SOLID WASTE ACCEPTANCE PROTOCOL

ALBERTA

This form will assist you in identifying if the waste(s) can be accepted and assist in the analytical testing requirements.

SECURE Class II Landfills will only accept solid, non-dangerous oilfield and non-hazardous industrial wastes.

EXAMPLES OF COMMON ACCEPTABLE SOLID WASTES (No Free Liquids)

1. Activated Carbon
2. Asbestos
3. Catalyst(s) Sulphur and Non-Sulphur
4. Cement (Crushed, Dry Returns)
5. Contaminated Debris and Soil(s) with:
   - Chemical/Solvent(s)
   - Crude Oil/Condensate
   - Dry Cleaning/Industrial Related
   - Mercury/Metals
   - Methanol
   - Produced/Salt Water
   - Refined Fuel(s) (i.e. Gasoline)
   - Sulphur
6. Construction and Demolition (C&D) Debris
7. Desiccant(s)/Molecular Sieve(s)
8. Drilling Mud(s)/Cuttings:
   - Advanced Gel Chem
   - Gel Chem
   - Invert
   - Potassium Chloride (KCl)
   - Potassium Sulphate (K_2SO_4)
9. Frac Sand (non-radioactive)
10. Incinerator Ash
11. Sand - Produced
12. Sludge - No Free Liquids (Solids ONLY) from:
    - Flare Pit
    - Hydrocarbon
    - Lime
    - Process
    - Sulphur
13. Treated Wood/Wood Waste (e.g. railway ties)

PROHIBITED WASTES

1. Free Liquids
2. Hazardous Solid Waste as defined in:
   - The ***Waste Control Regulation*** (Government of Alberta, 1996)
   - The ***Alberta User Guide for Waste Managers*** (AEP, August 1996)
3. Radioactive Material
4. Reactive Material
5. Explosives
6. Biological and/or Bio-Medical Waste
7. Ozone Depleting Substances

LANDFILL DISPOSAL CRITERIA

The following is a list of landfill disposal criteria that may be required based on the description, origin and history of the solid waste:

- Analytical data provided must support the non-hazardous solid waste classification
- Analytical data provided must be current (not older than one (1) calendar year)
- It is the responsibility of the waste generator to determine the characteristics of the waste
- Un-used non-hazardous solid products require a SDS/Data Sheet

SECURE ALBERTA CLASS II INDUSTRIAL LANDFILL DISPOSAL CRITERIA

The following lists of common compounds are found in Table 2 of the ***Alberta Users Guide for Waste Managers*** (AEP, August 1996). The associated regulatory levels are the maximum allowable concentrations. Any material that exceeds these levels will not be approved for disposal at the SECURE Class II Landfill.

Note: Refer to the "Class II Industrial Landfill Analytical Requirements" following this page for the specific analytical required based on the waste stream description.

CONSTITUENTS	REGULATORY
Leachable BTEX:	
Benzene	0.5 mg/L
Toluene	0.5 mg/L
Ethylbenzene	0.5 mg/L
Xylenes	0.5 mg/L
Extractable halogenated organic compounds (EOX):	1,000.0 mg/kg
Volatile organic compounds (VOCs):	Discrete compound limits
Leachable Metals:	
Antimony	500.0 mg/L
Arsenic	5.0 mg/L
Barium	100.0 mg/L
Beryllium	5.0 mg/L
Boron	500.0 mg/L
Cadmium	1.0 mg/L
Chromium	5.0 mg/L
Cobalt	100.0 mg/L
Copper	100.0 mg/L
Iron	1,000.0 mg/L
Lead	5.0 mg/L
Mercury	0.2 mg/L
Nickel	5.0 mg/L
Selenium	1.0 mg/L
Silver	5.0 mg/L
Thallium	5.0 mg/L
Uranium	2.0 mg/L
Vanadium	100.0 mg/L
Zinc	500.0 mg/L
Zirconium	500.0 mg/L

CONSTITUENTS	REGULATORY
Solvent Scan:	
Total cresol	200.0 mg/L
Methyl ethyl ketone	200.0 mg/L
Nitrobenzene	2.0 mg/L
Pyridine	5.0 mg/L
PAHs:	
Napthalene	0.50 mg/L
PCBs:	
PCB	50.0 mg/kg
Sulphur	500.0 mg/kg
Elemental Sulphur	
Sulphides	
Other:	
Additionally, the waste must meet all the following requirements:	
• **pH** Greater than (≥) 2.0 and Less than (≤) 12.5	
• **Flash Point** > 60.5°C (Degrees Celsius)	
• **No Free Liquids** can be present (US EPA Method 9095 Paint Filter Test)	

Note(s):

- Not all regulated compounds are listed above. ***Refer to the Alberta Users Guide for Waste Managers*** (AEP, August 1996) for the complete list
- Dry cleaner and/or other industrial related impacted solids may require specific analytical parameters; please contact SECURE for full details
- Waste containing elemental Sulphur and Sulphides ≥ 500.0 mg/kg is deemed Sulphur Waste (SWaste). ***Refer to the Guidelines for Landfill Disposal of Sulphur Waste and Remediation of Sulphur Containing Soils*** (AEP, September 12, 2011)

Refer to Table 2.0 of the ***Alberta Users Guide for Waste Managers*** (AEP, August 1996) for Halogenated Organic Compounds – discrete compound regulatory limits in addition to the 1,000.0 mg/kg total.

CLASS II INDUSTRIAL LANDFILL ANALYTICAL REQUIREMENTS

BASIC PARAMETERS

The following **BASIC** analytical testing is required for all wastes regardless of the composition:

FP – Flash point for solid samples

pH – pH of solid waste material

LBTEX – Leachable BTEX (TCLP)

LMETALS – Leachable metals (TCLP)

PFT – Paint Filter Test

SUPPLEMENTAL – WASTE SPECIFIC PARAMETERS

The following additional analysis **MAY** be required depending on the waste description and/or type (refer to guidance below). Additional analysis may be requested depending on the type of waste and source of generation.

Sol Scan – Landfill Solvent Screen in solid waste EPA 8240

PCB – Polychlorinated Biphenyls

PAH – Polycyclic Aromatic Hydrocarbons

EOX – Extractable Halogenated Organic Compounds (TCLP)

VOC – Volatile Organic Compounds (TCLP)

Spontaneous Combustion (Self-Heating)

Sulphur – Elemental Sulphur (S^0) and Sulphides (S^{2-})

Water Reactivity (ΔT)

% ANC – % Acid Neutralizing Capacity – Additional testing **recommended** for Sulphur impacted wastes

% CCE – % Calcium Carbonate Equivalent – Additional testing **recommended** for Sulphur impacted wastes

WASTE SPECIFIC ANALYTIC PARAMETERS

WASTE DECRIPTION	ANALYTICAL REQUIREMENTS
1. Activated Carbon	Basic and Spontaneous Combustion (Self-Heating)*
2. Catalyst (sulphur)	Basic, Elemental sulphur and sulphides, Spontaneous Combustion*
3. Catalyst (non-sulphur)	Basic, Spontaneous Combustion*
4. Desiccant(s)/ Molecular Sieve(s)	Basic, Water Reactivity (ΔT)*

***Please contact the Facility Manager to discuss the requirements of these parameters.**

Note: The analytical requirements for waste approval include but are not limited to those listed above. SECURE may request additional testing prior to issuing approval. If a waste differs from the descriptions above please contact the SECURE facility.

HELPFUL INFORMATION (Laboratory Requirements)

- Spontaneous combustion testing requires a four (4) liter pail of sample.
- BTEX sampling requires a 500 mL glass jar with no head space.
- Analytical reports must be the signed copy.