

STADIA SURVEY NOTES

AREA HOWARD PASS - HOWARD PASS STATE or PROVINCE ALASKA PAGE No. 1
 LINE No.(s) 45X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. JENSEN RODMAN J. SCHORR WEATHER: CLEAR, WINDY, -6° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion				INST.	ROD		
1			RECIPROCAL ANGLE SURVEY			- VALUES FOR TP'S WORKED ON Pgs 6 & 7									
2															
3			TAKE OFF INTERSECTION OF L-45X & L-R2-B									1571.5	SP 1294	INTERSECTION -	
4												1570.27		L-45X SP 1294	
5														L-R2-B SP 113	
6		0						H1 5.6		+5.6	1577.1		Δ	MARKER PIPE	
7															
8	S	440			89-46-00			6.0		-4.2	1572.9	-	1295	ELEV. OF SP 1294	
9	"	880			89-58-20			6.0		-5.6	1571.5	-	1296	(SP 113 L-R2-B)	
10	"	1320			90-13-38			6.0		-11.2	1565.9	-	1297	FROM Pg. 195 line 19	
11	"	1760			90-13-36			6.0		-13.0	1564.1	-	1298		
12	"	2200			90-04-47			6.0		-9.1	1568.0	-	1299	THE INTERSECTION AS	
13	"	2640			89-52-57			6.0		-0.6	1576.5	-	1300	NOTED ABOVE IS	
14	"	3080			89-43-23			6.0		+8.9	1586.0	-	1301	TP1 FOR L-45X	
15	"	3520			89-35-18			6.0		+19.3	1596.4	-	1302		
16	"	2960			89-29-03			6.0		+29.7	1606.8	-	1303		
17	"	4400			89-27-00			6.0		+36.2	1613.3	-	1304		
18															
19															
20															

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STADIA SURVEY NOTES

AREA Howard Pas STATE or PROVINCE Alaska PAGE No. 2
 LINE No.(s) 4-5X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN Schorr WEATHER: Windy - clear, -6° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1														
2														
3														
4														
5		0												
6														
7														
8	S	440			90-03-30									
9	"	880			90-23-36									
10	"	1320			90-24-04									
11	"	1760			90-24-06									
12	"	2200			90-23-52									
13	"	2640			90-22-10									
14	"	3080			90-20-10									
15	"	3520			90-17-40									
16	"	3960			90-15-00									
17	"	4400			90-13-11									
18	"	4840			90-11-27									
19	"	5280			90-10-24									
20														

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 3
 LINE No.(s) 45X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN J. Schorr WEATHER: CLEAR, WINDY, -6° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											<u>1620.5</u>				
2															
3	S	5720			90-11-43			6.0	-25.5		1595.0	-	1318		
4	"	6160			90-11-57			6.0	-27.4		1593.1	-	1319		
5	"	6600			90-10-35			6.0	-26.3		1594.2	-	1320		
6	"	7040			90-09-19			6.0	-25.1		1595.4	-	1321		
7	"	7480			90-09-19			6.0	-26.3		1594.2	-	1322		
8	"	7920			90-09-32			6.0	-28.0		1592.5	-	1323		
9	"	8360			90-09-50			6.0	-29.9		1590.6	-	1324		
10	"	8800			90-08-42			6.0	-30.8		1589.7	-	1325		
11	"	9240			90-07-47			6.0	-26.9		1593.6	-	1326		
12	"	9680			90-06-53			6.0	-25.4		1595.1	-	1327		
13	"	10120			90-07-05			6.0	-26.9		1593.6	-	1328		
14	"	10560			90-06-43			6.0	-26.6		1593.9	-	1329		
15	"	11000			90-05-50			6.0	-24.7		1595.8	-	1330		
16	"	11440			90-05-36			6.0	-24.6		1595.9	-	1331		
17	"	11880			90-05-25			6.0	-24.7		1595.8	-	1332		
18	"	12320			90-05-18			6.0	-25.0		1595.5	-	1333		
19	"	12760			90-05-19			6.0	-25.7		1594.8	-	1334		
20															

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AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 4
 LINE No.(s) 45X PARTY No. 1184 DATE 17 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN J. Schorn WEATHER: CLEAR, WINDY, -6° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											1620 [±]				
2															
3	S	13200			90-05-04			6.0	-25.5		1595.0	-	1335		
4	"	13640			90-04-46			6.0	-22.8 21.0		1607.7	-	1336		
5	"	14080			90-05-05			6.0	-26.8		1593.7	-	1337		
6	"	14520			90-05-09			6.0	-27.8		1592.7	-	1338		
7	"	14960			90-05-54			6.0	-31.7		1588.8	-	1339		
8	"	15400			90-06-14			6.0	-33.9		1586.6	-	1340		
9	"	15840			90-05-51			6.0	-33.0		1587.5	-	1341		
10	"	16280			90-04-50			6.0	-28.9		1591.6	-	1342		
11	"	16720			90-03-12			6.0	-21.6		1598.9	-	1343		
12	"	17160			90-02-29			6.0	-18.4		1602.1	-	1344		
13					TAKE OFF TP 3	SP 1345					1612 [±]		1345	FOR ELEV OF TP 3	
14		0					HI	5.8	+5.8		1618 [±]			REFER TO PG 6 LINE 18	
15	S	440			89-47-51			6.0	-4.4		1613.8	-	1346		
16	"	880			89-52-40			6.0	-4.1		1614.1	-	1347		
17	"	1320			89-55-31			6.0	-4.3		1613.9	-	1348		
18	"	1760			89-53-53			6.0	-2.9		1615.3	-	1349		
19	"	2200			89-58-55			6.0	-5.3		1612.9	-	1350		
20	"	2640			90-08-27			6.0	-12.5		1605.7	-	1351		

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AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 5
 LINE No.(s) 45X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN J. Scharr WEATHER: Clear - windy -6° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		ABS. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											1618 ²				
2															
3	S	3080			96-02-46			19.0	-21.5		1596.7	-	1352		
4	"	3520			90-00-38			19.0	-19.6		1598.6	-	1353		
5	"	3960			90-06-22			6.0	-13.3		1604.9	-	1354		
6	"	4400			90-07-16			6.0	-15.3		1602.9	-	1355		
7	"	4840			90-07-46			6.0	-16.9		1601.3	-	1356		
8	"	5280			90-02-13			19.0	-22.4		1595.8	-	1357		
9	"	5720			90-01-36			15.0	-17.5		1600.7	-	1358		
10	"	6160			90-04-33			6.0	-14.2		1604.0	-	1359		
11	"	6600			90-01-13			6.0	-8.3		1609.9	-	1360		
12															
13					TP 4 IS COMMON WITH SP 1361 - ELEV							1611 ²	1361	TP 4 & END OF	
14														LINE 45X	
15														MARKER PIPE	
16															
17															
18														FOR ELEV OF TP 4	
19														REFER TO PG 7 LINE 8	
20															

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AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 6
 LINE No.(s) 45X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen - W.D.H. RODMAN J. Schorr WEATHER: Clear - windy -6 P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1				TAKE OFF SP 113 L-R2-B			(TP 1)			1571.5	1570.27		FROM Pg. 195 LINE 19	
2				RECIPROCAL ANGLE SURVEY			FOR TP 1			SP 1294		THRU TP 4	SP 1361	
3														
4	S	4846 ⁷⁴		89-29-40			H1	5.6	+43 ²				TP 1 - TP 2	
5	"	4846 ⁷⁴		270-30-16			HT	6.0					(SP 1294 - SP 1305)	
6														
7	N	4846 ⁷⁴		90-32-37			H1	5.8					TP 2 - TP 1	
8	"	4846 ⁷⁴		269-27-27			HT	4.0					(SP 1305 - SP 1294)	
9														
10											1614 ²		ELEV SP 1305 TP 2	
11														
12	S	17594 ⁹⁴		90-01-55			H1	5.8	-2 ²				TP 2 - TP 3	
13	"	17594 ⁹⁴		269-58-15			HT	6.0					(SP 1305 - SP 1345)	
14														
15	N	17594 ⁹⁴		90-01-05			H1	5.8					TP 3 - TP 2	
16	"	17594 ⁹⁴		269-59-12			HT	6.0					(SP 1345 - SP 1305)	
17														
18											1612 ⁴		ELEV SP 1345 TP 3	
19														
20														

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AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 7
 LINE No.(s) 45 X PARTY No. 1184 DATE 17 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. J. - W.D. Helander RODMAN J. Schorr WEATHER: Clear - windy - 6. P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1												1612 ^z			
2	S	7018 ⁹¹		90-01-05				H1	5.8		-0 ^z				TP 3 ~ TP 4
3	"	7018 ⁹¹		269-59-08				HT	6.0						(SP 1345 ~ SP 1361)
4															
5	N	7018 ⁹¹		90-00-40				H1	5.8						TP 4 ~ TP 3
6	"	7018 ⁹¹		269-59-49				HT	6.0						(SP 1361 ~ SP 1345)
7															
8												1611 ^z			ELEV SP 1361 TP 4
9															
10	SE	5886 ⁵³		88-22-33				H1	5.8		+167 ^z				TP 4 ~ BAS 78146
11	"	5886 ⁵³		271-37-50				HT	6.0						(SP 1361 ~ 78146)
12															
13	NW	5886 ⁵³		91-38-11				H1	5.5						BAS 78146 ~ TP 4
14	"	5886 ⁵³		268-21-50				HT	6.0						(78146 ~ SP 1361)
15															
16												1779 ^z			SURVEY ELEV BAS 78146
17															
18												1778 ⁹⁷			TRUE ELEV 78146
19															
20												+0.1			MISTAKE

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STADIA SURVEY NOTES

AREA HOWARD PASS / ETIVILUK RIVER STATE or PROVINCE ALASKA PAGE No. 8
 LINE No.(s) 45X PARTY No. 1184 DATE 19 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN _____ WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1			RECIRROCAL ANGLE SURVEY			FOR			L-45X					
2														
3			TAKE OFF INTERSESECTION - L-45X SP 1294			L-R2-B SP 113								
4														
5						INTERSESECTION ELEV.				1571 [±]		SP1294	ELEV. FROM	
6													Pg 195 LINE 19	
7														
8														
9	N	16.256 [±]		90-06-43		HI	5.8		-2.6 [±]				TP1 ~ TP5	
10	"	"		269-53-43		HT	6.0						(SP1294 ~ SP1257)	
11	S	16.256 [±]		89-55-25		HI	5.8						TP5 ~ TP1	
12	"	"		270-04-53		HT	6.0						(SP1257 ~ SP1294)	
13														
14											1544 [±]		TP5 SP1257 ELEV	
15														
16		0				HI	5.8		+5.8	1550 [±]		Δ	1257 T	
17	E	293		88-48-45			5.0	1.1	+1.1		1551 [±]	0	BAS 78407	
18	"	293		271-11-07			5.0	1.1				0		
19											1553 [±]		TRUE ELEV 1553.15	
20											-1 [±]		MISTIE	

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AREA HOWARD PASS / ETIVILUK RIVER STATE or PROVINCE ALASKA PAGE No. 9
 LINE No.(s) 45X PARTY No. 1184 DATE 20 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W. D. HELANDER RODMAN'S CHERVINSKAS WEATHER: _____ P.T.S. No: _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1			RECIPROCAL ANGLE SURVEY -								TP ELEVATIONS				
2															
3			TAKE OFF BAS			78407		ELEV				1553 ³			
4															
5	E	293	89-12-55					3.0	-1.0	-1.0	1552 ²		A	TP AT TP 5 SP 1257	
6	-	293	270-46-57					3.0	-1.0				A		
7		0					HI	5.8		-5.8		1546 ²	0		
8															
9	N	12,302 ⁹⁹	90-13-20				HI	5.8		-45 ¹				TP 5 - TP 6	
10	"	"	269-46-48				HI	6.0						(SP 1257 - SP 1229)	
11	S	12,302 ⁹⁹	89-48-09				HI	5.8						TP 6 - TP 5	
12	"	"	270-12-00				HI	6.0						(SP 1229 - SP 1257)	
13															
14												1501 ²		TP 6 SP 1229 ELEV	
15															
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA HOWARD PASS STATE or PROVINCE ALASKA PAGE No. 10
 LINE No.(s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMANS CHERVINSKAS WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1														
2														
3	N	11,639 ^{EB}		89-26-13			H1	5.8	+14 ^I				TP 6 ~ TP 7	
4	"	"		270-34-10			HT	6.0					(SP1229 ~ SP1202+220)	
5	S	11,639 ^{EB}		90-33-49			H1	5.8					TP 7 ~ TP 6	
6	"	"		269-28-26 269-26-02			HT	6.0					(SP1202+220 ~ SP1229)	
7														
8											1616 ^Z		TP 7 ELEV	
9														
10	E	1090 ^{ES}		88-11-56			H1	5.8	+34 ^B				TP 7 ~ BAS 78141	
11	"	"	271-48-20				HT	6.0					(SP1202+220 ~ 78141)	
12	W	1090 ^{ES}		91-51-40			H1	5.8					BAS 7814 ~ TP 7	
13	"	"		268-08-35			HT	6.0					(7814) ~ SP1202+220	
14														
15											1651 ^Z		78141 ELEV	
16														
17											1653 ^Z		TRUE VALUE	
18											1653		= 1653.15	
19											-2 ^Z		MISTIE	
20														

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AREA Howard Pass - Howard Pass STATE or PROVINCE Alaska PAGE No. 11
 LINE No.(s) 45 X PARTY No. 1184 DATE 21 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN S.J.C. WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Δ B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1						TAKE OFF TP			5	S	P. 1257		1544.9			Refer to Elev. from
2																Pg. 195 L. 19
3								H1	5.8		+5.8	1550.7		Δ		
4																
5																
6																
7																
8	S	16280			89-54-53				5.3		+18.9		1569.6	-	1294	INTERSECTION
9	"	15840			89-55-20				5.3		+15.5		1566.2	-	1293	L-R2-B & L-45X
10	"	15460			89-55-28				5.3		+15.0		1565.7	-	1292	
11	"	14960			89-55-31				5.3		+14.2		1564.9	-	1291	
12	"	14520			89-55-41				5.3		+12.9		1563.6	-	1290	
13	"	14080			89-55-20				5.3		+13.8		1564.5	-	1289	
14	"	13640			89-50-22				5.3		+9.1		1559.8	-	1288	
15	"	13200			89-58-05				5.3		+2.1		1552.8	-	1287	
16	"	12760			89-59-27				5.3		-3.3		1547.4	-	1286	
17	"	12320			90-00-53				5.3		-8.5		1542.2	-	1285	
18	"	11880			90-02-09				5.3		-12.7		1538.0	-	1284	
19	"	11440			90-02-48				5.3		-14.6		1536.1	-	1283	
20	"	11000			90-03-22				5.3		-16.1		1534.6	-	1282	

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AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 12
 LINE No.(s) 45X PARTY No. 1184 DATE 21 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN SJC WEATHER: Clear - windy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1															
2															
3															
4	S	10560			90-03-19				6.3	-15.5		1535.2	-	1281	
5	"	10120			90-05-15				5.3	-26.8		1529.9	-	1280	
6	"	9680			90-04-53				5.3	-19.1		1531.6	-	1279	
7	"	9240			90-05-39				5.3	-20.5		1530.2	-	1278	
8	"	8800			90-06-46				5.3	-22.0		1528.1	-	1277	
9	"	8360			90-07-40				5.3	-23.9		1526.8	-	1276	
10	"	7920			90-10-50				5.3	-30.3		1520.4	-	1275	
11	"	7480			90-12-15				5.3	-32.0		1518.7	-	1274	
12	"	7040			90-13-47				5.3	-33.5		1517.2	-	1273	
13	"	6600			90-15-24				5.3	-34.9		1515.8	-	1272	
14	"	6160			90-17-50				5.3	-37.3		1513.4	-	1271	
15	"	5720			90-17-08				6.7	-35.2		1515.5	-	1270	
16	"	5280			90-17-43				6.7	-33.9		1516.8	-	1269	
17	"	4840			90-17-53				6.7	-31.9		1518.8	-	1268	
18	"	4400			90-17-09				6.5	-38.5		1512.2	-	1267	
19	"	3960			90-17-23				16.5	-36.5		1514.2	-	1266	
20	"	3520			90-17-01				16.5	-33.9		1516.8	-	1265	

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 13
 LINE No.(s) 45X PARTY No. 1184 DATE 21 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN S. J. C. WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2																
3																
4	S	3080			90-17-00				5.3	-20.6		1530.2	+	1264		
5	"	2640			90-13-02				5.3	-15.3		1535.4	-	1263		
6	"	2200			89-54-20				5.3	-1.7		1549.0	-	1262		
7	"	1760			90-07-57				5.3	-9.4		1541.3	-	1261		
8	"	1320			90-08-48				5.3	-8.4		1542.3	-	1260		
9	"	880			90-15-49				5.3	-9.3		1541.4	-	1259		
10	"	440			90-25-26				5.3	-8.6		1542.1	-	1258		
11														1257	X	
12																
13																
14																
15																
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA HOWARD PASS/ETIVILUR RIVER STATE or PROVINCE ALASKA PAGE No. 14
 LINE No.(s) 45X PARTY No. 1184 DATE 20 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMANS CHEVINSKAS WEATHER: _____ P.T.S. No. >

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. - S.S.	Station	REMARKS	
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD				
1			RECIPROCAL ANGLE SURVEY - VALUES														
2																	
3																	
4																	
5		<u>0</u>															
6																	
7	<u>S</u>	<u>11880</u>		<u>89-47-17</u>													
8	"	<u>11440</u>		<u>89-47-23</u>													
9	"	<u>11000</u>		<u>89-48-00</u>													
10	"	<u>10560</u>		<u>89-50-00</u>													
11	"	<u>10120</u>		<u>89-52-00</u>													
12	"	<u>9680</u>		<u>89-52-45</u>													
13	"	<u>9240</u>		<u>89-54-15</u>													
14	"	<u>8800</u>		<u>89-55-10</u>													
15	"	<u>8360</u>		<u>89-55-37</u>													
16	"	<u>7920</u>		<u>89-58-00</u>													
17	"	<u>7480</u>		<u>89-59-33</u>													
18	"	<u>7040</u>		<u>90-01-47</u>													
19	"	<u>6600</u>		<u>90-04-33</u>													
20	"	<u>6160</u>		<u>90-07-40</u>													

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STADIA SURVEY NOTES

AREA HOWARD PASS/ETIVILUK RIVER STATE or PROVINCE ALASKA PAGE No. 15
 LINE No.(s) 45X PARTY No. 1184 DATE 20 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN S. CHERVINSKAS WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		▲B.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1												1506.2				
2																
3	S	5720		90-10-51				6.0		-24.1		1482.8	-	1242		
4	"	5280		90-13-13				6.0		-26.3		1480.6	-	1241		
5	"	4840		90-18-25				6.0		-31.9		1475.0	-	1240		
6	"	4400		90-23-44				6.0		-36.4		1470.5	-	1239		
7	"	3960		90-28-25				6.0		-38.7		1468.2	-	1238		
8	"	3520		90-31-25				6.0		-38.2		1468.7	-	1237		
9	"	3080		90-39-28				6.0		-41.4		1465.5	-	1236		
10	"	2640		90-44-25				6.0		-40.1		1466.8	-	1235		
11	"	2200		90-37-55				6.0		-30.3		1476.6	-	1234		
12	"	1760		90-31-55				6.0		-22.3		1484.6	-	1233		
13	"	1320		90-36-53				6.0		-20.2		1486.7	-	1232		
14	"	880		90-32-53				6.0		-14.4		1492.5	-	1231		
15	"	440		90-26-53				6.0		-9.4		1497.5	-	1230		
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 16
 LINE No.(s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear - windy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1								TAKE OFF	T.P.-6	SP 1229	1501.3		Refer to pg-9 stadia notes	
2														
3		0						HI	6.0	+6.0	1507.3	A	T	
4														
5	N	440			90-12-46				4.0	-5.6	1501.7	-	1228	
6	"	980			90-09-41				4.0	-6.5	1500.8	-	1227	
7	"	1320			90-08-48				6.5	-9.9	1497.4	-	1226	
8	"	1760			89-56-41				6.5	-4.8	1502.5	-	1225	
9	"	2200			89-58-48				6.5	-5.7	1501.6	-	1224	
10	"	2640			89-59-10				6.5	-5.9	1501.4	-	1223	
11	"	3080			89-57-42				6.5	-4.4	1502.9	-	1222	
12	"	3520			89-56-22				6.5	-2.8	1504.5	-	1221	
13	"	3960			89-56-57				6.5	-3.6	1504.3	-	1220	
14	"	4400			89-58-06				6.5	-4.1	1503.2	-	1219	
15	"	4840			89-59-39				6.5	-6.0	1501.3	-	1218	
16	"	5280			90-00-12				6.5	-6.8	1500.5	-	1217	
17	"	5720			90-01-31				6.5	-9.6	1498.3	-	1216	
18	"	6160			90-00-25				6.5	-7.2	1500.1	-	1215	
19	"	6600			90-00-49				6.5	-8.1	1499.2	-	1214	
20	"	7040			90-00-38				6.5	-7.8	1499.5	-	1213	

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 17
 LINE No.(s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear - Windy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1												1507.3			
2															
3															
4															
5	N	7480			89-59-47				6.5	-6.0		1501.3	1212		
6	"	7920			89-58-00				6.5	-1.9		1505.4	1211		
7	"	8360			89-54-24				6.5	+7.1		1514.4	1210		
8	"	8800			89-53-08				6.5	+11.1		1518.4	1209		
9	"	9240			89-52-37				6.5	+13.3		1520.6	1208		
10	"	9680			89-52-27				6.5	+14.8		1522.1	1207		
11	"	10120			89-49-20				6.5	+24.9		1532.2	1206		
12	"	10560			89-44-17				6.5	+41.8		1549.1	1205		
13	"	11000			89-36-36				6.5	+68.4		1575.7	1204		
14	"	11440			89-27-02				6.5	+103.2		1610.5	1203		
15	"	11880											1202		
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA HOWARD PASS STATE or PROVINCE ALASKA PAGE No. 18
 LINE No.(s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN _____ WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1			RECIPROCAL ANGLE SURVEY											
2														
3												1653 [±]		1653.15
4														
5														
6	N	13,343 ⁸⁶		90-46-25				HI	5.8	-177 ⁶				78141 ~ TP 8
7	"	"		219-13-42				HT	6.0					(78141 ~ SP1171)
8	S	13,343 ⁸⁶		89-14-57				HI	6.1					TP 8 ~ 78141
9	"	"		270-45-19				HT	6.0					(SP1171 ~ 78141)
10														
11												1475 ⁶		TP 8 ELEV
12														
13	N	2199 ⁹⁹		90-09-18				HI	6.1	-6.5				TP 8 ~ TP 9
14	"	"		269-50-41				HT	6.0					(SP1171 ~ SP1166)
15	S	2199 ⁹⁹		89-49-54				HI	6.7					TP 9 ~ TP 8
16	"	"		270-10-20				HT	6.0					(SP1166 ~ SP1171)
17														
18														
19												1469 ¹		TP 9 ELEV
20														

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 19
 LINE No.(s) 45X PARTY No. 1184 DATE 24 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear - Cloudless P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											1469 ^L			
2														
3														
4														
5	N	11619.06			89-24-34		HI	6.7	+121 ^o				TP-9 2-TP10	
6	"	11619.06			270-35-50		HT	6.0					(SP1166 = BAS 78139)	
7	S	"			90-35-30		HT	5.6					TP-10 2-TP9	
8	"	"			269-24-16		HT	6.0					(78139 = SP1166)	
9													BAS 78139 = SP1139 + 256'	
10													MARKER PIPE	
11														
12											1590 ^L		TP10 SURVEY ELEV	
13														
14											1588 ⁹¹		TRUE ELEV. 78139	
15											1588			
16											+1 ²		MISTIE	
17														
18														
19														
20														

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 20
 LINE No.(s) 458 PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Hebert WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction			Center Hair	INST.			
1						TAKE OFF TP			8.50	1171		1475.6			Refer pg-184-11
2															
3		0											1171	T	
4															
5															
6															
7															
8	S	440			89-40-02										
9	"	880			90-04-34										
10	"	1320			90-02-31										
11	"	1760			90-06-05										
12	"	2200			90-12-25										
13	"	2640			90-11-33										
14	"	3080			90-15-18										
15	"	3520			90-19-31										
16	"	3960			90-18-55										
17	"	4400			90-13-55										
18	"	4840			90-11-08										
19	"	5280			90-04-40										
20															

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 21
 LINE No. (s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W. D. Holander WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction				INST.	ROD			
1											1481.7					
2																
3																
4																
5	S	5720			90-02-25			6.5		-10.5	1471.2	-	1184			
6	"	6160			90-01-05			6.5		-8.4	1473.3	-	1185			
7	"	6600			89-59-12			6.5		-5.0	1476.7	-	1186			
8	"	7040			90-00-58			6.5		-8.5	1473.2	-	1187			
9	"	7480			89-59-09			6.5		-4.7	1477.0	-	1188			
10	"	7920			89-57-14			6.5		-0.1	1481.6	-	1189			
11	"	8360			89-54-30			22.5		-9.1	1472.6	-	1190			
12	"	8800			89-57-40			15.0		-9.0	1472.7	-	1191			
13	"	9240			89-58-14			6.5		-1.8	1479.9	-	1192			
14	"	9680			89-53-56			6.5		+10.6	1492.3	-	1193			
15	"	10120			89-50-13			6.5		+22.3	1504.0	-	1194			
16	"	10560			89-44-40			6.5		+46.6	1522.3	-	1195			
17	"	11000			89-39-42			6.5		+58.5	1540.2	-	1196			
18	"	11440			89-35-57			6.5		+73.5	1555.2	-	1197			
19	"	11880			89-32-13			6.5		+89.5	1571.2	-	1198			
20	"	12320			89-28-24			6.5		+106.7	1588.4	-	1199			

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 22
 LINE No.(s) 45X PARTY No. 1184 DATE 22 Day 3 Mo. 79 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1												1481.7			
2															
3															
4															
5	S	12760			89-25-55				6.5	+120.0		1601.7	-	1200	
6	"	13200			89-25-29				6.5	+126.5		1608.2	-	1201	
7	"	13040			89-24-15				6.5	+135.3		1617.0	-	1202	
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 23
 LINE No.(s) 45x PARTY No. 1184 DATE 22 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction				INST.	ROD			
1					TAKE OFF TIP 8			SP	1171	ELEV		1475.6		1171	Refer p 18 L-11	
2																
3		0					HI	6.1			1481.7					
4																
5	N	1760			90-09-50			5.0		-10.0		1471.7	-	1167		
6	"	1520			90-18-31			5.0		-12.1		1469.6	-	1168		
7	"	880			90-08-55			5.0		-7.3		1474.4	-	1169		
8	"	440			90-13-30			5.0		-6.7		1475.0	-	1170		
9	"	~0~						6.1						1171	X	
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 24
 LINE No.(s) 45X PARTY No. 1184 DATE 24 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear - great P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1															
2															
3		0													
4															
5	N	440			89-39-06										
6	"	880			89-41-46										
7	"	1320			89-34-28										
8	"	1760			89-27-17										
9	"	2200			89-29-46										
10	"	2640			89-31-37				+11.8	+11.8					
11	"	2640			270-28-25				+11.8	-					
12															
13	S	2640			89-37-37										
14	"	2640			270-22-10										
15	"	2200			89-52-43										
16	"	1760			90-01-03										
17	"	1320			90-06-00										
18	"	880			90-14-16										
19	"	440			90-19-08										
20		0~													

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 25
 LINE No.(s) 45X PARTY No. 124 DATE 24 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: clear - warm P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		ABS. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction			Center Hair	INST.			
1											1480.5				
2															
3	N	446			90-02-10			4.0		-4.3	1476.2	-	1153		
4	"	880			89-57-33			4.0		-3.4	1477.1	-	1152		
5	"	1320			89-58-55			4.0		-3.6	1476.9	-	1151		
6	"	1760			89-57-43			4.0		-2.8	1477.7	-	1150		
7	"	2200			89-56-21			4.0		-1.7	1478.9	-	1149		
8	"	2640			89-47-37			10.0	-0.5	-0.5	1480.0	0	1148		
9	"	2640			278-12-25			18.0		-0.5		0			
10															
11	S	2750			91-47-25			10.0	+95.9	+95.8	1575.8		Δ		
12	"	2750			268-12-47			10.0	+95.8				Δ ₁		
13	"	2310			92-09-24			4.0		-90.9	1484.9	-	1147		
14	"	1870			92-37-22			4.0		-89.6	1486.2	-	1146		
15	"	1430			93-19-10			4.0		-86.8	1489.0	-	1145		
16	"	990			94-06-11			4.0		-74.8	1501.0	-	1144		
17	"	550			95-18-16			4.0		-54.8	1521.0	-	1143		
18	"	110			97-21-45			4.0		-12.1	1557.7	-	1142		
19		-0-						5.8		-5.8	1570.0	-	1141-3 X		
20	N	330			89-24-02			4.0		-0.5	1575.3	-	1141		

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STADIA SURVEY NOTES

AREA Howard Pass STATE or PROVINCE Alaska PAGE No. 26
 LINE No.(s) 45X PARTY No. 1184 DATE 24 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Hclander WEATHER: Clear P.T.S. No. _____

F 11.09
2.00
9.09

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											1575.8				
2															
3	N	770			88-59-44			4.0	+9.5		1585.3		1146		
4	"	969			88-55-42			5.0	+13.2	+13.1	1588.90	0	1139+256'	TP10	
5	"	969			271-04-02			5.0	+13.0		1588.90	0			
6											1588.90	0		TRUE ELEV	
7											0.0			VERT MISTIE	
8															
9															
10														MARKER PIPE AT	
11														TP10 SP 1139+256	
12														BAS 78139	
13															
14															
15															
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA Howard Pass - 'Lake Betty' STATE or PROVINCE Alaska PAGE No. 27
 LINE No.(s) 45X PARTY No. 1184 DATE 26 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Clear - warm P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction			Center Hair	INST.		
1					Reciprocal	X	Survey	- T.	Elevations				BAS 78139 is common with Sp 1139 + 256'	
2														
3					TAKE OFF		BAS 78139		ELEV.	1588.9'			TP-10 is also common with this point.	
4													(Marker pipe set)	
5														
6														
7	N	15642 ⁵⁸			90-42-49		HI	5.8		-195 ^B			TP-10 \approx TP-11	
8	"	"			269-17-07		HT	6.0					Sp 1139 + 256 \approx Sp 1104	
9	S	15642 ⁵⁸			89-16-48		HI	6.0					TP-11 \approx TP-10	
10	"	"			270-43-05		HT	6.0					Sp 1104 \approx Sp 1139 + 256'	
11														
12											1393 ^L		TP 11 SP 1104 ELEV	
13														
14														
15	N	18433 ³⁴			70-18-58		HI	5.8		-98 ^L			TP 11 \approx TP 12	
16	"	"			269-41-00		HT	9.8					(Sp 1104 \approx Sp 1062)	
17	S	18433 ³⁴			89-43-16		HI	6.0					TP 12 \approx TP 11	
18	"	"			270-17-25		HT	6.0					(Sp 1062 \approx Sp 1104)	
19														
20											1294 ^N		TP 12 ELEV	

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STADIA SURVEY NOTES

AREA Betty Lake STATE or PROVINCE Alaska PAGE No. 28
 LINE No.(s) 45X PARTY No. 1184 DATE 28 Day, 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W. D. Helander RODMAN D. Jensen WEATHER: Fog-windy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1													1294 ⁴			
2																
3																
4	N	10,100 ⁹¹		89-41-39				H1	6.0		+54 ⁵					TP 12 ~ TP 13
5	"	"		270-18-50				HT	6.0							(SP 1062 ~ SP 1039)
6	S	10,100 ⁹²		90-18-18				H1	6.1							TP 13 ~ TP 12
7	"	"		269-41-18				HT	6.0							(SP 1039 ~ SP 1062)
8																
9													1348 ⁹			TP 13 ELEV
10																
11																
12	N	14,037 ⁸⁸		89-58-08				H1	6.1		+12 ⁹					TP 13 ~ TP 14
13	"	"		270-02-33				HT	6.0							(1039 ~ 1007 + 4.6')
14	S	14,037 ⁸⁸		90-04-00				H1	5.8							TP 14 ~ TP 13
15	"	"		269-55-57				HT	6.1							(SP 1007 + 4.6' ~ SP 1039)
16																
17													1361 ⁸			TP 14 ELEV
18																
19																
20																

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STADIA SURVEY NOTES

AREA HOWARD PASS/BETTY LAKE STATE or PROVINCE ALASKA PAGE No. 29
 LINE No.(s) 45 X PARTY No. 1184 DATE 28 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN D. JENSEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1															
2			TAKE OFF TP 14 AND TIE THE RECIROCAL ANGLE												
3			SURVEY IN TO BAS 78137												
4															
5													1361 ^B		
6															
7															
8		0													
9															
10	N6	420		89-15-04											
11	"	420		70-44-54											
12															
13													1373 ^B		TRUE ELEV
14															
15													- 6 ^I		MISTIC
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA Betty Lake STATE or PROVINCE Alaska PAGE No. 30
 LINE No.(s) 45X PARTY No. 1184 DATE 26 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W. D. HELANDER WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											1393.1		Refer to pg. - 27	
2													Ln- 12	
3								HI	6.0		1399.1	A		
4	S	15656			89-16-48				6.0	+190 ²	1589.8		1139 + 256' Check shot	
5	"	15400			89-16-35				6.8	+187 ⁷	1586.8	-	1139	
6	"	14960			89-18-35				6.8	+173 ⁴	1572.5	-	1138	
7	"	14520			89-24-26				6.8	+143 ⁴	1542.5	-	1137	
8	"	14080			89-32-18				6.8	+106 ⁶	1505.7	-	1136	
9	"	13640			89-39-45				6.8	+75 ⁵	1472.6	-	1135	
10	"	13200			89-45-20				6.8	+49 ⁵	1442.6	-	1134	
11	"	12760			89-45-04				22.5	+32 ²	1432.0	-	1133	
12	"	12320			89-47-30				22.5	+22 ³	1421.4	-	1132	
13	"	11880			89-48-58				26.5	+11 ⁶	1400.7	-	1131	
14	"	11440			89-48-52				26.8	+10 ³	1409.3	-	1130	
15	"	11000			89-48-49				26.5	+9 ³	1408.4	-	1129	
16	"	10560			89-47-47				26.5	+11 ⁰	1404.1	-	1128	
17	"	10120			89-49-37				6.8	+23 ⁸	1422.9	-	1127	
18	"	9680			89-47-52				6.8	+27 ⁴	1426.5	-	1126	
19	"	9240			89-48-48				6.8	+23 ³	1422.4	-	1125	
20	"	8800			89-48-40				6.8	+22 ²	1421.3	-	1124	

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STADIA SURVEY NOTES

AREA Lake Betty STATE or PROVINCE Alaska PAGE No. 31
 LINE No.(s) 45X PARTY No. 1184 DATE 26 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D.H. WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle of Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											1399.1			
2														
3														
4	S	8360			89-48-09			6.8	+22 ¹⁰ / ₁₀		1421.1	1123		
5	"	7920			89-47-47			6.8	+21 ¹⁰ / ₁₀		1420.4	1122		
6	"	7480			89-49-25			6.8	+16 ¹⁰ / ₁₀		1415.3	1121		
7	"	7040			89-50-20			6.8	+13 ¹⁰ / ₁₀		1412.1	1120		
8	"	6600			89-51-44			6.8	+9 ¹⁰ / ₁₀		1408.2	1119		
9	"	6160			89-52-03			6.8	+7 ¹⁰ / ₁₀		1406.5	1118		
10	"	5720			89-52-56			6.8	+5 ¹⁰ / ₁₀		1404.1	1117		
11	"	5280			89-53-18			6.8	+7 ¹⁰ / ₁₀		1408.6	1116		
12	"	4840			89-48-21			15.0	+1 ¹⁰ / ₁₀		1400.6	1115		
13	"	4400			89-48-57			15.0	-0 ¹⁰ / ₁₀		1398.2	1114		
14	"	3960			89-48-42			15.0	-2 ¹⁰ / ₁₀		1397.1	1113		
15	"	3520			89-48-07			15.0	-2 ¹⁰ / ₁₀		1396.3	1112		
16	"	3080			89-50-56			6.8	+1 ¹⁰ / ₁₀		1400.4	1111		
17	"	2640			89-47-05			6.8	+3 ¹⁰ / ₁₀		1402.2	1110		
18	"	2200			89-48-09			4.0	+3 ¹⁰ / ₁₀		1402.7	1109		
19	"	1760			89-51-16			4.0	+0 ¹⁰ / ₁₀		1399.6	1108		
20	"	1320			90-01-30			4.0	-4 ¹⁰ / ₁₀		1394.5	1107		

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STADIA SURVEY NOTES

AREA Betty Lake STATE or PROVINCE Alaska PAGE No. 32
 LINE No.(s) 45X PARTY No. 1124 DATE 16 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN WDH. WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											1399.1			
2														
3	S	880			90-13-53			4.0	-7 ⁵ / ₂		1386.5	-	1106	
4	"	440			96-18-02			4.0	-6 ³ / ₂		1386.8	-	1105	
5		~0~											1104 \nearrow T.P.-11	
6	N	440			90-44-50			4.0	-9 ¹ / ₂		1389.4	-	1103	
7	"	820			90-38-40			4.0	-13 ² / ₂		1385.2	-	1102	
8	"	1320			90-44-34			8.0	-25 ¹ / ₄		1374.0	-	1101	
9	"	1760			90-45-43			26.0	-49 ⁴ / ₄		1349.7	-	1100 Creek (low point)	
10	"	2200			90-24-02			4.0	-19 ⁴ / ₄		1379.7	-	1099	
11	"	2640			90-17-04			4.0	-17 ⁴ / ₄		1382.0	-	1098	
12	"	3080			90-17-14			6.0	-21 ⁴ / ₄		1377.7	-	1097	
13	"	3520			90-20-25			6.0	-26 ⁹ / ₄		1372.2	-	1096	
14	"	3960			90-21-18			14.0	-38 ⁵ / ₂		1360.6	-	1095	
15	"	4400			90-20-41			26.0	-52 ⁵ / ₂		1346.6	-	1094	
16	"	4840			90-21-26			26.0	-56 ³ / ₂		1342.9	-	1093	
17	"	5280			90-20-47			26.0	-57 ⁹ / ₄		1341.2	-	1092	
18	"	5720			90-21-49			26.0	-62 ³ / ₂		1336.8	-	1091	
19	"	6160			90-20-28			26.0	-62 ⁷ / ₄		1336.4	-	1090	
20	"	6600			90-20-07			26.0	-64 ⁶ / ₂		1334.5	-	1089	

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STADIA SURVEY NOTES

AREA Lake Betty STATE or PROVINCE Alaska PAGE No. 33
 LINE No.(s) 45X PARTY No. 1184 DATE 26 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D.H. WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											1399.1			
2														
3	N	7046			90-19-33			26.0		-66 ²	1323.1	-	1088	
4	"	7480			90-19-30			26.0		-68 ⁴	1330.7	-	1087	
5	"	7920			90-18-50			26.0		-69 ⁴	1329.7	-	1086	
6	"	8360			90-20-24			22.0		-71 ²	1327.5	-	1085	
7	"	8800			90-20-03			22.0		-73 ³	1325.8	-	1084	
8	"	9240			90-19-30			22.0		-74 ⁴	1324.7	-	1083	
9	"	9680			90-18-54			22.0		-75 ²	1323.9	-	1082	
10	"	10120			90-18-40			22.0		-77 ⁰	1322.1	-	1081	
11	"	10560			90-19-23			18.0		-77 ⁵	1321.6	-	1080	
12	"	11000			90-21-15			10.0		-78 ⁰	1321.1	-	1079	
13	"	11440			90-21-03			10.0		-80 ⁰	1319.1	-	1078	
14	"	11880			90-20-35			10.0		-81 ²	1318.0	-	1077	
15	"	12320			90-20-49			10.0		-84 ⁶	1314.5	-	1076	
16	"	12760			90-20-25			14.0		-89.8	1309.3	-	1075	
17	"	13200			90-19-50			14.0		-90.2	1308.9	-	1074	
18	"	13640			90-19-55			14.0		-93.0	1306.1	-	1073	
19	"	14080			90-20-26			14.0		-97.7	1301.4	-	1072	
20	"	14520			90-19-52			14.0		-97.9	1301.2	-	1071	

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STADIA SURVEY NOTES

AREA HOWARD PASS / LAKE BETTY STATE or PROVINCE ALASKA PAGE No. 34
 LINE No.(s) 45 X PARTY No. 1184 DATE 27 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN D. JENSEN WEATHER: SUNNY LIGHT FOG, -10°, CALM P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1												1399.1				
2																
3	N	14960		90-20-11				14.0	-101.8		1292.3	-	1070		RIVER CHANNEL	
4	"	15466		90-20-33				14.0	-106.1		1293.0	-	1069			
5	"	15840		90-21-07				7.2	-104.5		1294.6	-	1068			
6	"	16280		90-20-06				7.2	-102.4		1296.7	-	1067			
7	"	16720		90-20-06				7.2	-105.0		1294.1	-	1066			
8	"	17160		90-20-06				7.2	-107.0		1292.1	-	1065			
9	"	17600		90-19-48				7.2	-108.6		1290.5	-	1064			
10	"	18040		90-19-36				7.2	-110.1		1289.0	-	1063			
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA HOWARD PASS/ETIVILUK RIVER STATE or PROVINCE ALASKA PAGE No. 35
 LINE No.(s) 45 X PARTY No. 1184 DATE 27 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W. O. MELANDER RODMAN D. JENSEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1				TAKE OFF TP 12 SP. 1062					-	ELEV	1294.4		REFER TO PART LN 20	
2													FOR TP 12 ELEV	
3														
4		0							+6.0	1300.4	1306.4	Δ	1062 T	
5	N													
6	"	440		90-32-25					4.0	-8.1	1292.3	-	1061	
7	"	880		90-22-30					4.0	-9.8	1290.6	-	1060	
8	"	1320		90-13-00					7.8	-12.8	1287.6	-	1059	
9	"	1760		90-12-25					7.8	-14.2	1286.2	-	1058	
10	"	2200		90-14-00					7.8	-16.8	1283.6	-	1057	
11	"	2640		90-12-44					7.0	-17.6	1282.8	-	1056	
12	"	3080		90-12-40					7.8	-19.1	1281.3	-	1055	
13	"	3520		90-12-50					7.8	-20.9	1279.5	-	1054	
14	"	3960		90-14-06					7.8	-24.0	1276.4	-	1053	
15	"	4400		90-14-27					7.8	-26.3	1274.1	-	1052	
16	"	4840		90-16-35					7.8	-31.1	1269.3	-	1051	
17	"	5280		90-17-00					7.8	-33.9	1266.5	-	1050	
18	"	5720		90-16-25					7.8	-35.1	1265.3	-	1049	
19	"	6160		90-15-50					7.8	-36.2	1264.2	-	1048	
20	"	6600		90-14-30					7.8	-35.6	1264.8	-	1047	

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STADIA SURVEY NOTES

AREA HOWARD PASS / ETIVILUX RIVER STATE or PROVINCE ALASKA PAGE No. 36
 LINE No.(s) 45 X PARTY No. 1184 DATE 27 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR W.D. HELANDER RODMAN D. JENSEN WEATHER: SUNNY, CALM, -18° P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Δ B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											1300.4				
2															
3	N	7040		90-13-40				7.8	-35.8		1264.8	-	1046		
4	"	7480		90-13-15				7.8	-36.6		1263.8	-	1045		
5	"	7920		90-12-50				7.8	-37.4		1263.0	-	1044	} River Channel }	
6	"	8360		90-12-44				7.8	-38.8		1261.6	-	1043		
7	"	8800		90-12-11				7.8	-39.0		1261.4	-	1042		
8	"	9240		89-52-25				14.0	+36.4		1306.8	-	1041		
9	"	9680		89-40-40				14.0	+40.4		1340.8	-	1040		
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

TI-568B

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2nd _____

STADIA SURVEY NOTES

AREA Lisborne Ridge STATE or PROVINCE Alaska PAGE No. 37
 LINE No.(s) 45X PARTY No. 1184 DATE 28 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D. Helander WEATHER: Foggy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion				INST.	ROD		
1								13				1348.9		SP-1039 Refer	
2														to pg-28 Ln-9	
3														for elev.	
4		~0~						6.1			1355.0		A	π	
5	N	440			91-14-50			4.0		-13.6		1341.4	-	1038	
6	"	880			91-15-42			4.0		-23.4		1331.6	-	1037	
7	"	1320			90-59-35			4.0		-26.9		1328.1	-	1036	
8	"	1760			90-41-36			8.0		-29.3		1325.7	-	1035	
9	"	2200			90-41-06			8.0		-34.3		1320.7	-	1034	
10	"	2640			90-41-12			8.0		-39.6		1315.4	-	1033	
11	"	3080			90-51-07			15.0		-60.8		1294.2	-	1032	
12	"	3520			90-45-27			14.0		-60.5		1294.5	-	1031	
13	"	3960			90-48-55			8.0		-64.3		1290.7	-	1030	
14	"	4400			90-50-10			8.0		-77.2		1282.8	-	1029	
15	"	4840			90-40-40			8.0		-65.3		1289.7	-	1028	
16	"	5280			90-38-26			8.0		-67.0		1288.0	-	1027	
17	"	5720			90-36-15			8.0		-68.3		1286.7	-	1026	
18	"	6160			90-32-37			8.0		-66.4		1288.6	-	1025	
19	"	6600			90-30-28			8.0		-66.5		1288.5	-	1024	
20	"	7040			90-28-58			8.0		-67.3		1287.7	-	1023	

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2nd _____

STADIA SURVEY NOTES

AREA Lisborne Ridge STATE or PROVINCE: Alaska PAGE No. 38
 LINE No.(s) 45X PARTY No. 1184 DATE 28 Day 3 Mo. 78 Yr. BOOK No. _____
 SURVEYOR D. Jensen RODMAN W.D.H. WEATHER: Cloudy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction	Center Hair			INST.	ROD			
1												1355.0				
2																
3	N	7980			90-28-55			8.0		-70.4		1284.1	-	1022		
4	"	7920			90-25-42			8.0		-67.2		1287.8	-	1021		
5	"	8360			90-20-56			8.0		-58.9		1296.1	-	1020		
6	"	8800			90-18-04			8.0		-54.2		1300.8	-	1019		
7	"	9240			90-13-15			8.0		-43.6		1311.4	-	1018		
8	"	9680			90-12-01			8.0		-41.8		1313.2	-	1017		
9	"	10120			90-10-14			8.0		-38.1		1316.9	-	1016		
10	"	10560			90-10-51			8.0		-41.3		1313.7	-	1015		
11	"	11000			90-09-38			8.0		-38.8		1316.2	-	1014		
12	"	11440			90-08-27			8.0		-36.1		1318.9	-	1013		
13	"	11880			90-04-56			8.0		-25.0		1330.0	-	1012		
14	"	12320			90-03-10			8.0		-19.3		1335.7	-	1011		
15	"	12760			90-01-33			8.0		-13.8		1341.2	-	1010		
16	"	13200			90-01-34			8.0		-14.0		1341.0	-	1009		
17	"	13640			90-08-42			8.0		-42.5		1312.5	-	1008		
18																
19																
20																

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CHECKED BY 1st _____

2nd _____

STADIA SURVEY NOTES

AREA Lisborne Ridge STATE or PROVINCE AK. PAGE No. 39
 LINE No.(s) 45X PARTY No. 1184 DATE 28 Day 3 Mo. 28 Yr. BOOK No. _____
 SURVEYOR D. Jensen (WDH) RODMAN D.S. WEATHER: Cloudy P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction			Center Hair	INST.		
1											1361.8			
2														
3														
4	N	46			91-17-22			5.8	+5.8	1367.6		A	T	
5	"	486			91-28-22			4.0	-5.0	1362.6				
6	"	926			91-46-26			8.0	-20.5	1347.1				
7	"	1366			91-53-17			18.0	-46.7	1320.9				
8	"	1806			91-52-33			25.0	-70.0	1297.6				
9	"	2246			90-57-05			8.0	-67.1	1300.5				
10	"	2686			90-57-05			8.0	-45.3	1322.3				
11	"	3126			90-32-33			8.0	-34.2	1333.4				
12	"	3566			90-28-10			8.0	-33.6	1334.0				
13	"	4006			90-29-18			8.0	-38.4	1329.2				
14	"	4446			90-32-46			8.0	-46.2	1321.4				
15	"	4886			90-31-30			8.0	-48.7	1318.9				
16	"	5326			90-29-05			8.0	-49.3	1318.3				
17					90-26-32			10.0	-51.1	1316.5			995+276 (1327 from 1977)	
18														
19														
20														

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