Location:	CO	Site:	JPLMET	Date:	20250109
Time:	0940	Observers:	Em, Cas, Skinner, Y		

Precip Rate	None	(Very Light (0.5 cm / hr))	Light (1 cm / hr)	Moderate (5 cm / hr)	Heavy (10 cm / hr)
Precip Type	Rain	(Snow)	Graupel	Hail	Rain/Snow
Sky	Clear	Few (< 1/4 of sky)	Scattered (1/4-1/2 of sky)	Broken (> 1/2 of sky)	(Overcast (complete cover))
Wind	(Calm (0 mph))	Light (1 - 16 mph)	Moderate (17 - 25mph)	Strong (26 - 38 mph)	Extereme (> 38 mph)
Tree Canopy	(No trees)	Sparse (5 - 20%)	Open (20 - 70%)	Closed (> 70%)	

Interval board SWE measurement

	Depth (cm)	SWE (mm)	Density (kg/m3)	Evidence of melt resulting in SWE loss? (Y/N)
Sample A	8.2	8.5	103.65	
Sample B	8.8	9.5	107.95	Y
Sample C	8.6	9.5	110.46	

Ground condition	(Frozen)	Moist	Saturated	
Ground roughness	(Smooth (< 5 cm))	Rough (5 - 20 cm)	Rugged (> 20 cm)	
Ground Vegetation	Bare	(Grass)	Shrub	Deadfall
Height of Ground Vegetation (cm)		70cm		

Instrument	Y/N	SN	Instrument	Y/N	SN
Digital LWC	N		Snow Scope	Y	234
Stratigraphy pictures	Y		Lyte Probe	N	
Standard ram	Y		SMP	N	
Powder Ram	Y		Force Ram	Y	
Slush Ram	N		Force Snow Scope	Y	234
HS Transects	Y		Snow Scope Transects	N	
Pit Pictures	Y		SSA / NIR Box	Y	101
Other					

Additional Comments

Weather: SUN PEEKING THROUGH CLOUDS SKY & clouds clearing @ 1010

Pit:

Hardness:

Misc: RADIO CLEARED @0955

HS @ STAKE 63 cm

Location (Regional Scale)	Date (YYYYMMD)	Observers (first initial & last name):		Comments/Notes:
CO	20250109	EmcCue Skinner	Temperature profile times: START 0955, END 1007	
Site (Study Plot)	Time (pit opened)			
JPLMET	0953			

Pit ID (SITEYYYMMDD)	Snow Depth (cm)	LWC Device & SN	UTME	UTMN	Zone (two digit)	GPS device & uncertainty:
JPLMET20250109	65	10.1 Ecokgm7 528 My 01	0424546	4417704	13S	Garmin GPS ~2m

Density

Height above ground top (cm)	Height above ground bottom (cm)	Density profile A kg/m3	Density profile B kg/m3	Extra Density kg/m3
63	51.2	11.8	15	127.11
51.2	34.8	16.4	35	213.41
34.8	15.8	19	42.5	223.68
15.8	0	15.8	32.5	205.69
026		88.5 / 86.1	49.8 / 44.0	
5	55	81.7 / 75.7	35.5 / 27.9	
5	45	75.3 / 73.7	27.4 / 25.8	
15		69.3 / 60.1	18.1 / 15.8	
35		46.2 / 39.7	9.5 / 7.3	
5		30.2 / 29.4	5.0 / 4.8	
15	05	31.8 / 32.8	5.4 / 5.6	
	05	29.9 / 34.4	4.9 / 5.9	
5	55	116	95	111
5	45	189	195	
5	35	213	214	
	25	198	213	
5	15	211	213	
	05	206	193	

LWC

Permittivity profile A (unitless)	Permittivity profile B (unitless)

Temperature

Height above ground (cm)	T oC
65	-9.5
60	-11
50	-9.5
40	-7.5
30	-5.5
20	-3.5
10	-2
0	0

Stratigraphy

Height above ground top (cm)	Height above ground bottom (cm)	Grain Size (mm) Max	Min	Avg	Grain Type	Hand Hardness	Manual Wetness	Stratigraphy Comments
65	64.5	0.5	0.1	0.3	PPsd	F	D	PPgp few needles & plates
64.5	50	1	0.3	0.5	DFbk	F	D	FCsf
50	35	0.8	0.1	0.5	RGxf	4F	D	
35	15	2.5	1	1.5	DHpr	4F	D	cavity cups
15	0	6	1	2	DHch	F	D	DHch clear striations & cupping

Location:	C0	Date:	20250109								
Site:	JPLMET	Time:					Force	Depth	Depth		
Pit:	JPLMET20250109	Observers:	Grace Cox Skinner				max	manual	digital	Grnd	
X-Coord	Y-Coord	Time	Data Type	SN	Profile #	Force Gage	N	cm	cm	Y/N	Comments
0	30	1039	STD RAM							Y	
30	↓	1040	POW RAM								
0	60	1047	SCOPE	234	1130			66	62	Y	
30		1047			1131			66	60		
60		1047			1132			66	58		
90		1048			1134			65	58		
120	↓	1048	↓	↓	1135			66	61	↓	
0	90	1050	FORCE RAM			50N	16.05	55		N	
30		1051					15.35	59			
60		1051					11.75	59			
90		1051					13.10	55			
120	↓	1051	↓				16.05	58			
0	120	1052	FORCE SCOPE	234	1136		4.10	55	55		
30		1053			1137		4.3	54	54		
60		1053			1138		4.10	57	54		
90		1053			1139		4.3	55	59		
120	↓	1054	↓	↓	1140	↓	3.35	60	59	↓	

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
CO	JPLOT	JPLA	20250109	0918	1043

Observer(s)	Wx Description
Em, Cal Skinner	OVC 5-1 LIGHT NONE

Transect A				Transect B			
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0	71	31	72	0	68	31	
1	63	32	68	1	63	32	
2	75	33	69	2	70	33	
3	55	34	74	3	70	34	
4	76	35	68	4	57	35	
5	70	36	73	5	39	36	
6	69	37	72	6	55	37	
7	68	38	64	7	65	38	
8	66	39	49	8	76	39	
9	75	40	65	9	61	40	
10	60	41	71	10	58	41	
11	72	42	71	11	57	42	
12	54	43	68	12	49	43	
13	70	44	69	13	51	44	
14	62	45	65	14	66	45	
15	58	46	70	15	64	46	
16	60	47	69	16	71	47	
17	70	48	72	17	74	48	
18	72	49	76	18	54	49	
19	57	50	71	19		50	
20	48	51	68	20		51	
21	61	52	65	21		52	
22	73	53	54	22		53	
23	52	54	61	23		54	
24	70	55	71	24		55	
25	65	56	67	25		56	
26	62	57	64	26		57	
27	59	58	62	27		58	
28	61	59	58	28		59	
29	66	60	41	29		60	
30	63		63	30			

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
Co	JPLMET	JPLT	20250109	0914	0917
Observer(s)	**Wx Description**				
CmcCue Skinney	OVC 5-1 LIGHT NONE				

Transect A				Transect B			
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0	67	31		0		31	
1	69	32		1		32	
2	72	33		2		33	
3	68	34		3		34	
4	65	35		4		35	
5	65	36		5		36	
6	65	37		6		37	
7	65	38		7		38	
8	63	39		8		39	
9	67	40		9		40	
10	70	41		10		41	
11	61	42		11		42	
12	64	43		12		43	
13	66	44		13		44	
14	67	45		14		45	
15	69	46		15		46	
16	65	47		16		47	
17	62	48		17		48	
18	66	49		18		49	
19	68	50		19		50	
20	65	51		20		51	
21	65	52		21		52	
22		53		22		53	
23		54		23		54	
24		55		24		55	
25		56		25		56	
26		57		26		57	
27		58		27		58	
28		59		28		59	
29		60		29		60	
30				30			

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
CO	JPLMET	JPL1, 2	20250109		
Observer(s)	Wx Description				
Eucl Skinner	OVC S-1 LIGHT NONE				

Transect A				Transect B 0909 0912			
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0		31		0	17	31 A	47
1		32		1	42	32 B	46
2		33		2	52	33 C	44
3		34		3	56	34 D	34
4		35		4	58	35 E	54
5		36		5	66	36 F	55
6		37		6	61	37 G	43
7		38		7	61	38 H	52
8		39		8	56	39 I	46
9		40		9		40 J	54
10		41		10		41	
11		42		11		42	
12		43		12		43	
13		44		13		44	
14		45		14		45	
15		46		15		46	
16		47		16		47	
17		48		17		48	
18		49		18		49	
19		50		19		50	
20		51		20		51	
21		52		21		52	
22		53		22		53	
23		54		23		54	
24		55		24		55	
25		56		25		56	
26		57		26		57	
27		58		27		58	
28		59		28		59	
29		60		29		60	
30				30			

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
CO	JPLMST	RADIAL 1, 2	20250107		

Observer(s)	Wx Description
CraigCliff Skinner	LIGHT SI OVC NONE

0902 Transect A 0905

Point	HS (cm)	Point	HS (cm)
0	68	31	
1	62	32	
2	62	33	
3	62	34	
4	66	35	
5	62	36	
6	63	37	
7	63	38	
8	61	39	
9	63	40	
10	60	41	
11	58	42	
12	65	43	
13	65	44	
14	63	45	
15	63	46	
16		47	
17		48	
18		49	
19		50	
20		51	
21		52	
22		53	
23		54	
24		55	
25		56	
26		57	
27		58	
28		59	
29		60	
30			

0906 Transect B0908

Point	HS (cm)	Point	HS (cm)
0	49	31	
1	57	32	
2	69	33	
3	69	34	
4	67	35	
5	64	36	
6	66	37	
7	66	38	
8	68	39	
9	67	40	
10	66	41	
11	67	42	
12	66	43	
13	67	44	
14	66	45	
15	65	46	
16	66	47	
17	61	48	
18	63	49	
19		50	
20		51	
21		52	
22		53	
23		54	
24		55	
25		56	
26		57	
27		58	
28		59	
29		60	
30			

Ram Penetrometer Field Data Sheet

Location: CO
Site: JPLMST
Associated pit/transect/point: JPLMST20250109
Date: 20250109 Time: 1039 / 1040
Observer: GMcCLE SKINNEY
UTME: UTMN: Zone:
Ram type: Ram mass: kg

Tube weight	T	kg
Hammer weight	H	kg
Number of falls	n	
Fall height	f	cm
Location of point	p	cm
$RN = T + H + nfH/p$		kg
$RR = 9.81\ (T + H + nfH/p)$		N

T	H	n	f	p
1	0	0	0	66
(	0.5	0	0	66
0.1	0	0	0	9
0.1	0.1	0	0	9
		1	1	10
		3	1	11
		1	3	12
				13
		2	3	14
		2	4	15
		2	5	16
		3	5	17
		2	10	18
		1	10	19
				20
				21
		2	10	22
		1	10	23
		2	10	24
				25
				26
				27
				28
				29
				30
				31
				32
		1	10	33
				34
				35
		1	5	36
				37
				38
				39
				40
				41

T	H	n	f	p
		1	5	42
				43
				44
				45
		2	5	46
				47
				48
				49
				50
				51
		3	5	52
		2	5	53
		1	5	54
		2	5	55
		1	5	56
				57
				58
				59
		2	5	60
				61
				62
				63
		4	5	63.5
		1	20	64
		2	20	65

T	H	n	f	p

Notes: