63/qs/SF

Unnamed Silt Loam 77-Ida-0532

Classification -- medial over loamy-skeletal, mixed Entic Cryandept, subalpine phase.

General Site Characteristics

Location -- Benewah County, Idaho, NE¼ of SW¼ of section 26, T. 43 N., R. 2 W., on north side of Bald Mountain; described -- October 8, 1975, by Mark Amara and H. L. Osborne, checked October 17, 1977, by M. A. Fosberg; topography -- mountain slope with greater than 1000 feet relief, steep uniform sideslope with mounds from uprooted trees, midslope on a 1200 yard long slope; slope -- 47 percent; aspect -- north 340 degrees; elevation -- 1380 meters (4600 feet); parent material -- Mazama volcanic ash over quartzite metasediments of the Belt Supergroup; climate -- subhumid with cool dry summers, and cool wet winters, estimated mean annual air temperature of 40°F, estimated mean annual precipitation of 40-45 inches with 6-12 feet of snow accumulation; drainage -- well drained; runoff -- slight; permeability -- moderate; vegetation and use -- Abies lasiocarpa/ Pachistima myrsinites habitat type, with Abies grandis, Pseudotsuga menziesii, Larix occidentalis, Thuja plicata, Picea englemanii, Coptis occidentialis, Clintonia uniflora, Tiarella trifoliata, Viola orbiculata, Anemone piperi, used for timber production.

Remarks: This description is of a profile in stand #47 of the Douglas-Fir Tussock Moth Study of the Coll. of FWR, University of Idaho.

Pedon Description

O1 2.5-0 centimeters (1-0 inches). Partially decomposed needles, twigs, and leaves.

A1 0-20 centimeters (0-8 inches). Dark yellowish brown (10YR 4/4) silt loam, dark brown (10YR 3/3) moist; weak fine to medium granular structure; weakly coherent, friable, nonsticky and slightly plastic; few micro, very fine, and fine random interstitial pores; abundant micro to coarse roots; occasional fine to coarse angular quartzite gravels; clear wavy boundary.

B21ir 20-28 centimeters (8-11 inches). Dark yellowish brown (10YR 4/4) silt, dark brown (10YR 3/3) moist; weak fine to medium granular structure; weakly cohereent, friable, nonsticky and slightly plastic; few micro and very fine random interstitial pores; plentiful micro to coarse roots; occasional fine to coarse angular quartzite gravels; clear wavy boundary.

Unnamed Silt Loam 77-Ida-0532 (cont.)

B22ir 28-43 centimeters (11-17 inches). Yellowish brown (10YR 5/6) silt loam, yellowish brown (10YR 5/4) moist; weak fine to medium granular structure; weakly coherent, friable, nonsticky and slightly plastic consistence; common micro, very fine, and fine random interstitial pores; abundant micro to coarse roots; occasional fine to coarse angular quartzite gravel; clear wavy boundary.

B23ir 43-61 centimeters (17-24 inches). Yellowish brown (10YR 5/6) gravelly silt loam, yellowish brown (10YR 5/4) moist; moderate fine to medium granular structure; slightly hard, firm, nonsticky and slightly plastic consistence; common micro, very fine, and fine random interstitial pores; plentiful micro to medium roots; 80 percent gravels and cobbles as a stone line; abrupt wavy boundary.

IIB24 61-91 centimeters (24-36 inches). Yellowish brown (10YR 5/6) gravelly loam, dark yellowish brown (10YR 5/4) moist; weak medium to coarse subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic consistence; few micro to medium roots; 30 percent quartzite gravels; gradual wavy boundary.

IIC 91-127+ centimeters (36-50+ inches). Pale yellow (2.5 Y 7/4) very gravelly fine sandy loam, light olive brown (2.5Y 5/5) moist; massive structure; very few micro to fine roots; 54 percent quartzite gravels.

Pedon: 63/qs/SF
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Date: July 1978

Sample No.	Horizon	Depth	pH paste	ECX10^3	PW at Saturation	Available P	Sesquioxides Di-Citrate Fe	Sesquioxides Extract Al	Sesquioxides Pyrophosphate Fe	Sesquioxides Extract Al
		cm		mmhos/cm	%	ppm	%			
1	01	2.5-0	-	-	-	-	-	-	-	-
2	A1	0-20	5.6	0.2	77	0.2	nd	nd	nd	nd
3	B21ir	20-28	5.6	0.2	76	0.0	2.6	2.1	0.4	0.4
4	B22ir	28-43	5.7	0.1	79	0.0	2.4	1.4	0.2	0.4
5	B23ir	43-61	5.8	0.2	48	0.1	2.4	1.1	0.3	0.2
6	IIB24	61-91	5.2	0.2	29	0.3	nd	nd	nd	nd
7	IIC	91-127+	5.0	0.2	24	0.3	nd	nd	nd	nd

Sample No.	Exchangeable Ions Ca	Mg	Na	K	Ext. Acidity H	CEC	Base Saturation	OM	C	N	C:N	Soil Fraction	NaF pH
	meq/100 gms						%	%			ratio		
1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	1.5	0.2	0.4	0.5	28.3	26.1	8	8.0	4.7	0.28	17	0.97	11.2
3	1.3	0.2	0.4	0.4	29.1	27.0	7	5.9	3.4	0.26	13	0.98	11.3
4	1.5	0.2	0.5	0.3	27.2	25.2	8	4.5	2.6	0.19	14	1.00	11.4
5	2.0	0.2	0.4	0.3	17.3	18.4	14	2.6	1.5	0.12	13	0.20	11.0
6	0.7	0.3	0.5	0.1	8.5	8.0	16	0.6	0.4	0.02	20	0.60	9.8
7	0.3	0.1	0.4	0.1	4.5	3.4	17	0.3	0.2	0.02	10	0.35	9.7

Remarks: CECs leached with 10% acidified NaCl.
Nitrogens and CECs ran on the Technicon.
nd - not determined

Analysis by: Nancy Parrott

Pedon: 63/qs/SF
Unnamed Silt Loam 77-Ida-0532

Date: August 1978

Depth	Particle Size Distribution (mm)								Gravel & Stone		Textural
	VCS	CS	MS	FS	VFS	TS	TSi	TC	> 2 mm		
	2-1.0	1-0.5	0.5-0.25	0.25-0.1	0.1-0.05	2-0.05	0.05-0.002	< 0.002	wt.	vol.	Classes
cm	%								%		
2.5-0	-	-	-	-	-	-	-	-	-	-	-
0-20	0.37	0.56	0.76	2.94	8.73	13.36	78.94	7.70	3	1	Silt loam
20-28	0.65	0.76	0.73	2.71	7.71	12.57	81.42	6.01	2	1	Silt
28-43	0.77	1.10	1.02	3.57	11.58	18.05	76.06	5.79	trace	trace	Silt loam
43-61	4.94	5.64	4.60	11.43	6.34	32.95	57.51	9.54	80	64	Gr. silt loam
61-91	4.52	7.48	7.87	16.89	8.85	45.62	44.72	9.66	40	29	Gr. loam
91-127+	4.10	6.25	7.76	23.90	13.35	55.35	40.56	4.09	65	54	V. gr. fine sandy loam

Depth	Silt Size Distribution (mm)			Bulk Density	Water Content		Liquid Limit	Plastic Limit	Plastic Index
	CoSi	MSi	FSi		1/3 Bar	15 Bar			
	0.05-0.02	0.02-0.005	0.005-0.002						
	%			g/cc	%		%		
2.5-0				-	-	-	-	-	-
0-20				0.6	54.1	13.0	NDNP	NDNP	NDNP
20-28				0.6	50.9	20.6	NDNP	NDNP	NDNP
28-43				0.6	53.6	20.8	NDNP	NDNP	NDNP
43-61				No clods	47.6	15.8	NDNP	NDNP	NDNP
61-91				No clods	23.2	9.2	NDNP	NDNP	NDNP
91-127+				No clods	17.9	5.0	NDNP	NDNP	NDNP

Remarks: Centrifuge method, 5% sodium hexametaphosphate added, sonified.
A bulk density of 1.1 for sample 43-61cm, 1.6 for sample 61-91cm and 1.7 for sample 91-127+cm was used to calculate volume of gravels.

Analysis by: Anita Falen
H. Osborne - B.D.