CLASS L SOIL SURVEY

SISK MOUNTAIN PROPOSED METEORLOGICAL TOWER 3 ACCESS

Prepared for:

TRANSCANADA



Prepared by:

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July 5, 2009

Dana Valleau TRC Engineers, LLC 249 Western Avenue Augusta, ME 04330

Sisk Mountain Project Proposed Meteorological Tower Kibby & Chain of Ponds Twp, ME

Dana,

We observed test pits in the areas for the proposed Access Road to the Meteorological (*Met*) Tower Location for the Sisk Mountain Project on June 16, 17, 18, 19, 22, 23, 24, and 25, 2009. The test pits were observed in the field to prepare a Class "L" Soil Survey for the route to the proposed met tower. We understand the soils information will be used in the route alignment in addition to augmenting the permit application for the Sisk Project with the Land Use Regulation Commission (*LURC*). It is also likely the soil survey will be reviewed by Mr. David Rocque's (*State Soil Scientist*) office.

The survey limits were established in the field using the plans and GIS background files provided by your office. We had the benefit of observing some soil profiles from "cuts" into the "banks" along the existing road for much of the proposed route. We documented the soil's morphology from thirteen (13) hand dug test pits and seven (7) hand borings within the approximate proposed access road corridor. Soil data was also recorded in each of the fourteen (14) wetlands delineated. The field data was referenced to the current Maine State Soil Catena and determined that for mapping purposes the following soils should react similarly to the Abram, Brayton, Burnham, Colonel, Dixfield, Lyman, Mahoosuc, Monarda, Naskeag, Peacham, and Udorthents soil series. It should be noted that these soils were not observed with profile depths suitable for classifications to the series level. It is not feasible to observe soil profiles to depths greater than 60" without any excavating equipment. However, sufficient data was collected to determine the underlying soils limitations for this Class "L" Soil Survey. Generally, we observed soils ranging from "very shallow" (<10"), "shallow"

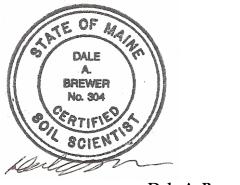
(10'' to <20''), "moderately deep" (20'' to <40'') and "deep" (40'' to <60'') and deep depths over bedrock in the proposed access road corridor to the Met Tower site.

The proposed road will generally follow two existing woods roads to elevation \pm 2,700. The first road is drivable and begins near Mile 2.5 on the Gold Brook Road. A bridge spans over Gold Brook at the beginning of the improved road. The road continues for approximately 1,500 feet with both ditching and underlying culverts in place helping with overall conditions of the frequently used roadway. The proposed route alignment branches off the main roadway onto a generally "straight" existing woods road to the limit of tree harvesting. The woods road appears to have been a "major" road for the past timber harvesting operations in the area. It has a deep base of compacted native soils along with an intricate ditching network along the "uphill" side. The roadway and ditching has had all the culverts removed and the low-lying areas of the former culvert locations are currently functioning as "slope breaks" in many instances.

Natural conditions exist above 2,700' in elevation where the timber harvesting stopped. An existing foot trail continues up to the ridge top at elevation \pm 2,850'. In most areas the trail follows the "flatter" passages along the shallow soils and the base of rock cliffs to the summit. Some wetlands and a stream will need to be crossed to reach the ridgeline using the proposed access route. These areas may require control structures under the proposed route for access. The proposed alignment appears to be located in the best location within the 300' corridor studied. However some wetlands or steep slopes may need to be crossed or rerouted for avoidance depending on the equipment used for the Met Tower access.

We located the existing roads, ditching, culvert locations, seeps, bedrock outcrops, slope breaks, wetland areas, borings and the soil test pits with a Trimble[®] GEO-XH GPS unit on June 16, 17, 18, 19, 22, 23, 24, and 25 2009. Please see the following pages for more detailed soil information including the Soil Report, Soil Narratives, Soil Test Pit Logs and the attached Soil Map. Please feel free to contact us should questions arise or if further assistance is needed with the proposed met tower access.

Respectfully submitted, STATEWIDE SOIL SURVEYS, INC



Dale A. Brewer CSS #304

CLASS "L" SOIL NARRATIVE REPORT

PROPOSED MET TOWER AND ACCESS ROAD SISK MOUNTAIN PROJECT

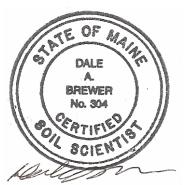
Date:	Test pits observed June 16, 17, 18, 19, 22, 23, 24, 25, 2009.
Base Map:	TRC, USGS Twenty-foot (20') contour intervals (<i>Provided Survey Plan</i>). Map Scale: 1 inch = 100 feet (1"=100').
Ground Control:	Test pits located by Trimble [®] GEO-XH GPS (<i>sub-foot to sub-meter</i>).

The Maine Association of Professional Soil Scientists (*MAPSS*) has adopted Standards for Class "L" Soil Surveys. This soil investigation has been prepared under remote and hand dug limitations as accepted for Class "L" Soil Surveys standards listed below.

Class L Soil Survey Minimum Standards

- 1. Map units are based on parent materials, slope, soil texture, soil depth to dense till or bedrock (*shallowest*) and soil wetness (*drainage class and/or oxyaquic conditions*) at the Class L High Intensity Map Unit size.
- 2. Scale of 1 inch = 100 feet (1''=100') or larger. 1''=100' for this project.
- 3. Ground Control and Test Pit locations accomplished using a Trimble GEO-XH GPS Unit, (*UTM 19 US Survey Feet*).
- 4. Base map with 5-foot contour intervals. USGS only data available (20' CI).

This Class L Soil Survey was prepared for proposed access to a proposed Meteorological Tower. The accompanying Soil Narratives (*Profile Descriptions*) and Soil Map were completed in general accordance with the standards adopted by the Maine Association of Soil Scientists and the Board of Certification of Geologists and Soil Scientists.



Dale A. Brewer, CSS #304

July 5, 2009

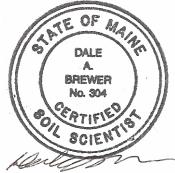
CLASS "L" SOIL CONDITIONS SUMMARY TABLE PROPOSED METEOROLOGICAL TOWER ACCESS SISK MOUNTAIN PROJECT

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FORM E

SOIL CONDITIONS SUMMARY TABLE For SUBSURFACE INVESTIGATIONS at DEP SITE LOCATION PROJECTS		
Project Name: SISK MOUNTAIN	DEP Project #:	
Applicant Name:	Consultant Name:	
TRANSCANADA	STATEWIDE SURVEYS, INC	
TRC Engineers, LLC	DALE BREWER, C.S.S. #304	
Project Location <i>(municipality)</i> :	CLASS L LINEAR SOIL SURVEY	
KIBBY, CHAIN OF PONDS TOWNSHIP	FOR PROPOSED MET TOWER ACCESS	

TEST PIT	✓ or ×		Depths to (ch	eck one): 🖌 in	ches 🛛 cm	Ground
#	if at Field	• soil series name (<i>C.S.S.</i>) (as appropriate to the investigation)	Mottling Or Oxyaquic	Bedrock	Restrictive Layer	Surface (%)
TP-1	x	COLONEL "LIKE"	9″	>60″	20″	5-10
TP-2	x	DIXFIELD "LIKE"	>18″		18″	5-10
TP-3	x	DIXFIELD "LIKE"	>18″		18″	20-30
TP-4	x	BRAYTON "LIKE"	12″		14″	0-5
TP-5A	x	TUNBRIDGE VARIANT		20″		10-20
TP-5B	x	TUNBRIDGE VARIANT	12″	20″		10-20
TP-6	x	PEACHAM VARIANT	0″	14″	12″	0-5
TP-7	x	ABRAM		3″		5-10
TP-8	x	TUNBRIDGE "LIKE"	16″	21″		5-10
TP-9	x	PEACHHAM VARIANT	0″	9″		5-10
TP-10	x	PEACHHAM VARIANT	0″	12″	0″	5-10
TP-11	x	LYMAN VARIANT	8″	17″	9″	0-5
TP-12	x	NASKEAG "LIKE"	2″	12″	"	0-5
TP-13	x	ABRAM		7″		0-5



Dale A. Brewer, C.S.S. #304

July 5, 2009

CLASS "L" SOIL LEGEND TABLE PROPOSED METEOROLOGICAL TOWER ACCESS SISK MOUNTAIN PROJECT

SYMBOL	SERIES	TEXTURE	SLOPE	DRAINAGE	HSG
AbB	ABRAM	SL^1	5-10%	ED ²	D
AbC	ABRAM	\mathbf{SL}^1	10-20%	ED ²	D
AbD	ABRAM	\mathbf{SL}^1	>20%	ED ²	D
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	С
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D
СоВ	COLONEL	FSL	5-10%	SWPD	С
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	С
LtC	LYMAN TUN	IBRIDGEFSL/L ⁸	10-20%	ED/WD ⁹	CD/C
LtD	LYMAN TUN	IBRIDGEFSL/L	10-20%	ED/WD	CD/C
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	А
MoA	MONARDA	SIL^{11}	0-5%	PD	D
NaA	NASKEAG	FSL	>25%	SWPD/PD	С
PeA	PEACHAM	MUCK	0-5%	VPD	D
PeB	PEACHAM	MUCK	5-10%	VPD	D
TuD	TUNBRIDGE	FSL	>20%	WD	С
UdA	UDORTHEN	IS VARIABLE	0-5%	VARIABLE	D
UdB	UDORTHEN	IS VARIABLE	5-10%	VARIABLE	D
UdC	UDORTHEN	IS VARIABLE	10-20%	VARIABLE	D

SL¹ is Sandy Loam.
ED² is Excessively Drained.
FSL³ is Fine Sandy Loam.
SWPD⁴ is Somewhat Poorly Drained.
PD⁵ is Poorly Drained.
VPD⁶ is Very poorly Drained.
MWD⁷ is Moderately Well Drained.
L⁸ is Loam.
WD⁹ is Well Drained.
SWED¹⁰ is Somewhat Excessively Drained.
SIL¹¹ is Silt Loam.

ABRAM (Frigid Lithic Udorthents)

SETTING

Parent Material:	Thin mantle of glacial till
Landform:	Bedrock controlled ridges
Position in Landscape:	Mountain tops, ridge tops, side slopes, shoulders, miscellaneous areas
Slope Gradient Ranges:	0 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Excessively drained soils Typical Profile Description:

> Surface Layer: Thin organic mat Subsurface Layer: Pinkish gray sandy loam, 1 inch thick Subsoil Layer: Very dusky red and brown sandy loam, 3 inches thick Substratum: Bedrock is at 4 inches

Hydrologic Group:	Group D
Surface Run Off:	Rapid
Permeability:	Moderately rapid
Depth to Bedrock:	Very Shallow, 4 inches
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Saddleback
Contrasting:	Peacham

USE AND MANAGEMENT

Abram soils have limiting factors for building site development including steep slopes and shallow depth to bedrock (<4 inches). Blasting or ripping of the bedrock is necessary for deep excavation. Abram is typically below 2,500 feet in elevation, however the series best represented the soils found on the Sisk Mt ridgeline examined.

BEMIS (Aeric Cryaquepts)

TYPICAL SETTING

Parent Material:	Dense glacial till
Landform:	Smooth, concave high elevation valleys
Position in Landscape:	Lower to intermediate positions
Slope Gradient Ranges:	0 to 15 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Typical Profile Description:	Poorly drained
Surface Layer:	Highly decomposed organic materials, 0 to 5 inches
Subsoil Layer:	Mottled dark grayish brown gravelly fine sandy loam, 5 to 13 inches
Substratum:	Mottled olive and olive brown gravelly loam to 65 inches
Hydrologic Group:	Group C
Surface Run Off:	Slow
Permeability:	Moderately slow to moderately rapid in the organic and slow in the substratum.
Depth to Bedrock:	Very deep, greater than 60 inches
Hazard to Flooding:	May flood occasionally on lowest fringes during spring and periods of excessive precipitation.

INCLUSIONS

(Within Mapping Unit)

Potential inclusion underlying or intermixed with the Surplus and/or Mahoosuc soils.

USE AND MANAGEMENT

The limiting factor for building site development is wetness due to the presence of shallow water table throughout most of the year. The poorly drained Bemis soils frequently occur in wetland environments. Bemis soils were identified during this soil investigation, however they are expected in the concave sloping areas with the potential for seasonal wetness. Bemis soils may be deeper and underlying the Mahoosuc and/or the Surplus soils.

BRAYTON (Frigid Aeric Haplaquepts)

TYPICAL SETTING

Parent Material:	Dense glacial till.
Landform:	Level or sloping lake plains.
Position in Landscape:	Lower to intermediate positions.
Slope Gradient Ranges:	0 to 25%

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat poorly and poorly drained soils.
Typical Profile:	Surface layer:Black organic matter, 0-4"Subsurface layer:Gray fine sandy loam, 4-15"Subsoil layer:Light olive brown sandy loam, 15 to 28"Substratum:Olive sandy loam to 28-65".
Hydrologic Group: Surface Run Off: Permeability:	Group C Slow Moderate or moderately slow in upper profile and very slow in dense substratum.
Depth to Bedrock: Hazard to Flooding:	Very deep, greater than 60". May flood occasionally.

INCLUSIONS

(Within Mapping Unit)

Similar:	Colonel.
Contrasting:	Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of a seasonal water table within 1.5 feet (1.5') of the soil surface for a significant portion of the year. Brayton soils are "hydric" and usually found in wetland habitats and may be subject to environmental regulations and environmental permits could be required to impact these areas.

BURNHAM (Typic Haplaquepts)

TYPICAL SETTING

Parent Material:	Glacial till
Landform:	Level flat areas
Position in Landscape:	Lower to intermediate positions
Slope Gradient Ranges:	0 to 3 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Very poorly drained soils Typical Profile Description: Surface Layer: Very dark brown muck, 0 to 6 inches Subsurface Layer: Mottled gray loam 12 inches thick Subsoil layer: Mottled gray gravelly loam, 12 to 20 inches Substratum: Very firm olive gravelly loam to 20 to 60 inches

Hydrologic Group:	Group D
Surface Run Off:	Slow
Permeability:	Moderate or moderately slow in upper profile and very slow
	in dense substratum
Depth to Bedrock:	Very deep, greater than 60 inches
Hazard to Flooding:	Possible

INCLUSIONS

(Within Mapping Unit)

Similar:	None	
Contrasting:		

Brayton, Lyman, Monarda, Tunbridge

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to inundated or ponded areas on the surface for much of the year. Burnham soils are hydric and usually found in wetland environments and therefore may be subject to regulations. Wetland delineations are recommended prior to impacting these areas, as environmental permits could be required.

COLONEL (Frigid Aquic Haplorthods)

TYPICAL SETTING

Parent Material:	Compact glacial till.
Landform:	Lower toe slopes, gently sloping crests of broad till ridges.
Position in Landscape:	Lower to intermediate positions.
Slope Gradient Ranges:	0 to 35%

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat poorly drained soils.
Typical Profile:	Surface layer: Very dark grayish brown fine sandy loam, 0-6"
	Subsoil layer: Dark brown and mottled dark yellowish brown fine sandy loam in the upper part and mottled olive brown gravelly fine sandy loam in the lower part, 11" thick.
	Substratum:Mottled olive gravelly fine sandyloam to 65".
Hydrologic Group:	Group C
Surface Run Off:	Medium
Permeability:	Moderate in the solum and moderately slow or slow in substratum.
Depth to Bedrock:	Deep, greater than 60".
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Brayton.	
Contrasting:		Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of a water table within 1.5 feet (1.5') of the soil surface for a significant portion of the year. Colonel soils generally require ditching to control hydrology once road cuts are made. Represented by Test Pit 1.

DIXFIELD (Frigid Typic Haplorthods)

TYPICAL SETTING

Parent Material:	Compact loamy glacial till.
Landform:	Glaciated uplands.
Position in Landscape:	Ridge tops and side slopes.
Slope Gradient Ranges:	0 to 50 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Moderately well drained.
Typical Profile Description:	Surface layer: Dark brown fine sandy loam, 0-6" Subsoil layer: The subsoil 15" thick is strong brown and dark yellowish brown fine sandy in the upper part and mottled light olive brown gravelly fine sandy loam in the lower part. Substratum: The substratum to 65" is very firm and mottled light olive brown gravelly fine sandy loam.
Hydrologic Group: Surface Run Off: Permeability: Depth to Bedrock: Hazard to Flooding:	Group C Medium Moderate in the solum and moderately slow or slow in substratum. Deep, greater than 60". None.

INCLUSIONS

(Within Mapping Unit)

Similar:	Marlow, Colonel.
Contrasting:	Lyman, Tunbridge.

USE AND MANAGEMENT

Seasonal high water tables and stoniness are principle limitations for Dixfield soils. Dixfield is represented by: Test Pits 3,4.

ENCHANTED (*Mixed, Thixotropic over Loamy-Skeletal Humic Cryorthods*)

TYPICAL SETTING

Parent Material:	Glacial till
Landform:	Mountains
Position in Landscape:	Mountainside slopes above 2,300 feet
Slope Gradient Ranges:	5 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well drained soils Typical Profile Description: Surface Layer: Organic layer, 6 inches thick Subsurface Layer: Pinkish gray very stony very fine sandy loam, 3 inches thick Subsoil layer: Dark reddish brown and yellowish red channery fine sandy loam over mostly olive brown very gravelly sandy loam, 33 inches thick Substratum: Dark grayish brown extremely cobbly loamy sand to 46 inches. Bedrock is at 46 inches.

Hydrologic Group:	Group B
Surface Run Off:	Dependent upon slope gradient
Permeability:	Moderate or moderately rapid in the solum and rapid or
	very rapid in the substratum
Depth to Bedrock:	<u>+</u> 46 inches
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar: Contrasting:

USE AND MANAGEMENT

The limiting factor for building site development is the typical depth to bedrock (<46 inches) and slopes. Blasting or ripping of the bedrock is necessary for deep excavations.

LYMAN (Frigid Loamy Mixed Lithic Haplorthods)

TYPICAL SETTING

Parent Material:	Glacial till.
Landform:	Rocky hills and high plateaus.
Position in Landscape:	Side-slopes, shoulders, crests of ridges, eroded areas and
	nearly all landscapes.
Slope Gradient Ranges:	3 to 80%.

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat excessively drained (SWED).
Typical Profile	Surface layer: Black loam, 0-2"
Description:	Subsurface layer: Reddish gray fine sandy loam, 2 to 4"
	Subsoil layer: Very dusky red 4 to 6", from 6" to 10" isdark red loam, and from 10" to 17" is dark brown loam.Substratum:Bedrock is at 17".
Hydrologic Group:	Group C/D.
Surface Run Off:	Slow to rapid, depending upon slope and bedrock exposure.
Permeability:	Moderately rapid.
Depth to Bedrock:	Shallow 8 to 20".
Hazard to Flooding:	None.

INCLUSIONS

(Within Mapping Unit)

Similar:	Abram, Tunbridge.
Contrasting:	Brayton, Dixfield.

USE AND MANAGEMENT

A principle limiting factor for building site development is the "shallow" depth to bedrock (<20"). Blasting or ripping of the bedrock is necessary for deep excavation.

MAHOOSUC (Typic Borofolists, Dysic)

TYPICAL SETTING

Parent Material:	Organic deposits over dense compact glacial till
Landform:	Mountain side slopes and valleys at the base of these areas
Position in Landscape	e: Variable
Slope Gradient Range	es: 8 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Somew	newhat excessively drained	
Typical Profile Description:		
Surface layer:	Dusky red and black undecomposed and partially decomposed organic materials, 0 to 8 inches	
Substratum:	Gravel, cobbles, stones and boulders with little organic materials to 65 inches	
Hydrologic Group:	Group A	
Surface Run Off:	Slow	
Permeability:	Very rapid	
Depth to Bedrock:	Very deep, greater than 60 inches	
Hazard to Flooding:	None	

INCLUSIONS

(Within Mapping Unit)

Similar:	Rock outcrop
Contrasting:	Saddleback

USE AND MANAGEMENT

Mahoosuc has severe limiting factors for building site development including steep slopes, large stones and seepage. Mahoosuc soils typically have an organic mat or loose boulders and stones. Wetter soils or "running" water may be underlying the boulder and stones.

MONARDA (Frigid Aeric Haplaquepts)

TYPICAL SETTING

Parent Material:	Dense glacial till.
Landform:	Glaciated uplands.
Position in Landscape:	Nearly level to strongly sloping.
Slope Gradient Ranges:	0 to 15%.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Poorly drained soils.	
Typical Profile	Surface layer: 4" organic mat	
Description:	Subsurface layer: Light brownish gray extremely gravelly silt loam 5" thick Subsoil layer: Mottled gray, gray and olive gravelly silt loam and very gravelly loam to 24" Substratum: The substratum to 65" is very dense mottled olive gravelly loam.	
Hydrologic Group:	Group D	
Surface Run Off:	Medium	
Permeability:	Moderate to moderately rapid in the subsurface, moderate to moderately slow in the lower part of the subsoil and substratum.	
Depth to Bedrock:	Deep, greater than $60''$.	
Hazard to Flooding:	None	

INCLUSIONS

(Within Mapping Unit)

Similar:	Brayton, Colonel
Contrasting:	Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A perched fluctuating water table is at or near the surface for 7 to 9 months of the year. Monarda soils have many limitations for site development. Monarda soils are "hydric" and typically found in wetland environments. This information was provided to augment the SCS Medium-Intensity Soil Map of this area.

PEACHAM (*Histic Humaquepts*)

SETTING

Parent Material:	Organic depositions underlain by compact loamy glacial till.
Landform:	Depressions and drainageways on glaciated uplands.
Position in Landscape:	Lowest positions and depressions on landform.
Slope Gradient Ranges:	(A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Very poorly drained, with an a perched water table within 0.5 feet of the soil surface from November through May.

Typical Profile Description:	Surface layer: Subsurface layer: Substratum:	Black organic material, 0-7" Olive gray loam, 7-10" Dark greenish gray loam, 10-65"
Hydrologic Group:	Group D	
Surface Run Off:	Moderately rapid to rapid.	
Permeability:	Moderate or moderately slow in upper layers, and slow or	
	very slow in the d	ense substratum.
Depth to Bedrock:	Deep, greater than 40".	
Hazard to Flooding:	None, although ma	ay be ponded during spring months
	time and periods of	f excessive precipitation.

INCLUSIONS

(Within Mapping Unit)

Similar:BraytonContrasting:Dixfield, Tunbridge.

USE AND MANAGEMENT

The limiting factor for building site development is wetness due to the presence of a shallow water table within 0.5 feet of the soil surface for a significant portion of the year. Peacham soils have severe limitations for construction due to wetness and thick organic cap. Peacham soil is usually classified as wetlands, based on the combined consideration of hydrology, hydric conditions, and vegetation.

RICKER

(Lithic Borofolists, Dysic)

TYPICAL SETTING

Parent Material:Organic deposits over bedrockLandform:Mountains and hillsPosition in Landscape:VariableSlope Gradient Ranges:3 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Cla	ss: Well to	excessively drained
Typical Profil	e Description:	
	Surface layer:	Peat and Mucky peat organic materials, 0 to 4 inches
	Subsoil: 3" mu	ck layer over a dark bluish gray channery silt loam 3" to 5"
Bedrock is at 5"		
Hydrologic G	Group:	Group A

Surface Run Off:Dependent upon slopePermeability:Very rapidDepth to Bedrock:Very shallow, less than 10 inchesHazard to Flooding:None	Hydrologic Group:	Group A
Depth to Bedrock: Very shallow, less than 10 inches	Surface Run Off:	Dependent upon slope
1 5	Permeability:	Very rapid
Hazard to Flooding: None	Depth to Bedrock:	Very shallow, less than 10 inches
	Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Rock outcrop
Contrasting:	Saddleback

USE AND MANAGEMENT

Ricker soils have severe limiting factors for building site development including steep slopes, shallow depth to bedrock, deep organic materials and excess fine materials.

SADDLEBACK

(Cryic Thixotropic Humic Lithic Cryorthods)

TYPICAL SETTING

Parent Material:Thin veneer of glacial tillLandform:Glaciated uplandsPosition in Landscape:Mountain ridges above 2,300 feetSlope Gradient Ranges:3 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

s: Wel	l drained soils
e Description:	
Surface Layer:	Organic mat, 0 to 5 inches
Subsurface Layer:	Dark grayish brown fine sandy loam, 1 inch
Subsoil Layer:	Very dusky red, dark reddish brown and reddish
	brown fine sandy loam
Substratum:	Bedrock is at 20 inches
	e Description: Surface Layer: Subsurface Layer: Subsoil Layer:

Group C/D
Dependent upon slope gradient
Moderate
20 inches
None

INCLUSIONS

(Within Mapping Unit)

Similar: Contrasting: Enchanted Surplus, Rock outcrops

USE AND MANAGEMENT

The limiting factor for building site development is the depth to bedrock (<20") within this complex. Blasting or ripping of the bedrock is necessary for deep excavations. Filling areas in Saddleback is not limited; however, excavations can be costly and require large equipment and impacts for certain uses.

SISK (Mixed Humic Cryorthods)

TYPICAL SETTING

Parent Material:Dense glacial tillLandform:Glaciated uplands and mountain ridgesPosition in Landscape:Mountain side slopes above 2,300 feetSlope Gradient Ranges:12 to 60 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Well drained soils
Typical Profile Description:	
Surface Layer:	Organic mat, 0 to 2 inches
Subsurface Lay	ver: Weak red silt loam, 1 inch thick
Subsoil Layer:	Dusky red, reddish brown silt loam in the upper
	part and yellowish brown and light olive brown
	gravelly loam in the lower part, 19 inches thick
Substratum:	Firm, brown gravelly fine sandy loam to 65 inches
II-duala da Carra	

Hydrologic Group:Group CSurface Run Off:Variable dependent upon slope gradientPermeability:Moderate in the solum and moderately slow or very slow in the
substratumDepth to Bedrock:Very deep, greater than 60 inchesHazard to Flooding:None

INCLUSIONS

(Within Mapping Unit)

Similar:Surplus, ChesuncookContrasting:Enchanted Saddleback

USE AND MANAGEMENT

Sisk soils have limiting factors for building site development including severe slopes, stoniness, frost action and slow percolation rates.

SURPLUS (*Mixed Typic Cryorthods, Thixotropic*)

TYPICAL SETTING

Parent Material:Dense glacial tillLandform:Glaciated uplandsPosition in Landscape:Mountainside slopes above 2,300 feetSlope Gradient Ranges:3 to 45 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well and somewhat poorly drained soils Typical Profile Surface Layer: Organic mat, 0 to 7 inches Subsurface Layer: Brown sandy loam, 7 to 11 inches Subsoil Layer: Dark reddish brown fine sandy loam in the upper part and mottled yellowish red to brown gravelly fine sandy and sandy loam, 11 to 33 inches Substratum: Firm, mottled light olive brown sandy loam, 33 to 60"

Hydrologic Group:	Group C
Surface Run Off:	Dependent upon slope gradient
Permeability:	Moderate in the solum and moderately slow to very slow
	in the substratum
Depth to Bedrock:	Greater than 60 inches
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Bemis
Contrasting:	Enchanted, Saddleback, Rock Outcrop

USE AND MANAGEMENT

The Surplus Series limiting factor for building site development is the depth to seasonal perched water table (<24 inches), frost action and strong slopes. The hand dug Test Pits E and F represent surplus soils. The poorly drained Bemis may be underlying or intermixed within the Mahoosuc and/or the Surplus soils. Bemis soils were not identified however seasonally wetter soils are expected in the concave slopes.

TUNBRIDGE (Frigid Typic Haplorthods)

TYPICAL SETTING

Parent Material:	Loamy glacial till.
Landform:	Glaciated uplands.
Position in Landscape:	Uppermost locations on landform, side slopes, shoulders, and crests of ridges.
Slope Gradient Ranges:	8-15%.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Well drained soils.	
Typical Profile Description:	yellowish brown sil	Dark brown fine sandy loam, 0-2" Grayish brown fine sandy loam, 1" reddish brown in the upper part and t loam in the lower part 11" thick. grayish brown gravelly fine sandy
Hydrologic Group: Surface Run Off: Permeability:	Group C. Slow to rapid, depe Moderate to moder	nding upon slope gradient. ately rapid.

Depth to Bedrock:Moderately deep, 20 to 40" to bedrock surface.Hazard to Flooding:None.

INCLUSIONS

(Within Mapping Unit)

Similar:	
Contrasting:	

Lyman. Abram, Dixfield.

USE AND MANAGEMENT

The limiting factor for building site development is the "shallow" depth to bedrock (<40") for Tunbridge soils. Blasting or ripping of the bedrock is necessary for deep excavation.

ROCK OUTCROP

(No Taxonomy)

TYPICAL SETTING

Parent Material:

Landform: Position in Landscape: Slope Gradient Ranges: Weathered/Unweathered volcanic, metamorphic, sedimentary or conglomerate materials. Variable, bedrock controlled ridges. Miscellaneous areas. 0-100%.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:

Excessively drained.

Typical Profile Description: Surface layer: Subsurface layer: Subsoil layer: Substratum: Occasional thin organic mat. None. None.

Hydrologic Group: Surface Run Off: Permeability: Depth to Bedrock: Hazard to Flooding: Group D. Very rapid. Moderately rapid. Very Shallow, < 4". None.

INCLUSIONS

(Within Mapping Unit)

Similar: Contrasting: Lyman. Tunbridge.

USE AND MANAGEMENT

Rock outcrops are limiting factors for building site development with steep slopes and shallow depth to bedrock (<4"). Blasting or ripping of the bedrock is necessary for deep excavation. Rock outcrops are shown as symbols on the soil map.

UDORTHENTS (UdA), (UdB), (UdD)

(Variable composition, no taxonomy given)

TYPICAL SETTING

Parent Material:	Variable, t
Landform:	Variable, u
Position in Landscape:	Variable.
Slope Gradient Ranges:	Variable.

Variable, typically glacialfluvial sands and gravel. Variable, used in most landscapes. Variable. Variable.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Excessively drained to well drained soils.
Typical Profile:	Surface layer: Variable, usually sands, gravel and cobbles.
Hydrologic Group: Surface Run Off: Permeability: Depth to Bedrock:	Variable, C/D with permeable underlying soils. Variable, dependent upon the fill composition and slope. Variable, dependent upon the fill composition and slope. Variable.
Hazard to Flooding:	None.

INCLUSIONS

(Within Mapping Unit)

Similar:
Contrasting:

None. Colonel, Lyman, Tunbridge.

USE AND MANAGEMENT

Environmental permits may be required to "fill" land areas. Udorthents are fill materials located within and around the existing Livermore Falls Substation perimeter. The fill materials observed consisted of compacted sands, gravels and crushed stone materials



Photograph One. TEST PIT 1 - Colonel "like" soils. Photograph taken 06/19/09.



Photograph Two. TEST PIT 2 -Dixfield"like" soils. Photograph taken 06/19/09.



Photograph Three. TEST PIT 3 -Dixfield "like" soils. Photograph taken June 19, 2009.



Photograph Four. TEST PIT 4 - Brayton "like" soils. Photograph taken on 06/19, 2009.



Photograph Five. TP 5B – Tunbridge "like" soils after a rain with bedrock @ 18". 06/19/09.



Photograph Six. TP 10-Peacham "like" Variant very poorly drained soils in wetlands. These soils have a deep organic layer over sandy loam materials with bedrock @ 24".

				SOIL PROFILE/CLAS ubsurface investigation			Ale		
oject	Name:		Applicant Name:	SISK WIND POWER	IS ALUEM	Site Location Project	Project Location (municipality)	
-	PROPOSED ME	T TOWER		TRANSCANA	DA		КЛ	IBBY, CHAIN OF P	ONDS
	SOIL Exploration Symbol:		Test Pit	Boring		SC Exploration Symbo	DIL DESCRIPTION A	Test Pit	Boring
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10	ASSUMED	BEDROCK	8*		RI-AC zi el				
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6		FRIABLE			iches)	LOAM	FRIABLE	7.5YR 2.5/3	
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	Texture FILL	B-7 * Depth of Organic Horize Consistency	Test Pit On Above Mineral Soil Color	Mottling		Exploration Symbol	* Depth of Organic Horiz	Test Pit	Boring
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GRAVE FINE SAND	LLY FIRM	2.5Y 4/3	2.5¥ 5/6	SURFACE z z a e	CS SL	VERY	2.5Y 5/2	
GRAVE FINE SAND	LLY FIRM	2.5Y 4/3	2.5Y 5/6	SURFACE z z a e	CS SL	VERY	2.5Y 5/2	
GRAVE FINI SAND LOAN	LLY FIRM	2.5Y 4/3	2.5¥ 5/6	SOIL SURFACE	CS SL	VERY	2.5Y 5/2	
GRAVE FINI SAND LOAN	LLY FIRM	2.5Y 4/3	2.5¥ 5/6	DEPTH BELOW MINERAL SOIL SURFACE	CS SL	VERY	2.5Y 5/2	
GRAVE FINI SAND LOAN	LLY FIRM	2.5Y 4/3	2.5¥ 5/6	DEPTH BELOW MINERAL SOIL SURFACE	CS SL	VERY	2.5Y 5/2	
GRAVE FINE SANE LOAN	LLY FIRM	2.5Y 4/3	2.5¥ 5/6	DEPTH BELOW MINERAL SOIL SURFACE	CS SL	VERY	2.5Y 5/2	
GRAVE FINE SAND LOAN	LLY FIRM	2.5Y 4/3 5Y 5/2 Limiting factor	D ground water	□ DEPTH BELOW MINERAL SOIL SURFACE	CS SL FSL	VERY	2.5Y 5/2	2.5Y 5/6
GRAVE FINE SANE LOAN	LLY FIRM	2.5Y 4/3 5Y 5/2	D ground water matricine layer D Satings	■ □ DEPTH BELOW MINERAL SOIL SURFACE	CS SL FSL hydric non-hydric	VERY FIRM Slope % 0-5		2.5Y 5/6
GRAVE FINE SAND LOAN	LLY FIRM	2.5Y 4/3 5Y 5/2 Limiling factor	D ground winter matricture layer	■ □ DEPTH BELOW MINERAL SOIL SURFACE	CS SL FSL	VERY FIRM Slope % 0-5	Limiting factor	2.5Y 5/6
GRAVE FINE SANE LOAN LOAN Notric non-hydric Soll Series / pha	LLY FIRM	2.5Y 4/3 5Y 5/2 Limiting factor <u>18"</u> E FSL	D ground wither matricible layer Dirakinge HSG	DEPTH BELOW MINERAL SOIL SURFACE	CS SL FSL hydric non-hydric	VERY FIRM Slope % 0-5 BRAYTON LIKE	Limiting factor. 	2.5Y 5/6
CRAVE FINI SAND LOAN LOAN Nydric non-hydric Soll Series / pha	LLY FIRM YY M VERY FIRM FIRM Slope % 20-30 ase name: DIXFIELD LIK ndorsements (as applica)	2.5Y 4/3 5Y 5/2 Limiting factor <u>18"</u> E FSL ble)	D ground wither matricible layer Dirakinge HSG	DEPTH BELOW MINERAL SOIL SURFACE	CS SL FSL hydric non-hydric Soll Series / phase name 7/5/2009	VERY FIRM Slope % 0-5 BRAYTON LIKE	Limiting factor. 	2.5Y 5/6
hydric Soll Series / phu	LLY FIRM	2.5Y 4/3 5Y 5/2 Limiting factor <u>18"</u> E FSL ble)	D ground wither matricible layer Dirakinge HSG	0 DEPTH BELOW MINERAL SOIL SURFACE 8 8	CS SL FSL hydric non-hydric Boll Series / phase name	VERY FIRM Slope % 0-5 BRAYTON LIKE	Limiting factor	2.5Y 5/6

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	1.20 1.00		for s	SOIL PROFILE/CLASS subsurface investigation					
Projec	t Name: PROPOSED MI	ET TOWER	Applicant Name:	SISK WIND POWER TRANSCANA	DA		Project Location (municipality) IBBY, CHAIN OF PO	ONDS
	Exploration Symbol		X Test Pit	Boring		Exploration Symbol		X Test Pit	Boring
	4 Texture	* Depth of Organic Horizo Consistency	Color	Mottling	ii	6 Texture	Consistency	Color	Mottling
1			7.5YR 4/2	_	1 =	LOAM		7.5YR 4/2	
3						VERY		7.5YR 3/3	
4	VERY FINE	FRIABLE	7.5YR 3/3		11 -	FINE SANDY LOAM			
S)	SANDY	TRUIDEE			is -	Lovin			
DEPTH BELOW MINERAL SOIL SURFACE (Inches)	LOAM			_	(Inches,	VFSL		10YR 4/3	
E (1)					E	WIGE .		101K 4/5	
FAC			10YR 3/4		SURFACE				10YR 4/4
SURF					SURF			2.5Y 4/3	2.5Y 5/2
10 TIO	SANDY LOAM	FRIABLE-LOOSE	2.5Y 3/3		12 1				
IS 7	REFUSAL	FRIADLE-LOOSE	2.51 595			And the second sec			
ERA					ERA				
MIN					DEPTH BELOW MINERAL				
MO					18-				
3EL(===				
H					H				
DEP					EP				
40					-	1			
					1 =				
60									
					1 =				
0	hydric	Slope %	Limiting factor	D ground water		hydric	Slope %	Limiting factor	ground water
	non-hydric	10-20	18"	C restrictive layer		non-hydric	10-20	12"	ground water restrictive layer
-	Soil Series / phase name			Drainage HSG		Soil Series / phase name			Drainage HSG
css /	con concert priorie name	TUNBRIDGE LIKE	FSL-VARIANT	WD C	CSS	Con Concer printer minine		E FSL-VARIANT	SWPD C
	501	L DESCRIPTION AND		4	1	02		ND CLASSIFICATIO	NJ.
	Exploration Symbol:		X Test Pit	Boring		Exploration Symbol		X Test Pit	Boring
3		* Depth of Organic Horizon				5	* Depth of Organic Horiz		
0	Texture	Consistency	Color	Mottling	11 _	Texture	Consistency	Color	Mottling
1						LOAM	FRIABLE	7.5YR 5/1 5YR 2.5/1	
3								5YR 2.5/2	
-4	COARSE SANDY	FRIABLE	2.5Y 3/1		11 3	BEDROCK			
5 8	LOAM	FRIADLE	2.51 3/1		(5	-			
nche					iche				
E (In	_				EG				
10					AC				
SURFACE (Inches)	SANDY LOAM	FIRM	5Y 4/2		SURFACE (Inches)				
	ASSUMED	BEDROCK	0	14"					
DEPTH BELOW MINERAL SOIL					DEPTH BELOW MINERAL SOIL				
RA					RAI				
AINE					AINE				
M					- N				
ELO B					ELO				
H H					LB HB				
EP					EP				
40					40				
_									
58					50				
10					-				
	hudda	Plane M	A localities de state				Charles M	Charles Martine 1	
	hydric non-hydric	Slope % 0-5	Limiting factor 0"	ground water restrictive layer		hydric non-hydric	Slope %	Limiting factor	ground water restrictive layer
-	Soil Series / phase name			Drainage HSG		Soil Series / phase name			Drainage HSG
ss /		PEACHAM	LIKE-VARINT	VPD D	C.S.S.	con concert printer name	ABRAM	ED	EWD D
Dee	forsional Endorse	ments (as applicable)		1					
	signature:	as applicable)			Dat	7/5/2009	1	E OF	
C.S.S.	name:	DALE A. BREWER	i.		Lic	#304	1/3	TE OF MA	
								DALE A BREWER No. 304 CERTIFIE SCIENT))))
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Projec	t Name:		Applicant Name:	SISK WIND POW	ER		no coomon nojes	Project Location (r		
	PROPOSED ME	ET TOWER		TRANSCA	NADA	_		KI	BBY, CHAIN OF P	ONDS
	SOI	L DESCRIPTION AN	D CLASSIFICATIO	N			SO	IL DESCRIPTION AN	D CLASSIFICATIO	ON
	Exploration Symbol:	And and an other statements of the statement of the state	X Test Pit	Boring		E	Exploration Symbol:		X Test Pit	Boring
		* Depth of Organic Horizo	and the second se	Mailles				* Depth of Organic Horizo		1 Manuface
-0	Texture	Consistency	Color	Mottling	-	1	Texture SANDY	Consistency	Color 5Y 3/2	Mottling
2	VFSL	VERY	5YR 2.5/2			2	LOAM			
	VISL	FRIABLE				2	FINE	FRIABLE		2.5Y 4/3
5						5	SANDY		5GY 4/1	
es)	LOAM		7.5YR 2.5/2		les)	6	LOAM			
Inch			7.0116 4.0/4		SURFACE (Inches)					
- CF					- UH	0	ASSUMED	BEDROCK		
SURFACE (Inches)					REAL	10				
INS 14					SUF	14				
10 III	SL	FRIABLE	2.5Y 4/3	10YR 4/4	SOIL	15 18				
		TRIADEL	2.51.45			20				
ER	CSL	100502502			BELOW MINERAL					
NIN -	ASSUMED	BEDROCK	0	21*		25				-
MO					M					
ELC					- ET -	30				
					- I -	+				
DEPTH BELOW MINERAL					DEPTH					
0						40				
40						*0				
60			í.			-60				
-						+				
-						+				5
0	hydric	Slope %	Limiting factor	ground water			hydric	Slope %	Limiting factor	ground eater
•	nori-hydric	>20	15°	restrictive tayer bedrock			non-hydric	10-20	0"	D restrictive layer D bedrock
:55	Soil Series / phase name			Drainage HSG	CSS	S	oil Series / phase name			Drainage HSG
		TUNBRIDGE LIKE	VARIANT	SWPD C	633	1		PEACHAM-LIKE	ORGANIC	VPD D
	SOIL	DESCRIPTION ANI	DCLASSIFICATION	4		_	SO	L DESCRIPTION AN	D CLASSIFICATIO	ON
	Exploration Symbol:		X Test Pit	Boring		E	xploration Symbol:		X Test Pit	Boring
	10	* Depth of Organic Horizo	n Above Mineral Soil		-11	F	2	* Depth of Organic Horizo	n Above Mineral Soil	-
0	Texture	Consistency	Color	Mottling		10	Texture	Consistency	Color	Mottling
1						1				
2			5Y 4/2	5YR 3/3		2	SILT			
4	SANDY					4	LOAM		7.5YR 4/2	
5	LOAM	FIRM				5				
south and					(Inches)	8	_		10YR 3/3	
(inc					(inc	1				
4CE			10Y4/1	10YR 4/4	- US -	8	SANDY LOAM	FIRM	10YR 2/2	5YR 2.5/2 2.5Y 4/3
RFA 15						12	COARSE	VERY		2.5Y4/1
DS 14	ASSUMED	BEDROCK	0	12"		14	SANDY	FIRM	10YR 3/4	
a all						17	LOAM	BEDROCK	0	17"
S 78					ALS	20				
ER ER					102	-				
WWN					- NIN	+	_			
DEPTH BELOW MINERAL SOIL SURFACE (Inches)					DEPTH BELOW MINE					
BELO					- 19	30				
H					- H	+				
					EP					
Q 40						-				
-						40				
58										
						50				
-						+				
	hydric	Slope %	Limiting factor	ground water			hydric	Slope %	Limiting factor	 ground water
0	non-hydric			restrictive layer Bedrock			non-hydric		8-10"	D restrictive layer D bedrock
ss s	Soil Series / phase name:	DE A COLLAR A CAL		Drainage HSG	C.S.S	So	oil Series / phase name:	The second second		Drainage HSG
/		PEACHAM LIKE	MUCK	VPD D		1		LYMAN-LIKE	VARIANT	SWPD C-D
Pro	fessional Endorser	ments (as applicable)							Contraction of the local division of the loc	-
s.s.s.	signature:)at	7/5/2009	11	AE OF M	1
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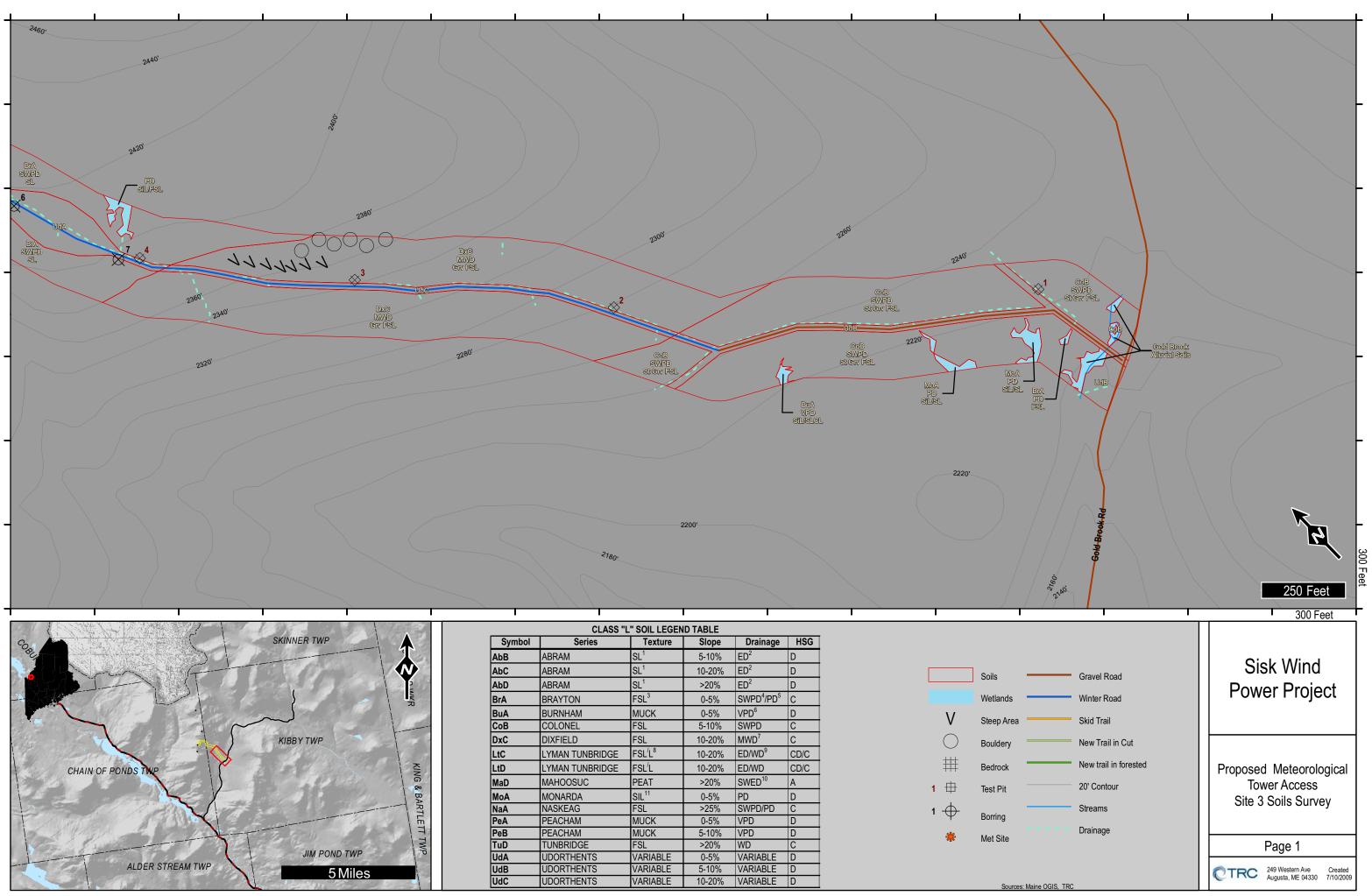
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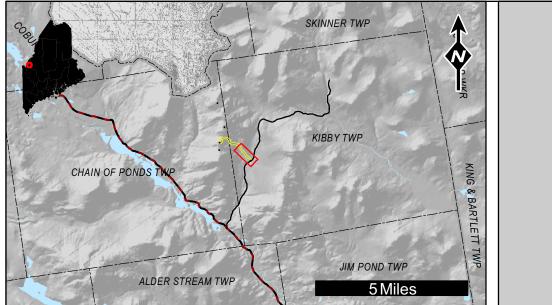
SOIL PROFILE/CLASSIFICATION INFORMATION

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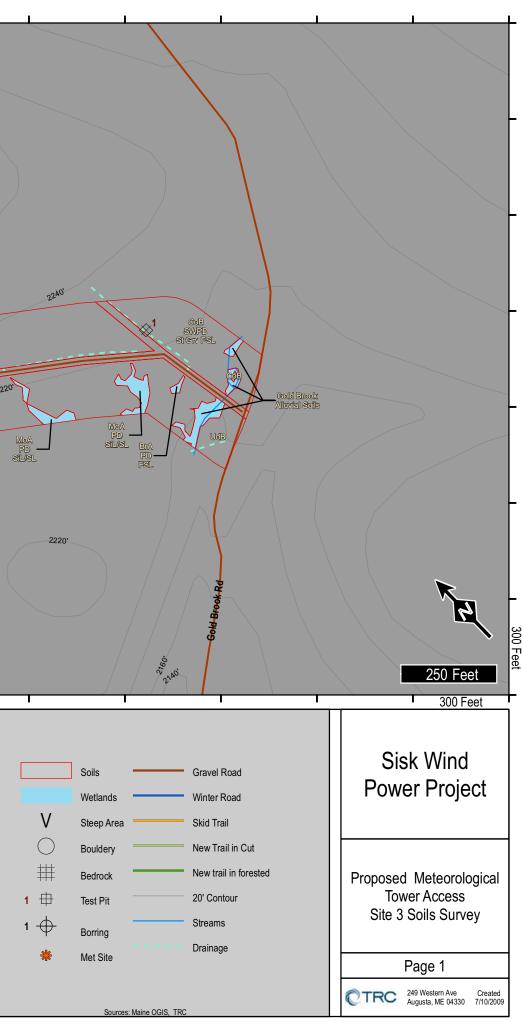
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			for s	SOIL PROFILE/CLAS ubsurface investigatio	ins at DEP S					
ct Name: PRO	POSED ME	TTOWER	Applicant Name:	SISK WIND POWER			Project Location	municipality) IBBY, CHAIN OF P	ONDS	
TRO					ADA					
Evolorati		DESCRIPTION AN	X Test Pit	-	-			ND CLASSIFICATIO	ИС	Barran
	ion Symbol:	* Depth of Organic Horizo	Tanka and the second se	Boring		xploration Symbol:	* Depth of Organic Hori:	X Test Pit		Boring
	exture	Consistency	Color	Mottling		Texture	Consistency	Color	-	Mottling
v	ERY		7.5YR 4/1	5Y 6/1	1	VERY		7.5YR 5/1	_	
F	INE		7.5YR 2.5/2	2.5Y 4/3		FINE		TOTROJE		
	DAM	FRIABLE			4	SANDY	FRIABLE	5YR 2.5/2	_	
LA	Jam				- (s =	LOAM		7.5Y 4/6	-	
			2.5Y 4/2		che:	BEDBOCK				
					E (In	BEDROCK	AT	7"	-	
100	TR OTTO	0 EDBOOCK		100	FAC					
A55	UMED	BEDROCK	AT	12"	ANNS 1				-	_
					10					
					1 SO					
					ERA				-	
					NIW 25			-	-	_
					3					
					3ELC				-	_
					H					_
					DEP					
					40				-	
					1 -					
	-				60				-	_
							Mana N	Limiting factor	0	ground water
hydric	0	Slope %	Limiting factor	D proceed water	0	hydric				
hydric non-hyd Soil Series	ric / phase name: P	Siope % 0-5		D ground water restrictive layer bedrock Drainage HSG PD D		hydric non-hydric # Series / phase name SOI	ABRAM-LIKE	7"	Draina ED	restrictive layer bedrock aga: HSG
non-hyd Soil Series	ric / phase name: P SOIL on Symbol:	EACHAM-BRAYTO	2" DN D CLASSIFICATION Test Pit	a natrictive layer a nedrock Drainage HSG PD D	css)Sc	non-hydric # Series / phase name	 ABRAM-LIKE	VFSL VFSL Test Pit	Draina ED	restrictive layer bedrock aga: HSG
non-hyd Soil Series Explorati	ric / phase name: P SOIL on Symbol:	 EACHAM-BRAYTO	2" DN D CLASSIFICATION Test Pit	restrictive layer bedrock Drainage HSG PD D	css)Sc	non-hydric el Series / phase name SOI	_0-5	VFSL VFSL Test Pit	Draina ED	restrictive tayer bedrock liggt HSG D
non-hyd Soil Series Explorati	ric / phase name: P SOIL on Symbol:	 EACHAM-BRAYTO DESCRIPTION ANI	2" ON CLASSIFICATION Test Pit n Above Mineral Sol	a restrictive layer Bedrock Drainage HSG PD D Boring	css)Sc	non-hydric # Series / phase name SOI xploration Symbol:	0-5 ABRAM-LIKE	Test Pit	Draina ED	restrictive layer sedrock bgit HSG D D Boring
non-hyd Soil Series Explorati	ric / phase name: P SOIL on Symbol:	 EACHAM-BRAYTO DESCRIPTION ANI	2" ON CLASSIFICATION Test Pit n Above Mineral Sol	a restrictive layer Bedrock Drainage HSG PD D Boring	css)Sc	non-hydric # Series / phase name SOI xploration Symbol:	0-5 ABRAM-LIKE	Test Pit	Draina ED	restrictive layer sedrock bgit HSG D D Boring
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non-hyd Soil Series Explorati	ric / phase name: P SOIL on Symbol: xtture	 EACHAM-BRAYTO DESCRIPTION ANI	2" ON CLASSIFICATION Test Pit n Above Mineral Sol	a restrictive layer Bedrock Drainage HSG PD D Boring	DEPTH BELOW MINERAL SOIL SURFACE (Inches) 6 7 6 7 7 8 9 13 13 13 13 14 15 16 17 18 19 111	non-hydric # Series / phase name SOI xploration Symbol:	0-5 ABRAM-LIKE	Test Pit	Draina ED	restrictive layer sedrock bgit HSG D D Boring
non-hyd Soil Series Explorati	ric P P SOIL Xture	_0.5_ EACHAM-BRAYTO DESCRIPTION ANI "Depth of Organic Horizo Consistency	2"	meterstree layer meterstree layer meterstree layer meterstree layer motelling Mottling motelling	0 0	non-hydric # Series / phase name: SOI xploration Symbol: Texture	ABRAM-LIKE			settiche laye <u>betrock</u> <u>Boring</u> <u>Boring</u> <u>Mottling</u>
non-hyd Exploration Te	ric P P SOIL Xture	_0.5_ EACHAM-BRAYTO DESCRIPTION ANI "Depth of Organic Horizo Consistency	2"	metective layer metective layer metective layer metective layer metective layer motective layer m		non-hydric # Series / phase name: SOI control Symbol: Texture hydric non-hydric	ABRAM-LIKE			settiche layer betrock betrock betrock betrock betrock genund weeter settichen layer betrock
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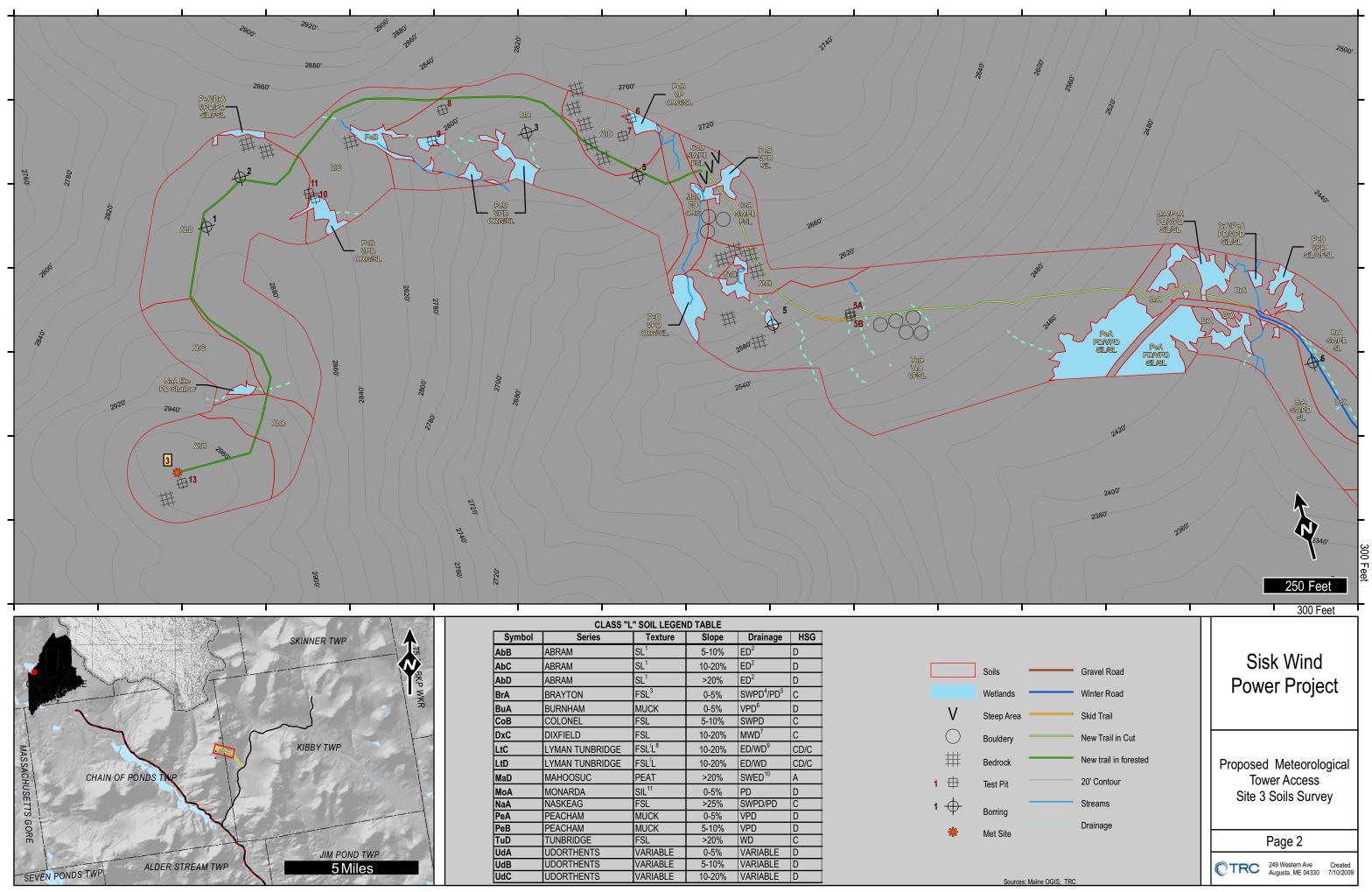


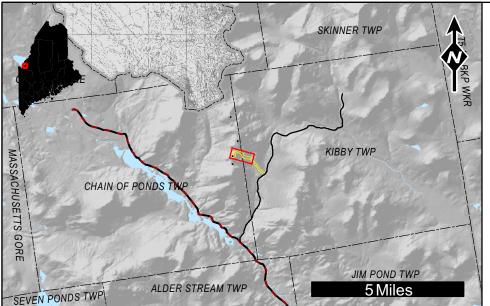




	CLASS "L" SOIL LEGEND TABLE									
Symbol	Series	Texture	Slope	Drainage	HSG					
AbB	ABRAM	SL ¹	5-10%	ED ²	D					
AbC	ABRAM	SL ¹	10-20%	ED ²	D					
AbD	ABRAM	SL ¹	>20%	ED ²	D					
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	С					
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D					
СоВ	COLONEL	FSL	5-10%	SWPD	С					
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	С					
LtC	LYMAN TUNBRIDGE	FSL [/] L ⁸	10-20%	ED/WD ⁹	CD/C					
LtD	LYMAN TUNBRIDGE	FSL [/] L	10-20%	ED/WD	CD/C					
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	А					
MoA	MONARDA	SIL ¹¹	0-5%	PD	D					
NaA	NASKEAG	FSL	>25%	SWPD/PD	С					
PeA	PEACHAM	MUCK	0-5%	VPD	D					
PeB	PEACHAM	MUCK	5-10%	VPD	D					
TuD	TUNBRIDGE	FSL	>20%	WD	С					
UdA	UDORTHENTS	VARIABLE	0-5%	VARIABLE	D					
UdB	UDORTHENTS	VARIABLE	5-10%	VARIABLE	D					
UdC	UDORTHENTS	VARIABLE	10-20%	VARIABLE	D					







	CLASS "I	" SOIL LEGEN	ID TABLE		
Symbol	Series	Texture	Slope	Drainage	HSG
AbB	ABRAM	SL ¹	5-10%	ED ²	D
AbC	ABRAM	SL ¹	10-20%	ED ²	D
AbD	ABRAM	SL ¹	>20%	ED ²	D
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	С
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D
СоВ	COLONEL	FSL	5-10%	SWPD	С
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	С
LtC	LYMAN TUNBRIDGE	FSL [/] L ⁸	10-20%	ED/WD ⁹	CD/C
LtD	LYMAN TUNBRIDGE	FSL [/] L	10-20%	ED/WD	CD/C
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	A
MoA	MONARDA	SIL ¹¹	0-5%	PD	D
NaA	NASKEAG	FSL	>25%	SWPD/PD	С
PeA	PEACHAM	MUCK	0-5%	VPD	D
PeB	PEACHAM	MUCK	5-10%	VPD	D
TuD	TUNBRIDGE	FSL	>20%	WD	С
UdA	UDORTHENTS	VARIABLE	0-5%	VARIABLE	D
UdB	UDORTHENTS	VARIABLE	5-10%	VARIABLE	D
UdC	UDORTHENTS	VARIABLE	10-20%	VARIABLE	D

