 ✓

## 170 ft. Contour

3:30	58°55' L	1.59	157 ✓
3:20	65°48' L	1.66	166 ✓
3:15	72°10' L	1.92	192 ✓
3:15	76°38' L	1.93	193 ✓
3:15	77°00' L	1.64	164 ✓
4:00	83°30' L	1.42	142 ✓
4:40	93°42' L	1.16	116 ✓
4:45	99°40' L	1.11	111 ✓

## 175 ft. Contour

6:30	99°00' L	1.26	124 ✓
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5:30	89°55' L	1.49	148 ✓
5:00	82°30' L	1.69	168 ✓
4:20	80°20' L	1.96	196 ✓
3:45	78°20' L	2.25	225 ✓
3:30	76°00' L	2.56	256 ✓
3:45	72°55' L	2.30	230 ✓
4:15	69°00' L	2.05	205 ✓
4:30	65°50' L	1.90	190 ✓
4:40	62°30' L	1.80	180 ✓
5:00	58°20' L	1.76	175 ✓

## 180 ft. Contour

7:30	98°45' L	1.50	147 ✓
6:30	96°15' L	1.69	167 ✓
6:30	85°10' L	1.82	182 ✓
5:30	83°00' L	2.14	212 ✓
4:45	80°40' L	2.42	242 ✓
4:35	79°45' L	2.74	274 ✓

405'	76°00' L	280	280 ✓
500'	71°52' L	297	295 ✓
510'	69°46' L	302	300 ✓
510'	71°35' L	280	278 ✓
440'	72°12' L	260	260 ✓
500'	69°37' L	229	327 ✓
530'	64°30' L	206	204 ✓
530'	57°52' L	188	186 ✓

△ Arrow Point Canyon base line  
 340 ft. from Sta. 65 at angle 72°30' L  
 → line produced westerly.

185 ft. bartow

670'	161°45' R	151	149 ✓
730'	164°30' R	122	120 ✓
850'	165°18' R	96	94 ✓
1400'	164°25' R	0.65	41 ✓
1815'	144°00' R	0.50	45 ✓

2450'	119°05' R	0.38	31 ✓
2600'	104°52' R	0.37	30 ✓
2520'	152°05' R	0.36	29 ✓
2800'	172°55' L	0.48	42 ✓
1535'	157°30' L	0.60	56 ✓
1230'	134°43' L	0.72	69 ✓
1000'	145°50' L	0.90	87 ✓
825'	154°00' L	1.10	108 ✓
700'	158°25' L	1.35	133 ✓
600'	161°45' L	1.58	156 ✓
500'	159°30' L	1.85	184 ✓
425'	158°45' L	2.12	212 ✓

190 ft. bartow

320'	155°55' L	1.99	197 ✓
410'	155°30' L	1.66	166 ✓
430'	157°55' L	1.40	140 ✓
435'	146°15' L	1.10	110 ✓

530'	137°00' L	0.91	90 ✓
700'	123°05' L	0.75	74 ✓
720'	116°45' L	0.68	67 ✓
845'	136°00' L	0.56	55 ✓
1220'	156°55' L	0.43	41 ✓
7300'	159°50' R	0.21	22 ✓
1495'	78°00' R	0.33	31 ✓
840'	62°30' R	0.60	59 ✓
1040'	95°35' R	0.45	43 ✓
1115'	125°20' R	0.44	42 ✓
1000'	142°08' R	0.53	51 ✓
730'	159°45' R	0.74	72 ✓
600'	160°15' R	1.10	109 ✓
500'	159°22' R	1.43	142 ✓

195 ft. Cartown.

945'	154°35' R	1.30	130 ✓
245'	155°22' R	1.10	110 ✓

400'	154°30' R	0.90	90 ✓
440'	148°08' R	0.68	68 ✓
530'	127°50' R	0.54	54 ✓
630'	101°30' R	0.52	51 ✓
530'	70°00' R	0.62	61 ✓
500'	52°55' R	0.75	74 ✓
300'	46°40' R	0.86	86 ✓
450'	48°55' R	0.66	66 ✓
700'	58°00' R	0.44	43 ✓
1810'	86°00' R	0.19	17 ✓
1380'	159°00' L	0.24	23 ✓
630'	112°40' L	0.53	52 ✓
500'	104°15' L	0.71	71 ✓
400'	122°35' L	0.83	83 ✓
390'	133°45' L	0.99	99 ✓
230'	145°18' L	1.24	124 ✓
225'	150°45' L	1.60	160 ✓
200'	151°40' L	2.00	200 ✓

200 ft. Contour

0°30'	148°00' L	1.96	196 ✓
0°45'	145°50' L	1.65	165 ✓
0°45'	137°45' L	1.26	126 ✓
1°5'	117°35' L	0.97	97 ✓
1°00'	98°10' L	0.84	84 ✓
0°45'	94°05' L	0.50	50 ✓
1°40'	113°00' L	0.24	24 ✓
0°00'	168°30' L	0.06	6 ✓
1°30'	117°20' R	0.21	21 ✓
1°00'	145°50' R	0.46	46 ✓
1°15'	141°15' R	0.72	72 ✓
1°00'	39°00' R	1.08	108 ✓
1°00'	53°00' R	0.97	97 ✓
1°30'	59°45' R	0.78	78 ✓
1°00'	86°00' R	0.62	62 ✓
1°15'	114°55' R	0.58	58 ✓
1°30'	142°00' R	0.71	71 ✓

1°45'	156°10' R	1.00	100 ✓
1°00'	147°50' R	1.18	118 ✓

200 ft. Contour

0°30'	142°20' R	1.14	114 ✓
1°00'	141°25' R	0.90	90 ✓
1°00'	134°30' R	0.77	77 ✓
1°00'	121°30' R	0.68	68 ✓
1°00'	109°20' R	0.68	68 ✓
1°00'	83°40' R	0.72	72 ✓
1°15'	60°10' R	0.90	90 ✓
1°00'	55°48' R	1.11	111 ✓
1°00'	45°42' R	1.10	110 ✓
0°30'	33°50' R	1.24	124 ✓
1°30'	35°48' R	0.93	93 ✓
1°00'	36°45' R	0.78	78 ✓
1°30'	30°30' R	0.58	58 ✓
1°00'	30°20' R	0.38	38 ✓

130'	70°55'R	0.18	18	✓
000'	15°00'L	0.06	6	✓
230'	70°30'L	1.19	119	✓
400'	74°00'L	0.57	57	✓
300'	81°00'L	0.89	89	✓
700'	100°00'L	1.04	104	✓
700'	119°30'L	1.17	117	✓
130'	132°07'L	1.36	136	✓
130'	140°06'L	1.60	160	✓
100'	143°30'L	1.93	193	✓
180'	144°10'L	2.07	207	✓

## 710 ft contour

100'	140°15'L	2.07	207	✓
700'	136°10'L	1.71	171	✓
700'	124°30'L	1.41	141	✓
700'	112°00'L	1.21	121	✓
725'	94°25'L	1.13	113	✓

430'	71°55'L	1.05	105	✓
620'	60°25'L	0.74	73	✓
620'	55°12'L	0.33	33	✓
900'	13°08'L	0.14	14	✓
530'	21°50'R	0.40	40	✓
535'	22°25'R	0.60	59	✓
330'	30°25'R	0.83	83	✓
410'	29°40'R	1.22	122	✓
380'	32°48'R	1.48	148	✓
730'	46°25'R	1.18	118	✓
215'	57°00'R	1.18	118	✓
730'	63°30'R	0.93	93	✓
215'	90°00'R	0.79	78	✓
330'	113°07'R	0.75	75	✓
315'	130°18'R	0.88	88	✓
330'	138°55'R	1.13	113	✓

## 215 ft. Bontown

520'	122°08'R	110	109 ✓
620'	113°40'R	088	87 ✓
600'	96°05'R	088	87 ✓
600'	75°45'R	096	95 ✓
545'	66°05'R	107	106 ✓
535'	58°25'R	138	137 ✓
450'	46°50'R	130	130 ✓
340'	36°30'R	154	154 ✓
480'	30°05'R	170	170 ✓
530'	29°15'R	132	131 ✓
625'	23°55'R	083	82 ✓
10°00'	12°18'R	064	62 ✓
1330'	6°00'L	035	33 ✓
1225'	36°00'L	038	36 ✓
935'	50°12'L	073	71 ✓
600'	62°00'L	109	108 ✓
555'	68°48'L	124	123 ✓

430'	89°10'L	123	123 ✓
430'	100°30'L	134	134 ✓
350'	114°15'L	142	142 ✓
330'	126°50'L	160	160 ✓
300'	134°45'L	188	188 ✓

## 220 ft. Bontown

430'	131°40'L	206	206 ✓
450'	125°42'L	182	182 ✓
515'	117°35'L	163	162 ✓
545'	104°55'L	150	149 ✓
600'	94°06'L	147	145 ✓
615'	82°30'L	138	136 ✓
605'	68°25'L	143	141 ✓
630'	62°00'L	140	138 ✓
715'	55°10'L	129	127 ✓
1040'	46°15'L	089	86 ✓
1500'	39°45'L	060	55 ✓

1730'	82°0'N	0.58	53 ✓
1100'	855' R	0.80	77 ✓
990'	1825' R	1.03	100 ✓
740'	2220' R	1.32	130 ✓
620'	2600' R	1.64	162 ✓
500'	2748' R	1.82	181 ✓
450'	3655' R	1.71	171 ✓
500'	4225' R	1.60	159 ✓
600'	4735' R	1.42	140 ✓
600'	6037' R	1.50	148 ✓
635'	6810' R	1.24	122 ✓
750'	7655' R	1.05	103 ✓
830'	9735' R	1.00	98 ✓
820'	10915' R	1.14	112 ✓
880'	11800' R	1.24	122 ✓

225 ft Contour

960'	10230' R	1.30	127 ✓
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1000'	9020' R	1.13	110 ✓
940'	7645' R	1.28	124 ✓
700'	6400' R	1.60	158 ✓
700'	5800' R	1.48	146 ✓
645'	4320' R	1.74	171 ✓
630'	4800' R	1.86	184 ✓
600'	2935' R	1.96	194 ✓
645'	2030' N	1.93	190 ✓
715'	2320' R	1.61	158 ✓
1015'	1550' R	1.24	120 ✓
1300'	445' R	0.90	85 ✓
1620'	1635' R	0.78	72 ✓
1340'	3700' L	0.88	86 ✓
835'	5400' L	1.48	145 ✓
715'	6610' L	1.58	155 ✓
730'	8137' L	1.54	151 ✓
780'	9612' L	1.64	162 ✓
700'	10900' L	1.70	168 ✓

650'	119°35'L	1.85	182 ✓
530'	127°15'L	2.08	206 ✓

## 230 ft. Contour

700'	122°22'L	2.08	205 ✓
745'	110°30'W	1.86	183 ✓
815'	95°30'W	1.77	173 ✓
830'	86°25'W	1.70	166 ✓
815'	73°55'W	1.74	170 ✓
815'	63°05'W	1.76	172 ✓
850'	54°15'W	1.63	159 ✓
1170'	45°00'W	1.34	129 ✓
1345'	35°30'W	1.12	106 ✓
1700'	19°15'L	0.92	84 ✓
1500'	138°R	1.00	93 ✓
1140'	137°0'R	1.32	127 ✓
900'	70°35'R	1.57	153 ✓
730'	43°00'R	2.02	199 ✓

705'	28°30'R	2.00	197 ✓
720'	37°25'R	1.96	193 ✓
800'	43°05'R	2.00	196 ✓
820'	45°45'R	1.77	173 ✓
840'	57°40'R	1.63	159 ✓
800'	60°00'R	1.77	174 ✓
825'	66°40'R	1.70	166 ✓
945'	73°30'R	1.46	142 ✓
1030'	82°35'R	1.40	135 ✓
1030'	93°20'R	1.40	135 ✓

## 235 ft. Contour

1110'	88°10'R	1.64	158 ✓
1120'	78°06'R	1.57	151 ✓
745'	68°00'R	1.87	182 ✓
910'	60°35'R	1.92	187 ✓
915'	54°30'R	1.90	185 ✓
915'	48°30'R	2.08	203 ✓

8°10'	45°00'R	213	209 ✓
8°20'	42°15'R	214	210 ✓
8°15'	34°30'R	205	201 ✓
8°15'	29°30'R	210	206 ✓
8°15'	23°40'R	213	209 ✓
10°00'	20°00'R	208	202 ✓
10°45'	18°00'R	174	168 ✓
11°30'	13°48'R	148	142 ✓
14°50'	3°55'R	130	121 ✓
17°00'	11°20'L	107	98 ✓
15°00'	32°35'L	176	118 ✓
12°00'	44°10'L	156	149 ✓
10°00'	53°22'L	186	180 ✓
8°30'	61°35'L	205	201 ✓
8°45'	78°10'L	206	201 ✓
9°00'	89°30'L	195	190 ✓
9°00'	102°30'L	191	186 ✓
8°20'	114°10'L	205	201 ✓

8°00' 119°45'L 220 ✓

240 ft. Contour.

