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SMOKY LAKE AB T0A 3C0
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The Inspections Group Inc.
12010 – 111 Avenue
EDMONTON AB T5G 0E6
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Private Sewage Disposal System Application Form

Application Date (Y/M/D): _____

Estimated Completion Date (Y/M/D): _____ **Development Permit Number:** _____

Permit Type: ☐ **Owner** ☐ **Contractor** **Cost of Installation (Labor & Material) $**_____

The Permit Holder hereby certifies that this installation will be completed in accordance with the Alberta Safety Codes Act & Regulations and shall commence within 90 days. This permit expires after one year without an extension request.

Owner Name: _____ Address: _____

City: _____ Prov: _____ Postal Code: _____ Phone: _____ Fax: _____

_____Cell: _____ Email: _____

Owner's Signature / Declaration (Single Family Residential Only)

"I hereby declare I am the owner of the premises in which the work will be conducted, and reside on the property. I am doing the work myself, and assume responsibility for compliance with the applicable Act and Regulations"

Contractor Name: _____ Address: _____

City: _____ Prov: _____ Postal Code: _____ Phone: _____ Fax: _____

Cell: _____ Email: _____

_____ _____ _____

PSDS Installer's Number Private Sewage Installer's Name Installer's Signature

Project Location:

Municipality/Town/Village/Street Address: _____

Legal Subdivision: Part of: _____ Section: _____ Township: _____ Range: _____ West of: _____

Subdivision Name: _____ Lot: _____ Block: _____ Plan: _____

Directions: _____

Complete the attached Site Evaluation Report.

☐ New Installation ☐ Alteration Expected Volume of Sewage: _____ m3 per day / litres per day / gallons per day

☐ Residential _____ number of bedrooms ☐ Commercial ☐ Work Camp _____ number of men ☐ Other _____

Description of Work: _____

Treatment/Disposal Methods (complete all applicable items):

☐ Septic Tank Size: _____ ☐ Sewage Holding Tank Size: _____ ☐ Treatment Mound

☐ Packaged Sewage Treatment Plant ☐ Open (Surface) Discharge ☐ Sewage Lagoon

☐ Sand Filter ☐ Disposal Field ☐ Other _____

Type of Payment: ☐ Cash ☐ Cheque ☐ Visa ☐ MC ☐ Other

Credit Card # _____ Expiry _____

Permit Fee: $_____ + **SCC Levy** $_____

$4.50 or 4% of the permit fee (whichever is greater) maximum $560.00

Total Cost: $_____ Receipt #: _____

AUTHORIZATION

Issuing Officer's Name: _____

Issuing Officer's Signature: _____

Designation #: _____

Issued Date : _____

PLEASE CONTACT THE INSPECTIONS GROUP INC. FOR INSPECTIONS ALLOWING TWO WORKING DAYS NOTICE.

The personal information provided as part of this application is collected under Sec. 43 of the Safety Codes Act and Sections 303 and 295 of the Municipal Government Act and in accordance with Section 32.c of the Freedom of Information and Protection of Privacy Act.

Site Evaluation Report Form

Description of Property

(a)

Municipal Address:_____

Lot:_____, Block:_____, Plan:_____

Part of Sec. Twp. Range Meridian

Legal Land Description:_____, _____, _____, _____, W of _____

(b)

Date, Time, Temperature & Weather Conditions at Time of Site Evaluation:

Date:_____, Time:_____, Temp:____, Conditions:_____

(c)

Plan (Diagram) of Property:

You Must Include A Site Diagram of The Property On Which Sewage System Will Be Installed. This Diagram Must Be To Scale or Dimensioned And Must Include the Following Information.

- ☐ **Property Size in Acres.**
- ☐ **All Property Boundary Lines, including lengths in meters or (ft.).**
- ☐ **Buildings, Roads, Driveways, and other property improvements, either existing or proposed.**
- ☐ **Existing Easements.**
- ☐ **Wells, cisterns, or proposed water source locations on the property or adjacent properties within 50 m (165 ft.) or 100 m (330 ft.) For Lagoons.**
- ☐ **Topography of the proposed treatment site(s). ***
- ☐ **Surface waters, rock outcrops, and drainage features.**
- ☐ **Soil Test Pits or boring Locations with surface elevations. ***
- ☐ **Location of a permanent benchmark and it's elevation. ***
- ☐ **Outline of Available Treatment Areas. ***

Note: You may use the **Lot Diagram Form** provided for this use.

Note: Items displaying* are not required for sewage holding tanks only.

(d) Soil Profile Reporting

Descriptions of each soil profile investigated provided on appropriate form. (Note: 2 **Private Sewage Treatment System Soil Log Forms** are included with this site evaluation report form).

The characteristics of each soil profile investigated shall be described using Canadian System of Soil Classification nomenclature and include the following in the soil profile description.

☐ 1. Soil Horizons: the distance from the ground surface to the top and bottom of each soil horizon observed shall be measured and distinctness and topography of the horizon boundaries described.

☐ 2. Soil Color: for each soil lies and identified, the matrix color and quantity, size, contrast, and color of any redoximorphic features present shall be described.

☐ 3. Texture: for each horizon identified, the soil texture classification including any appropriate texture modifier shall be reflected in this evaluation report and **a soil sample of the most restricting layer** affecting the design shall be collected and **analyzed at a laboratory** using a recognized grain or particle size analysis method to determine the texture of the sample. Note: other than Sandy Clay any texture that uses the word sand in its description must include sand particle size.

☐ 4. Soil Structure: and grade of structure identified for each horizon.

☐ **(e)** A statement regarding the treatment capability and dispersal capacity of the available site(s).

☐ **(f)** Where the soil profile includes features that will require the lateral movement water through the soil away from the dispersal system, identified constraints on the system design and allowable *effluent hydraulic loading rates*, as it relates to *linear loading rates.*

☐ **(g)** A summary of the significant *limiting conditions* of soil profile and site.

☐ **(h)** A justification of the locations and number of the soil profiles investigated.

☐ **(i)** A description of the development being served including;

- characteristics affecting the determination of peak and average wastewater flows to be used in the design,
- The peak daily wastewater flow volume to be used for the system design, and
- anticipated influent wastewater strength.

☐ **(j)** Copies of **Laboratory Soils Analysis** reports have been attached.

☐ **(k)** **Number of Soil Profiles Investigated**

A minimum of two test pit excavations shall be investigated at the proposed location for the soil-based treatment component to classify and assess the treatment capacity of the soil.

Minimum Depth of Soil Investigation
(choose appropriate depth)

The soil profiles shall be investigated to a minimum depth below ground surface of;

☐ 4 feet for **Treatment Mounds.**

☐ 9 feet for **Treatment fields** receiving primary treated effluent,
(Septic Tank Effluent)

☐ 6 1/2 ft. for **Treatment fields** receiving secondary treated effluent,
(Treatment Plant, Sand Filter Effluent)

☐ 6 feet for **Open Discharge Systems**.

Note: For **Sewage Holding Tanks** only, ensure that Page 1 Sections **(a)**, **(b)**, and **(c)**, are completely filled out and that all dimensions in section **(c)** have been clearly indicated, plus fill out Permit application design summary page.

For All Other Systems, ensure that all information required in sections (a) through (k) are completely filled out and that all dimensions in section (c) have been clearly indicated.

Any Applications Received Which Do Not Have All Required Information Included Will Be Returned.

Note: Once you have completed your site evaluation report you must use the information from this report to produce your System Design Report, including any features which would require peak flow to be increased. Use Permit Application Design Summary Form for this purpose *(included).* Also provide separate drawing of system that you are installing, using System Drawing Form *(included).*

Alberta Private Sewage Treatment System Soil Profile Log Form

Owner Name or Job ID.									
Legal Land Location								Test Pit GPS Coordinates	
LSD-1/4	Sec	Twp	Rg	Mer	Lot	Block	Plan	Easting	Northing

Vegetation notes:		Overall site slope %	
		Slope position of test pit:	

Test hole No.	Soil Subgroup	Parent Material	Drainage	Depth of Lab sample #1	Depth of Lab sample #2

Hori-zon	Depth (cm) (in)	Texture	Lab or HT	Colour	Gleying	Mottling	Structure	Grade	Consistence	Moisture	% Coarse Fragments

Depth to Groundwater		Limiting Soil Layer Characteristic, describe	
Depth to Seasonally Saturated Soil		Depth to Limiting Soil Layer	
Limiting Topography		Depth to Highly Permeable Layer	
Key Limiting Features on System Design			

Weather Condition notes:

Comments: such as root depth and abundance or other pertinent observations:

Alberta Private Sewage Treatment System Soil Profile Log Form

Owner Name or Job ID.									
Legal Land Location								Test Pit GPS Coordinates	
LSD-1/4	Sec	Twp	Rg	Mer	Lot	Block	Plan	Easting	Northing

Vegetation notes:		Overall site slope %	
		Slope position of test pit:	

Test hole No.	Soil Subgroup	Parent Material	Drainage	Depth of Lab sample #1	Depth of Lab sample #2

Hori-zon	Depth (cm) (in)	Texture	Lab or HT	Colour	Gleying	Mottling	Structure	Grade	Consistence	Moisture	% Coarse Fragments

Depth to Groundwater		Limiting Soil Layer Characteristic, describe	
Depth to Seasonally Saturated Soil		Depth to Limiting Soil Layer	
Limiting Topography		Depth to Highly Permeable Layer	
Key Limiting Features on System Design			
Weather Condition notes:			
Comments: such as root depth and abundance or other pertinent observations:			

Onsite Sewage System Site Evaluation Lot Diagram Sketch and Notes

Project Name: Lot or Legal Description: Date:

N

Show the proposed location of the onsite sewage system and the following items indicating their distances from the proposed system:

trees
floodplains
wells
water sources
surface water
bedrock outcrops
buildings
property lines
easement lines
ditches or interceptors
banks or steep slopes
fills
driveways
existing sewage systems
underground utilities
soil test pit and borehole locations

drainage course

slope direction

borehole BH 1

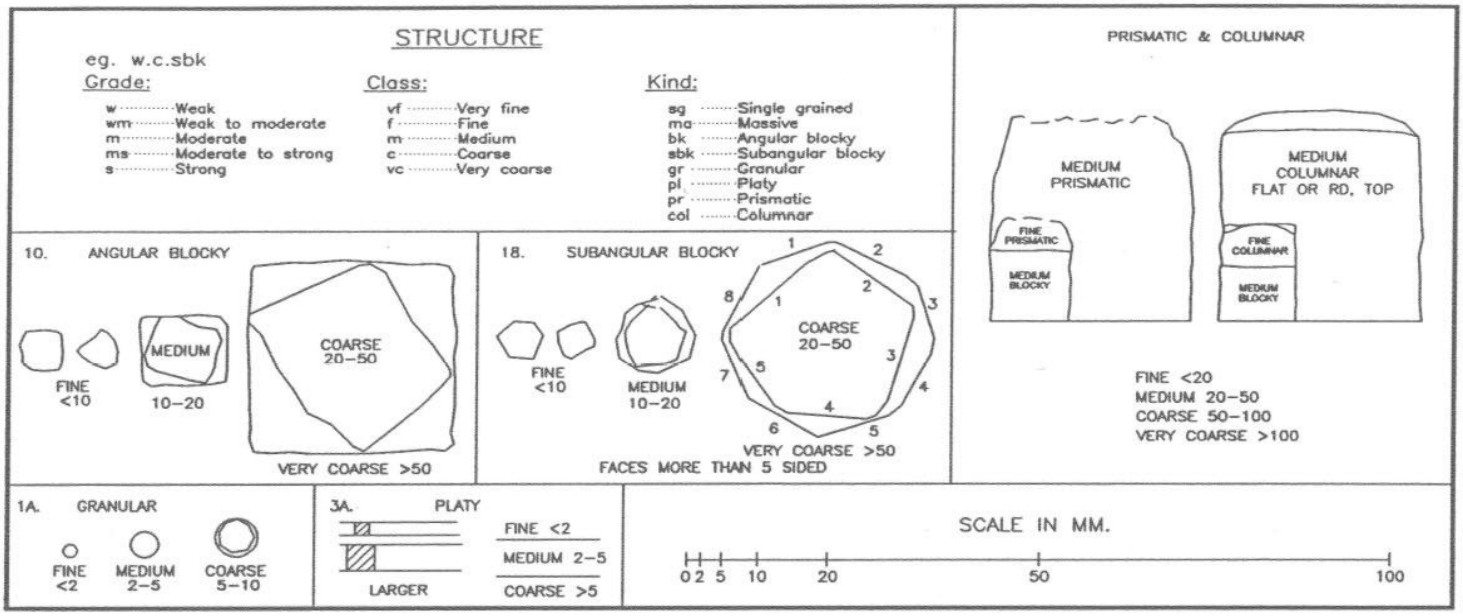
Test Pit P1

Comments:

Property line GPS coordinates:
GPS coordinates of well:
GPS coordinate of tank:
GPS coordinates of soil treatment component corners:

Additional information is required separately for the system design detail.

Figure 4: Diagrammatic representation of soil structure



SLOPE CLASSES OF LOCAL LANDFORMS

Slope Class	Percent Slope	Approximate Degrees	Description
1	0–0.5	0	level
2	0.5–2.5	0.3–1.5	nearly level
3	2–5	1–3	very gentle slopes
4	6–9	3.5–5	gentle slopes
5	10–15	6–8.5	moderate slopes
6	16–30	9–17	strong slopes
7	31–45	17–24	very strong slopes
8	46–70	25–35	extreme slopes
9	71–100	35–45	steep slopes
10	>100	>45	very steep slopes

SURFACE STONINESS

		Surface Area	Distance Apart (cm)
S0	non–stony	<0.01%	>30
S1	slightly stony	0.01–0.1%	10–30
S2	moderately stony	0.1–3%	2–10
S3	very stony	3–15%	1–2
S4	exceedingly stony	15–50%	0.1–5
S5	excessively stony	50%	0.1

SLOPE POSITION

c	– crest
u	– upper slope
m	– mid slope
l	– lower slope
t	– toe
d	– depression
l	– level

DRAINAGE

VR	- very rapidly
R	- rapidly
w	- well
M	- moderately well
I	- imperfectly
P	- poorly
VP	- very poorly

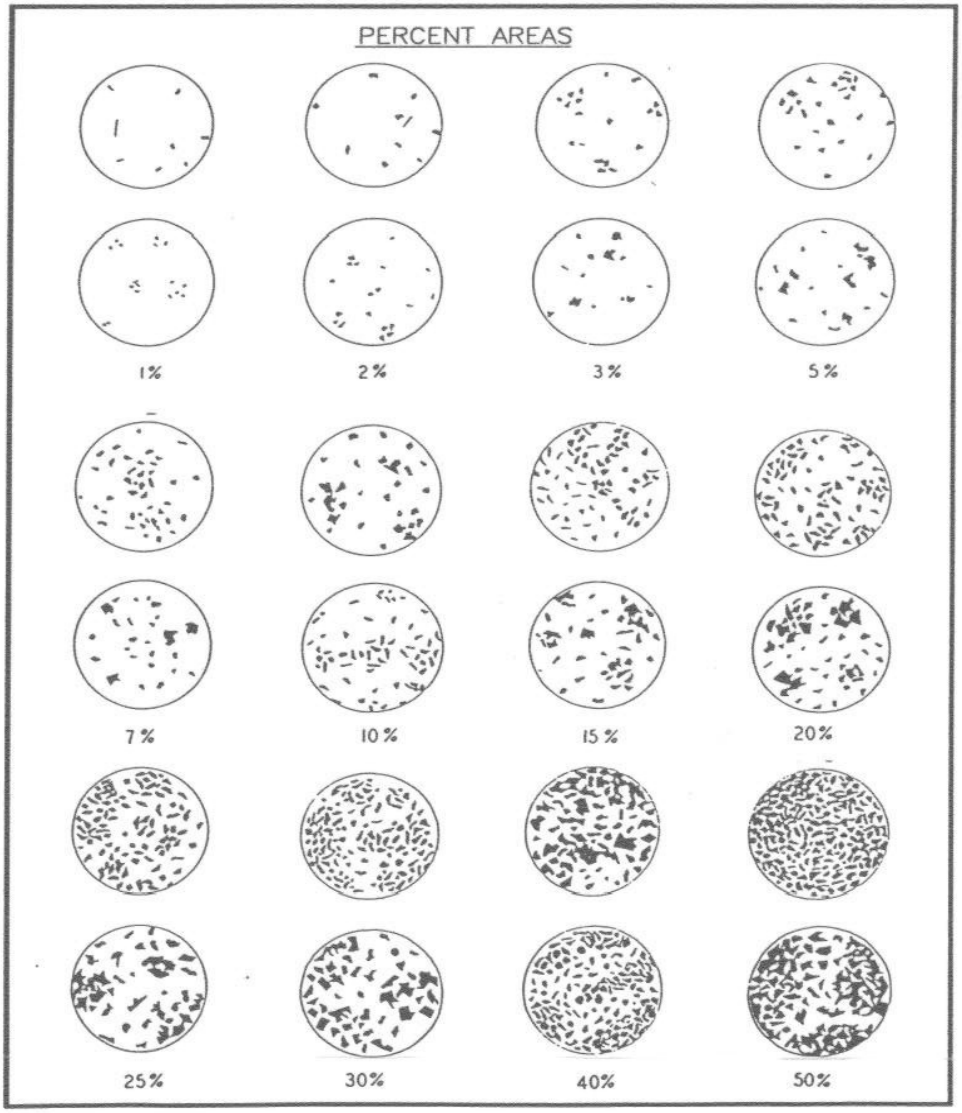


Table 10. Types, kinds and classes of soil structure.

Type	Kind (Kind Code)	Structure Class and Code	Size[1] (mm)
Blocklike - soil particles arranged around a point and bounded by flat or rounded surfaces **BK**	**Angular blocky (ABK)** peds bounded by flattened, rectangular faces intersecting at relatively sharp angles	**VF:** very fine angular blocky	<5
		F: fine angular blocky	5-10
		M: medium angular blocky	10-20
		C: coarse angular blocky	20-50
		VC: very coarse angular blocky	>50
	Subangular blocky (SBK): peds bounded by slightly rounded, subrectangular faces with vertices[2] of their intersections mostly subrounded	**VF:** very fine subangular blocky	<5
		F: fine subangular blocky	5-10
		M: medium subangular blocky	10-20
		C: coarse subangular blocky	20-50
		VC: very coarse subangular blocky	>50
	Granular (GR): spheroidal peds bounded by curved or very irregular faces that do not adjoin those of adjacent peds	**VF:** very fine granular	<1
		F: fine granular	1-2
		M: medium granular	2-5
		C: coarse granular	5-10
		VC: very coarse granular	>10
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces **PL**	**Platy (PL):** peds flat or platelike; horizontal planes more or less well developed	**VF:** very fine platy	<1
		F: fine platy	1-2
		M: medium platy	2-5
		C: coarse platy	5-10
		VC: very coarse platy	>10
Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces. **PR**	**Prismatic (PR):** vertical faces of peds well defined and vertices[2] angular (edges sharp); prism tops essentially flat	**VF:** very fine prismatic	<10
		F: fine prismatic	10-20
		M: medium prismatic	20-50
		C: coarse prismatic	50-100
		VC: very coarse prismatic	>100
	Columnar (COL): vertical edges near top of columns not sharp (vertices[2] subrounded); column tops flat, rounded, or irregular	**VF:** very fine columnar	<10
		F: fine columnar	10-20
		M: medium columnar	20-50
		C: coarse columnar	50-100
		VC: very coarse prismatic	>100
Structureless: no observable aggregation of primary particles or no definite orderly arrangement around natural lines of weakness **MA**	**Single grained (SGR):**	Loose, incoherent mass of individual primary particles, as in sands	
	Massive (MA):	amorphous; a coherent mass showing no evidence of any distinct arrangement of soil particles; separates into clusters of particles; not peds	

Cloddy (CDY): not a structure; used to indicate the condition of some ploughed surface, grade, class, and shape too varied to be described in standard terms.

[1] The size limits refer to measurements in the smallest dimension of platy, prismatic, and columnar peds and to the largest of the nearly equal dimensions of blocky and granular peds.

[2] Definition of vertex (plural, vertices): the intersection of two planes of a geometrical figure.

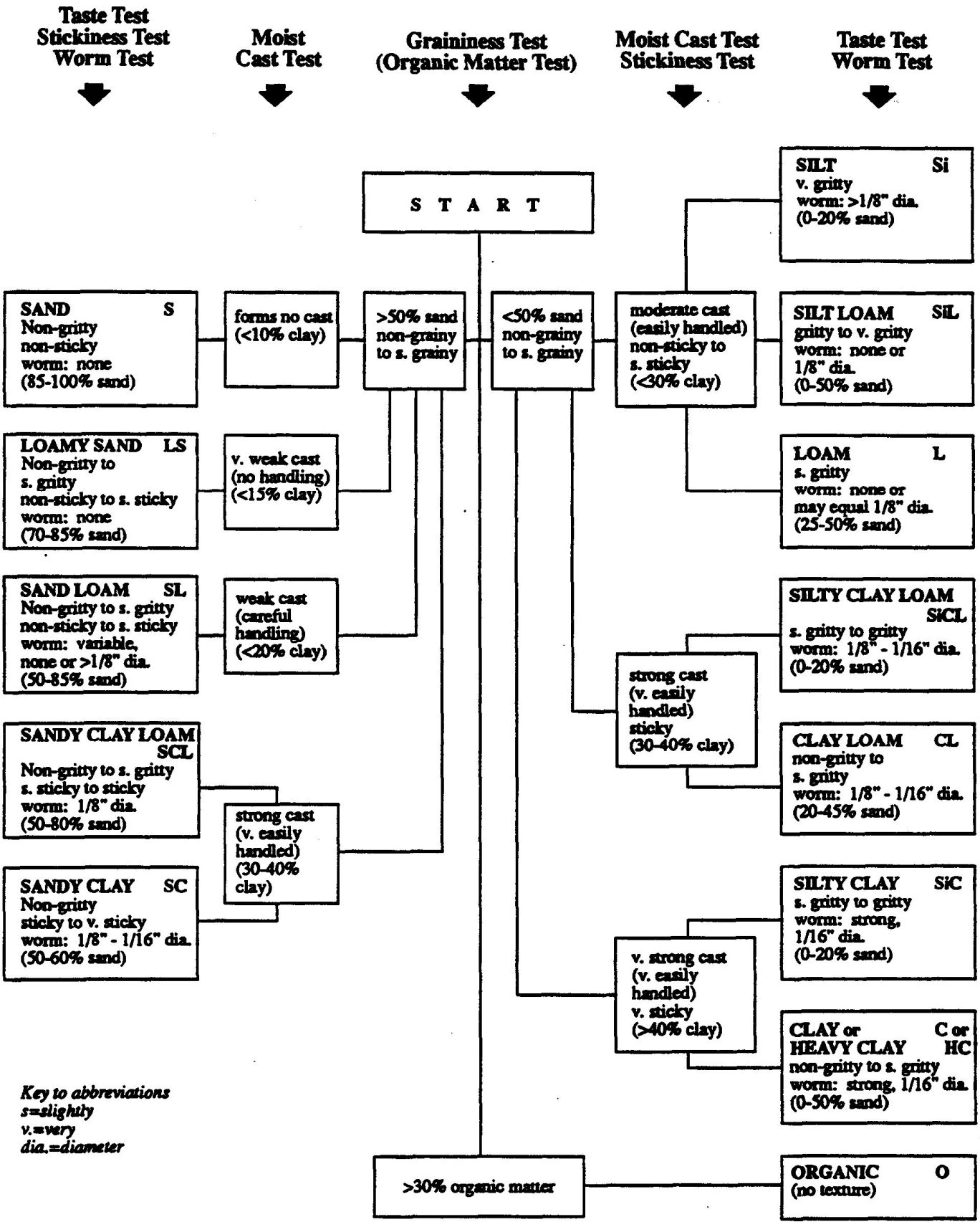
Consistence – moist soil	
• Loose:	No intact sample can be obtained.
• Friable:	Structure breaks down with slight force between the fingers.
• Firm:	Structure breaks down with moderate force between the fingers.
• Extremely firm:	Structure breaks down with moderate force between the hands or slight foot pressure.
• Rigid:	Structure breaks down only with foot pressure.

Structure Grade Descriptions

Code		Structure Grade Definition
0	**Massive /or single grained used to describe sands**	This describes a soil that has no developed structure. There is no aggregation of primary particles or no definite orderly arrangement around natural lines of weakness.
1	**Weak**	Peds are either indistinct and barely evident in place, or observable in place but incompletely separated from adjacent peds. When disturbed, the soil material separates into a mixture of only a few entire peds, many broken peds and much unaggregated material.
2	**Moderate**	Peds are moderately durable, and are evident but not distinct in the undisturbed soil. When disturbed, the soil material parts into a mixture of many well formed, entire peds, some broken peds, and little unaggregated material. The peds may be handled without breaking and they part from adjoining peds to reveal nearly entire surfaces which have properties distinct from those caused by fracturing.
3	**Strong**	Peds are durable and evident in the undisturbed soil, adhere weakly to one another, withstand displacement and separate cleanly when the soil is disturbed. When removed, the soil material separates mainly into entire peds. Surfaces of unbroken peds have distinctive properties, compared to surfaces that result from fracturing.

Mottling Descriptions

Parameter	Code	Description
Abundance	**Few**	<2% of the exposed surface
	Common	2-20% of the exposed surface
	Many	>20% of the exposed surface
Size	**Fine**	< 5 mm
	Medium	5-15 mm
	Coarse	>15 mm
Contrast	**Faint**	Evident only on close examination. Faint mottles commonly have the same hue as the colour to which they are compared and differ by no more than 1 unit of chroma or 2 units of value. Some faint mottles of similar but low chroma and value can differ by 2.5 units of hue.
	Distinct	Readily seen, but contrast only moderately with the colour to which they are compared. Distinct mottles commonly have the same hue as the colour to which they are compared, but differ by 2 to 4 units of chroma or 3 to 4 units of value; or differ from the colour to which they are compared by 2.5 units of hue but by no ore than 1 unit of chroma or 2 units of value.
	Prominent	Contrast strongly with the colour to which they are compared. Prominent mottles are commonly the most obvious colour feature in a soil. Prominent mottles that have medium chroma and value commonly differ from the colour to which they are compared by at least 5 units of hue if chroma and value are the same; or at least 1 unit of chroma or 2 units of value if hue differs by 2.5 units.


Taste Test
Stickiness Test
Worm Test
Moist
Cast Test
Graininess Test
(Organic Matter Test)
Moist Cast Test
Stickiness Test
Taste Test
Worm Test
START
SAND S
Non-gritty
non-sticky
worm: none
(85-100% sand)
LOAMY SAND LS
Non-gritty to
s. gritty
non-sticky to s. sticky
worm: none
(70-85% sand)
SAND LOAM SL
Non-gritty to s. gritty
non-sticky to s. sticky
worm: variable,
none or >1/8" dia.
(50-85% sand)
SANDY CLAY LOAM
SCL
Non-gritty to s. gritty
s. sticky to sticky
worm: 1/8" dia.
(50-80% sand)
SANDY CLAY SC
Non-gritty
sticky to v. sticky
worm: 1/8" - 1/16" dia.
(50-60% sand)
forms no cast
(<10% clay)
v. weak cast
(no handling)
(<15% clay)
weak cast
(careful
handling)
(<20% clay)
strong cast
(v. easily
handled)
(30-40%
clay)
>50% sand
non-grainy
to s. grainy
<50% sand
non-grainy
to s. grainy
>30% organic matter
moderate cast
(easily handled)
non-sticky to
s. sticky
(<30% clay)
strong cast
(v. easily
handled)
sticky
(30-40% clay)
v. strong cast
(v. easily
handled)
v. sticky
(>40% clay)
SILT Si
v. gritty
worm: >1/8" dia.
(0-20% sand)
SILT LOAM SiL
gritty to v. gritty
worm: none or
1/8" dia.
(0-50% sand)
LOAM L
s. gritty
worm: none or
may equal 1/8" dia.
(25-50% sand)
SILTY CLAY LOAM
SiCL
s. gritty to gritty
worm: 1/8" - 1/16" dia.
(0-20% sand)
CLAY LOAM CL
non-gritty to
s. gritty
worm: 1/8" - 1/16" dia.
(20-45% sand)
SILTY CLAY SiC
s. gritty to gritty
worm: strong,
1/16" dia.
(0-20% sand)
CLAY or C or
HEAVY CLAY HC
non-gritty to s. gritty
worm: strong, 1/16" dia.
(0-50% sand)
ORGANIC O
(no texture)
Key to abbreviations
s=slightly
v.=very
dia.=diameter

PERMIT APPLICATION DESIGN SUMMARY – PRIVATE SEWAGE

(Please Print)

LEGAL LAND DESCRIPTION

L.S.D.	¼ Section	Section	TWP	Range	West of Meridian

Lot	Block	Plan	County/M.D.	GPS Co-ordinates

OR

Property Address	Street/Avenue	City/Village/Town

USE OF PROPERTY INFORMATION

Type of Building ❑ Residential ❑ Commercial ❑ Other

Construction Information	❑ New build	❑ Renovation/Repair	❑ Temporary System

Number of Bedrooms	Number of Occupants	Estimated (Average) Daily Sewage Flow (gallons)

Estimated (Peak) Daily Sewage Flow (gallons)		Anticipated Influent Wastewater Strength:

System Components ❑ Septic Tank ❑ Sand Filter ❑ Other Primary Treatment ❑ Dispersal Field ❑ Holding Tank

❑ Open Discharge ❑ Packaged Treatment Plant ❑ Lagoon ❑ Mound ❑ Other (please specify)

SITE EVALUATION DETAILS

Date of Site Evaluation	Time of Day Evaluation Performed	Weather Conditions	Name of Certified Laboratory

Number of soils test pits – minimum 2	Design Soil Texture Classification (attach lab reports and soil borehole logs)	Design Effluent Loading Rate (gal/sq ft/day)	Design Linear Loading Rate (gal/l ft/day)

Soil Texture	Soil Structure – see soils log attached

PROPOSED TREATMENT AND DISPOSAL SYSTEM

Tank Information

❑ Septic
❑ Holding
❑ Packaged Treatment

Tank Size: Working ____ gallons Dose _____ gallons

Type of measurement used: ❑ Imperial ❑ U.S.

Discharge Information

Design Flow Volume

_____gal/min.

_____Ft of Head

❑ Pump ❑ Siphon

Type of measurement used: ❑ Imperial ❑ U.S.

Type of System	❑ Disposal Field	❑ Treatment Mound	❑ Other _____
Sand Layer Area		❑ Gravel – depth (inches)	❑ Chambers – width (feet/inches)_
Total length of perforated pipe/chamber (feet)			Number of Runs
Length of Each Run (feet)		Trench width (feet)	Number of Trenches
Total area of trench bottom (sq ft)			
Pressure Distribution System ❑ Yes ❑ No		Orifice size	Squirt height
Dosing ❑ Demand ❑ Timed		High Water Alarm ❑ Yes ❑ No	Effluent Filter ❑ Yes ❑ No

Designer/Installer's Comments (state the considerations made in selecting design criteria, i.e. flow rates and strength etc.)

Refer to Part 7, Article 7.1.1.3 (page 92) of the 2009 Alberta Standard of Practice for complete information on the criteria for site evaluation and system design.

Attach completed soil log reports, soil lab reports, system drawing, site drawing, pressure distribution worksheets, trench bottom worksheets and/or mound worksheets from the Alberta Standard of Practice Handbook to support your system design & sizing.

SYSTEM DRAWING

- ✓ **Complete drawing of proposed system, layout of laterals, position and location of tank etc.**

Comments: