

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 10-A OF 133
 LINE/LOOP NO. 64 XS RERUN TYPE SURVEY _____ CLIENT HUSKY DATE 3 DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> \odot	STATION	VERTICAL							ELEVATION		UR OR DI	HORIZONTAL		REMARKS		
			DISTANCE		<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD		RIGHT TURNED HORIZONTAL ANGLE	LINE			
1																	
2	Δ	V.P. 970, L-64 XS V.P. 856, L-86 XW															
3	\times	V.P. 970, L-64 XS V.P. 856, L-86 XW															
4	\odot		T 14.20	1430													
5	\odot	944 ?	C 0.00	2860													
6																	
7	Δ	944 ?	T 14.74	1324													
8	Δ		B 1.50	3224													
9	\times	932 ✓															
10	\odot		T 0.70	670													
11	\odot	920 ✓	C 3.00	1340													
12																	
13	Δ	920 ✓	T 11.40	440													
14	Δ		C 7.00	880													
15	\times	912 ✓															
16	\odot		T 12.80	880													
17	\odot	904 ✓	B 6.00	880													

REFERENCE:
PAGE 1, L-9
THIS BOOK

RERUN

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS Δ = BACKSIGHT \times = INSTRUMENT SET-UP SS = SIDESHOT \odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 10-B OF 13A
 LINE/LOOP NO. 64 XS REKUN TYPE SURVEY _____ CLIENT Husky DATE 3 DY 4 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	△ K SS ⊙	STATION	VERTICAL							HORIZONTAL			REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		LR OR DR	RIGHT TURNED HORIZONTAL ANGLE		LINE
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS 						INST	ROD				
1	△	904 ✓	2640		88 28 53	+6.0	-70.0	-65.0	2090.2			1		
2	△				271 30 21	+5.0	-69.4	-64.4				2	REKUN	
3	κ	880 ✓										3		
4	⊙		T 13.78	978	89 57 36	-4.0	+1.4	-2.6		2037.3		4		
5	⊙	862 ?	C 4.00	1956	270 01 35	-4.0	+0.9	-3.1				5		
6												6		
7	△	862	T 11.80	880	89 35 36	+3.0	-12.5	-9.5	2028.0			7	CONNECTION APPARENT BETWEEN	
8	△		C 3.00	1760	270 23 36	+2.0	-12.1	-9.1				8	TWO POINTS	
9	κ	846										9		
10	⊙		T 15.10	1410	92 18 49	-5.0	-56.9	-71.9		1955.9		10	1856.9 E.O.L. B.M. 78325	
11	⊙	834	B 1.00	1410	267 40 09	-5.0	-57.3	-72.3				11	PIPE	
12												12	HILL	
13	△	834	T 13.00	1100	87 41 52	+2.0	-88.4	-86.2	1869.8			13	NPR-4 MARKER PIPES FOR THE 1977 SEASON? AND	
14	△		C 2.00	2200	272 17 29	+2.0	-88.0	-86.0				14	ORIGINAL TAG	
15	κ	814										15	B.A.S. GIVES 1856.9 FEET MISSING	
16	SS	B.M. 78325	T 7.18	818	87 35 28	-1.0	+34.4	+33.4		1856.9?		16	FOR THIS POINT WHICH REKUN STANDARD BARR MONUMENT PIPE W/ NO ORIGINAL TAG	
17	SS	S.P. 659, L-64	D 1.00	818	272 23 37	-1.0	+34.2	+33.2		1903.1		17	SHOWS BELONGS IN FACT TO SAVE GSI TAG; GSI TAG LN 62 S.P. 659!	

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SYMBOLS

△ = BACKSIGHT

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⊙ = FORESIGHT

REKUN TIES + 0.7 WITH ORIGINAL RUN (SEE PAGE 8) NO TIE THIS BOOK 2ND AN IRON E.O.L. PIPE. (SEE NEXT PAGE, FOR TRUE TIE POINT) TI-23471B

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HANGER PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 10-C OF 135
 LINE/LOOP NO. 64 X 3 REKUN TYPE SURVEY _____ CLIENT HUCKY DATE 3 DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD		RIGHT TURNED HORIZONTAL ANGLE	LINE	
			SLOPE	HORIZ										
1											REFERENCE : B.A.S. SURVEY	1	CALVANIZED 6' DIA.	
2			T 11.50	+50	89 44 50	13.0	+ 4.0	- 9.0				2	PIPE W/ TAG	
3			C 7.00	900	270 14 36	13.0	+ 3.8	- 9.2				3	' GSI LN 64 1186	
4											MISCLOSURE	4	S.P. 659'	
5												5		
6												6		
7												7		
8												8		
9												9	REKUN	
10												10		
11												11		
12												12		
13												13		
14												14		
15												15		
16												16		
17												17		

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SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

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GSI AREA HONARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 13 OF _____
 LINE/LOOP NO. 64 X 5 TYPE SURVEY _____ CLIENT HUSKY DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE 	HORIZ 										
1										2004.4				1	
2		1048	880			87 21 01	10.0	+40.7	+30.7		2035.1			2	
3		1050	1100											3	
4		1052	1320			87 18 17	2.0	+62.1	+60.1		2064.5			4	
5		1054	1540											5	
6		1054	1760			86 23 26	4.0	+110.8	+106.8		2111.2			6	
7		105A	1980			86 07 55	2.0	+133.6	+131.6		2136.0			7	
8		1060	2200			86 01 58	3.2	+148.4	+143.2		2147.6			8	
9	o	1062	+14.20 1220			86 07 40	13.0	+164.8	+151.8		2156.1			9	
10	o		C2.00 2440			273 51 54	13.0	+164.5	+151.5					10	
11														11	
12														12	
13	Δ	1062	13.55 -			87 41 37	+7.0	-28.2	-19.4	2136.7			13		
14	Δ		7.00 653			272 17 51	+7.0	-26.3	-19.3				14		
15		1064	440			87 26 53	4.0	+19.6	+15.6		2152.3			15	
16		1066	220			87 45 51	2.0	+8.6	+6.6		2143.3			16	
17	X	1068	0			90 00 00	5.0	-	5.0		2131.7			17	

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SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

125

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 1 OF _____

LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT MUSKY DATE 30 DY 3 MO 79 YR

SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1124

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
				SLOPE	HORIZ										
1				TELLURIMETRE READING				-201.3	2014.6	2215.9		REFERENCE: D.A.S SURVEY	1		
2	Δ_0	B.M. 79306		5290.8	87 44 12	+7.5	-208.9	-201.4					2		
3	Δ_0			"	272 18 36	+7.5	-208.6	-201.1					3		
4	Δ_1			"	87 39 20	+15.0	-216.4	-201.4					4		
5	Δ_1			"	272 20 32	+15.0	-216.2	-201.2					5		
6	Δ_2			"	87 45 54	+5.0	-206.3	-201.3					6		
7	Δ_2			"	272 14 00	+5.0	-206.2	-201.2					7		
8	\times	V.P. 970, L-64 XS V.P. 856, L-86 XW	0		90 00 00	-8.0	-	-5.0		2009.6		2008.0	8 INTERSECTION LINES 64 XS & 86 XW		
9		968	220		88 17 42	-5.2	+6.5	+1.3		2015.9			9		
10		966	440		-								10		
11		964	660		87 31 28	-5.2	+28.5	+23.3		2037.9			11		
12		962	880		-								12		
13		960	1100		86 46 33	-4.0	+61.9	+57.9		2072.5			13		
14		958	1320		-								14		
15		956	1540		86 06 27	-5.2	+104.5	+99.3		2113.9			15		
16		954	1760		-								16		
17		952	1980		85 01 10	-4.0	+171.9	+167.9		2182.5			17		

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SYMBOLS

Δ = BACKSIGHT

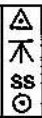

\times = INSTRUMENT SET-UP

SS = SIDESHOT

\odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 2 OF 124
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Huakt DATE 30 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE		STATION	VERTICAL						ELEVATION		LR OR DR	HORIZONTAL		REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD		RIGHT TURNED HORIZONTAL ANGLE	LINE	
														
1									2014.6				1	
2		950	2200										2	
3		948	2420		84 30 46	5.2	+231.4	+226.2		2240.8			3	
4		946	2640		-								4	
5	⊙	944	2860 ✓		84 26 26	5.0	+277.1	+272.1		2286.6			5	
6	⊙				275 33 20	5.0	+276.9	+271.9					6	
7													7	
8													8	
9	Δ	944	1320 ✓		90 22 21	+5.0	+8.6	+23.6	2310.3				9	
10	Δ				269 37 04	+15.0	+8.8	+23.8					10	
11		942	1100		-								11	
12		940	880		91 08 48	-4.0	-17.6	-21.6		2288.7			12	
13		938	660		-								13	
14		926	440		92 18 37	-4.0	-17.7	-21.7		2288.6			14	
15		934	220		-								15	
16	⊗	932	0		90 00 00	-5.0	-	-5.0		2305.3			16	
17		930	220		-								17	

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SYMBOLS

Δ = BACKSIGHT

⊗ = INSTRUMENT SET-UP

SS = SIDESHOT

⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 3 OF 12
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HURSKY DATE 30 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD		RIGHT TURNED HORIZONTAL ANGLE	LINE	
				SLOPE 										
1									2310.3				1	
2		928	440		93 09 31	-4.0	-24.2	-28.2		2282.1			2	
3		926	660										3	
4		924	880		91 02 25	-5.2	-16.0	-21.0		2289.3			4	
5		922	1100										5	
6	o	920	111.65	665	90 40 26	-15.0	-15.6	-30.6		2279.7			6	
7	o		5.0	1330	269 19 27	-15.0	-15.6	-30.6					7	
8													8	
9													9	
10	A	920	880	v	84 26 22	+7.0	-85.3	-78.3	2201.4				10	
11	Δ				275 33 20	+7.0	-85.2	-78.2					11	
12		918	660										12	
13		916	440		84 48 20	-7.0	+39.8	+35.8		2237.2			13	
14		914	220		85 38 34	-7.0	+16.7	+12.7		2214.1			14	
15	κ	912	0		90 00 00	-5.0	-	-5.0		2196.4			15	
16		910	220										16	
17		908	440		97 12 06	-5.2	-55.2	-60.4		2141.0			17	

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SYMBOLS

= BACKSIGHT









= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA _____ STATE/COUNTY _____ BOOK NO. _____ PAGE ¹²⁶ 4 OF _____
 LINE/LOOP NO. 6A-X TYPE SURVEY _____ CLIENT _____ DATE 30 DY 3 MO _____ YR
 SURVEYOR _____ INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 188


LINE	   	STATION	VERTICAL						HORIZONTAL			REMARKS			
			DISTANCE		<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION			L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE
			SLOPE	HORIZ						INST	ROD				
1													1		
2		206	660										2		
3		204	T 11.85		95 18 14	-15.0	-81.9	-96.9			2104.4		3		
4			B 3.00 885		264 40 58	-15.0	-82.0	-97.0					4		
5													5		
6													6		
7		904	T 15.0 1320		88 16 17	+15.0	-79.6	-64.6	2039.8				7		
8			B 1.8 2640		231 43 35	+15.0	-79.5	-64.5					8		
9		902	2420										9		
10		900	2200		89 05 23	+4.0	+35.0	+31.0			2070.8		10		
11		898	1980										11		
12		896	1760		89 17 25	+4.0	+21.8	+17.8			2057.6		12		
13		894	1540										13		
14		892	1320		89 17 47	+4.0	+16.2	+12.2			2052.0		14		
15		890	1100										15		
16		888	880		89 32 13	+4.0	+7.1	+3.1			2042.9		16		
17		886	660										17		

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

 = BACKSIGHT

 = INSTRUMENT SET-UP

 = SSS = SIDESHOT

 = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 127 OF _____
 LINE/LOOP NO. 64 X3 TYPE SURVEY _____ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1194

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD		RIGHT TURNED HORIZONTAL ANGLE	LINE	
1									2039.8				1	
2		884	440		89 32 15	-4.0	+3.6	-0.4		2039.4			2	
3		882	220		-								3	
4		880	0		90 00 00	-4.9	-	-4.9		2034.9			4	
5		878	740		-								5	
6		876	220		91 35 13	-5.2	-6.1	-11.3		2028.5			6	
7		874	660		-								7	
8		872	880		90 53 28	-4.0	-13.7	-17.7		2022.1			8	
9		870	1100		90 43 32	-2.0	-13.9	-15.9		2023.9			9	
10		868	1320		90 27 41	-2.0	-10.6	-12.6		2027.2			10	
11		866	1540		90 10 23	-2.0	-7.7	-6.7		2033.1			11	
12		864	1760		90 01 11	-2.0	-0.6	-2.6		2037.2			12	
13		862	1392 992		89 58 21	-4.0	+1.0	-3.0		2036.7			13	
14			4.00 1984		270 01 23	-4.0	+0.8	-3.2					14	
15													15	
16													16	
17													17	

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SYMBOLS = BACKSIGHT
 = INSTRUMENT SET-UP
 = SIDESHOT
 = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 6 OF 128
 LINE/LOOP NO. 46 X3 TYPE SURVEY _____ CLIENT MUSKY DATE 30 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							HORIZONTAL		REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		RIGHT TURNED HORIZONTAL ANGLE		LINE
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS	HORIZ					INST	ROD			
1												1	
2		862	T 11.55 835	87 35 18	+3.0	-12.0	-9.0	2027.7				2	
3			C 3.0 1670	270 24 29	+3.0	-11.9	-8.9					3	
4		860	1480	89 34 00	-2.0	+10.8	+0.8		2036.5			4	
5		858	1210	89 43 22	2.0	+5.9	+3.9		2031.6			5	
6		856	990	87 39 20	-4.0	+6.0	+2.0		2029.7			6	
7		854	770	90 04 06	2.0	-0.9	-2.9		2024.8			7	
8		852	550	90 20 51	2.0	-3.3	-5.3		2022.4			8	
9		850	330	91 06 17	2.0	-6.4	-8.4		2019.3			9	
10		848	110	91 02 45	2.0	-2.0	-4.0		2023.7			10	
11		847	0	90 00 00	-4.9	-	-4.9		2022.8			11	
12		846	110	-	-	-	-					12	
13		844	330	93 20 42	5.2	-19.3	-24.5		1998.3			13	
14		842	550	-	-	-	-					14	
15		840	770	93 47 53	8.0	-51.0	-59.0		1968.7			15	
16		838	990	-	-	-	-					16	
17		836	1210	93 40 30	5.2	-77.6	-82.8		1944.9			17	

TI-23471B

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SYMBOLS

= BACKSIGHT











= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 7 OF 129
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	  	STATION	VERTICAL						ELEVATION		L/R OR D/I	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
				SLOPE 	HORIZ 										
1														1	
2		834	T14.75		92 15 39	15.0	-56.2	-71.2		1956.4				2	
3			B 0.50	142.5	267 44 05	15.0	-56.3	-71.3						3	
4														4	
5														5	
6		834	13.0	1100	87 40 56	+2.0	-89.0	-87.0	1869.4					6	
7			2.0	2200	272 19 00	+2.0	-88.9	-86.9						7	
8		832	1980		88 19 54	2.0	+87.6	+55.6		1925.0				8	
9		830	1760		-									9	
10		828	1540		88 34 17	9.0	+38.4	+29.4		1898.8				10	
11		826	1320		-									11	
12		824	1100		88 29 30	2.0	+27.0	+27.0		1896.4				12	
13		822	880		88 25 45	2.0	+24.1	+22.1		1891.5				13	
14		820	660		88 37 41	2.0	+15.8	+13.8		1883.2				14	
15		818	440		88 46 22	2.0	+9.4	+7.4		1876.8				15	
16		816	220		89 15 48	2.0	+2.8	+0.8		1870.2				16	
17		814	0		90 00 00	4.9	-	-4.9		1864.5				17	

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SYMBOLS

 = BACKSIGHT

 = INSTRUMENT SET-UP

 = SIDESHOT

 = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 8 OF 130
 LINE/LOOP NO. 84 X5 TYPE SURVEY _____ CLIENT HUSKY DATE 30 DY 2 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		LIR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE		<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST					ROD GIVEN
1											1	REFERENCE: B.A.S SURVEY	1		
2	SS	B.M. 79325	T 9.20	320		87 37 22	1.0	+ 34.0	+ 33.0			2	REFERENCE: NRR-4 PIPES, 1977 SEASON	2	S.P. 659, L- 64
3	SS	S.P. 659, L- 64	B 1.00	820		272 22 25	1.0	+ 34.0	+ 33.0			3	SEE COMMENT PAGE 10-C	3	
4		812	220			92 05 35	2.0	- 8.0	- 10.0	1859.4	→	4	NO TIE GIVEN	4	OF RETURN THIS BOOK
5		810	440			91 40 22	2.0	- 12.8	- 14.8			5		5	
6		808	660			91 21 22	4.0	- 15.6	- 19.6			6		6	
7		806	880			91 31 02	2.0	- 23.3	- 25.3			7		7	
8		804	1100			91 29 44	2.0	- 28.7	- 30.7			8		8	
9		802	1320			91 38 27	2.0	- 37.8	- 39.8			9		9	
10		800	1840			91 18 54	4.0	- 35.3	- 39.3			10		10	
11		798	1760									11		11	
12		796	1980			91 14 59	5.2	- 43.2	- 48.4			12		12	
13		794	2200									13		13	
14		792	2420			91 16 06	4.0	- 53.6	- 57.6			14		14	
15	0	790	15.00	1350		91 00 37	15.0	- 47.6	- 62.6			15		15	
16	0		150	2700		265 59 16	15.0	- 47.7	- 62.7			16		16	
17												17		17	

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HORIZONTAL AND VERTICAL SURVEY NOTES

131

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 2 OF

LINE/LOOP NO. 64 XS TYPE SURVEY CLIENT MUSKY DATE 30 DY 3 MO 79 YR

SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. CREW NO. 1184

LINE	 	STATION	VERTICAL							HORIZONTAL		REMARKS			
			DISTANCE		<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION			LR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE
								INST	ROD						
1													1		
2		790	T 10.82	882		90 20 11	+15.0	+10.4	+25.4	1832.2			2		
3			C 2.0	1764		267 39 34	+13.0	+10.9	+25.5				3		
4		788	1540			90 52 23	2.0	-23.5	-25.5		1806.7		4		
5		786	1320			91 05 23	2.0	-25.1	-27.1		1805.1		5		
6		784	1100			91 09 00	4.0	-22.1	-26.1		1806.1		6		
7		782	880			91 26 38	2.0	-22.2	-24.2		1808.0		7		
8		780	660			91 38 08	2.0	-18.8	-20.8		1811.4		8		
9		778	440			91 28 28	2.0	-11.3	-13.3		1818.9		9		
10		776	220			91 16 42	4.0	-4.9	-8.9		1823.3		10		
11		774	0			90 00 00	4.9	-	-7.9		1827.3		11		
12		772	220			92 10 00	2.0	-8.3	-10.3		1821.9		12		
13		770	440			91 55 04	5.2	-14.7	-19.9		1812.3		13		
14		768	660			-							14		
15		766	880			92 22 56	8.0	-36.6	-44.6		1787.6		15		
16		764	1100			-							16		
17		762	1320			92 05 29	15.0	-48.2	-63.2		1769.0		17		

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 10 OF 132
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSKY DATE 26 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST					ROD
				SLOPE 	HORIZ 										
1									1832.2				1		
2		760	1540			92 13 53	-4.0	-60.0	-64.0		1768.2		2		
3		758	1760			92 02 59	2.0	-62.9	-64.9		1767.3		3		
4		756	1980			91 49 28	2.0	-63.0	-65.0		1767.2		4		
5		754	2200			91 35 46	2.0	-61.3	-63.3		1768.9		5		
6		752	1500	1220		91 06 13	15.0	-47.0	-62.0		1770.0		6	LAST V.P. TO NORTH	
7			2280	2440		268 53 23	15.0	-47.3	-62.3		1771.0		7	OF LINE 64 XS	
8													8		
9													9		
10													10		
11													11		
12													12		
13													13		
14													14		
15													15		
16													16		
17													17		

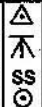











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HORIZONTAL AND VERTICAL SURVEY NOTES

136

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 11 OF
 LINE/LOOP NO. 64 X5 TYPE SURVEY CLIENT Husky DATE 31 DY 3 MO 72 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. CREW NO. 1184

LINE		STATION	VERTICAL							ELEVATION		L/R OR D/I	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			SLOPE 	HORIZ 											
1											2009.6			1	
2		970	11480	1330	88 31 12	+1.5	-68.7	-67.2	1342.6					2	INTERSECTION OF LINES 64 X5 & 136 X1
3		V.P. 970, I.L. 64 X5 V.P. 826, I.L. 86 X4	1150	2660	271 28 19	+1.5	-68.3	-66.8						3	
4		972		2420	-									4	
5		974		2200	88 29 10	-4.0	+51.8	+47.8			1990.4			5	
6		976		1980	88 28 25	-4.0	+52.7	+48.7			1991.3			6	
7		978		1760	-									7	
8		980		1540	88 28 30	-4.0	+41.0	+37.0			1979.6			8	
9		982		1320	-									9	
10		984		1100	88 30 32	-4.0	+28.6	+24.6			1967.2			10	
11		986		880	-									11	
12		988		660	88 45 13	-4.0	+14.4	+11.4			1954.0			12	
13		990		440	-									13	
14		992		220	88 59 48	-4.0	+3.9	-0.1			1942.5			14	
15		994		0	90 00 00	-4.9	0	-4.9			1937.7			15	
16		996		220	92 08 48	-4.0	-8.2	-12.2			1930.4			16	
17		998		440	91 49 27	2.0	-14.0	-16.0			1926.6			17	

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 12 OF 137
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSKY DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						HORIZONTAL			REMARKS		
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		LR OR DJ		RIGHT TURNED HORIZONTAL ANGLE	LINE
			SLOPE 	HORIZ 			INST	ROD						
1									1942.6			1		
2		1800	660			91 24 50	4.0	-18.2	-22.2		1920.4		2	
3		1802	880			-							3	
4		1804	1100			91 05 08	2.0	-20.8	-22.8		1919.8		4	
5		1806	1320			-							5	
6		1808	1540			90 18 47	5.2	-8.4	-13.6		1929.0		6	
7		1810	1760			-							7	
8		1812	1980			90 02 34	5.2	-1.5	-6.7		1935.9		8	
9		1814	2200										9	
10		1816	2420			89 55 22	5.2	+3.3	-1.9		1940.7		10	
11		1818	2640 ✓	NO STADIA - POG -		89 41 43	15.0	+14.0	-1.0		1941.4		11	
12						270 17 46	15.0	+13.6	-1.4				12	
13													13	
14													14	
15													15	
16													16	
17													17	

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SYMBOLS

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SS = SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 138 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							HORIZONTAL		REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		RIGHT TURNED HORIZONTAL ANGLE		LINE
			SLOPE	HORIZ					INST	ROD			
1											1		
2		1018	14.10 1210	91 07 54	+15.0	+47.8	+62.8	2004.4			2		
3			2.00 2420	268 51 44	+15.0	+48.1	+63.1				3		
4		1020	2200	-							4		
5		1022	1980	91 43 08	-4.0	-59.4	-63.4		1941.0		5		
6		1024	1760	91 52 42	-4.0	-57.7	-61.7		1942.7		6		
7		1026	1540	-							7		
8		1028	1320	92 05 15	-4.0	-48.1	-52.1		1952.3		8		
9		1030	1100	-							9		
10		1032	880	92 22 14	-4.0	-36.4	-40.4		1964.0		10		
11		1034	660	-							11		
12		1036	440	92 59 20	-4.0	-22.9	-26.9		1977.5		12		
13		1038	220	-							13		
14		1040	0	90 00 00	-5.0	-	-5.0		1999.4		14		
15		1042	220	87 27 46	-2.0	+9.7	+7.7		2012.1		15		
16		1044	440	86 46 07	-5.2	+24.8	+19.6		2024.0		16		
17		1046	660	-							17		

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SYMBOLS

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= SIDESHOT

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 14 OF 140
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1154

LINE	 	STATION	VERTICAL							ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			SLOPE 	HORIZ 											
1										2136.7				1	
2		1070	220		94 25 37	-2.0	-17.0	-19.0		2117.7				2	
3		1072	440		94 09 25	-2.0	-31.9	-33.9		2102.8				3	
4		1074	660		93 50 33	-2.0	-44.2	-46.2		2090.5				4	
5		1076	880		93 49 07	-7.0	-58.6	-65.6		2071.1				5	
6		1078	1100		-									6	
7		1080	T 13.85 665		93 29 07	-15.0	-80.9	-95.9		2040.8				7	
8			C 7.00 1350 ✓		266 30 38	-15.0	-80.9	-95.9						8	
9														9	
10														10	
11		1080	2860 ✓		87 05 36	+3.0	-145.0	-142.0		1898.9				11	
12					272 54 00	+3.0	-144.7	-141.7						12	
13		1082	2600		-									13	
14		1084	2420		89 29 30	-4.0	+21.5	+17.5		1916.4				14	
15		1086	2200		-									15	
16		1088	1980		89 29 24	-4.0	+17.6	+13.6		1912.5				16	
17		1090	1760		-									17	

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SYMBOLS

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 15 OF 141
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						HORIZONTAL			REMARKS		
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		UR OR DI		RIGHT TURNED HORIZONTAL ANGLE	LINE
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS 						INST	ROD				
1									1898.9			1		
2		1092	1540	88 44 17	7.0	+ 33.9	+ 29.9		1928.8			2		
3		1094	1320									3		
4		1096	1100	90 30 42	4.0	- 9.8	- 13.8		1885.1			4		
5		1098	880	90 21 10	2.0	- 5.4	- 7.4		1891.5			5		
6		1100	660	91 28 27	4.0	- 17.0	- 21.0		1877.5			6		
7		1102	440	92 47 27	2.0	- 21.4	- 23.4		1875.5			7		
8		1104	220	94 06 43	4.0	- 15.8	- 19.8		1879.1			8		
9	X	1106	0	90 00 00	5.0	-	5.0		1893.9			9		
10		1108	220	86 13 00	2.0	+ 14.5	+ 12.5		1911.4			10		
11		1110	440	85 22 38	2.0	+ 35.5	+ 33.5		1932.4			11		
12		1112	660	84 18 31	4.0	+ 65.5	+ 61.5		1960.4			12		
13		1114	880	84 00 21	2.0	+ 91.9	+ 89.9		1988.8			13		
14	o	1116	T 11.60 560	84 05 15	5.5	+ 115.4	+ 109.9		2008.8			14		
15	o		C 6.00 1120	275 54 28	5.5	+ 115.3	+ 109.8					15		
16												16		
17												17		

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HORIZONTAL AND VERTICAL SURVEY NOTES

142

GSI AREA Howard Pass STATE/COUNTY Arizona BOOK NO. _____ PAGE 16 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							ELEVATION		LR OR DR	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION						
			SLOPE 	HORIZ 					INST	ROD					
1														1	
2	Δ	1116	T 14.05 1305			90 39 44	+15.0	+27.7	+42.9	2051.9				2	
3	Δ		c 2.00 2410 ✓			267 17 36	+15.0	+28.3	+43.3					3	
4		1118	2200											4	
5		1120	1980			90 48 57	-4.0	-28.2	-32.2	2019.7				5	
6		1122	1760			90 52 22	-2.0	-26.8	-28.8	2023.1				6	
7		1124	1540			90 53 03	-2.0	-23.8	-25.8	2026.1				7	
8		1126	1320			90 58 54	-2.0	-22.6	-24.6	2027.3				8	
9		1128	1100			91 17 07	-4.0	-24.7	-28.7	2023.2				9	
10		1130	880			91 44 37	-2.0	-26.8	-28.8	2023.1				10	
11		1132	660			92 02 15	-2.0	-23.5	-25.5	2026.4				11	
12		1134	440			92 06 31	-2.0	-16.2	-18.2	2033.7				12	
13		1136	220			91 51 14	-4.0	-7.1	-11.1	2040.8				13	
14	X	1138	0			90 00 00	-5.0	-	-5.0	2046.9				14	
15		1140	220			89 49 20	-2.0	+0.7	-1.3	2050.6				15	
16		1142	440			89 47 04	-2.0	+1.7	-0.3	2051.6				16	
17		1144	660			89 41 37	-2.0	+3.5	+1.5	2053.4				17	

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 17 OF 143
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSKY DATE 31 DY 3 MO 77 YR
 SURVEYOR J. ANDEKORN INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			SLOPE 	HORIZ 											
1										2051.9			1		
2		1146	880			89 46 27	2.0	+ 3.5	+ 1.5		2053.4			2	
3		1148	1100			89 44 19	5.2	+ 4.9	- 0.3		2051.6			3	
4		1150	1320			-								4	
5		1152	1540			89 43 08	11.0	+ 7.6	- 3.4		2048.5			5	
6		1154	1760			-								6	
7		1156	1980			89 47 49	5.2	+ 7.0	+ 1.8		2053.7			7	
8		T 13.20	1158	T 13.80	1080	89 49 08	2.5	+ 6.8	+ 4.3		2056.1			8	
9		C 2.50		C 3.00	2160	270 10 24	2.5	+ 6.5	+ 4.0					9	
10														10	
11														11	
12		1158	T 14.05	1105		89 16 48	3.0	- 13.9	- 10.9	2045.2				12	
13			B 3.00	1105		270 43 00	+ 3.0	- 13.8	- 10.8					13	
14		1160	880			89 14 43	2.0	+ 11.6	+ 9.6		2054.8			14	
15		1162	660			89 22 46	2.0	+ 7.1	+ 5.1		2050.3			15	
16		1164	440			89 15 17	2.0	+ 5.7	+ 3.7		2048.9			16	
17		1166	220			89 14 26	2.0	+ 2.9	+ 0.9		2046.1			17	

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 18 OF 124
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 BY 3 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							ELEVATION		L/R OR DI	HORIZONTAL RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE 	HORIZ 										
1										2045.2			1		
2		1168	0		90 00 00	-4.9	-	-4.9		2040.3			2		
3		1170	220		93 11 22	-2.0	-12.2	-14.2		2031.0			3		
4		1172	440		92 46 11	-2.0	-21.3	-23.3		2021.9			4		
5		1174	660		92 36 43	-2.0	-30.1	-32.1		2013.1			5		
6		1176	880		92 35 27	-2.0	-39.8	-41.8		2003.4			6		
7	o	1178	1405	1105	91 44 23	-15.0	-33.5	-48.5		1996.5			7		
8	o		830	1105	268 14 59	-15.0	-33.8	-48.8					8		
9													9		
10													10		
11	Δ	1178	1500	1930	89 48 25	+15.0	-9.6	+5.4	2002.2				11		
12	Δ		0070	2860	270 10 52	+15.0	-9.0	+6.0					12		
13		1180	2640		90 09 10	-2.0	-7.0	-9.0		1993.2			13		
14		1182	2420		-								14		
15		1184	2200		90 23 09	-4.0	-14.8	-18.8		1983.4			15		
16		1186	1980		-								16		
17		1188	1760		90 35 36	-4.0	-18.2	-22.2		1980.0			17		

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 19 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
1										2002.2			1		
2		1190	1540										2		
3		1192	1320	91 02 40	-4.0	-24.1	-28.1			1974.1			3		
4		1194	1100										4		
5		1196	880	91 48 14	-4.0	-27.7	-31.7			1970.5			5		
6		1198	660										6		
7		1200	440	93 13 32	-4.0	-24.8	-28.8			1973.4			7		
8		1202	220										8		
9	X	1204	0	90 00 00	-5.0	-	-5.0			1997.2			9		
10		1206	220	95 43 25	-2.0	-	-						10		
11		1208	440	93 54 32	-4.0	-21.9	-25.9			1976.3			11		
12		1210	660										12		
13		1212	880	92 11 25	-5.2	-33.6	-38.8			1963.4			13		
14		1214	1100										14		
15		1216	1320	91 53 53	-4.0	-43.7	-47.7			1954.5			15		
16		1218	1540										16		
17		1220	1760	91 17 51	-5.2	-39.9	-45.1			1957.1			17		

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. 3 PAGE 20 OF 146
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 77 YR
 SURVEYOR S. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL						HORIZONTAL			REMARKS		
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		L/R OR DI		RIGHT TURNED HORIZONTAL ANGLE	LINE
				SLOPE					HORIZ	INST				
1									2002.2				1	
2		1222	1980										2	
3		1224	2200		90 56 16	-5.2	-36.0	-41.0		1961.2			3	
4		1226	2420										4	
5		1228	2640		70 43 34	-3.2	-33.5	-38.7		1963.5			5	
6	⊙	1230	2860 ✓		90 26 38	-15.0	-22.2	-37.2		1964.7			6	
7	⊙				269 32 37	-15.0	-22.8	-37.8					7	
8													8	
9													9	
10	Δ	1230	2640 ✓		90 24 46	+5.0	+19.0	+24.0	1988.9				10	
11	Δ				269 34 45	+5.0	+19.4	+24.4					11	
12		1232	2420		90 24 45	-4.0	-17.4	-21.4		1967.5			12	
13		1234	2200										13	
14		1236	1980		90 22 00	-4.0	-12.7	-16.7		1972.2			14	
15		1238	1760										15	
16		1240	1540		90 24 18	-4.0	-10.9	-14.9		1974.0			16	
17		1242	1320										17	

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SYMBOLS Δ = BACKSIGHT ⊠ = INSTRUMENT SET-UP SS = SIDESHOT ⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 21 OF 47
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUCKY DATE 31 BY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DJ	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
				SLOPE 	HORIZ 										
1									1988.9				1		
2		1244	1160		90 23 58	-4.0	-7.7	-11.7		1962.3			2		
3		1246	880		-								3		
4		1248	660		90 13 00	-4.0	-2.5	-6.5		1982.4			4		
5		1250	440		90 46 19	-2.0	-5.9	-7.9		1981.0			5		
6		1252	220		91 14 28	-2.0	-4.8	-6.8		1982.1			6		
7	X	1254	0		90 00 00	-5.0	-	-5.0		1983.9			7		
8		1256	220		89 55 57	-4.0	+0.3	-3.7		1985.2			8		
9		1258	440		-								9		
10		1260	660		89 28 32	-5.2	+6.0	+1.2		1986.4			10		
11		1262	880		-								11		
12		1264	1100		89 28 14	-5.2	+10.2	+5.2		1994.1			12		
13		1266	1320		-								13		
14		1268	1540		89 27 55	-5.2	+14.4	+9.2		1998.1			14		
15		1270	1760		-								15		
16		1272	1980		89 27 54	-5.2	+18.5	+13.3		2002.2			16		
17		1274	2200		-								17		

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY ALASKA BOOK NO. _____ PAGE 22 OF 148
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL							ELEVATION		LR OR DR	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS SLOPE	HORIZ											
1														1	
2	⊙	1276	2420 ✓		89 27 31	5.0	+22.9	+17.9		2006.5				2	
3	⊙				270 31 42	5.0	+22.3	+17.3						3	
4														4	
5														5	
6	Δ	1276	2440 ✓		90 10 28	+15.0	+8.0	+23.0	2030.0					6	
7	Δ				269 48 28	+15.0	+8.9	+23.9						7	
8		1278	2420		-						#			8	
9		1280	2200		90 15 47	-11.0	-10.1	-21.1		2008.9				9	
10		1282	1980		-									10	
11		1284	1760		90 15 12	-11.0	-7.8	-18.8		2011.2				11	
12		1286	1540		-									12	
13		1288	1320		90 19 40	-7.0	-7.6	-14.6		2015.4				13	
14		1290	1100		-									14	
15		1292	880		90 34 12	-2.0	-8.8	-10.8		2019.2				15	
16		1294	660		90 52 30	-2.0	-10.1	-12.1		2017.9				16	
17		1296	440		90 44 11	-7.0	-5.7	-9.7		2020.3				17	

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SYMBOLS

Δ = BACKSIGHT

⊕ = INSTRUMENT SET-UP

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⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 23 OF 109
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUCKY DATE 31 DY 3 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							ELEVATION		L/R OR D/I	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION						
								INST	ROD						
1										2030.0				1	
2		1298	220											2	
3	X	1300	0			90 00 00	-4.9	-	-4.9		2025.1			3	
4		1302	220			90 30 40	-2.0	-2.0	-4.0		2026.0			4	
5		1304	440			89 41 20	-5.2	+2.4	-2.8		2027.2			5	
6		1306	660											6	
7		1308	880			89 24 49	-5.2	+9.0	+3.8		2033.8			7	
8		1310	1100											8	
9		1312	1320			89 31 45	-5.2	+10.8	+5.6		2035.6			9	
10		1314	1540											10	
11		1316	1760			89 32 03	-5.2	+14.3	+9.1		2039.1			11	
12		1318	1980											12	
13		1320	2200			89 30 35	-5.2	+18.8	+13.6		2043.6			13	
14	⊙	1322	2420 ✓			89 31 49	-5.0	+19.8	+14.8		2044.5			14	MARKER PIPE INSTALLED
15	⊙					270 27 08	-5.0	+19.1	+14.1					15	ON V.P. 1322
16														16	
17														17	

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SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 24 OF 150
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 31 DY 3 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						HORIZONTAL			REMARKS		
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		L/R OR DI		RIGHT TURNED HORIZONTAL ANGLE	LINE
			SLOPE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS HORIZ					INST	ROD				
1												1		
2		1322	0	90 00 00	+5.5	-	+5.5	2050.0				2		
3		B.M. 79325	1706.4	82 22 47	3.8	+226.3	+222.5		2268.8		REFERENCE: G.A.S. SURVEY	3		
4				277 36 50	3.8	+226.1	+222.3		2272.4			4		
5									+3.6		MISCLOSURE	5		
6												6		
7												7		
8												8		
9												9		
10												10		
11												11		
12												12		
13												13		
14												14		
15												15		
16												16		
17												17		

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SYMBOLS = BACKSIGHT = INSTRUMENT SET-UP = SIDESHOT = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

151

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 25 OF _____

LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 1 DY 4 MO 79 YR

SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL							HORIZONTAL		REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		UR OR DI		RIGHT TURNED HORIZONTAL ANGLE
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS 						INST	ROD			
1													
2		1322	114.20 1320	90 40 33	↑ 15.0	+ 31.1	+ 46.1	2087.3	2090.9		ADJUSTED FROM B.M. ELEVATION	2	SEE PAGE 24 THIS BOOK ✓
3			01.00 2640	260 18 44	↑ 15.0	+ 31.7	+ 46.7					3	
4		1324	2420	-								4	
5		1326	2200	90 55 17	↓ 4.0	- 35.4	- 39.4		2047.9			5	
6		1328	1980	90 57 28	↓ 4.0	- 31.8	- 35.8		2051.5			6	
7		1330	1760	-								7	
8		1332	1540	91 01 37	↓ 4.0	- 27.8	- 31.8		2055.5			8	
9		1334	1320	-								9	
10		1336	1100	91 19 21	↓ 4.0	- 25.4	- 29.4		2057.9			10	
11		1338	880	-								11	
12		1340	660	91 46 36	↓ 4.0	- 20.3	- 24.5		2062.8			12	
13		1342	440									13	
14		1344	220	92 02 26	↓ 4.0	- 7.8	- 11.8		2075.5			14	
15		1346	0	90 00 00	↓ 4.9	-	- 4.9		2082.4			15	
16		1348	220	88 56 37	↓ 2.0	+ 4.1	+ 2.1		2089.4			16	
17		1350	440	88 05 28	↓ 2.0	+ 14.7	+ 12.7		2100.0			17	

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

= BACKSIGHT

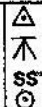


= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. 3 PAGE 26 OF 152
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSKY DATE 1 DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE		STATION	VERTICAL							HORIZONTAL		REMARKS			
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		LR OR DJ		RIGHT TURNED HORIZONTAL ANGLE	LINE	
			<input type="checkbox"/> FEET <input type="checkbox"/> METERS 	HORIZ 					INST	ROD					
1										2087.2			1		
2		1352	660		87 45 02	-4.0	+25.9	+21.9			2109.2			2	
3		1354	880		-									3	
4		1356	1100		87 16 35	-5.2	+52.3	+47.1			2134.4			4	
5		1358	1320		-									5	
6		1360	1540		86 44 57	-5.2	+87.3	+82.1			2169.4			6	
7		1362	1760		-									7	
8		1364	1980		86 08 38	-5.2	+133.2	+128.0			2215.3			8	
9	⊙	1366	2200 ✓		86 13 30	-7.0	+144.6	+137.8			2224.9			9	2224.8
10	⊙				277 45 43	-7.0	+144.3	+137.3						10	
11														11	
12														12	
13	Δ	1366	T1388 558		92 15 40	+8.0	+44.0	+52.0			2277.0			13	
14	Δ		C8.00 1116 ✓		267 43 45	+8.0	+44.2	+52.2						14	
15		1368	880		92 20 39	-7.0	-36.0	-43.0			2234.0			15	
16		1370	660		-									16	
17		1372	880		92 21 05	-2.0	-18.1	-20.1			2256.0			17	

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SYMBOLS

Δ = BACKSIGHT

⊕ = INSTRUMENT SET-UP







SS = SIDESHOT

⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

13

GSI AREA HOWARD PASS STATE/COUNTY ALABAMA BOOK NO. 3 PAGE 27 OF
 LINE/LOOP NO. 64 XS TYPE SURVEY CLIENT HOUST DATE 1 DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. CREW NO. 1184

LINE	   	STATION	VERTICAL						ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST					ROD
				 SLOPE	 HORIZ										
1									2277.0				1		
2		1374	220		93 09 16	-2.0	-12.1	-14.1		2262.9			2		
3	X	1376	0		90 00 00	5.0	-	5.0		2272.0			3		
4		1378	220		92 05 27	-2.0	-8.0	-10.0		2267.0			4		
5	O	1379	T 1430	330	91 33 48	-15.0	-9.0	-24.0		2253.0			5	2252.9	
6	O		B 11.00	330	265 25 44	-15.0	-9.0	-24.0					6		
7													7		
8													8		
9	Δ	1379	T 14.20	1370	88 30 41	+0.5	+21.2	-70.7	2182.6				9		
10	Δ		C 0.50	2740	271 28 39	+0.5	-70.6	-70.1					10		
11		1380	2640		88 51 45	-2.0	+52.4	+50.4		2233.0			11		
12		1382	2426										12		
13		1384	2200		89 21 48	-4.0	+24.4	+20.4		2203.0			13		
14		1386	1980										14		
15		1388	1760		89 21 50	-12.5	+19.5	+7.0		2189.6			15	3.5' + 7 Boost	
16		1390	1540										16		
17		1392	1320		89 21 16	-7.0	+14.9	+7.9		2190.5			17		

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SYMBOLS  = BACKSIGHT  = INSTRUMENT SET-UP  = SIDESHOT  = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 28 OF 154
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husey DATE DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						HORIZONTAL			REMARKS		
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		L/R OR DI		RIGHT TURNED HORIZONTAL ANGLE	LINE
										INST				
1									2182.6			1		
2		1394	1100									2		
3		1396	880	89 24 29	2.0	+ 9.1	+ 7.1		2189.7			3		
4		1398	660	89 51 35	2.0	+ 1.1	- 0.9		2181.7			4		
5		1400	440	90 03 52	2.0	- 0.5	- 4.5		2178.1			5		
6		1402	220	91 01 47	2.0	- 4.0	- 6.0		2176.6			6		
7		1404	0	90 00 00	1.2	-	- 4.2		2177.7			7		
8		1408	440	90 47 20	2.0	- 6.3	- 8.3		2174.3			8		
9		1410	660	89 54 48	2.0	+ 6.0	- 3.0		2179.6			9		
10		1412	880	90 01 50	2.0	- 0.5	- 2.5		2180.1			10		
11		1414	1100	89 57 48	2.0	+ 2.1	- 1.9		2180.7			11		
12		1416	1320	90 01 47	2.0	- 0.7	- 4.7		2177.9			12		
13		1418	1540									13		
14		1420	1760	90 01 47	5.2	- 0.9	- 6.1		2176.5			14		
15		1422	1980									15		
16		1424	2200	89 51 34	5.2	+ 5.4	+ 0.2		2182.8			16		
17		1426	2420									17		

WORKED BY _____ CHECKED BY 1ST _____ 2ND _____

SYMBOLS

= BACKSIGHT

= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 27 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Huzar DATE 1 DY 4 MO 79 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL							HORIZONTAL		REMARKS			
			DISTANCE		<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION			L/R OR D/I	RIGHT TURNED HORIZONTAL ANGLE	LINE
			SLOPE	HORIZ					INST	ROD					
1													1		
2														2	
3	⊙	1428	4.70	1320		87 27 38	15.0	+23.3	+8.3			2190.8		3	2190.7
4	⊙		1.50	2640		270 30 00	15.0	+23.0	+8.0					4	
5														5	
6														6	
7	Δ	1428	2640	✓		91 47 02	+15.0	+82.2	+97.2	2288.3				7	
8	Δ					268 12 10	+15.0	+82.8	+97.8					8	
9		1430	2420			-								9	
10		1432	2200			91 57 53	+4.0	-75.4	-79.4			2208.9		10	
11		1434	1780			-								11	
12		1436	1760			91 55 28	+4.0	-59.1	-63.1			2228.2		12	
13		1438	1540			-								13	
14		1440	1320			92 00 07	+4.0	-46.1	-50.1			2238.2		14	
15		1442	1100			92 08 52	+2.0	-41.2	-45.2			2245.1		15	
16		1444	880			92 08 52	+2.0	-33.0	-35.0			2253.3		16	
17		1446	660			92 04 18	+2.0	-23.9	-25.9			2262.4		17	

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SYMBOLS

Δ = BACKSIGHT

⊕ = INSTRUMENT SET-UP

SS = SIDESHOT

⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. 3 PAGE 30 OF 156
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT Husky DATE 1 DY 4 MO 73 YR
 SURVEYOR J. Anderson INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DJI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
			SLOPE 	HORIZ 										
1									2288.3			1		
2		1448	440		91 51 41	-4.0	14.3	-18.3		2270.0		2		
3		1450	220		92 04 34	-2.0	8.0	-10.0		2278.3		3		
4		1452	0		90 00 00	-4.9	-	-4.9		2283.4		4		
5		1454	220		90 15 43	-2.0	1.0	-3.0		2285.3		5		
6		1456	440		89 49 02	-2.0	+1.4	-0.6		2287.7		6		
7		1458	660		89 45 42	-2.0	+2.7	+0.7		2289.0		7		
8		1460	880		89 54 26	-5.2	+1.4	-3.8		2284.5		8		
9		1462	1100		-	-	-	-				9	9.5' + 7' + 4' BOOST	
10		1464	1320		89 52 59	-20.5	+2.7	-17.8		2270.5		10		
11		1466	1540		-	-	-	-				11		
12		1468	1760		89 48 28	-26.0	+5.9	-20.1		2268.2		12	15.0 + 7' + 4' BOOST	
13		1470	1980		-	-	-	-				13		
14		1472	2200		89 34 56	-26.0	+16.0	-10.0		2278.3		14	15.0 + 7' + 4' BOOST	
15		1474	2420		-	-	-	-				15		
16		1476	1500	1320	89 33 22	-18.0	+20.5	+5.5		2293.6		16	2293.4	
17			1180	2640	270 26 05	-15.0	+20.0	+5.0				17		

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SYMBOLS = BACKSIGHT = INSTRUMENT SET-UP = SIDESHOT = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HOWARD PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 31 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSKY DATE 1 DY 4 MO 72 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1124

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
1														1	
2		1476	T 14.85	885	92 14 40	+15.0	+34.7	+49.7	2343.4					2	
3			B 6.00	885	267 44 47	+15.0	+34.8	+49.8						3	
4		1478	660		93 12 14	2.0	-36.9	-38.9		2304.5				4	
5		1480	440		92 53 55	4.0	-22.3	-26.3		2317.1				5	
6		1482	220		92 28 35	2.0	-13.3	-15.3		2328.1				6	
7		1484	0		90 00 00	4.9	-	-4.9		2338.5				7	
8		1486	220		91 09 53	1.5	-4.5	-6.0		2337.4				8	
9		1488	440		90 48 55	4.0	-6.3	-10.3		2333.1				9	
10		1490	660		90 35 53	2.0	-6.9	-8.9		2334.5				10	
11		1492	880		89 49 51	2.0	+2.6	+0.6		2344.0				11	
12		1494	1100		89 17 36	2.0	+13.6	+11.6		2355.6				12	
13		1496	1320		89 53 49	-4.0	+2.4	-1.6		2341.8				13	
14		1498	1540		88 42 08	2.0	+34.9	+32.9		2376.3				14	
15		1500	1760		88 33 22	5.2	+44.3	+39.1		2382.5				15	
16		1501	T 13.85	935	88 37 46	4.5	+44.7	+40.2		2383.5				16	2383.2
17			C 4.50	1870	271 21 47	4.5	+44.5	+40.0						17	

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SYMBOLS

= BACKSIGHT


= INSTRUMENT SET-UP

= SIDESHOT

= FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA HANAKO PASS STATE/COUNTY ALASKA BOOK NO. _____ PAGE 32 OF 58
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT HUSEY DATE 1 DY 4 MO 79 YR
 SURVEYOR J. ANDERSON INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE		STATION	VERTICAL							HORIZONTAL		REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		L/R OR DI		RIGHT TURNED HORIZONTAL ANGLE
			SLOPE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS HORIZ					INST	ROD			
1												1	
2	Δ	1501	T 5.30	330	89 57 25	T 2.0	- 0.2	+ 1.8	2385.3			2	
3	Δ		B 2.00	330	40 02 02	T 2.0	- 0.2	+ 1.8				3	
4		1502	220		85 46 32	T 2.0	+ 0.9	- 1.1	2384.2			4	
6	\times	1504	0		90 00 00	T 2.0	-	- 2.9	2380.4			5	
6		1506	220		90 45 49	T 2.0	- 2.9	- 4.9	2380.4			6	
7	\odot	1508	440		90 31 29	T 2.0	- 4.0	- 8.0	2377.2			7	2377.0
8	\odot				269 27 52	T 4.0	- 4.1	- 8.1				8	LAST V.P. TO THE
9												9	SOUTH, L- 64 XS
10												10	
11												11	
12												12	
13												13	
14												14	
15												15	
16												16	
17												17	

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SYMBOLS

Δ = BACKSIGHT

∇ = INSTRUMENT-SET-UP

SS = SIDESHOT

\odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

33

GSI AREA MISHKEGUK MTN STATE/COUNTY ALASKA BOOK NO. _____ PAGE 1 OF _____
 LINE/LOOP NO. 64 XS TYPE SURVEY _____ CLIENT +12, CLEAR, CALM, NICE! DATE 29 DY 3 MO 79 YR
 SURVEYOR W.D. HELANDER INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE	 SS 	STATION	VERTICAL							HORIZONTAL		REMARKS	
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		LR OR DI		RIGHT TURNED HORIZONTAL ANGLE
			SLOPE	HORIZ					INST	ROD			
1									0.5			1 INT. L-64XS VP 970	
2		VP 812 L-R6XW							5.2	V	24	2 L-R6XW VP 852	
3									29	D	294-24-03	3 MARKER PIPE & TAG	
4		BAS 79306	5290.8				5.6		90		294-23-39	4	
5		INT L-64XS & L-R6XW		D	92-13-56		6.0		0.8	V	180-00-31	5	
6				R	267-45-23				5290.8	R	114-24-13	6	
7											294-23-42	7 294-23-41	
8												8	
9												9	
10		BAS 79306		D	87-45-14		6.0			V	27	10	
11				R	272-14-06					D	216-16-55	11	
12		INT L-64XS & L-R6XW	2860								216-16-28	12	
13		944		D	84-25-12		6.0			V	180-00-31	13	
14				R	275-34-00					R	36-17-02	14	
15											216-16-31	15 216-16-30	
16												16	
17												17	

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SYMBOLS = BACKSIGHT = INSTRUMENT SET-UP = SIDESHOT = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

34

GSI AREA Misheguk Mtn. STATE/COUNTY Alaska BOOK NO. _____ PAGE 2 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL						ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE										
1														
2														
3	Δ	970	2852.8 ⊙ 2860.0 ⊙		D	95-33-40	5.5				02			
4					R	264-25-30	✓				85	V ₁	00	
5	κ	944					5.8				32	D	185-46-33	
6	⊙	932	1320 ⊙		D	89-10-19	6.0				28	V ₂	05-46-40	
7					R	270-48-48	✓				28528	R	180-00-02	
8													185-46-38	185-46-35
9														
10	Δ	944	1320 ⊙		D	90-48-20	6.0					D	00	
11					R	269-12-20	✓					V ₁	180-08-46	
12	κ	932	1'				5.8						180-08-46	
13	⊙	920	1320 ⊙		D	91-04-15	6.0					R	00-08-55	
14					R	268-55-30	✓					V ₂	180-00-00	
15													180-08-55	180-08-51
16														
17														

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SYMBOLS Δ = BACKSIGHT κ = INSTRUMENT SET-UP SS = SIDESHOT ⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

35

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 3 OF _____
 LINE/LOOP NO. 6485 TYPE SURVEY ✓ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. Springtime CREW NO. _____

LINE	 	STATION	VERTICAL							HORIZONTAL		REMARKS		
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION		LIR OR DI		RIGHT TURNED HORIZONTAL ANGLE	LINE
				SLOPE					HORIZ	INST				
1												1		
2												2		
3	Δ	932	1320 \odot	88-54-15	D	5.5				V ₁	29-00	3		
4				271-05-16	R	✓				D	29-37 193-33-26	4		
5	π	920	220 \odot								193-29-37	5		
6	O	918		94-14-24	D	6.0				V ₂	00-00-04 29-41	6		
7				265-45-30	R	✓				R	13-33-32	7		
8											193-29-37	8	193-29-37	
9												9		
10	Δ	920	220 \odot	86-17-12	D	1.0				V ₁	00	10		
11				273-41-57	R	✓				D	194-24-50	11		
12	π	918									194-24-50	12		
13	O	914	490 \odot	95-54-06	D	6.0				V ₂	180-00-02	13		
14				264-05-26	R	✓				R	14-24-48	14		
15											194-24-46	15	194-24-48	
16												16		
17												17		

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 SYMBOLS Δ = BACKSIGHT π = INSTRUMENT SET-UP SS = SIDESHOT \odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

36

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 4 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL						ELEVATION		LIR OR DIR	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE										
1													1	
2			440 ⊙										2	
3	Δ	918	5493.9 ⊙	D	84-28-12	1.0			05	V ₁	03	3		
4				R	275-31-56	✓			55	D	194-01-57	4		
5	π	914							49		194-01-54	5		
6	⊙	864	5493.9 ⊙ 5360.0 ⊙	D	91-51-25	6.0			93	V ₂	180-00-14	6		
7				R	268-08-00	✓			3.85	R	14-02-00	7		
8									5493.85		194-01-46	8	194-01-50	
9												9		
10	Δ	914	5500.0 ⊙	D	88-08-00	6.0				V ₁	02	10		
11				R	271-51-20	✓				D	189-52-53	11		
12	π	864									189-52-51	12		
13	⊙	847	1870. ⊙	D	90-24-30	6.0				V ₂	180-00-00	13		
14				R	269-34-56	✓				R	09-53-00	14		
15											189-53-00	15	189-52-55	
16												16		
17												17		

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SYMBOLS Δ = BACKSIGHT π = INSTRUMENT SET-UP SS = SIDESHOT ⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 5 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 30 DY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	<input type="checkbox"/> Δ <input type="checkbox"/> SS <input type="checkbox"/> ⊙	STATION	VERTICAL						ELEVATION		LR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE										
1														
2														
3	Δ	864	1870 ⊙	D	89-33-17	6.0				V ₁	00	3		
4				R	270-26-15	✓				D	190-18-25	4		
5	⊥	847	1430 ⊙								190-18-25	5		
6	⊙	834		D	92-38-36	6.0				R	180-00-01	6		
7				R	267-20-45	✓				V ₂	10-18-36	7		
8											190-18-35	8	190-18-30	
9												9		
10	Δ	847	1430 ⊙	D	87-16-36	6.0				V ₁	02	10		
11				R	272-42-30	✓				D	172-19-33	11		
12	⊥	834									172-19-31	12		
13	⊙	814	2200 ⊙	D	92-21-30	6.0				R	352-19-39	13		
14				R	267-38-00	✓				V ₂	180-00-01	14		
15											172-19-38	15	172-19-35	
16												16		
17												17		

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SYMBOLS Δ = BACKSIGHT ⊥ = INSTRUMENT SET-UP SS = SIDESHOT ⊙ = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

38

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 6 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Huskey DATE 30 DY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. 1184

LINE		STATION	VERTICAL						ELEVATION		LR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE 										
1														
2														
3	Δ	834	2200 \odot	D	87-35-10	6.0				V ₁	00		3	
4				R	272-24-16	✓				D	168-22-10		4	
5	π	814	4400 \odot			5.5					168-22-10		5	
6	\circ	774		D	90-27-05	6.0				V ₂	180-00-04		6	
7				R	269-32-22	✓				R	348-22-14		7	
8		Bas 78325 also			87-35-04						168-22-10		8	168-22-10
9		Eol Ln. 64 - sp 659	4400 \odot	D	216-41-44	6.0				V ₁	216-41-44		9	25. into Bas 78525
10		Backsight 834		R	272-24-16	✓				D	00 00 02		10	
11	π	814				5.2					216-41-42		11	
12	\circ	78325	820 \odot	D	87-15-53	6.0				V ₂	180-00-04		12	
13				R	272-44-02	✓				R	36-41-50		13	
14											216-41-46		14	216-41-44
15													15	
16													16	
17													17	

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SYMBOLS Δ = BACKSIGHT π = INSTRUMENT SET-UP SS = SIDESHOT \odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 7 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 20 DY 3 MO 19 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR D/I	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
				SLOPE										
1												1		
2												2		
3	Δ	814	4400 \odot	D	89-31-24	6.0				V ₁	00	3		
4				R		✓				D	180-04-45	4		
5	π	774	2420 \odot			5.5					180-04-45	5		
6	O	752		D	91-21-38	6.0				V ₂	180-00-00	6	EOL - Tags & Pipe set	
7				R	268-38-03	✓				R	00-04-52	7		
8											180-04-52	8	180-04-49	
9	Δ	814	4400 \odot	D	88-54-20	6.0				V ₁	00	9		
10				R						D	351-00-30	10		
11	π	774				5.5					351-00-30	11		
12	O	78325		D	88-54-20	6.0				V ₂	180-00-12	12		
13				R	271-05-54					R	171-00-32	13		
14											351-00-32	14	351-00-31	
15												15		
16												16		
17												17		











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SYMBOLS Δ = BACKSIGHT π = INSTRUMENT SET-UP SS = SIDESHOT \odot = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 8 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 30 BY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	   	STATION	VERTICAL						ELEVATION		LR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS
			DISTANCE		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD				
			SLOPE	HORIZ										
1														
2														
3		79306		D 87-45-20	6.0					V ₁	01			
4				R 272-14-17	✓					D	216-16-11			
5		970	2860 ⊙		5.7						216-16-10		Int 64XS & RGXW	
6		944		D 84-25-07	6.0					V ₂	180-00-12			
7				R 275-34-11	✓					R	26-16-21			
8											216-16-09		216-16-10	
9														
10		944	2860 ⊙	D 84-25-07	6.0					V ₁	00			
11				R 275-34-11	✓					D	194-25-40			
12		970	10010.0 ⊙		5.7						194-25-40			
13		1061	10002.4 ⊙	D 89-10-28	6.0					V ₂	180-00-07			
14				R 270-49-27	✓					R	14-25-40			
15											194-25-33		194-25-34	
16														
17														

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SYMBOLS  = BACKSIGHT  = INSTRUMENT SET-UP  = SIDESHOT  = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska / USA BOOK NO. _____ PAGE 9 OF _____
 LINE/LOOP NO. _____ TYPE SURVEY _____ CLIENT _____ DATE 3 DY 31 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. Springtime CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		LR OR DR	HORIZONTAL		REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST		ROD	RIGHT TURNED HORIZONTAL ANGLE		LINE
				SLOPE	HORIZ										
1															
2															
3		970	10010.0 10002.8	D	90-48-30	6.0			67		V ₁	00	3	Take off	
4				R	269-11-18	✓			79		D	173-05-08	4		
5		1061	6820 6797.6			5.0			97			173-05-08	5		
6		1123		D	91-06-34	6.0			76		V ₂	180-00-10	6		
7				R	268-52-50	✓			6797.6		R	253-05-18	7		
8												173-05-08	8	173-05-08	
9													9		
10		1061	6797.6	D	88-53-18	6.0					V ₁	00	10		
11				R	271-06-05	✓					D	191-19-54	11		
12		1123	2310.			5.5						191-19-54	12		
13		1144		D	89-15-18	6.0					V ₂	179-59-50	13		
14				R	270-44-13	✓					R	11-19-50	14		
15												191-19-52	15	191-19-52	
16													16		
17													17		

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HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 10 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT Husky DATE 31 BY 3 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		UR OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			SLOPE	HORIZ											
1														1	
2														2	
3		1123	2318		D	46-42-18	6.0					V ₁	02	3	
4					R	269-17-08	✓					D	180-05-10	4	
5		1144	1540				5.5						180-05-08	5	
6		1158			D	89-44-05	(11.0)					V ₂	179-59-52	6	
7					R	270-15-35	✓					R	0-05-18	7	
8													180-05-00	8	180-05-04
9														9	
10		1144	1548		D	90-02-52	6.0			12		V ₁	01	10	
11					R	269-56-29	✓			25		D	181-38-09	11	?
12		1158	12546				5.3			52			181-38-08	12	
13		1272	12529		D	90-14-20	6.0			29		V ₂	180-00-09	13	
14					R	269-45-02	✓			88		R	07-38-09	14	?
15										12529.8			181-38-00	15	181-38-04
16														16	
17														17	

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HORIZONTAL AND VERTICAL SURVEY NOTES

43

GSI AREA _____ STATE/COUNTY _____ BOOK NO. _____ PAGE 11 OF _____
 LINE/LOOP NO. _____ TYPE SURVEY _____ CLIENT _____ DATE _____ DY _____ MO _____ YR _____
 SURVEYOR _____ INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
				SLOPE											HORIZ
1													1		
2														2	
3	A	1158	12540.0 12529.8	D	89-44-43	6.0				12		V ₁	00	3	
4				R	270-15-43	✓				25		D	180-58-05	4	
5	π	1272	5500.0 5496.4			5.6				52 29			180-58-05	5	
6	O	1322		D	89-28-08	12.0				8.8		V ₂	179-59-58	6	
7				R	270-31-40	12.0				12529.8		R	00-58-16	7	
8													180-58-14	8	180-58-09
9														9	
10	Δ	1272	5500.0 5496.4	D	90-22-02	11.0				05		V ₁	00	10	
11				R	269-37-40	✓				54		D	177-44-48	11	
12	π	1322	5490.0 5496.4			5.6				49			177-44-48	12	
13	O	1376		D	87-41-11	1				6.4		V ₂	179-59-54	13	
14				R	272-18-47					5496.4		R	359-44-48	14	
15													179-44-42	15	177-44-45
16														16	
17														17	

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SYMBOLS
 = BACKSIGHT
 = INSTRUMENT SET-UP
 = SIDESHOT
 = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

44

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 12 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT _____ DATE 31 DY 3 MO 99 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. _____ CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR D/I	HORIZONTAL RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS. 	ROD RDG OR HI	ELEV DIFF 	FINAL ELEVATION DIFF	INST	ROD					
				SLOPE 											HORIZ
1													1		
2														2	
3														3	
4		1272	550.0								V ₁	00	4		
5											D	231-27-00	5		
6		1322	1706.4				5.5			01		231-27-00	6		
7		BAS 79325								17		179-59-55	7		
8											V ₂	51-27-20	8		
9										70		231-27-15	9	231-27-07	
10										86			10		
11										6.4			11		
12										1706.4			12		
13													13		
14													14		
15													15		
16													16		
17													17		

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SYMBOLS = BACKSIGHT = INSTRUMENT SET-UP = SIDESHOT = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

45

GSI AREA Howard Pass STATE/COUNTY Alaska BOOK NO. _____ PAGE 13 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT _____ DATE 1 DY 4 MO 79 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. -25735^e CREW NO. _____

LINE	 	STATION	VERTICAL						ELEVATION		L/R OR DI	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS				
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS		VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	ELEVATION								
				SLOPE	HORIZ					INST					ROD			
1																		
2																		
3																		
4		Bas 7832.5	1106.4		D 82-26-02	3.8			055		V ₁	00						
5					R 277-35-35	✓			59		D	306-17-55						
6		1322	5940			5.5			93			306-17-55						
7		1376	5936.6		D 87-41-13	6.0			56		V ₂	179-59-56						
8					R 272-18-50	✓			6.6		R	126-18-03						
9									5936.6			306-17-59						306-17-57
10																		
11		1322	5936.6		D 92-09-30	11.0			13		V ₁	00						
12			5940.0		R 267-49-53	✓			37		D	194-15-00						
13		1376	137.50			5.7			73			194-15-00						
14		1501	13731.3		D 89-32-00	6.0			31		V ₂	180-00-06						
15					R 270-27-08	✓			1.3		R	14-15-06						
16									13731.3			194-15-00						194-15-00
17																		







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SYMBOLS = BACKSIGHT = INSTRUMENT SET-UP = SIDESHOT = FORESIGHT

HORIZONTAL AND VERTICAL SURVEY NOTES

GSI AREA Howard Pass STATE/COUNTY _____ BOOK NO. _____ PAGE 14 OF _____
 LINE/LOOP NO. 64XS TYPE SURVEY _____ CLIENT _____ DATE 1 DY 4 MO 78 YR
 SURVEYOR Jensen INSTRUMENT DESC/SERIAL NO. Springtime 0° F CREW NO. _____

LINE		STATION	VERTICAL						ELEVATION		L/R OR D/I	RIGHT TURNED HORIZONTAL ANGLE	LINE	REMARKS	
			DISTANCE	<input type="checkbox"/> FEET <input type="checkbox"/> METERS	VERTICAL ANGLE OBS.	ROD RDG OR HI	ELEV DIFF	FINAL ELEVATION DIFF	INST	ROD					
			SLOPE 	HORIZ 											
1														1	
2														2	
3														3	
4	Δ	1376	13731.30		D	90-26-16	11.0				V ₁	00		4	
5					R	269-33-05	✓				D	179-56-08		5	
6	∇	1501					5.9					179-56-08		6	
7	O	1508	770		D	90-35-35	6.0				V ₂	180-00-00		7	
8					R	269-24-02	✓				R	359-56-08		8	
9												179-56-08		9	179-56-08
10														10	
11														11	
12														12	
13														13	
14														14	
15														15	
16														16	
17														17	

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SYMBOLS Δ = BACKSIGHT ∇ = INSTRUMENT SET-UP SS = SIDESHOT O = FORESIGHT