

Location:	CD	Site:	SUNMET	Date:	7024/129						
Time:	1307	Observers:	Z. C.	Interval board SWE measurement							
Precip Rate	None	Very Light (0.5 cm / hr)	Light (1 cm / hr)	Moderate (5 cm / hr)	Heavy (10 cm / hr)	Depth (cm)	SWE (mm)	Density (kg/m³)	Evidence of melt resulting in SWE loss? (Y/N)		
Precip Type	Rain	Snow	Graupel	Hail	Rain/Snow	Sample A	25.1/27.5/31.4	41.5	126.5		
						Sample B	32	41	128.1		
						Sample C	32	42.5	128.7		
Sky	Clear	Few (< 1/4 of sky)	Scattered (1/4-1/2 of sky)	Broken (> 1/2 of sky)	Overcast (complete cover)	Ground condition	Frozen	Moist	Saturated		
Wind	Calm (0 mph)	Light (1 - 16 mph)	Moderate (17 - 25 mph)	Strong (26 - 38 mph)	Extreme (> 38 mph)	Ground roughness	Smooth (< 5 cm)	Rough (5 - 20 cm)	Rugged (> 20 cm)		
Tree Canopy	No trees	Sparse (5 - 20%)	Open (20 - 70%)	Closed <th>Ground Vegetation</th> <td>Bare</td> <td>Grass</td> <td>Shrub</td> <td>Deadfall</td>	Ground Vegetation	Bare	Grass	Shrub	Deadfall		
Instrument	Y/N	SN	Instrument	Y/N	SN	Additional Comments		Height of Ground Vegetation (cm)			
Digital LWC	N		Snow Scope	Y		Weather					
Stratigraphy pictures	Y		Lyte Probe	N							
Standard ram	Y		SMP	N							
Powder Ram	Y		Force Ram	Y		Pit					
Slush Ram	N		Force Snow Scope	Y							
HS Transects	Y		Snow Scope Transects	N							
Pit Pictures	Y		SSA / NIR Box	N	Misc	HS 55cm @ STR US					
Other											

Location (Regional Scale)	Date (YYYYMMDD)	Observers (first initial & last name):		Comments/Notes:	
Site (Study Plot)	Time (pit opened)	Temperature profile times			
		START	END		
Summer	1320	1321	1328		
Pit ID SITEYYMMDD	Snow Depth (cm)	LWC Device & SN	UTME	UTMN	Zone (two digit) GPS device & uncertainty: Ground 65 m Zm
SLWET20241129	51	N/A	0125743	4419927	13
Density					
Height above ground	Density profile A (kg/m ³)	Density profile B (kg/m ³)	Extra Density (kg/m ³)	Permittivity profile A (unitless)	Permittivity profile B (unitless)
top - bottom (cm)				(cm)	(cm)
51 - 43	16	125		51	-7
43 - 25	75	130.8		50	-8
25 - 21	14	350		40	-9
21 - 0	35	166.6		36	-9
29/53/43/49	156.7			20	-5
29/25/28/52	161.			10	-2
29/25/28/54	159.6			0	-1
LWC					
Height above ground	Temperature		Height above ground		Grain Size (mm)
top - bottom (cm)	oC	(cm)	Max	Min	Avg
51 - 50.5	8	1	2	PSD	N/A
50.5 - 43	1	.13	.5	DFR	F
43 - 25	.5	.1	.3	DFR	D
25 - 21	.5	.1	.3	MFC	IF
21 - 0	0	.5	1	PSD	D
Stratigraphy					
Height above ground	Grain Type		Hand Hardness	Manual Wetness	Stratigraphy Comments
top - bottom (cm)	Max	Min	Avg		
51 - 50.5	8	1	2	PSD	STRATIGRAPHY TO D=
50.5 - 43	1	.13	.5	DFR	
43 - 25	.5	.1	.3	DFR	
25 - 21	.5	.1	.3	MFC	STRATIGRAPHY TO FASTER INCREASE, MEDIUM COHESION?
21 - 0	0	.5	1	PSD	FAIRLY CONSOLIDATED

Location: CO Date: 2024/11/29

Site: Silver

Pit: Silver 2024/11/29

Time: 1410

Observer: M. C.

X-Coord	Y-Coord	Time	Data Type	SN	Profile #	Force Gage	Force	Depth	Depth	max	manual	digital	Grnd
							N	cm	cm	Y/N			Comments
15	30	1424	Sub Scree	2274	2		51	46	48				
30	45				3		51	48	48				
60	45				4		52	47	47				
75					5		52	47	47				
15	45	1418	Force Ram	1		1000	16	16	16				
30	45	1419		2			8	16	16				
60	45	1419		3			16	16	16				
75		1426		4			6	6	6				
15	60	1424	Foot Scale	234	7	1000	D	38	41	N			
30	45			8			1	38	41				
60	45			9			1	38	39				
75				10			1	36	39				
15	15	1356	Row Ram		11		2	39	43				
20	15	1410	Sto Ram				51	N	N				

Ram Penetrometer Field Data Sheet

Location:	CO					Tube weight	T	kg						
Site:	SMET					Hammer weight	H	kg						
Associated pit/transect/point:	SMET 2024U29					Number of falls	n							
Date:	2024U29					Fall height	f	cm						
Observer:	C. McCarz					Location of point	p	cm						
UTME:	UTMN:	Zone: 13			$RN = T + H + nfH/p$									
Ram type:	Ram mass: kg					$RR = 9.81 (T + H + nfH/p)$	N							
T	H	n	f	p	T	H	n	f	p	T	H	n	f	p
0.1	0	0	0	10	1	0	0	0	52					
0.4	0.5	0	0	10	1	.5	0	0	52					
	1	1	15											
	2	1	16											
	2	1	17											
	2	1	18											
	2	1	19											
	2	1	20											
	2	1	21											
	2	1	22											
	2	1	23											
	5	1	24											
	5	1	25											
	1	5	26											
	1	5	27											
	1	5	28											
	2	5	29											
	5	6	30											
	3	5	31											
	5	5	32											
	4	5	33											
	1	5	34											
	1	5	35											
	1	5	37											
	2	1	38											
	2	1	39											
	3	1	40											
	3	1	41											
	3	2	42											
	2	3	43											
	3	4	44											
	1	5	45											
	1	5	46											
	3	5	47											
	2	5	48											
	3	5	49											
	5	5	50											
	1	10	51											

Notes:

Location (regional scale)		Site (study plot)		Transects		Date	Time			
CO		SLWET		A, B		2024/11/29	Start	End		
Observer(s)		Wx Description								
Enclosed		Few, calm, no wave								
Transect A				Transect B						
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)			
0	45	31	23	0	50	31	59			
1	48	32	24	1	41	32	48			
2	35	33	35	2	50	33	63			
3	59	34		3	56	34	43			
4	54	35		4	62	35	59			
5	55	36		5	65	36				
6	59	37		6	59	37				
7	53	38		7	67	38				
8	29	39		8	72	39				
9	44	40		9	53	40				
10	47	41		10	59	41				
11	52	42		11	56	42				
12	55	43		12	55	43				
13	54	44		13	56	44				
14	46	45		14	55	45				
15	41	46		15	51	46				
16	40	47		16	56	47				
17	27	48		17	53	48				
18	41	49		18	49	49				
19	32	50		19	48	50				
20	47	51		20	59	51				
21	51	52		21	60	52				
22	51	53		22	55	53				
23	49	54		23	60	54				
24	51	55		24	78	55				
25	48	56		25	70	56				
26	50	57		26	53	57				
27	52	58		27	69	58				
28	45	59		28	92	59				
29	29	60		29	75	60				
30	19			30	63					