

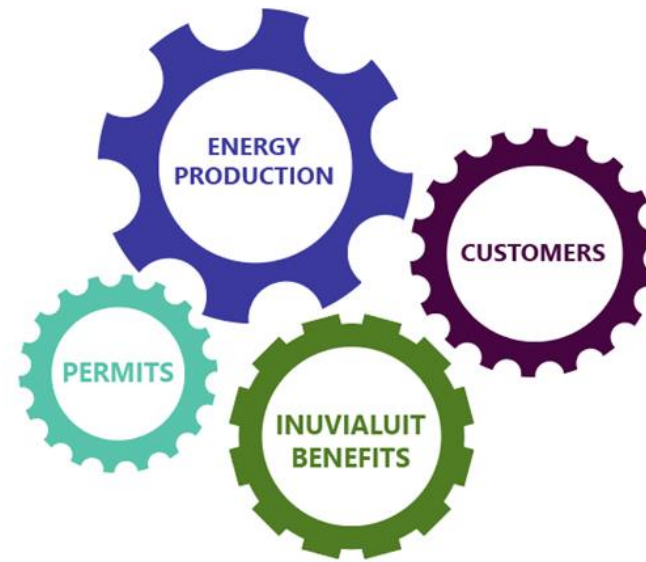


PROVIDING ENERGY SECURITY TO THE BEAUFORT-DELTA

January 2025

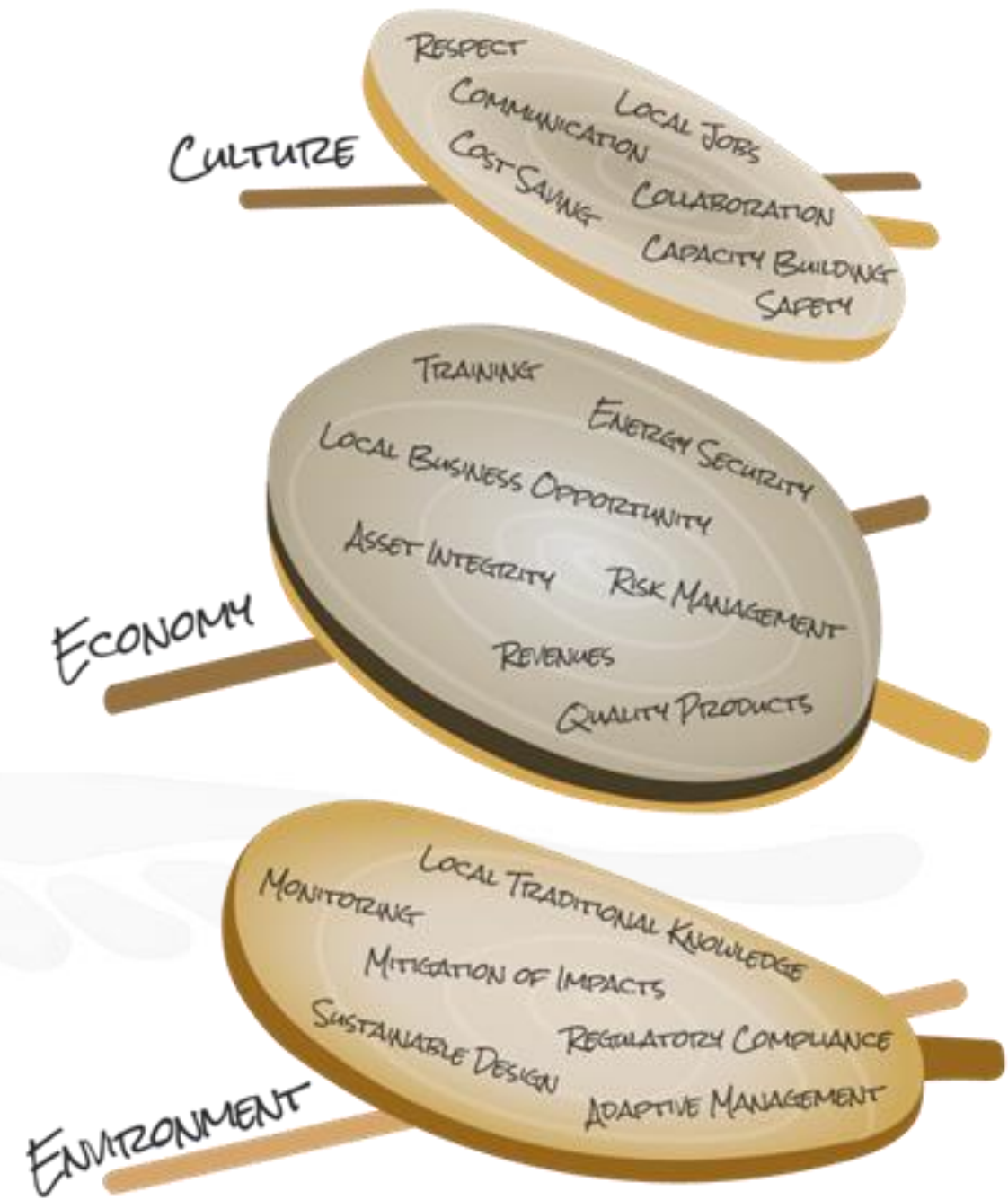
AGENDA

- ▶ IESP Overview
- ▶ Project Successes
- ▶ Permitting
- ▶ Environmental Protection
- ▶ Sump Remediation
- ▶ Early Site Works
- ▶ Well Workover
- ▶ Energy Facility
- ▶ Project Schedule & Commercial
- ▶ Integrated Management System
- ▶ Jobs & Benefits
- ▶ Project Next Steps



PROJECT OVERVIEW

- ▶ Energy Security for the Region.
- ▶ A one-of-a-kind energy project where Indigenous people own the resource, the land and the facilities.
- ▶ All natural gas and diesel demand in the Inuvialuit Settlement Region (ISR) can be serviced from M-18.
- ▶ M-18 will produce for 50+ years based on the current energy demands of the ISR.
- ▶ Significant energy cost reduction for households and businesses in the region.



PROJECT SUCCESS TO DATE

- ▶ Project discussions began early with the potential of the ITH as a transport route. Over 100 community leadership meetings have taken place regarding the IESP since Spring 2020.
- ▶ The Environmental Impact Screening Committee (EISC) approved the project on Jan. 25, 2021.