8°50' 116°35'L 230 225 ✓

10°00' 108°20'L 210 204 ✓

10°00' 96°30'L 207 201 ✓

9°45' 86°30'L 208 202 ✓

9°00' 76°15'L 227 221 ✓

9°00' 67°35'L 233 227 ✓

9°00' 58°37'L 228 222 ✓

10°50' 48°10'L 200 193 ✓

13°30' 39°20'L 163 154 ✓

16°00' 29°55'L 138 128 ✓

16°45' 17°10'L 127 116 ✓

16°30' 3°00'L 133 124 ✓

13°10' 8°45'R 163 155 ✓

12°00' 13°30'R 194 186 ✓

10°00' 18°40'R 220 213 ✓

930'	26°20'R	222	216 ✓
930'	32°30'R	223	217 ✓
930'	37°00'R	218	212 ✓
850'	43°30'R	231	226 ✓
920'	51°50'R	217	211 ✓
1000'	59°20'R	206	200 ✓
1000'	64°18'R	205	199 ✓
1030'	70°30'R	196	189 ✓
1150'	75°35'R	180	172 ✓
1110'	86°05'R	186	179 ✓

Δ # on Point Canyon base  
line at Stn. 65

→ Stn. 73

165 ft. Contour

200'	53°05'L	147	147 ✓
145'	46°00'L	177	177 ✓
130'	38°10'L	200	200 ✓

115'	28°55'L	234	234 ✓
110'	22°25'L	257	257 ✓
115'	17°15'L	287	287 ✓
100'	12°10'L	307	307 ✓
100'	6°40'L	334	334 ✓
100'	5°42'L	378	378 ✓
100'	4°35'L	410	410 ✓

170 ft. Contour

130'	9°20'L	410	410 ✓
130'	8°05'L	380	380 ✓
130'	12°15'L	345	345 ✓
200'	16°25'L	322	322 ✓
200'	22°05'L	297	297 ✓
220'	25°15'L	270	270 ✓
215'	34°00'L	240	240 ✓
235'	41°45'L	200	200 ✓
300'	50°22'L	173	173 ✓

## 175 ft. Contour

430'	48°20'	192	192 ✓
400'	40°15'	230	230 ✓
330'	35°00'	253	253 ✓
310'	27°05'	284	284 ✓
300'	21°22'	314	314 ✓
335'	16°15'	347	347 ✓
230'	12°05'	378	378 ✓
230'	10°12'	417	417 ✓

## 180 ft. Contour

245'	12°05'	423	423 ✓
300'	14°30'	388	388 ✓
325'	18°45'	352	352 ✓
330'	23°05'	320	320 ✓
400'	27°05'	297	297 ✓
400'	32°38'	274	274 ✓
420'	37°30'	267	267 ✓

500'	42°30'	235	233 ✓
530'	47°30'	210	208 ✓
600'	52°10'	194	192 ✓

5/13/03  
 Alpersen  
 Møller  
 Almind  
 Lise

## 185 ft. Contour

335'	13°38'	432	432 ✓
400'	16°10'	390	390 ✓
420'	21°22'	353	353 ✓
435'	24°25'	326	326 ✓
500'	28°08'	304	302 ✓
515'	32°40'	289	285 ✓
530'	37°00'	274	271 ✓
600'	43°18'	244	241 ✓
700'	50°22'	210	207 ✓
700'	55°32'	203	200 ✓

Vertical Sounding Rod  
190 ft. Bentown

8'5"	53°05' L	217	213 ✓
9'00"	49°00' L	238	234 ✓
6'30"	42°15' L	291	268 ✓
6'30"	39°22' L	286	283 ✓
6'00"	34°00' L	293	290 ✓
5'50"	48°30' L	312	309 ✓
5'30"	25°50' L	328	325 ✓
5'25"	23°55' L	344	341 ✓
4'30"	21°00' L	377	377 ✓
4'30"	18°10' L	410	410 ✓
2'15"	15°50' L	433	433 ✓

## 195 ft. Bentown

4'30"	15°10' L	482	482 ✓
4'45"	17°10' L	454	454 ✓
5'30"	20°15' L	413	410 ✓

5'35"	22°15' L	390	387 ✓
6'00"	24°40' L	360	356 ✓
6'05"	26°20' L	340	336 ✓
7'00"	29°42' L	317	312 ✓
6'45"	32°55' L	308	304 ✓
7'00"	37°05' L	301	297 ✓
7'10"	41°45' L	293	288 ✓
7'40"	43°15' L	284	279 ✓
8'00"	46°30' L	258	253 ✓
8'45"	50°38' L	238	233 ✓
9'00"	53°12' L	230	224 ✓

## 200 ft. Bentown

9'30"	52°55' L	248	241 ✓
9'00"	49°40' L	260	254 ✓
8'30"	45°08' L	284	278 ✓
8'00"	43°55' L	297	291 ✓
7'45"	40°05' L	308	302 ✓

7 <sup>40</sup>	33°08' L	3.18	312 ✓
7 <sup>05</sup>	28°20' L	3.38	333 ✓
6 <sup>30</sup>	25°52' L	3.60	355 ✓
6 <sup>10</sup>	23°55' L	3.89	385 ✓
5 <sup>55</sup>	21°10' L	4.27	422 ✓
5 <sup>30</sup>	17°35' L	4.70	465 ✓
5 <sup>00</sup>	15°48' L	4.96	492 ✓

705 ft. Canton

5 <sup>30</sup>	16°40' L	5.03	498 ✓
5 <sup>45</sup>	18°15' L	4.75	470 ✓
6 <sup>20</sup>	22°20' L	4.33	428 ✓
6 <sup>45</sup>	24°25' L	4.10	404 ✓
7 <sup>15</sup>	26°30' L	3.76	372 ✓
7 <sup>50</sup>	28°15' L	3.52	345 ✓
8 <sup>00</sup>	31°10' L	3.35	328 ✓
8 <sup>20</sup>	36°05' L	3.26	319 ✓
8 <sup>20</sup>	41°00' L	3.20	313 ✓

8 <sup>45</sup>	44°25' L	3.08	301 ✓
9 <sup>00</sup>	48°00' L	2.96	289 ✓
9 <sup>45</sup>	29°00' L	2.74	267 ✓
10 <sup>00</sup>	51°55' L	2.69	261 ✓

210 ft. Canton

10 <sup>30</sup>	49°52' L	2.92	282 ✓
9 <sup>30</sup>	44°36' L	3.16	307 ✓
9 <sup>00</sup>	41°05' L	3.27	319 ✓
8 <sup>35</sup>	38°00' L	3.32	325 ✓
8 <sup>15</sup>	30°05' L	3.52	345 ✓
7 <sup>55</sup>	27°10' L	3.84	377 ✓
7 <sup>40</sup>	26°15' L	4.13	406 ✓
6 <sup>50</sup>	23°35' L	4.38	432 ✓
6 <sup>30</sup>	21°10' L	4.61	455 ✓
6 <sup>10</sup>	18°05' L	4.92	486 ✓
6 <sup>10</sup>	17°25' L	5.07	501 ✓

## 215 ft. Contours

630'	18°10' L	5.17	510 ✓
645'	19°10' L	4.93	486 ✓
700'	21°05' L	4.73	465 ✓
715'	23°35' L	4.58	451 ✓
730'	25°45' L	4.37	430 ✓
815'	27°42' L	4.20	411 ✓
830'	28°15' L	3.96	387 ✓
900'	30°25' L	3.67	358 ✓
930'	35°00' L	3.50	340 ✓
930'	39°55' L	3.40	330 ✓
1000'	45°22' L	3.25	315 ✓
1045'	49°15' L	3.13	302 ✓

## 220 ft. Contours

1100'	49°25' L	3.31	319 ✓
1030'	45°00' L	3.38	327 ✓
1025'	42°55' L	3.49	338 ✓

1000'	37°10' L	3.54	343 ✓
930'	32°35' L	3.70	360 ✓
900'	29°30' L	3.96	386 ✓
855'	28°35' L	4.27	417 ✓
800'	25°40' L	4.58	449 ✓
735'	23°00' L	4.74	465 ✓
710'	20°00' L	5.00	492 ✓
715'	19°05' L	5.20	512 ✓

## 225 ft. Contours

730'	19°45' L	5.35	526 ✓
740'	20°45' L	5.10	501 ✓
800'	23°38' L	4.83	474 ✓
830'	27°00' L	4.60	450 ✓
920'	29°55' L	4.30	419 ✓
1000'	31°25' L	4.00	388 ✓
1020'	35°10' L	3.78	366 ✓
1045'	39°55' L	3.61	348 ✓

1100' 4552' 3.53 340 ✓

1100' 4900' 3.47 334 ✓

## 230 ft. Bantown.

1120' 4400' 3.73 359 ✓

1100' 3655' 3.86 372 ✓

1095' 3222' 4.05 392 ✓

935' 3825' 4.40 428 ✓

900' 2830' 4.64 453 ✓

835' 2425' 4.88 477 ✓

800' 2138' 5.20 510 ✓

750' 2037' 5.42 532 ✓

✓

## 235 ft. Bantown.

815' 2138' 5.47 536 ✓

835' 2300' 5.20 508 ✓

905' 2630' 4.92 480 ✓

930' 2855' 4.70 457 ✓

1000' 3035' 4.55 441 ✓

1030' 3200' 4.33 419 ✓

1100' 3525' 4.10 395 ✓

1130' 4010' 3.96 380 ✓

1135' 4445' 3.90 374 ✓

## 240 ft. Bantown.

1150' 4235' 4.11 394 ✓

1130' 3635' 4.17 400 ✓

1100' 3312' 4.38 422 ✓

1050' 3225' 4.56 440 ✓

1010' 2935' 4.80 465 ✓

935' 2710' 5.00 486 ✓

910' 2420' 5.25 512 ✓

900' 2310' 5.53 540 ✓

## 245 ft. Bantown.

915' 2400' 5.57 543 ✓

9°45'	25°30'L	5.30	515	✓
10°00'	27°48'L	5.10	495	✓
10°30'	30°35'L	4.90	474	✓
11°00'	32°03'L	4.71	454	✓
11°25'	34°35'L	4.48	431	✓
11°45'	39°55'L	4.30	412	✓

## 250 ft. Bantow.

12°00'	41°30'L	4.48	429	✓
12°00'	37°25'L	4.55	435	✓
11°30'	34°05'L	4.68	449	✓
11°00'	31°05'L	4.96	478	✓
10°30'	28°00'L	5.20	503	✓
10°00'	26°15'L	5.35	519	✓
9°40'	24°55'L	5.60	544	✓

## 255 ft. Bantow.

10°05'	26°00'L	5.60	543	✓
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10°35'	27°42'L	5.40	522	✓
11°00'	30°12'L	5.18	499	✓
11°45'	33°45'L	4.92	472	✓
12°10'	38°45'L	4.73	452	✓
12°15'	41°45'L	4.73	452	✓

## 260 ft. Bantow.

12°15'	37°52'L	4.90	468	✓
12°00'	33°38'L	5.08	486	✓
11°20'	30°08'L	5.38	517	✓
11°00'	28°15'L	5.47	527	✓
10°45'	27°15'L	5.70	550	✓

▲ Pt. in Round Canyon baseline  
at Sta. 72  
→ Sta. 65

## 170 ft. Bantow.

0°40'	12°45'R	2.68	268	✓
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0°30'	15°08'R	230	230 ✓
0°45'	14°00'R	190	190 ✓
1°00'	11°05'R	160	160 ✓
1°30'	9°10'R	130	130 ✓
1°30'	10°45'R	090	90 ✓
1°15'	12°00'R	057	57 ✓
1°10'	7°00'R	040	40 ✓

175 ft Contour

8°00'	172°08'R	083	83 ✓
0°30'	138°55'R	048	48 ✓
0°30'	60°05'R	043	43 ✓
0°30'	36°25'R	090	90 ✓
0°20'	75°08'R	133	133 ✓
0°15'	19°30'R	180	180 ✓
0°15'	70°40'R	227	227 ✓
0°10'	17°10'R	268	268 ✓

180 ft Contour

1°10'	19°20'R	280	280 ✓
1°25'	28°10'R	234	234 ✓
1°45'	29°15'R	203	203 ✓
2°15'	37°15'R	173	173 ✓
2°00'	41°25'R	134	134 ✓
2°40'	52°20'R	101	101 ✓
3°30'	74°00'R	073	73 ✓
3°40'	114°20'R	077	77 ✓
3°30'	139°15'R	108	108 ✓
2°30'	156°35'R	137	137 ✓

185 ft Contour

3°40'	139°30'R	161	161 ✓
4°25'	131°25'R	130	130 ✓
5°35'	111°10'R	100	100 ✓
6°00'	83°38'R	096	95 ✓
5°00'	62°55'R	113	112 ✓

410'	49°08'R	1.48	148 ✓
375'	40°52'R	1.81	181 ✓
320'	32°35'R	2.05	205 ✓
275'	25°45'R	2.41	241 ✓
205'	22°38'R	2.73	273 ✓

## 190 ft. Contour.

375'	75°05'R	2.83	283 ✓
345'	79°30'R	2.37	237 ✓
410'	36°25'R	2.06	206 ✓
435'	46°50'R	1.84	184 ✓
500'	52°05'R	1.74	173 ✓
630'	63°20'R	1.36	134 ✓
730'	84°22'R	1.14	112 ✓
720'	108°00'R	1.18	116 ✓
620'	121°45'R	1.33	131 ✗
520'	131°25'R	1.67	146 ✓

## 195 ft. Contour

645'	127°05'R	1.70	168 ✓
700'	119°00'R	1.47	145 ✓
900'	99°05'R	1.30	127 ✓
980'	78°35'R	1.35	132 ✓
730'	63°16'R	1.52	149 ✓
600'	54°40'R	1.88	186 ✓
645'	44°42'R	2.07	204 ✓
520'	37°35'R	2.17	214 ✓
445'	30°15'R	2.43	243 ✓

## 200 ft. Contour

610'	33°25'R	2.48	245 ✓
635'	43°05'R	2.20	217 ✓
700'	52°00'R	2.05	202 ✓
715'	59°45'R	2.00	197 ✓
830'	64°45'R	1.74	170 ✓
1000'	80°45'R	1.48	144 ✓

10°15'	99°00'R.144	139	✓
9°00'	118°50'R.158	154	✓
8°20'	122°45'R.178	174	✓

## 205 ft. Contour

9°30'	119°35'R.188	183	✓
10°30'	110°08'R.160	155	✓
11°15'	91°35'R.158	152	✓
10°30'	75°45'R.166	161	✓
9°30'	66°15'R.189	182	✓
9°15'	59°30'R.213	209	✓
8°00'	58°25'R.220	216	✓
7°30'	41°35'R.237	233	✓
7°15'	37°12'R.247	243	✓

## 210 ft. Contour

8°30'	39°35'R.252	247	✓
8°35'	45°45'R.238	235	✓

8°45'	58°55'R.237	232	✓
9°00'	55°00'R.226	220	✓
9°05'	60°10'R.225	219	✓
10°00'	66°05'R.203	197	✓
11°30'	76°08'R.180	173	✓
12°10'	89°35'R.170	162	✓
12°00'	102°00'R.174	166	✓
11°30'	111°25'R.180	173	✓
10°25'	115°50'R.198	192	✓

## 215 ft. Contour

11°30'	113°00'R.203	196	✓
12°30'	106°50'R.186	177	✓
13°00'	93°00'R.180	171	✓
12°45'	82°30'R.184	175	✓
11°45'	72°25'R.197	189	✓
10°30'	64°20'R.226	219	✓
10°00'	61°50'R.238	231	✓

9°45'	53°30'R	240	233	✓
9°30'	48°55'R	250	243	✓
9°20'	42°25'R	256	249	✓

220 ft. Continued

10°00'	43°35'R	264	256	✓
10°15'	50°35'R	260	252	✓
10°45'	55°25'R	250	241	✓
10°45'	58°50'R	247	238	✓
11°45'	67°30'R	230	220	✓
13°00'	74°40'R	207	196	✓
13°45'	84°55'R	199	186	✓
13°50'	95°35'R	195	184	✓
12°50'	109°35'R	208	198	✓

225 ft. Continued

13°35'	105°20'R	218	206	✓
14°30'	95°20'R	207	194	✓

14°20'	84°35'R	209	196	✓
13°15'	74°10'R	226	214	✓
12°10'	68°40'R	247	236	✓
11°30'	65°55'R	258	248	✓
11°30'	60°00'R	260	250	✓
11°00'	53°55'R	269	259	✓
10°55'	44°55'R	275	265	✓

230 ft. Continued

11°35'	48°00'R	284	274	✓
12°00'	53°45'R	280	268	✓
12°05'	64°25'R	270	258	✓
12°20'	67°50'R	262	250	✓
13°30'	78°00'R	242	229	✓
14°35'	84°05'R	225	211	✓
15°00'	90°45'R	221	206	✓
14°45'	98°20'R	220	206	✓
14°05'	103°34'R	237	223	✓

235 ft. Bantown.

14 <sup>45</sup>	101 <sup>25</sup> R	242	226	✓
15 <sup>30</sup>	93 <sup>15</sup> R	232	215	✓
15 <sup>15</sup>	82 <sup>05</sup> R	238	222	✓
14 <sup>00</sup>	72 <sup>35</sup> R	260	245	✓
12 <sup>45</sup>	67 <sup>15</sup> R	280	266	✓
12 <sup>30</sup>	59 <sup>50</sup> R	287	274	✓
12 <sup>00</sup>	51 <sup>38</sup> R	296	283	✓
12 <sup>00</sup>	48 <sup>55</sup> R	294	281	✓

240 ft. Bantown

12 <sup>45</sup>	52 <sup>00</sup> R	310	295	✓
13 <sup>00</sup>	59 <sup>10</sup> R	298	283	✓
13 <sup>05</sup>	67 <sup>30</sup> R	300	285	✓
14 <sup>25</sup>	72 <sup>05</sup> R	283	268	✓
15 <sup>00</sup>	76 <sup>30</sup> R	263	245	✓
16 <sup>00</sup>	84 <sup>30</sup> R	250	231	✓
16 <sup>00</sup>	94 <sup>55</sup> R	247	227	✓

16<sup>30</sup> 99<sup>45</sup>R 250 230 ✓

245 ft. Bantown

17 <sup>30</sup>	95 <sup>00</sup> R	260	236	✓
17 <sup>30</sup>	87 <sup>00</sup> R	257	234	✓
15 <sup>40</sup>	79 <sup>00</sup> R	270	250	✓
14 <sup>35</sup>	74 <sup>00</sup> R	290	272	✓
13 <sup>50</sup>	69 <sup>45</sup> R	310	292	✓
13 <sup>45</sup>	62 <sup>55</sup> R	310	292	✓
7 <sup>35</sup>	54 <sup>12</sup> R	317	300	✓
13 <sup>00</sup>	51 <sup>12</sup> R	320	304	✓

250 ft. Bantown

13 <sup>45</sup>	51 <sup>20</sup> R	330	311	✓
13 <sup>50</sup>	56 <sup>20</sup> R	327	308	✓
14 <sup>00</sup>	63 <sup>15</sup> R	327	308	✓
13 <sup>45</sup>	68 <sup>45</sup> R	337	318	✓
15 <sup>00</sup>	75 <sup>10</sup> R	320	299	✓

1600'	80°00'R	2.89	265	✓
1700'	86°49'R	2.68	245	✓
1700'	93°10'R	2.75	252	✓

Δ Pt on Pound Canyon base line

180 ft from Sta 173 at angle 82°00'

→ line produced westerly

180 ft Contour

540'	156°10'R	1.30	129	✓
530'	145°50'R	1.20	119	✓
540'	130°20'R	1.20	119	✓

185 ft Contour

520'	174°20'R	1.06	105	✓
530'	138°00'R	0.91	91	✓
830'	145°15'R	0.58	57	✓
730'	166°05'R	0.71	70	✓

190 ft Contour

650'	174°10'R	0.42	41	✓
900'	140°30'R	0.28	27	✓
1000'	58°00'R	0.14	14	✓
500'	106°52'R	0.36	36	✓
300'	123°55'R	0.70	70	✓
235'	115°35'R	0.95	95	✓

195 ft Contour

000'	106°20'R	0.90	90	✓
000'	108°30'R	0.66	66	✓
000'	92°55'R	0.43	43	✓
030'	79°30'R	0.30	30	✓
030'	18°05'R	0.46	46	✓
015'	4°10'L	0.27	27	✓
000'	1°00'R	0.06	6	✓
015'	166°50'L	0.20	20	✓
000'	162°00'L	0.40	40	✓

## 200 ft. Contour.

130'	143°00'L	0.32	32	✓
130'	93°00'L	0.10	10	✓
130'	18°45'L	0.27	27	✓
130'	5°00'L	0.52	52	✓
130'	5°20'L	0.70	70	✓
130'	11°22'R	0.95	95	✓
145'	18°25'R	0.70	70	✓
200'	31°15'R	0.45	45	✓
225'	67°00'R	0.47	47	✓
200'	90°00'R	0.61	61	✓
200'	96°30'R	0.82	82	✓

## 205 ft. Contour.

145'	87°30'R	0.84	84	✓
530'	65°40'R	0.63	62	✓
515'	37°12'R	0.66	65	✓
415'	18°35'R	0.93	92	✓

530'	950'R	1.26	126	✓
340'	530'R	1.00	100	✓
930'	1130'L	0.77	76	✓
1230'	2305'L	0.47	45	✓
1030'	62°35'L	0.26	25	✓
1100'	115°25'L	0.35	34	✓

## 210 ft. Contour.

1620'	87°40'L	0.39	36	✓
1230'	45°25'L	0.52	51	✓
915'	74°30'L	0.68	66	✓
7°30'	17°50'L	0.86	85	✓
630'	4°00'L	0.98	97	✓
500'	4°25'R	2.36	235	✓ ?
430'	84°2'R	1.49	149	✓
430'	12°10'R	1.59	158	✓
530'	16°15'R	1.23	122	✓
795'	23°00'R	1.04	102	✓

7 <sup>55</sup> '	40 <sup>55</sup> 'R	0.32	31	✓	?
8 <sup>00</sup> '	70 <sup>30</sup> 'R	0.80	78	✓	
7 <sup>00</sup> '	78 <sup>50</sup> 'R	0.94	93	✓	

## 215 ft. Contour

7 <sup>10</sup> '	71 <sup>20</sup> 'R	1.03	100	✓	
10 <sup>30</sup> '	55 <sup>40</sup> 'R	0.90	87	✓	
9 <sup>20</sup> '	33 <sup>45</sup> 'R	1.01	98	✓	
8 <sup>00</sup> '	20 <sup>50</sup> 'R	1.29	125	✓	
6 <sup>30</sup> '	16 <sup>00</sup> 'R	1.50	148	✓	
5 <sup>20</sup> '	12 <sup>05</sup> 'R	1.79	177	✓	
6 <sup>00</sup> '	8 <sup>40</sup> 'R	1.60	158	✓	
6 <sup>35</sup> '	1 <sup>40</sup> 'R	1.42	140	✓	
8 <sup>30</sup> '	3 <sup>00</sup> 'L	1.20	117	✓	
9 <sup>00</sup> '	10 <sup>40</sup> 'L	1.05	102	✓	
9 <sup>45</sup> '	23 <sup>40</sup> 'L	0.99	95	✓	
14 <sup>15</sup> '	44 <sup>15</sup> 'L	0.71	67	✓	
14 <sup>30</sup> '	77 <sup>30</sup> 'L	0.54	49	✓	

## 220 ft. Contour

19 <sup>00</sup> '	91 <sup>05</sup> 'L	0.64	57	✓	
14 <sup>55</sup> '	40 <sup>10</sup> 'L	0.83	77	✓	
11 <sup>50</sup> '	26 <sup>25</sup> 'L	1.10	105	✓	
10 <sup>30</sup> '	10 <sup>40</sup> 'L	1.19	115	✓	
8 <sup>40</sup> '	2 <sup>10</sup> 'L	1.49	144	✓	
7 <sup>15</sup> '	7 <sup>40</sup> 'R	1.71	168	✓	
6 <sup>10</sup> '	11 <sup>10</sup> 'R	2.04	202	✓	
7 <sup>30</sup> '	19 <sup>05</sup> 'R	1.78	175	✓	
9 <sup>00</sup> '	20 <sup>00</sup> 'R	1.49	143	✓	
10 <sup>10</sup> '	29 <sup>20</sup> 'R	1.22	114	✓	
12 <sup>00</sup> '	46 <sup>45</sup> 'R	1.07	102	✓	
11 <sup>00</sup> '	64 <sup>18</sup> 'R	1.11	107	✓	

82

2/6/02

Johnson  
McLaren  
Amundson  
Luce

△ Point Round Canyon base line 162 ft.  
82°00' L, thence 132 ft, angle 38°45' R, from  
Sta. 73

→ Last line produced N.W.  
225 ft. Contour.

0°15'	173°15' R	0.44	44	✓
0°00'	161°30' R	0.06	6	✓
0°15'	54°10' L	0.23	23	✓
0°15'	38°15' L	0.58	58	✓
0°30'	42°25' L	0.86	86	✓
0°45'	39°05' L	1.01	101	✓
0°45'	37°25' L	1.16	116	✓
0°30'	45°10' L	1.06	106	✓
0°30'	55°50' L	0.92	92	✓
0°30'	67°45' L	0.81	81	✓

42

0°45'	87°00' L	0.82	82	✓
1°00'	95°55' L	0.88	88	✓
0°45'	113°25' L	0.90	90	✓
0°30'	124°00' L	1.23	123	✓
0°15'	137°45' L	1.31	131	✓
0°20'	156°15' L	1.55	155	✓

230 ft Contour

0°30'	147°20' L	1.60	160	✓
0°40'	135°40' L	1.40	140	✓
0°50'	126°35' L	1.36	136	✓
1°00'	120°20' L	1.33	133	✓
1°00'	115°42' L	1.11	111	✓
0°30'	107°00' L	0.97	97	✓
0°30'	94°00' L	0.97	97	✓
0°45'	81°08' L	0.88	88	✓
0°30'	64°06' L	0.95	95	✓
0°40'	52°25' L	1.10	110	✓

64

Vertical Horiz Rod

0°30'	41°12'L	1.18	118	✓
0°30'	35°15'L	1.33	133	✓
0°55'	34°45'L	1.13	113	✓
0°50'	35°35'L	0.94	94	✓
0°40'	32°08'L	0.69	69	✓
0°30'	28°55'L	0.42	42	✓
0°30'	24°15'L	0.09	9	✓
0°30'	29°10'R	0.23	23	✓
1°00'	103°25'R	0.54	54	✓

735 ft. Contour

6°00'	9°10'R	0.51	50	✓
13°30'	56°20'R	0.22	20	✓
13°20'	11°25'L	0.26	27	✓
7°30'	17°40'L	0.54	53	✓
3°30'	29°12'L	0.86	86	✓
2°40'	31°35'L	1.11	111	✓

4°00'	30°12'L	1.34	134	✓
3°00'	33°00'L	1.53	153	✓
2°50'	37°50'L	1.40	140	✓
3°30'	48°35'L	1.26	126	✓
3°00'	52°12'L	1.20	120	✓
2°45'	63°00'L	1.07	107	✓
3°00'	78°25'L	0.96	96	✓
3°10'	84°55'L	0.98	98	✓
2°50'	93°00'L	1.06	106	✓
3°45'	107°00'L	1.07	107	✓
2°30'	117°35'L	1.40	140	✓
2°30'	131°27'L	1.50	150	✓
2°10'	144°30'L	1.68	168	✓

740 ft. Contour

3°30'	150°45'L	1.72	172	✓
3°40'	128°52'L	1.60	160	✓
4°00'	115°18'L	1.53	153	✓

430'	106°35'L	122	122	✓
500'	93°30'L	117	116	✓
510'	76°25'L	106	105	✓
500'	62°20'L	117	116	✓
500'	53°10'L	130	129	✓
500'	45°00'L	131	130	✓
400'	37°20'L	154	153	✓
420'	36°48'L	178	177	✓
500'	28°00'L	150	149	✓
500'	28°10'L	139	126	✓
600'	25°45'L	098	97	✓
900'	16°00'L	068	65	✓
1340'	4°00'R	043	41	✓
1415'	53°45'R	038	36	✓
1030	74°10'R	061	59	✓

745 ft Contour

1410'	62°15'R	067	63	✓
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1630'	40°25'R	052	48	✓
1600'	9°10'R	058	54	✓
1125'	9°15'L	077	74	✓
915'	20°05'L	107	104	✓
700'	26°00'L	146	144	✓
730'	24°00'L	160	157	✓
595'	28°50'L	164	163	✓
500'	35°20'L	190	189	✓
530'	36°45'L	200	198	✓
590'	39°00'L	167	166	✓
600'	42°15'L	150	148	✓
630'	47°56'L	140	138	✓
615'	55°22'L	140	138	✓
700'	68°15'L	125	123	✓
730'	76°00'L	118	116	✓
720'	83°45'L	118	116	✓
700'	91°35'L	126	124	✓
700'	102°04'L	131	129	✓

530'	108°35'L	1.67	165	✓
530'	119°30'L	1.68	166	✓
530'	129°05'L	1.71	169	✓
500'	139°00'L	1.90	189	✓

## 250 ft. Contour.

600'	135°55'L	1.96	195	✓
630'	121°50'L	1.76	177	✓
630'	108°35'L	1.83	182	✓
730'	101°00'L	1.53	152	✓
830'	95°42'L	1.37	134	✓
830'	89°00'L	1.36	133	✓
910'	82°12'L	1.26	123	✓
900'	70°45'L	1.30	127	✓
800'	59°12'L	1.50	147	✓
800'	48°45'L	1.50	147	✓
700'	42°20'L	1.67	164	✓
645'	41°00'L	1.97	194	✓

620'	40°35'L	2.20	220	✓
600'	34°55'L	1.98	196	✓
650'	30°12'L	1.82	179	✓
710'	26°10'L	1.64	165	✓
795'	21°22'L	1.64	160	✓
830'	22°25'L	1.47	144	✓
1100'	15°42'L	1.11	107	✓
1400'	12°45'L	0.84	79	✓
1530'	11°22'R	0.67	60	✓
1610'	14°45'R	0.76	70	✓

Δ B on Pyramid Canyon baseline

at Sta 73

→ Sta 80

## 250 ft. Contour.

1200'	55°55'L	3.57	347	✓
1130'	52°50'L	3.71	356	✓
1115'	52°05'L	4.07	391	✓

## 245 ft Contour

10 <sup>30</sup> '	50 <sup>25</sup> '	398	394	✓
11 <sup>00</sup> '	51 <sup>13</sup> '	380	366	✓
11 <sup>30</sup> '	51 <sup>25</sup> '	340	326	✓

## 240 ft Contour

11 <sup>30</sup> '	51 <sup>18</sup> '	320	307	✓
10 <sup>45</sup> '	52 <sup>30</sup> '	341	329	✓
10 <sup>00</sup> '	49 <sup>12</sup> '	367	356	✓

## 235 ft Contour

9 <sup>45</sup> '	49 <sup>45</sup> '	363	354	✓
10 <sup>15</sup> '	51 <sup>15</sup> '	333	322	✓
11 <sup>00</sup> '	53 <sup>30</sup> '	305	294	✓

## 230 ft Contour

10 <sup>30</sup> '	51 <sup>10</sup> '	290	280	✓
9 <sup>30</sup> '	50 <sup>50</sup> '	320	311	✓

9 <sup>00</sup> '	49 <sup>15</sup> '	340	329	✓
8 <sup>30</sup> '	45 <sup>25</sup> '	362	354	✓

## 225 ft Contour

7 <sup>45</sup> '	44 <sup>00</sup> '	356	349	✓
8 <sup>00</sup> '	45 <sup>18</sup> '	334	327	✓
8 <sup>30</sup> '	49 <sup>00</sup> '	316	309	✓
9 <sup>30</sup> '	53 <sup>05</sup> '	287	279	✓
10 <sup>10</sup> '	58 <sup>08</sup> '	274	265	✓

## 220 ft Contour

9 <sup>10</sup> '	55 <sup>20</sup> '	260	253	✓
8 <sup>30</sup> '	50 <sup>10</sup> '	288	282	✓
8 <sup>00</sup> '	49 <sup>45</sup> '	310	304	✓
7 <sup>30</sup> '	44 <sup>35</sup> '	324	318	✓
7 <sup>00</sup> '	41 <sup>55</sup> '	350	345	✓

215 ft. Contour

6'15"	39°40'	3.48	341	✓
6'45"	42°15'	3.23	318	✓
7'10"	46°12'	3.03	298	✓
7'35"	48°25'	2.80	275	✓
8'15"	52°46'	2.60	255	✓
9'00"	57°30'	2.38	233	✓

210 ft. Contour

8'00"	54°20'	2.30	225	✓
7'05"	48°00'	2.55	251	✓
6'30"	45°20'	2.80	276	✓
6'00"	43°42'	2.96	292	✓
6'00"	39°42'	3.20	315	✓
5'95"	37°30'	3.49	345	✓

205 ft. Contour

4'35"	36°00'	3.38	337	✓
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5'00"	39°12'	3.04	302	✓
5'30"	42°30'	2.88	286	✓
6'00"	45°45'	2.57	255	✓
6'30"	49°30'	2.38	235	✓
7'05"	54°00'	2.12	209	✓

200 ft. Contour

6'20"	53°25'	1.96	194	✓
5'25"	47°15'	2.27	225	✓
5'10"	43°35'	2.50	248	✓
4'30"	41°00'	2.77	276	✓
4'00"	36°30'	3.10	309	✓
3'30"	33°25'	3.47	346	✓

195 ft. Contour

3'00"	31°30'	3.42	341	✓
3'10"	34°55'	3.00	299	✓
3'40"	39°12'	2.70	269	✓

400' 42°51' 234 ✓

500' 50°10' 190 ✓

190 ft. Contour.

350' 46°30' 183 ✓

300' 41°55' 218 ✓

250' 37°20' 260 ✓

220' 33°00' 296 ✓

200' 29°35' 330 ✓

210' 29°30' 354 ✓

217103

Alvarez  
Mrs. Lazen  
Argueda  
Luce

195 ft. Contour

210' 44°30' 158 ✓

210' 40°15' 193 ✓

145' 36°23' 230 ✓

145' 31°45' 278 ✓

130' 28°52' 318 ✓

120' 27°45' 346 ✓

180 ft. Contour.

350' 22°12' 350 ✓

330' 26°08' 322 ✓

340' 27°30' 296 ✓

315' 29°22' 282 ✓

340' 29°55' 262 ✓

345' 28°45' 233 ✓

345' 36°25' 178 ✓

100' 39°00' 153 ✓

170 ft. Contour

2 1/2 ft. height of trap first reading

100' 7°00' 40 ✓

100' 18°45' 45 ✓

Vertical Horiz. Red.

0°45'	27°25'	135	135	✓
0°50'	26°45'	172	172	✓
0°45'	18°15'	193	193	✓
0°45'	14°37'	225	225	✓
0°15'	19°52'	239	237	✓
0°15'	24°45'	243	243	✓
0°00'	28°35'	270	270	✓
0°00'	28°00'	287	287	✓
0°00'	23°30'	305	305	
0°00'	21°52'	311	311	

at base of mountain

△ Pt. in Powell Canyon base line at  
Sta. 76  
→ Sta. 80

180ft Contour

0°00'	76°42'	136	136	✓
0°00'	59°35'	144	144	✓

0°00'	40°00'	148	148	✓
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185ft Contour

0°00'	42°00'	173	173	✓
0°00'	51°30'	173	173	✓
0°00'	61°55'	183	183	✓
0°00'	69°55'	182	182	✓
0°00'	75°42'	182	182	✓
0°00'	82°00'	178	178	✓

190ft Contour

0°00'	83°10'	196	196	✓
0°00'	80°50'	231	231	✓
0°00'	77°40'	243	243	✓
0°00'	73°55'	221	221	✓
0°00'	68°48'	196	196	✓
0°00'	61°42'	196	196	✓
0°00'	53°50'	188	188	✓

000' 42°45' L. 186 ✓

195 ft Contour

230' 44°45' L. 202 ✓

410' 53°35' L. 202 ✓

400' 63°10' L. 202 ✓

400' 68°30' L. 209 ✓

330' 71°20' L. 237 ✓

300' 74°00' L. 272 ✓

300' 76°35' L. 289 ✓

310' 79°35' L. 268 ✓

330' 81°45' L. 249 ✓

345' 84°42' L. 220 ✓

420' 86°35' L. 187 ✓

200 ft Contour

510' 89°25' L. 207 ✓

445' 85°30' L. 238 ✓

400' 80°40' L. 272 271 ✓

345' 79°00' L. 296 295 ✓

340' 78°40' L. 318 317 ✓

350' 77°36' L. 340 339 ✓

350' 75°00' L. 321 320 ✓

410' 72°50' L. 310 309 ✓

410' 72°15' L. 277 275 ✓

430' 70°17' L. 247 245 ✓

500' 66°55' L. 220 219 ✓

510' 58°15' L. 217 215 ✓

515' 48°30' L. 216 214 ✓

500' 45°10' L. 215 213 ✓

205 ft Contour

600' 45°35' L. 226 224 ✓

605' 53°42' L. 230 228 ✓

610' 63°25' L. 232 230 ✓

530' 68°20' L. 253 251 ✓

530'	70°45'	293	291	✓
500'	71°18'	308	306	✓
500'	70°35'	322	320	✓
430'	73°10'	330	328	✓
430'	73°20'	344	345	✓
420'	77°15'	363	361	✓
495'	76°55'	386	384	✓
510'	80°25'	400	397	✓
500'	80°10'	360	377	✓
430'	78°45'	353	351	✓
430'	80°00'	318	316	✓
580'	81°45'	287	285	✓
530'	82°45'	270	268	✓
545'	85°40'	248	246	✓
600'	90°25'	230	228	✓
640'	93°00'	216	214	✓

Δ Pt on Round Canyon baseline 300ft  
from Sta. 76 at angle 70°00'.  
→ line produced westerly.  
210 ft. - Bent out.

0°40'	137°40'	137	137	✓
0°25'	131°00'	117	117	✓
0°30'	127°45'	90	90	✓
0°40'	111°05'	69	69	✓
0°5'	87°20'	66	66	✓
0°30'	62°42'	69	69	✓
0°30'	48°38'	85	85	✓
0°50'	42°05'	100	100	✓
1°45'	42°30'	120	120	✓
2°10'	35°30'	111	111	✓
1°20'	32°15'	90	90	✓
1°00'	25°00'	68	68	✓
1°00'	25°30'	49	49	✓
1°00'	9°30'	31	31	✓

030'	1515' R 0.78	28	✓
030'	7300' R 0.12	12	✓
030'	15010' R 0.11	11	✓
030'	15300' R 0.47	47	✓
700'	14600' R 0.65	65	✓

115 ft Contour

500'	13545' R 0.62	62	✓
700'	13030' R 0.36	36	✓
700'	11475' R 0.18	18	✓
930'	15040' R 0.18	18	✓
930'	2930' R 0.39	39	✓
840'	845' R 0.36	38	✓
330'	1805' L 0.55	55	✓
330'	1935' L 0.75	75	✓
340'	7900' L 0.96	96	✓
300'	3500' L 1.21	121	✓
300'	3907' L 1.27	127	✓

330'	4406' L 1.50	149	✓
300'	4430' L 1.31	131	✓
300'	4430' L 1.16	116	✓
330'	4806' L 0.97	97	✓
340'	5515' L 0.84	84	✓
330'	7205' L 0.72	72	✓
315'	8956' L 0.76	76	✓
315'	10730' L 0.80	80	✓
330'	12130' L 0.97	97	✓
325'	12425' L 1.22	122	✓
145'	13115' L 1.38	138	✓

200 ft Contour

345'	12615' L 1.43	143	✓
400'	11930' L 1.26	126	✓
500'	11445' L 0.99	99	✓
530'	9320' L 0.86	86	✓
600'	7500' L 0.80	80	✓

6 <sup>00</sup>	62 <sup>00</sup> L	0.88	88	✓
5 <sup>15</sup>	52 <sup>05</sup> L	0.99	99	✓
5 <sup>30</sup>	46 <sup>45</sup> L	1.26	125	✓
5 <sup>00</sup>	45 <sup>42</sup> L	1.50	149	✓
5 <sup>30</sup>	46 <sup>35</sup> L	1.60	159	✓
5 <sup>30</sup>	43 <sup>15</sup> L	1.53	152	✓
4 <sup>00</sup>	38 <sup>30</sup> L	1.47	147	✓
5 <sup>10</sup>	34 <sup>25</sup> L	1.42	141	✓
5 <sup>10</sup>	32 <sup>25</sup> L	1.30	129	✓
5 <sup>00</sup>	29 <sup>05</sup> L	1.10	109	✓
6 <sup>00</sup>	23 <sup>10</sup> L	0.99	98	✓
7 <sup>00</sup>	17 <sup>00</sup> L	0.86	85	✓
8 <sup>00</sup>	13 <sup>12</sup> L	0.81	80	✓
8 <sup>00</sup>	11 <sup>55</sup> L	0.64	63	✓
10 <sup>00</sup>	1 <sup>40</sup> R	0.50	48	✓
10 <sup>00</sup>	15 <sup>15</sup> R	0.49	46	✓
11 <sup>45</sup>	36 <sup>40</sup> R	0.57	48	✓
11 <sup>00</sup>	54 <sup>00</sup> R	0.42	38	✓

14 <sup>30</sup>	90 <sup>45</sup> R	0.31	29	✓
11 <sup>00</sup>	121 <sup>15</sup> R	0.48	46	✓
8 <sup>30</sup>	127 <sup>05</sup> R	0.64	63	✓

## 225 ft contour

13 <sup>00</sup>	116 <sup>52</sup> R	0.70	66	✓
16 <sup>30</sup>	104 <sup>15</sup> R	0.52	48	✓
18 <sup>45</sup>	80 <sup>30</sup> R	0.47	34	✓
15 <sup>20</sup>	45 <sup>10</sup> R	0.60	56	✓
15 <sup>30</sup>	22 <sup>18</sup> R	0.60	56	✓
14 <sup>30</sup>	1 <sup>05</sup> R	0.61	58	✓
10 <sup>40</sup>	7 <sup>15</sup> L	0.78	75	✓
10 <sup>40</sup>	7 <sup>50</sup> L	0.89	89	✓
8 <sup>20</sup>	20 <sup>52</sup> L	1.00	98	✓
6 <sup>30</sup>	28 <sup>15</sup> L	1.20	118	✓
6 <sup>00</sup>	29 <sup>25</sup> L	1.37	136	✓
6 <sup>45</sup>	31 <sup>05</sup> L	1.50	148	✓
5 <sup>15</sup>	37 <sup>30</sup> L	1.53	151	✓

500'	43°30' L	1.64	163	✓
640'	48°00' L	1.76	174	✓
730'	49°00' L	1.58	156	✓
800'	50°26' L	1.33	131	✓
745'	50°00' L	1.19	117	✓
800'	61°05' L	0.97	95	✓
845'	78°05' L	0.90	88	✓
830'	88°00' L	0.98	96	✓
800'	103°46' L	0.96	94	✓
770'	113°25' L	1.12	110	✓
600'	116°20' L	1.32	131	✓
530'	121°05' L	1.44	143	✓

## 230 ft. Contour

730'	111°00' L	1.50	148	✓
890'	112°10' L	1.33	131	✓
1000'	105°56' L	1.09	103	✓
1030'	84°05' L	1.06	102	✓

1040'	40°20' L	1.01	98	✓
930'	50°50' L	1.17	114	✓
930'	51°45' L	1.53	150	✓
800'	48°55' L	1.87	183	✓
630'	47°30' L	1.93	190	✓
630'	43°00' L	1.74	171	✓
700'	35°30' L	1.59	156	✓
1000'	27°30' L	1.70	165	✓
800'	27°35' L	1.36	133	✓
910'	20°00' L	1.22	119	✓
1000'	19°05' L	1.10	108	✓
1200'	41°2' L	0.96	92	✓
1495'	0°25' R	0.73	68	✓
1745'	21°20' R	0.72	65	✓
2050'	39°48' R	0.79	69	✓
1700'	59°35' R	0.68	62	✓
1900'	97°00' R	0.61	54	✓
1500'	107°50' R	0.71	66	✓

## 235 ft Contour

1950'	100°08'R	0.80	72	✓
1940'	85°20'R	0.72	64	✓
1830'	69°15'R	0.82	74	✓
1845'	56°20'R	0.91	81	✓
2015'	43°15'R	0.90	79	✓
1920'	23°50'R	0.88	78	✓
1800'	15°25'R	0.82	81	✓
1530'	3°25'R	0.90	84	✓
1445'	0°00'	1.06	99	✓
1330'	7°25'L	1.04	98	✓
1150'	18°50'L	1.20	115	✓
1045'	28°12'L	1.38	134	✓
1000'	28°22'L	1.48	144	✓
930'	26°15'L	1.73	170	✓
900'	34°09'L	1.67	164	✓
830'	37°30'L	1.67	164	✓
745'	43°00'L	1.84	181	✓

700'	46°07'L	2.04	201	✓
700'	47°05'L	2.17	214	✓
720'	49°17'L	2.04	201	✓
800'	57°10'L	1.85	182	✓
930'	53°55'L	1.60	156	✓
1100'	56°55'L	1.32	128	✓
1230'	75°25'L	1.13	108	✓
1215'	85°35'L	1.16	111	✓
1145'	101°30'L	1.22	117	✓
915'	110°55'L	1.44	144	✓
840'	115°35'L	1.61	157	✓

## 240 ft Contour

1045'	111°10'L	1.66	160	✓
1110'	106°50'L	1.50	144	✓
1320'	97°08'L	1.26	119	✓
1340'	81°22'L	1.26	119	✓
1345'	67°05'L	1.23	116	✓

12 <sup>25</sup> '	58°15' L	1.40	133	✓	
12 <sup>00</sup> '	55°46' L	1.70	163	✓	
11 <sup>30</sup> '	54°20' L	1.90	183	✓	
11 <sup>00</sup> '	52°00' L	2.08	201	✓	
7 <sup>50</sup> '	49°40' L	2.22	218	✓	
7 <sup>50</sup> '	46°35' L	2.36	232	✓	
8 <sup>00</sup> '	45°42' L	2.18	214	✓	
8 <sup>50</sup> '	42°55' L	2.00	196	✓	
9 <sup>10</sup> '	39°45' L	1.85	181	✓	
10 <sup>00</sup> '	35°35' L	1.73	169	✓	
10 <sup>10</sup> '	25°00' L	1.85	181	✓	
12 <sup>30</sup> '	22°52' L	1.45	138	✓	
13°15'	19°46' L	1.30	123	✓	
14 <sup>50</sup> '	10°50' L	1.18	110	✓	
15 <sup>20</sup> '	5°00' L	1.16	108	✓	
16 <sup>00</sup> '	4°40' R	1.14	105	✓	
K <sup>To</sup> K <sub>o</sub>	21 <sup>30</sup> '	12°30' R	0.99	86	✓
	21 <sup>30</sup> '	27°45' R	1.04	91	✓

21 <sup>30</sup> '	36°00' R	0.98	83	✓
20 <sup>30</sup> '	56°20' R	1.02	91	✓
20 <sup>30</sup> '	76°45' R	0.90	79	✓
19°10'	91°35' R	0.98	81	✓

Woff B. tower.

28°10'	88°07' R	1.09	96	✓
19°10'	63°55' R	1.11	99	✓
20°30'	42°46' R	1.08	95	✓
21°30'	28°20' R	1.15	100	✓
20°15'	13°46' R	1.10	97	✓
17°50'	7°20' R	1.25	113	✓
16°30'	8°10' L	1.26	116	✓
14°40'	19°15' L	1.39	130	✓
11°00'	24°00' L	2.00	193	✓
11°00'	33°30' L	1.80	173	✓
10°30'	38°55' L	2.00	194	✓
10°00'	43°20' L	2.11	205	✓

	9°10'	44°45'	2.50	244	✓	
	9°30'	49°05'	2.32	224	✓	
	11°00'	50°10'	2.30	222	✓	
SOUTH SIDE	}	11°00'	53°45'	2.10	202	✓
		12°15'	56°50'	1.80	172	✓
	14°15'	61°00'	1.43	134	✓	
	15°00'	70°20'	1.36	127	✓	
	15°00'	91°20'	1.34	125	✓	
	17°00'	103°55'	1.60	152	✓	
	11°30'	114°20'	1.77	169	✓	

## 250 ft Contour

	14°30'	96°40'	1.63	154	✓
	16°20'	89°22'	1.45	133	✓
	16°30'	76°45'	1.47	135	✓
	16°00'	63°45'	1.46	136	✓

## 200 ft Contour

	17°50'	71°06'	1.53	137	✓
	17°30'	83°20'	1.55	141	✓
	16°00'	91°52'	1.83	169	✓

Δ Pt. on Round Canyon baseline  
at Sta 76

→ Sta 80

## 180 ft Contour

	0°00'	29°45'	1.48	148	✓
	0°00'	19°10'	1.64	164	✓
	0°00'	16°22'	1.95	195	✓
	0°00'	18°30'	2.25	225	✓
	0°00'	16°25'	2.60	260	✓
	0°00'	12°30'	2.80	280	✓
	0°00'	8°30'	3.00	300	✓
	0°00'	7°22'	3.50	350	✓
	0°00'	2°45'	3.62	362	✓

## 185 ft. Contour

130'	0°30' L	393	393 ✓
040'	4°30' L	378	378 ✓
045'	7°50' L	353	353 ✓
045'	12°13' L	326	326 ✓
100'	13°45' L	300	300 ✓
at steep bank	100'	17°10' L	270 ✓
100'	19°30' L	245	245 ✓
100'	20°55' L	220	220 ✓
130'	26°40' L	184	184 ✓
130'	38°40' L	173	173 ✓

## 190 ft. Contour

300'	37°05' L	191	191 ✓
210'	29°06' L	205	205 ✓
215'	22°55' L	233	233 ✓
215'	20°30' L	247	247 ✓
200'	20°00' L	265	265 ✓

200'	18°15' L	283	283 ✓
200'	17°12' L	394	394 ✓
200'	14°45' L	310	310 ✓
145'	13°22' L	335	335 ✓
140'	12°00' L	370	370 ✓
at N. line of Park	130'	9°50' L	407 ✓

## 195 ft. Contour

200'	13°12' L	413	413 ✓
210'	14°10' L	377	377 ✓
230'	15°30' L	343	343 ✓
230'	16°40' L	324	324 ✓
230'	19°30' L	304	304 ✓
300'	20°40' L	277	277 ✓
320'	23°35' L	243	243 ✓
345'	32°00' L	213	213 ✓
400'	40°35' L	200	200 ✓

## 200 ft. Contours.

300' 4100' 2.15 214 ✓

300' 3130' 2.27 226 ✓

410' 2145' 2.40 239 ✓

400' 2330' 2.67 266 ✓

320' 2055' 3.00 299 ✓

330' 1730' 3.27 326 ✓

320' 1710' 3.60 359 ✓

300' 1545' 4.04 402 ✓

245' 1506' 4.24 422 ✓

## 1705 ft. Contours.

330' 1655' 4.30 427 ✓

345' 1810' 3.90 387 ✓

400' 2000' 3.63 361 ✓

430' 2045' 3.33 331 ✓

500' 2355' 2.96 294 ✓

530' 2700' 2.62 259 ✓

600' 3307' 2.42 240 ✓

615' 4000' 2.32 230 ✓

## 210 ft. Contours.

700' 5655' 2.47 244 ✓

710' 4715' 2.43 240 ✓

700' 3800' 2.47 244 ✓

645' 3155' 2.63 260 ✓

615' 2955' 2.81 278 ✓

545' 2445' 3.04 301 ✓

510' 2240' 3.43 340 ✓

435' 2035' 3.80 377 ✓

420' 1920' 4.13 410 ✓

400' 1810' 4.42 439 ✓

## 215 ft. Contours.

440' 1935' 4.47 444 ✓

500' 2112' 4.13 410 ✓

530'	23°10'L	3.76	374	✓
615'	25°50'L	3.30	326	✓
710'	29°42'L	2.96	292	✓
745'	37°20'L	2.64	259	✓
800'	44°46'L	2.55	250	✓
800'	55°55'L	2.56	253	✓

## 220 ft. Contour

850'	55°20'L	2.68	263	✓
850'	47°55'L	2.63	258	✓
830'	39°05'L	2.77	272	✓
780'	31°55'L	3.03	297	✓
700'	21°20'L	3.37	332	✓
610'	15°20'L	3.83	378	✓
600'	24°00'L	4.10	405	✓
530'	31°30'L	4.38	432	✓
515'	40°30'L	4.53	447	✓

## 225 ft. Contour

600'	31°45'L	4.60	455	✓
615'	24°08'L	4.28	423	✓
700'	26°35'L	3.94	388	✓
730'	28°30'L	3.57	351	✓
825'	32°40'L	3.17	311	✓
900'	38°07'L	2.90	285	✓
1000'	46°10'L	2.80	271	✓
930'	51°55'L	2.80	272	✓
930'	57°15'L	2.87	279	✓

## 230 ft. Contour

1000'	56°20'L	3.00	291	✓
1000'	50°00'L	2.93	284	✓
1000'	42°35'L	2.96	287	✓
930'	36°15'L	3.17	309	✓
825'	31°05'L	3.57	348	✓
750'	28°50'L	3.93	386	✓

7 <sup>00</sup>	26 <sup>00</sup>	4.31	424 ✓
6 <sup>30</sup>	23 <sup>30</sup>	4.64	457 ✓

## 235 ft. Contour

7 <sup>00</sup>	24 <sup>20</sup>	4.73	466 ✓
7 <sup>30</sup>	24 <sup>15</sup>	4.40	433 ✓
8 <sup>00</sup>	24 <sup>10</sup>	4.10	402 ✓
9 <sup>00</sup>	32 <sup>05</sup>	3.67	358 ✓
10 <sup>00</sup>	36 <sup>55</sup>	3.32	322 ✓
10 <sup>30</sup>	40 <sup>10</sup>	3.13	303 ✓
0 <sup>40</sup>	44 <sup>00</sup>	3.06	296 ✓
10 <sup>35</sup>	50 <sup>00</sup>	3.05	295 ✓

0110103  
 Along on  
 modern  
 Appinsola  
 line

△ Pt on N line of Park at 6+80

295

→ N.W. corner

## 270 ft. Contour

9 <sup>50</sup>	34 <sup>45</sup>	1.05	102 ✓
8 <sup>30</sup>	55 <sup>00</sup>	1.08	105 ✓
7 <sup>30</sup>	65 <sup>55</sup>	1.30	128 ✓
7 <sup>15</sup>	69 <sup>05</sup>	1.50	148 ✓

## 265 ft. Contour

7 <sup>15</sup>	89 <sup>30</sup>	1.170	169 ✓
3 <sup>30</sup>	88 <sup>25</sup>	1.228	122 ✓
5 <sup>00</sup>	84 <sup>05</sup>	1.092	91 ✓
6 <sup>00</sup>	78 <sup>42</sup>	1.062	61 ✓
8 <sup>00</sup>	38 <sup>55</sup>	1.037	36 ✓
8 <sup>00</sup>	44 <sup>15</sup>	1.048	47 ✓

## Vertical Horiz Rod

5.5'	5°12'	0.72	71	✓
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## 260 ft. Contour

195'	4°30'	0.22	22	✓
310'	8°40'	0.22	22	✓
190'	88°55'	0.61	61	✓
0°00'	94°15'	0.88	88	✓
115'	94°10'	1.10	110	✓
180'	99°10'	1.38	138	✓
0°15'	99°55'	1.70	170	✓

## 255 ft. Contour

0°10'	100°15'	1.95	195	✓
1°00'	102°55'	1.55	155	✓
1°00'	99°40'	1.19	119	✓
1°00'	103°15'	0.80	80	✓
1°00'	107°15'	0.44	44	✓

100'	136°50'	0.70	20	✓
0°00'	151°00'	0.05	5	✓

## 250 ft. Contour

180'	109°25'	0.26	26	✓
300'	122°20'	0.50	50	✓
200'	111°30'	0.83	83	✓
230'	106°00'	1.18	118	✓
290'	107°15'	1.52	152	✓
1°00'	104°35'	1.80	180	✓
0°15'	109°00'	2.12	212	✓

A Brown Pencil Benchmark has been  
at Sta. 75  
→ Sta. 80

## 245 ft. Contour

11°00'	41°32'	3.30	318	✓
11°45'	46°20'	3.04	291	✓

12°00'	50°16'	298	285 ✓
13°15'	55°55'	270	259 ✓
13°45'	60°05'	262	257 ✓
15°00'	64°22'	242	226 ✓
15°25'	72°33'	240	224 ✓
15°30'	82°55'	240	224 ✓
14°15'	89°07'	253	238 ✓

## 240 ft. Continued.

10°55'	92°25'	250	241 ✓
14°35'	86°15'	229	214 ✓
15°00'	75°37'	222	207 ✓
14°30'	66°52'	230	215 ✓
13°15'	59°06'	251	236 ✓
12°00'	51°50'	270	258 ✓
11°10'	47°06'	290	278 ✓
10°30'	41°15'	314	304 ✓

## 180 ft. Continued.

1°10'	125°R	164	164 ✓
1°20'	134°2'	142	142 ✓
1°10'	137°0'	114	114 ✓
1°30'	23°00'	0.83	83 ✓
2°00'	52°40'	0.63	63 ✓
3°20'	84°42'	0.29	29 ✓
3°45'	164°35'	0.39	39 ✓

## 185 ft. Continued.

0°40'	102°26'R	0.81	81 ✓
0°45'	81°15'R	0.69	69 ✓
0°20'	53°45'R	0.96	96 ✓
0°20'	34°52'R	1.37	137 ✓
0°10'	24°05'R	1.82	182 ✓
1°00'	24°55'	2.22	222 ✓
0°30'	23°50'	2.33	233 ✓

## 190 ft. Contour.

120'	76°42'R	240	✓
130'	30°35'R	198	✓
140'	37°30'R	158	✓
230'	49°35'R	127	✓
245'	63°49'R	113	✓
230'	84°25'R	126	✓
230'	95°25'R	146	✓

## 195 ft. Contour.

250'	93°25'R	227	✓
300'	91°18'R	192	✓
350'	85°15'R	161	✓
400'	76°00'R	134	✓
430'	63°17'R	128	✓
430'	49°40'R	138	✓
330'	43°50'R	157	✓
300'	38°30'R	179	✓

230'	32°45'R	222	✓
230'	30°30'R	244	✓

## 200 ft. Contour.

330'	33°30'R	249	✓
400'	38°05'R	211	✓
445'	43°00'R	179	✓
545'	50°00'R	156	✓
545'	61°45'R	144	✓
530'	74°40'R	152	✓
500'	81°17'R	181	✓
415'	86°30'R	209	✓

## 205 ft. Contour.

515'	80°19'R	215	✓
630'	75°10'R	190	✓
630'	70°00'R	162	✓
700'	59°15'R	160	✓

6°25'	46°45'R	218	179 ✓
5°20'	40°55'R	212	210 ✓
4°40'	35°35'R	255	256 ✓

## 210 ft. Contour.

5°30'	39°35'R	262	260 ✓
6°15'	40°55'R	225	222 ✓
7°25'	48°40'R	200	197 ✓
7°50'	59°08'R	183	180 ✓
7°50'	69°15'R	195	192 ✓
7°15'	73°55'R	217	214 ✓
6°45'	75°05'R	223	220 ✓

## 215 ft. Contour.

8°00'	70°55'R	235	230 ✓
8°15'	64°55'R	217	212 ✓
8°00'	56°30'R	219	214 ✓
7°30'	49°00'R	239	237 ✓

7°30'	45°08'R	253	251 ✓
7°30'	42°30'R	272	270 ✓

## 220 ft. Contour

7°25'	45°37'R	293	291 ✓
8°00'	58°40'R	268	266 ✓
8°30'	59°45'R	253	251 ✓
8°30'	64°42'R	260	258 ✓
7°50'	71°35'R	277	275 ✓
7°40'	72°55'R	284	282 ✓

## 225 ft. Contour.

8°10'	70°38'R	300	294 ✓
8°30'	69°12'R	288	282 ✓
7°30'	58°25'R	283	278 ✓
8°00'	50°35'R	300	294 ✓
7°15'	44°25'R	327	322 ✓

## 230 ft Contour

7°45' 49°00'R.3.40 334 ✓

8°30' 53°35'R.3.13 306 ✓

8°30' 59°00'R.3.10 303 ✓

8°35' 64°40'R.3.08 301 ✓

8°30' 69°20'R.3.18 311 ✓

## 235 ft Contour

8°40' 68°00'R.3.38 331 ✓

9°00' 65°10'R.3.30 322 ✓

9°00' 58°05'R.3.26 318 ✓

8°30' 52°35'R.3.40 333 ✓

## 240 ft Contour

9°00' 55°22'R.3.64 356 ✓

9°20' 59°42'R.3.51 343 ✓

9°30' 64°24'R.3.48 340 ✓

9°30' 66°00'R.3.58 350 ✓

## 245 ft Contour

9°30' 63°42'R.3.73 365 ✓

9°30' 58°30'R.3.70 368 ✓

A How Round Canyon base line at

L. 4+18

→ line produced

## 250 ft Contour

8°00' 116°55'L.2.67 260 ✓

8°35' 113°00'L.2.37 230 ✓

9°45' 106°00'L.2.09 201 ✓

10°00' 98°55'L.2.00 194 ✓

10°40' 90°30'L.1.90 182 ✓

11°00' 80°00'L.1.81 174 ✓

10°30' 74°45'L.1.92 185 ✓

10°00' 70°30'L.2.05 198 ✓

9°00' 65°10'L.2.23 216 ✓

8°30' 62°00'L.2.50 244 ✓

8°00' 56°15' L 2.61 254 ✓

## 255 ft. Contour.

8°30' 58°00' L 2.67 260 ✓

9°20' 62°18' L 2.50 243 ✓

10°00' 66°52' L 2.30 223 ✓

11°00' 70°22' L 2.20 213 ✓

12°00' 79°10' L 1.95 186 ✓

11°30' 91°25' L 2.03 195 ✓

11°00' 95°45' L 2.11 203 ✓

10°45' 104°00' L 2.18 210 ✓

10°00' 108°45' L 2.33 226 ✓

9°00' 113°22' L 2.53 247 ✓

## 260 ft. Contour

10°30' 110°00' L 2.51 243 ✓

11°00' 106°30' L 2.38 230 ✓

11°45' 99°00' L 2.22 214 ✓

12°00' 92°25' L 2.17 209 ✓

13°00' 83°42' L 2.05 195 ✓

12°30' 74°53' L 2.19 210 ✓

11°30' 70°48' L 2.32 223 ✓

10°45' 66°30' L 2.48 240 ✓

9°50' 61°42' L 2.63 257 ✓

9°30' 59°55' L 2.73 266 ✓

3/11/03

Aluminum  
 instrument  
 by  
 the  
 office

## 245 ft. Contour

7°45' 121°00' L 2.54 249 ✓

8°00' 117°40' L 2.28 223 ✓

8°45' 109°35' L 2.08 203 ✓

8°45' 102°00' L 1.93 188 ✓

9°30' 96°15' L 1.87 182 ✓

10°30' 89°12' L 1.72 166 ✓

## Vertical Horiz Rod

10° 10'	78° 00'	1.72	167	✓
9° 30'	72° 00'	1.85	180	✓
8° 15'	63° 42'	2.11	206	✓
7° 30'	57° 12'	2.38	234	✓
7° 00'	54° 05'	2.57	250	✓

## 240 ft. Contour.

6° 15'	51° 50'	2.47	244	✓
6° 30'	55° 45'	2.23	220	✓
7° 30'	64° 45'	1.88	185	✓
8° 30'	72° 30'	1.68	164	✓
9° 30'	81° 45'	1.56	151	✓
9° 00'	92° 55'	1.67	162	✓
7° 45'	105° 00'	1.83	180	✓
7° 00'	115° 05'	2.05	202	✓
7° 00'	123° 12'	2.15	212	✓

## 235 ft. Contour.

6° 00'	125° 40'	1.90	188	✓
6° 00'	117° 30'	1.90	188	✓
6° 40'	108° 10'	1.76	173	✓
7° 15'	100° 15'	1.58	155	✓
8° 05'	88° 35'	1.40	137	✓
7° 50'	78° 20'	1.43	140	✓
7° 00'	70° 10'	1.58	155	✓
7° 00'	65° 18'	1.74	171	✓
6° 30'	55° 07'	2.08	205	✓
5° 30'	49° 56'	2.36	233	✓

## 230 ft. Contour.

4° 00'	47° 25'	2.28	227	✓
5° 00'	49° 18'	2.13	211	✓
5° 30'	60° 50'	1.72	170	✓
5° 35'	67° 35'	1.53	151	✓
6° 30'	75° 05'	1.31	130	✓

6°15'	100°18' L	1.38	137	✓
5°30'	112°13' L	1.58	157	✓
5°00'	122°28' L	1.70	169	✓
4°50'	132°35' L	1.88	187	✓

## 225 ft. Contour.

3°00'	139°15' L	1.88	187	✓
3°30'	129°50' L	1.56	155	✓
3°55'	128°20' L	1.52	151	✓
4°15'	109°40' L	1.30	129	✓
4°45'	95°20' L	1.10	109	✓
4°45'	89°45' L	1.11	110	✓
5°00'	73°07' L	1.20	119	✓
5°00'	65°40' L	1.38	137	✓
3°00'	49°06' L	2.00	199	✓
3°05'	42°45' L	2.28	227	✓

11000 ft  
contour  
check

## 220 ft. Contour.

1°20'	37°42' L	2.27	227	✓
2°00'	43°15' L	1.96	196	✓
2°00'	56°30' L	1.22	122	✓
3°30'	72°45' L	1.02	102	✓
3°15'	109°30' L	0.97	97	✓
3°30'	115°42' L	1.14	114	✓
2°30'	122°30' L	1.32	132	✓
2°30'	137°05' L	1.50	150	✓
2°15'	143°55' L	1.80	180	✓

## 215 ft. Contour.

0°30'	149°55' L	1.83	183	✓
0°30'	146°30' L	1.60	160	✓
1°00'	139°40' L	1.33	133	✓
0°30'	126°00' L	1.07	107	✓
0°45'	118°30' L	0.90	90	✓
1°00'	98°07' L	0.79	79	✓

100'	72°08' L	0.83	83 ✓
100'	60°15' L	0.93	93 ✓
100'	53°22' L	1.20	120 ✓
100'	44°30' L	1.70	170 ✓

## 210 ft. Contour

210'	45°22' L	1.22	122 ✓
215'	48°50' L	0.98	98 ✓
230'	57°30' L	0.70	70 ✓
200'	93°40' L	0.60	60 ✓
130'	129°30' L	0.78	78 ✓
130'	135°30' L	1.03	103 ✓
120'	151°06' L	1.34	134 ✓
130'	154°52' L	1.68	168 ✓
170'	159°53' L	2.10	210 ✓

## 205 ft. Contour

110'	163°15' L	2.00	200 ✓
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230'	162°05' L	1.80	180 ✓
230'	159°12' L	1.32	132 ✓
215'	148°05' L	0.97	97 ✓
215'	139°45' L	0.70	70 ✓
200'	121°05' L	0.49	49 ✓
230'	73°55' L	0.35	35 ✓

## 200 ft. Contour

11°15'	153°15' L	0.55	53 ✓
800'	156°35' L	0.82	80 ✓
600'	166°35' L	1.15	114 ✓
4°15'	167°40' L	1.57	156 ✓
3°45'	169°40' L	1.82	181 ✓
300'	169°50' L	2.10	209 ✓

146

Δ P on Pined Canyon base line  
at L 6+28

→ L 9+08

225 ft. Contour

0°00'	72°46'	0.50	50	✓
0°00'	33°25'	0.56	56	✓
0°00'	19°45'	0.83	83	✓
0°00'	12°06'	0.97	97	✓

230 ft. Contour

0°00'	5°25'	1.39	139	✓
0°00'	11°05'	1.21	121	✓
0°00'	24°35'	0.93	93	✓
0°00'	44°00'	0.69	69	✓
0°00'	69°35'	0.73	73	✓

235 ft. Contour

5°30'	79°06'	0.63	82	✓
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1471

6°15'	71°45'	0.97	96	✓
6°10'	53°30'	0.83	82	✓
5°20'	33°35'	0.97	96	✓
3°45'	18°46'	1.21	120	✓
3°15'	10°30'	1.52	151	✓
2°45'	7°42'	1.87	186	✓
2°45'	5°05'	2.05	204	✓

240 ft. Contour

3°20'	6°15'	2.46	245	✓
3°30'	8°00'	2.13	212	✓
4°00'	12°06'	1.87	186	✓
5°15'	20°30'	1.40	138	✓
7°30'	35°45'	1.12	110	✓
7°35'	55°42'	0.99	97	✓
7°30'	72°25'	1.11	109	✓
7°50'	83°06'	0.99	97	✓

## 245 ft Bantour

9 <sup>00</sup> '	8055'L	1.13	111 ✓
9 <sup>15</sup> '	7150'L	1.24	122 ✓
9 <sup>30</sup> '	5845'L	1.12	110 ✓
9 <sup>45</sup> '	4535'L	1.13	110 ✓
8 <sup>35</sup> '	3020'L	1.37	134 ✓
6 <sup>30</sup> '	1925'L	1.66	164 ✓
5 <sup>30</sup> '	1535'L	1.92	190 ✓
4 <sup>40</sup> '	1022'L	2.30	228 ✓
4 <sup>30</sup> '	735'L	2.65	263 ✓

## 250 ft Bantour

5 <sup>25</sup> '	935'L	2.77	275 ✓
5 <sup>30</sup> '	1225'L	2.48	246 ✓
6 <sup>45</sup> '	1735'L	2.08	205 ✓
8 <sup>10</sup> '	2540'L	1.74	171 ✓
9 <sup>30</sup> '	3220'L	1.50	147 ✓
10 <sup>30</sup> '	4425'L	1.28	125 ✓

1472

11 <sup>00</sup> '	5820'L	1.26	122 ✓
10 <sup>10</sup> '	7150'L	1.38	134 ✓
10 <sup>30</sup> '	8250'L	1.25	121 ✓

## 255 ft Bantour

12 <sup>00</sup> '	9230'L	1.40	136 ✓
11 <sup>45</sup> '	7008'L	1.50	146 ✓
12 <sup>00</sup> '	5913'L	1.38	134 ✓
11 <sup>40</sup> '	4522'L	1.43	139 ✓
10 <sup>15</sup> '	3325'L	1.60	156 ✓
9 <sup>00</sup> '	2615'L	1.79	185 ✓
9 <sup>45</sup> '	1940'L	2.20	218 ✓
7 <sup>30</sup> '	1400'L	2.54	252 ✓
6 <sup>10</sup> '	1130'L	2.90	288 ✓

## 260 ft Bantour

7 <sup>10</sup> '	1340'L	2.76	293 ✓
7 <sup>20</sup> '	1425'L	2.77	274 ✓

8 <sup>30</sup>	17°45' L	242	238 ✓
9 <sup>30</sup>	21°15' L	220	216 ✓
10 <sup>45</sup>	32°00' L	181	176 ✓
12 <sup>30</sup>	44°52' L	157	150 ✓
13 <sup>30</sup>	53°52' L	147	140 ✓
17 <sup>00</sup>	70°47' L	164	157 ✓
13 <sup>00</sup>	83°00' L	153	146 ✓

A Pt. on Pound Canyon base  
line at 1.9408

→ line produced  
760 ft. Contour

7 <sup>40</sup>	75°20' L	100	98 ✓
5 <sup>30</sup>	70°55' L	133	132 ✓
11 <sup>15</sup>	66°15' L	185	184 ✓
11 <sup>30</sup>	67°00' L	161	160 ✓
5 <sup>10</sup>	57°10' L	118	117 ✓
6 <sup>40</sup>	48°12' L	109	107 ✓

7 <sup>00</sup>	42°10' L	0.90	88 ✓
9 <sup>45</sup>	23°00' L	0.65	62 ✓
10 <sup>45</sup>	10°12' L	0.54	51 ✓
9 <sup>00</sup>	21°45' R	0.69	67 ✓
7 <sup>00</sup>	38°40' R	0.94	93 ✓
6 <sup>00</sup>	40°50' R	1.14	114 ✓
7 <sup>00</sup>	52°40' R	1.00	99 ✓
10 <sup>35</sup>	67°30' R	0.64	63 ✓
16 <sup>00</sup>	83°30' R	0.38	33 ✓
16 <sup>00</sup>	126°20' R	0.43	40 ✓

355 ft. Contour

12 <sup>00</sup>	125°50' R	0.23	22 ✓
10 <sup>45</sup>	69°35' R	0.29	28 ✓
12 <sup>10</sup>	52°00' R	0.77	78 ✓
11 <sup>00</sup>	45°52' R	0.94	93 ✓
5 <sup>10</sup>	45°50' R	0.60	59 ✓
6 <sup>30</sup>	16°30' L	0.43	42 ✓

5°15'	33°45'	0.65	64	✓
3°30'	47°30'	0.90	89	✓
3°00'	60°20'	1.20	119	✓
7°30'	64°15'	1.48	148	✓
4°20'	69°22'	1.13	113	✓
5°30'	71°15'	0.78	77	✓
5°30'	81°10'	0.59	58	✓

## 250 ft Contour.

2°00'	75°42'	0.47	47	✓
1°00'	65°45'	0.83	83	✓
2°15'	64°10'	1.08	108	✓
1°00'	49°30'	0.77	77	✓
0°30'	44°07'	0.61	61	✓
1°00'	78°15'	0.38	38	✓
1°00'	73°38'	0.46	46	✓
1°00'	42°00'	0.65	65	✓
0°30'	43°35'	0.33	33	✓

0°30'	59°45'	0.07	7	✓
1°15'	14°00'	0.12	12	✓

## 245 ft Contour

0°00'	73°15'	0.05	5	✓
1°00'	70°30'	0.26	26	✓
1°00'	37°25'	0.28	28	✓
1°00'	54°00'	0.58	58	✓
1°00'	66°42'	0.39	39	✓

△ Brown Point Canyon land  
line at L. 6+25

→ L. 9+08

## 260 ft Contour

8°00'	9°00'	2.40	236	✓
10°00'	16°35'	2.00	194	✓
12°25'	23°45'	1.67	160	✓
14°30'	33°00'	1.41	132	✓

1700'	46°20'R	1.16	107	✓
1930'	66°05'R	1.03	92	✓
1830'	90°30'R	1.10	100	✓
1500'	116°20'R	1.12	102	✓

## 255 ft. Contour.

1700'	114°18'R	1.00	92	✓
1430'	95°40'R	0.98	92	✓
2000'	75°00'R	0.90	79	✓
1730'	53°50'R	0.98	89	✓
1440'	34°50'R	1.15	108	✓
1300'	24°45'R	1.50	143	✓
930'	16°30'R	1.78	173	✓
800'	10°30'R	2.13	209	✓
645'	18°00'R	2.48	244	✓
615'	47°0'R	2.67	264	✓

## 250 ft. Contour.

530'	230'R	2.63	261	✓
625'	6°15'R	2.15	213	✓
730'	11°18'R	1.83	181	✓
930'	19°00'R	1.48	144	✓
1200'	24°55'R	1.24	120	✓
1300'	28°05'R	1.07	102	✓
1630'	49°45'R	0.87	79	✓
1830'	71°20'R	0.76	68	✓
1700'	93°30'R	0.83	75	✓
1500'	120°15'R	0.92	86	✓

## 245 ft. Contour.

1315'	122°48'R	0.90	77	✓
1420'	101°30'R	0.70	65	✓
1800'	76°45'R	0.59	54	✓
1335'	38°25'R	0.78	74	✓
1015'	19°45'R	1.02	99	✓

830'	16°15'R	130	127	✓
700'	10°06'R	160	158	✓
530'	4°30'R	196	194	✓
445'	2°05'R	228	227	✓
400'	0°20'L	265	264	✓

## 240 ft. Contour

255'	2°50'L	283	282	✓
315'	1°55'L	242	241	✓
345'	0°30'L	210	209	✓
430'	3°35'R	177	176	✓
520'	8°40'R	143	142	✓
730'	14°12'R	99	97	✓
1135'	32°05'R	63	64	✓
1445'	68°12'R	46	41	✓
1300'	103°30'R	57	55	✓
1900'	128°25'R	70	67	✓

## 235 ft. Contour

415'	138°30'R	60	58	✓
1020'	109°30'R	44	42	✓
1300'	80°00'R	83	31	✓
900'	32°25'R	47	45	✓
635'	18°55'R	62	61	✓
530'	9°00'R	86	85	✓
500'	6°05'R	128	127	✓
300'	1°37'R	160	159	✓
235'	2°05'L	185	185	✓
215'	3°45'L	220	220	✓

## 230 ft. Contour

115'	41°8'L	177	177	✓
300'	0°15'L	117	116	✓
300'	3°38'L	97	97	✓
300'	1°30'R	69	69	✓
315'	16°12'R	38	38	✓

700'	9600'R.0.23	22 ✓
700'	14480'R.0.44	44 ✓

## 225 ft. Contour

430'	15245'R.0.39	39 ✓
400'	11808'R.0.10	10 ✓
000'	2720'R.0.12	12 ✓
480'	11540.0.33	33 ✓
100'	500'.0.62	62 ✓
030'	1020'.0.90	90 ✓

## 220 ft. Contour

700'	1645'.0.48	48 ✓
000'	3350'.0.15	15 ✓
000'	15720'.0.14	14 ✓
100'	17100'.0.37	37 ✓

△ Pt on Poudre Canyon baseline  
at 1,448

→ line produced easterly  
210 ft. Contour

130'	4425'.1.30	130 ✓
130'	3920'.0.95	95 ✓
135'	3455'.0.60	60 ✓
330'	2615'.0.44	44 ✓
330'	2425'.0.47	47 ✓
330'	1430'.0.23	23 ✓
000'	7630'.0.0.6	6 ✓

## 215 ft. Contour

000'	10700'.0.12	12 ✓
030'	4210'.0.28	28 ✓
030'	3815'.0.59	59 ✓
100'	3935'.0.80	80 ✓
130'	3120'.0.63	63 ✓

100'	1135' L	0.63	63	✓
045'	2646' L	0.69	69	✓
045'	3530' L	1.05	105	✓
045'	3915' L	1.50	150	✓
100'	3715' L	1.90	190	✓

## 220 ft. Contour

630'	11100' R	0.26	26	✓
600'	6135' R	0.34	34	✓
430'	4700' R	0.75	75	✓
500'	4925' R	1.08	107	✓
400'	3345' R	0.90	90	✓
430'	1438' R	0.71	71	✓
340'	1238' L	0.74	74	✓
200'	7555' L	1.04	104	✓
135'	3242' L	1.26	126	✓
145'	3500' L	1.59	159	✓

## 225 ft. Contour

330'	2710' L	1.53	153	✓
430'	2108' L	1.18	118	✓
600'	810' L	0.88	87	✓
600'	940' R	0.82	81	✓
515'	3137' R	0.98	97	✓
430'	4700' R	1.38	137	✓
600'	5505' R	1.10	109	✓
630'	5900' R	0.80	79	✓
1100'	7435' R	0.47	45	✓
1130'	12225' R	0.41	39	✓

## 230 ft. Contour

1400'	12245' R	0.58	55	✓
1430'	8835' R	0.56	53	✓
1200'	6930' R	0.80	77	✓
800'	6145' R	1.13	111	✓
640'	5352' R	1.34	132	✓

5°00'	49°35'R	1.62	161	✓
6°00'	39°20'R	1.38	137	✓
7°30'	28°05'R	1.08	107	✓
8°30'	5°55'R	0.96	94	✓
7°00'	13°20'L	1.18	117	✓
5°30'	21°35'L	1.42	141	✓

3/12/03

Alverson  
Mr. Larent  
A. J. Larent  
Lube

## 235 ft. Contour

15°20'	113°36'R	0.96	78	✓
15°00'	89°45'R	0.72	69	✓
13°00'	68°30'R	1.02	98	✓
8°30'	61°18'R	1.31	129	✓
19°15'	55°10'R	1.54	152	✓
6°00'	49°20'R	1.89	185	✓
6°45'	44°10'R	1.66	164	✓

8°00'	34°00'R	1.35	133	✓
10°00'	17°00'R	1.09	106	✓
9°00'	9°10'L	1.24	122	✓
8°00'	15°40'L	1.42	139	✓
8°00'	18°05'L	1.59	154	✓

## 240 ft. Contour

9°20'	13°00'L	1.54	150	✓
10°15'	9°30'L	1.38	134	✓
11°25'	0°00'	1.22	117	✓
12°00'	9°18'R	1.18	114	✓
11°00'	22°25'R	1.29	123	✓
9°15'	34°10'R	1.52	149	✓
8°00'	41°30'R	1.74	171	✓
7°00'	45°25'R	2.00	198	✓
6°45'	48°20'R	2.10	208	✓
7°20'	50°30'R	1.96	193	✓
7°40'	54°37'R	1.86	183	✓

15%

8°30'	57°45'R	1.63	158 ✓
10°00'	65°40'R	1.40	136 ✓
13°05'	73°08'R	1.20	114 ✓
15°00'	81°10'R	0.96	89 ✓
17°45'	98°15'R	0.84	75 ✓
17°00'	110°10'R	0.87	77 ✓
15°30'	122°46'R	0.96	89 ✓

215 ft. contour

16°30'	120°45'R	1.06	97 ✓
18°10'	109°12'R	0.98	88 ✓
18°40'	97°00'R	0.94	84 ✓
17°20'	86°45'R	1.02	93 ✓
14°30'	77°00'R	1.22	115 ✓
8°15'	72°55'R	1.43	141 ✓
11°10'	64°25'R	1.60	153 ✓
10°00'	59°25'R	1.75	170 ✓
9°10'	56°10'R	1.89	184 ✓

at steep  
side

1980

8°10'	50°35'R	2.11	207 ✓
7°45'	48°50'R	2.26	222 ✓
8°00'	44°50'R	2.13	209 ✓
8°15'	41°20'R	2.02	198 ✓
9°10'	39°45'R	1.85	181 ✓
10°00'	37°28'R	1.72	166 ✓
11°00'	32°10'R	1.67	160 ✓
11°50'	27°00'R	1.50	142 ✓
8°00'	17°50'R	1.37	134 ✓
13°20'	9°05'R	1.32	127 ✓
13°00'	3°55'R	1.32	127 ✓
12°00'	3°05' L	1.42	136 ✓
11°30'	7°42' L	1.52	146 ✓

(cont. in notebook)

158  
Return to City Engineers Office  
City Hall, San Diego, Cal.

TRAVERSE TABLE FOR TRANSIT BOOK.

Return to City Engineers Office  
From 1° to 90° for a distance of 1000

City Hall, San Diego, Cal.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		
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	90.45	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.		

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