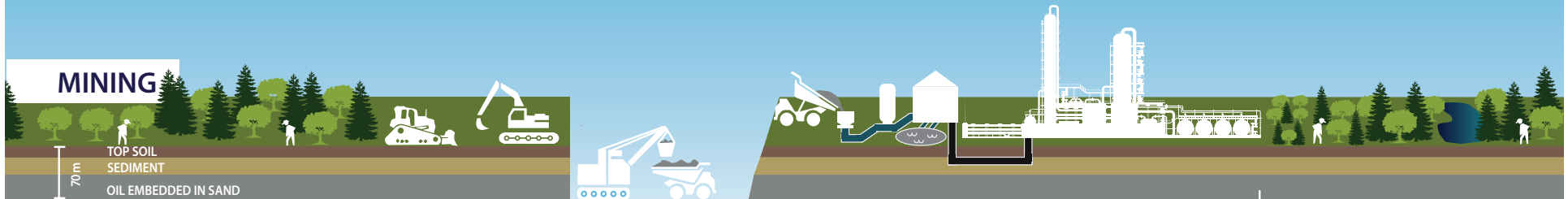




# Environmental Consulting



# Life Cycle Services – OilSands



## Pre-Development

### Environmental

Environmental Site Assessments  
 First Nations Consultation  
 Consultation (Public, Gov't)  
 Geophysics  
 GIS Mapping:  
 • Drone (Aerial Data)  
 • Site Selection Mapping  
 Mineral & Surface Land Acquisition  
 Pre-Development Assessments  
 Rare Plant & Soil Survey  
 Regulatory Approvals:  
 • D056 & D023 Applications  
 • EAP & EFR  
 • EIA  
 • OSE Approvals  
 • SME (Borrow Pit)  
 • SMP  
 • TDL & PDL Approvals  
 Site Selection Mapping  
 Vegetation and Soil Assessments  
 Wetlands  
 Wildlife, Aquatics Survey

## Construction

### Environmental

Geotechnical Evaluations  
 Groundwater & Surface Water Monitoring  
 Materials Testing, Concrete, Soil Compaction  
 Monitoring:  
 • Compliance  
 • Construction  
 • Surface Water  
 Soil Salvage & Stockpile  
 Spill Response  
 Stakeholder Management  
 Waste Management:  
 • Cement Bins  
 • On-Site Segregated Rig Bins  
 Wetland Monitoring  
 Wildlife, Aquatics Monitoring

## Exploration / Extraction

### Environmental

Groundwater & Surface Water Monitoring  
 Monitoring & Compliance:  
 • Horizontal Directional Drilling Monitoring  
 Soil Salvage & Stockpile  
 Spill Response  
 Stakeholder Management  
 Waste Management:  
 • Cement Bins  
 • On-Site Segregated Rig Bins  
 Wetland Monitoring  
 Wildlife, Aquatics Monitoring  
 Remote Sensing

## Operations

### Environmental

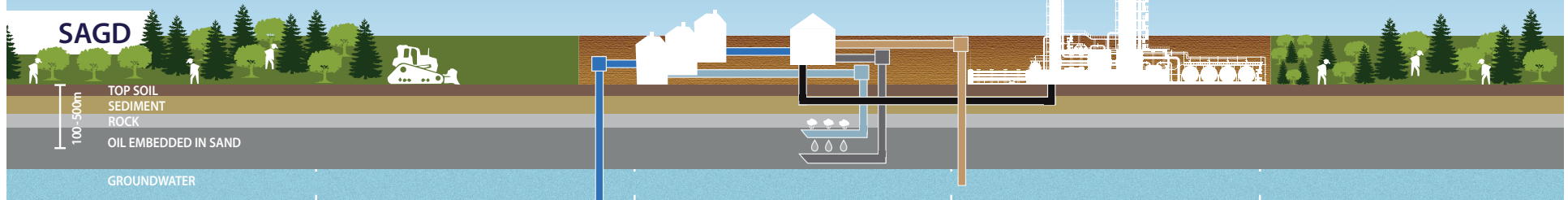
Environmental Site Assessments  
 Erosion & Sediment Control  
 Geotechnical Slope Stability Monitoring  
 Liability Management:  
 • Due Diligence (A&D)  
 • Risk Management  
 Remote Sensing  
 Soil Salvage Monitoring  
 Spill Response  
 Vegetation Monitoring & Assessments  
 Waste Management:  
 • Cement Bins  
 • On-Site Segregated Rig Bins

## Reclamation

### Environmental

Assessment (Phase I & II)  
 Erosion & Sediment Control  
 Facility Removal  
 Geophysics (EM & ERT)  
 Insitu & Exsitu Remediation  
 Reclamation Planning, Assessment & Certification  
 Restoration / Reclamation  
 Risk Management  
 Surface & Groundwater Monitoring  
 Vegetation Monitoring & Maintenance  
 Wetland & Peatland

# Life Cycle Services – OilSands



## Pre-Development

### Environmental

Drone (Aerial Data)  
 Environmental Site Assessments  
 Forestry Assessments  
 Geophysics  
 GIS & Mapping Services  
 • Constraint Mapping & Routing  
 Groundwater & Water Well  
 Pre-Development Assessments  
 Rare Plant & Soil Survey  
 Regulatory Approvals:  
 • D056 & D023 Applications  
 • EAP & EFR  
 • EIA  
 • OSE Approvals  
 • SME (Borrow Pit)  
 • SMP  
 • TDL & PDL Approvals  
 Vegetation & Soil Assessments  
 Wetlands  
 Wildlife Surveys

## Construction

### Environmental

Aquatic Services:  
 • Crossings & Approvals  
 Drilling Waste Management  
 Geophysics  
 Geotechnical Engineering  
 Groundwater & Surface Water Monitoring  
 Horizontal Directional Drilling Monitoring  
 Hydrology (Surface Water)  
 Leak Detection & Repair (LDAR)  
 Materials Testing, Concrete, Monitoring & Compliance  
 Remote Sensing  
 Soil Compaction  
 Spill Response  
 Stockpile Monitoring & Survey:  
 • Drone Support  
 Waste Management:  
 • Cement Bins  
 • On-Site Segregated Rig Bins  
 Weed Management  
 Wetland Monitoring  
 Wildlife Sweeps

## Exploration / Extraction

### Environmental

Aquatic Services  
 • Monitoring & Frac Response  
 Drilling Waste Management  
 Groundwater & Surface Water Monitoring  
 Horizontal Directional Drilling Monitoring  
 Hydrogeology  
 Monitoring & Compliance  
 Soil Salvage & Stockpile  
 Spill Response  
 Stakeholder Management  
 Waste Management:  
 • Cement Bins  
 • On-Site Segregated Rig Bins  
 Wetland Monitoring  
 Wildlife, Aquatics Monitoring

## Operations

### Environmental

Air Services:  
 • Gas Migration (GH)  
 • Greenhouse Gas & Emissions Management  
 • Leak Detection and Repair (LDAR)  
 • Surface Case Vent Flow (SCVF)  
 Environmental Site Assessments  
 Erosion & Sediment Control  
 Hydrogeology & Groundwater Services  
 Liability Management:  
 • Due Diligence (A&D)  
 • Hydrogeology & Groundwater  
 • Risk Management  
 LLR/LMR Compliance  
 Spill Response

## Decommissioning

### Environmental

Assessment (Phase I & II)  
 Borrow Pit Reclamation  
 Erosion & Sediment Control  
 Facility & Pile Decommissioning  
 Geophysics:  
 • EM/ERT  
 Groundwater monitoring  
 Insitu & Exsitu Remediation  
 Reclamation Certification:  
 • OSE, Pads, Pipelines & Facilities  
 Remote Sensing  
 Restoration/Reclamation  
 Risk Management  
 Vegetation Monitoring  
 Well Abandonment (Downhole)  
 Wetland & Peatland Restoration