- ▶ The Canada Energy Regulator (CER) approved the Development Plan on March 8, 2022.
- ▶ Completed a 4 km winter access trail to M-18 from the ITH and remediated the M-18 drilling sump in the winter of 2021-22.
- ▶ Officially acquired the M-18 asset from CNRL and Suncor on July 13, 2022.
- ▶ The final CER Operations Authorization and permission to Alter the Condition of the Well were approved in 2024. All major approvals are now in place.

PROJECT SUCCESS TO DATE

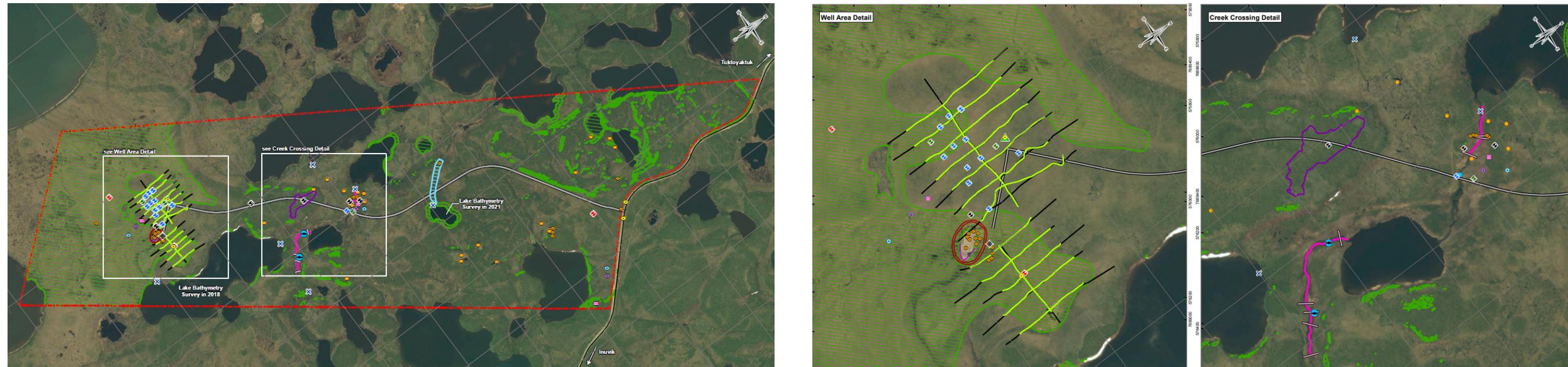
- ▶ A world class Health, Safety, Security, Environment, and Quality Integrated Management System has been developed for the construction and long-term operations of the IESP.
- ▶ Regular environmental and wildlife monitoring plans have been established and implemented at the IESP site.
- ▶ Draft commercial contracts for M-18 product offtake and bank financing are in negotiation.
- ▶ IESP all season road construction and bridge construction is complete.
- ▶ Well workover was successful. Test results were very positive. The workover was completed and the site cleared on April 4, 2024.
- ▶ Over \$30 million in local business contracts have been awarded, and over 70 Inuvialuit beneficiaries and Gwich'in have been employed to date.

PERMITTING PROCESS



An Overview of the CER/OGOA Process in the Inuvialuit Settlement Region

IESP SITE ASSESSMENTS

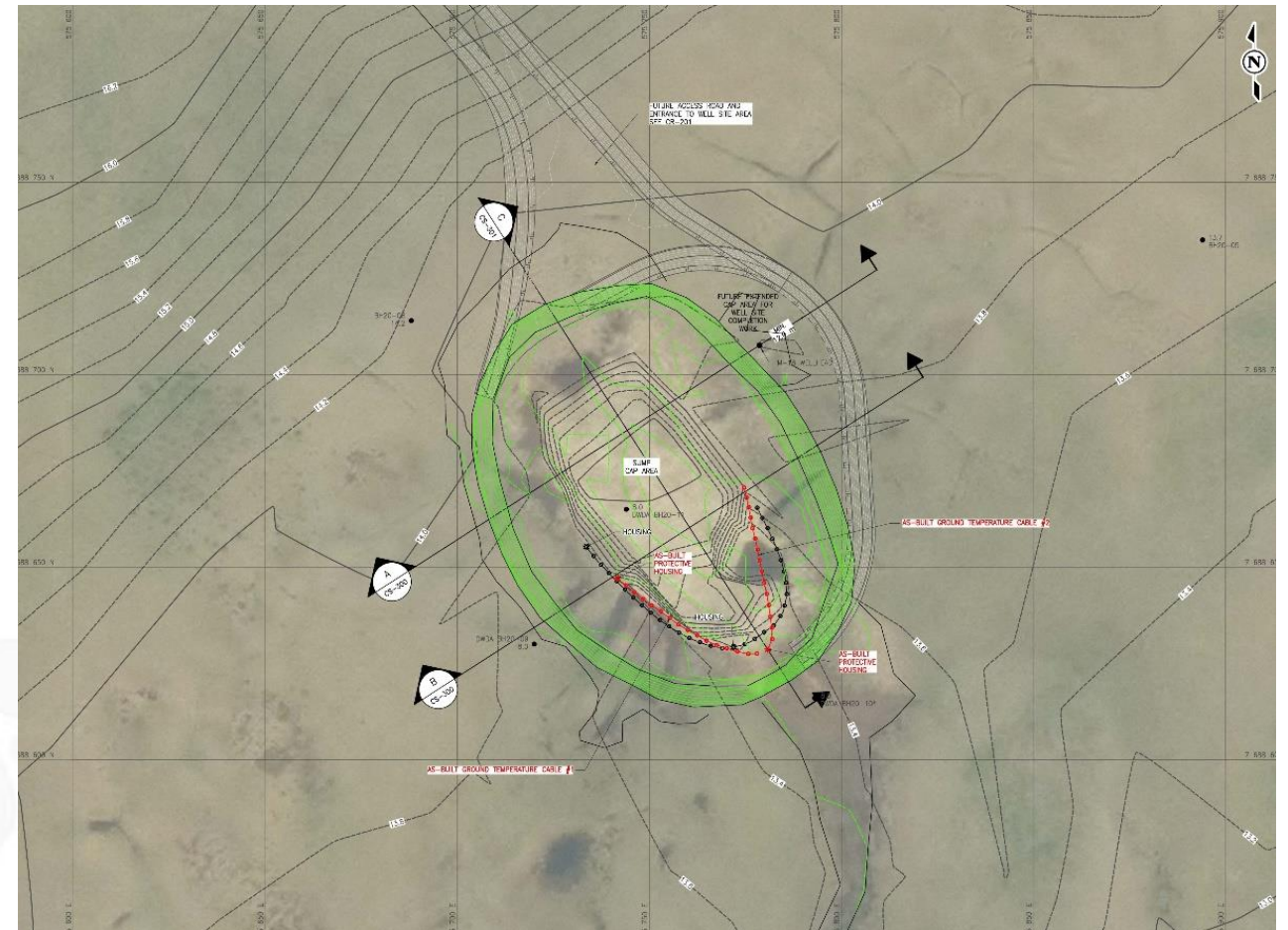


- ▶ 2018: Initial Environmental Assessment: Wildlife, Lakes and Streams, Fish, Surface Geology, Terrain, Vegetation, Historical and Traditional Land Use.
- ▶ 2020: Permafrost and Route Assessment: Geotechnical Drilling Program.
- ▶ 2021-22: Baseline Assessments: Air, Noise, Weather, Water, Fish, Bear Den Surveys, Archaeological Field Studies, and Ground Temperature Monitoring.
- ▶ 2022: Pad Location Assessment: Geophysical survey and Geotechnical Drilling Programs. Ongoing Monitoring.

SUMP AND WELL – JUNE 2021



Abandoned Drilling Sump and M-18 Wellhead



Sump Cap and Well Pad Plan

SUMP REMEDIATION – 2022



Remediated M-18 Drilling Waste Sump



Sump Cap: Ground Temperature Cable

PRE-EARLY SITE WORKS (ESW)



Access Trail Approaching Future Energy Facility Site and M-18
Needed for Access to M-18 and for Sump Remediation



Creek Crossing at Mid-Point of IESP Access Road
Future Location of Single Span Bridge – Community Commitment

ESW CONSTRUCTION BEGINS – OCT. 2023



Access Road Construction Beginning at the Inuvik to Tuktoyaktuk Highway

Over 70 Inuvialuit and Gwich'in Employed

ESW ROAD CONSTRUCTION



11. 11. 2023

2nd Lift, M-18 Access Road

Material Spreading, SW Side of Creek



13. 11. 2023 16:37

ESW ROAD CONSTRUCTION



Road construction at hill looking west



Culvert Installation

ESW PAD CONSTRUCTION



Energy Facility Pad Construction



ESW PAD CONSTRUCTION – DEC. 2024



ESW BRIDGE CONSTRUCTION



Placing Ad Freeze Piles – February 2024

ESW BRIDGE CONSTRUCTION



Preparing for girders



ESW BRIDGE CONSTRUCTION



Clamps and Girders



ESW BRIDGE CONSTRUCTION



Placement of material at abutments

ESW BRIDGE CONSTRUCTION



Under Construction April 2024

ESW BRIDGE CONSTRUCTION



Placing geotextile and riprap

ESW BRIDGE CONSTRUCTION



Final Grading



Bridge site

IESP M18
17 Apr 2024, 16:01:10 MDT

ESW CONSTRUCTION



Bridge and Road to Pads

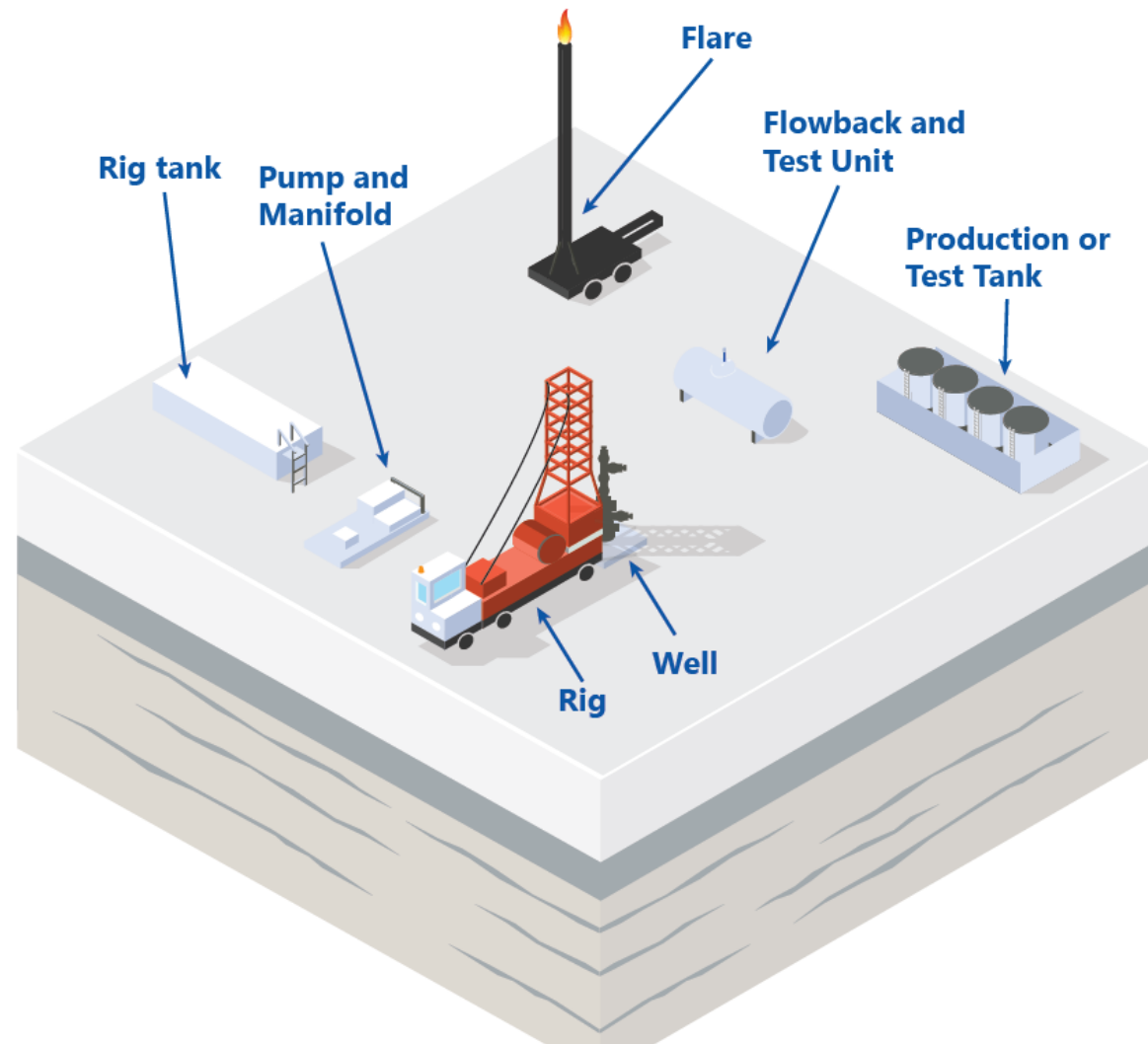


Well Pad/Sump Cap and Energy Centre Pad

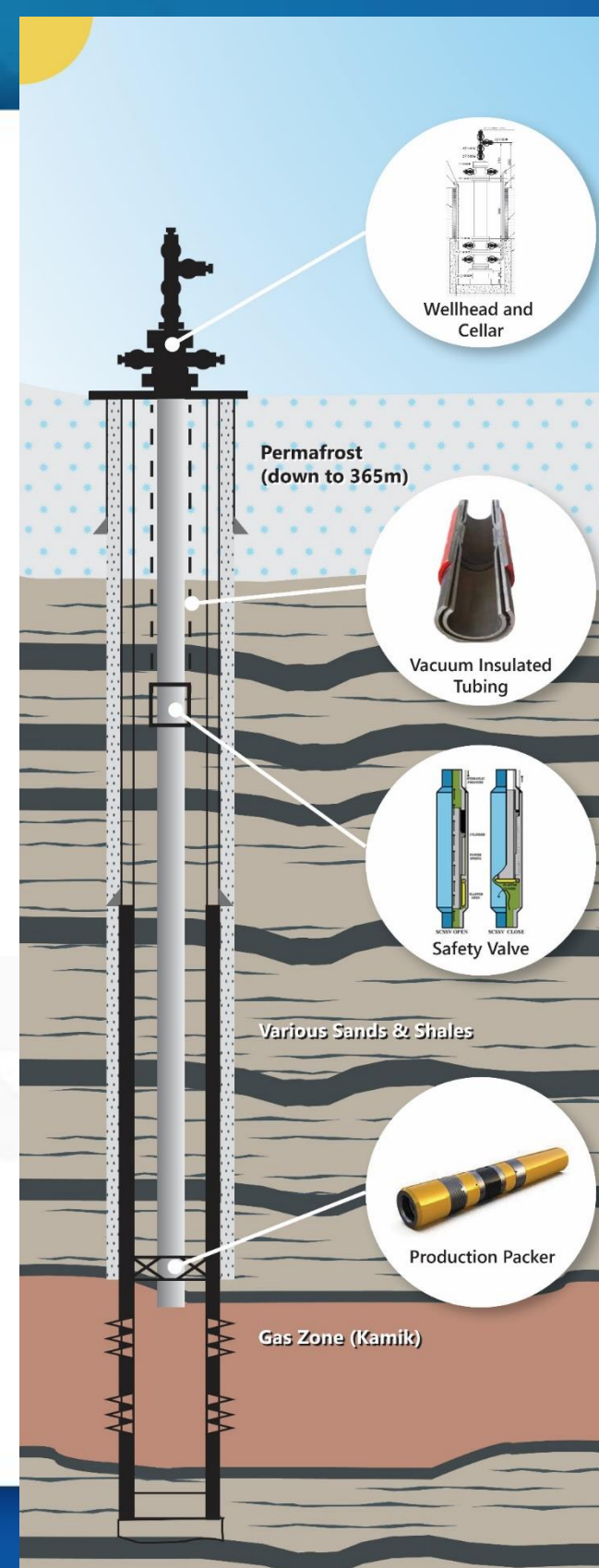
WELL WORKOVER PLAN

- ▶ Move in the equipment, set up the service rig and install and test the BOP. The BOPs are just a back up to control the well – the fluids in the well and the tools used will keep the gas from entering the steel casing. Snubbing will be used for drilling the bridge plugs.
- ▶ Circulate the diesel fuel out of the well and replace it with heavy salt water. The pressure from the salt water will control the gas in the formation while we work on the well.
- ▶ Inspect the existing casing to be sure it is in good condition.
- ▶ Drill out the cement plug in the bottom of the well that was used to suspend it for the last 20 years.
- ▶ Install the packer with a plug in it (This will seal the well to keep everything safe while we do the rest of the work).
- ▶ Install the tubing to carry the gas, the vacuum insulated tubing to protect the permafrost, and a sub-surface safety valve to shut off the flow of gas in case of emergency.
- ▶ Remove the BOP and install the wellhead – pressure test everything to be sure there are no leaks.
- ▶ Flow the well to clean up any salt water that flowed into the formation (a small amount of gas will be flared during this time).
- ▶ Shut in the well and install temporary plugs to keep the well safe until it is ready to produce to the Energy Facility.
- ▶ All wastes to be disposed at licensed facilities suitable to the waste. No pits, sumps or landfills.

WELL WORKOVER



Well Workover Equipment Setup



M-18 Downhole Equipment

WELL CELLAR



WELL WORKOVER



Preparing to Remove the M-18 Wellhead

March 2, 2024



Casing Stump Without Wellhead

March 2, 2024

WELL WORKOVER



Wellhead Extension – March 3, 2024



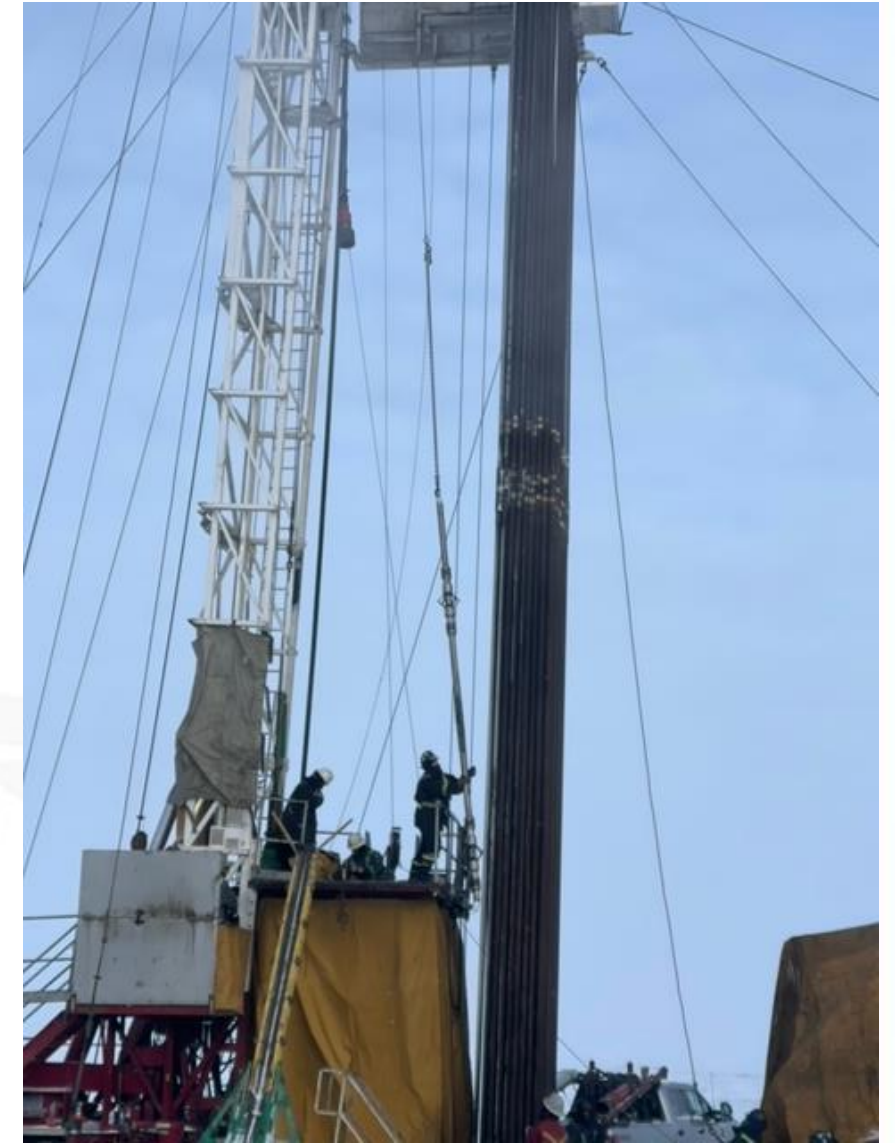
Rig Standing with Work String in Position
March 7, 2024

M-18 WELL WORKOVER



March 7, 2024 – site is ready

M-18 WELL WORKOVER



M-18 WELL WORKOVER



School Visit March 27, 2024



First Flare March 22, 2024

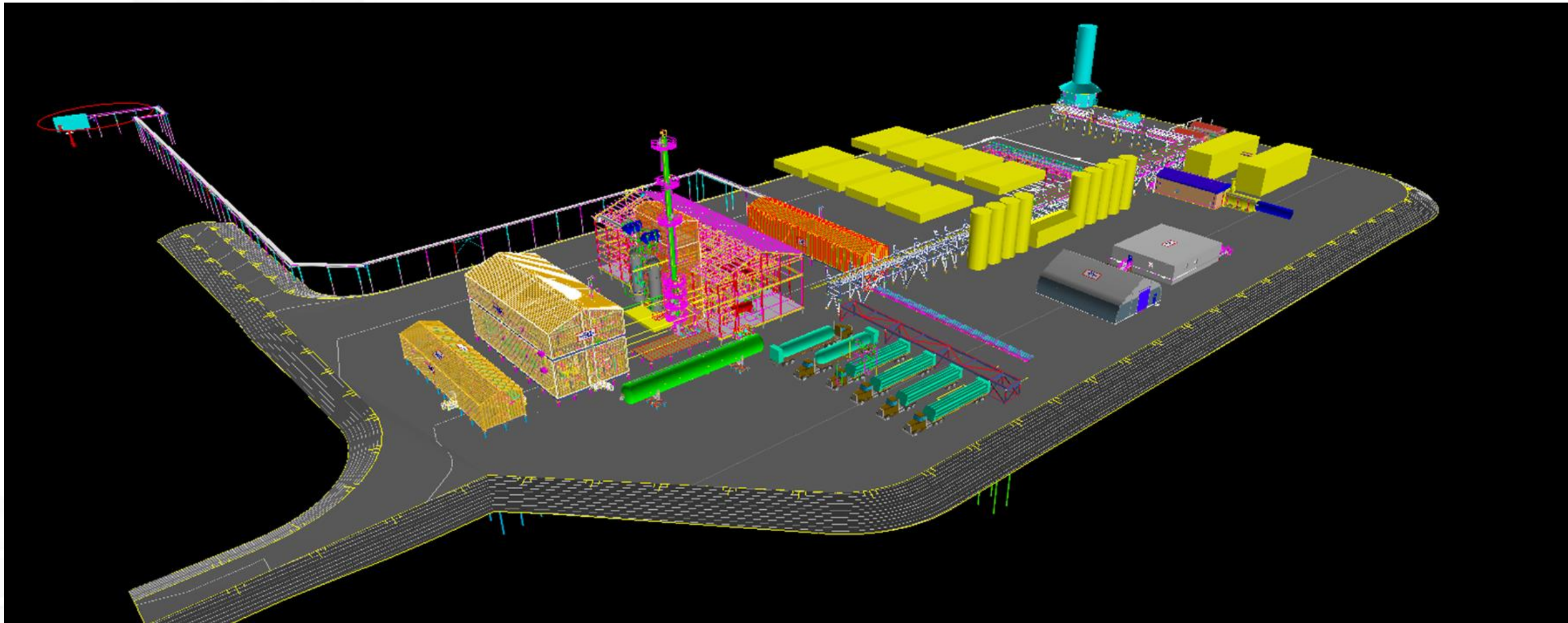
M-18 WELL WORKOVER



Well Production Test March 30, 2024

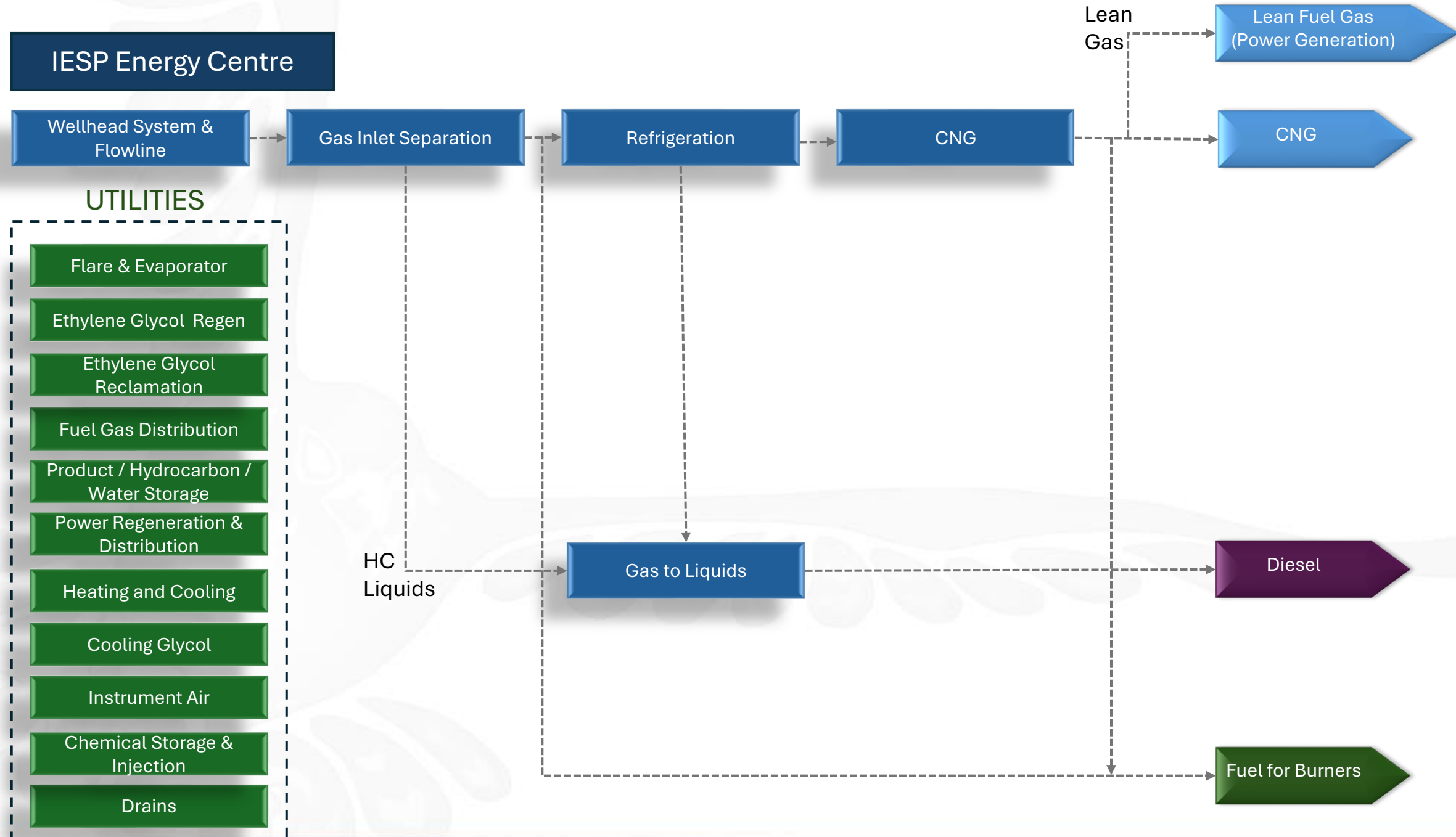


ENERGY FACILITY DESIGN



- ▶ Looking to maximize the benefit of the M-18 resource by converting all the production into usable products within the ISR (natural gas and synthetic diesel).
- ▶ Currently finalizing engineering and the construction execution plan.

PROCESS BLOCK FLOW DIAGRAM



PROJECT SCHEDULE & COMMERCIAL

2025

Complete engineering design
Ad-freeze pile installation
Equipment and module fabrication for the Energy Facility
Barge transport of large equipment and modules from BC West Coast to Tuk in summer

2026

Road transport of smaller equipment and modules
Equipment setting and placement
Mechanical and electrical construction
Commissioning and start-up of the IESP Energy Facility

- ▶ Working to secure long-term fuel supply contracts with local utilities and fuel distributors.
- ▶ Cost of service model for pricing.
- ▶ Working to secure a \$100 million project financing arrangement for construction of the Energy Facility.
- ▶ Project funded by equity to date.

INTEGRATED MANAGEMENT SYSTEM (IMS)

- ▶ A Management System is defined by ISO as a “set of inter-related or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives.”
- ▶ The NWT Oil and Gas Drilling and Production Regulations state that “the applicant for an authorization shall develop an effective management system that integrates operations and technical systems with the management of financial and human resources to ensure compliance with the Act and these regulations.”

OGDPR Section 5.(1)

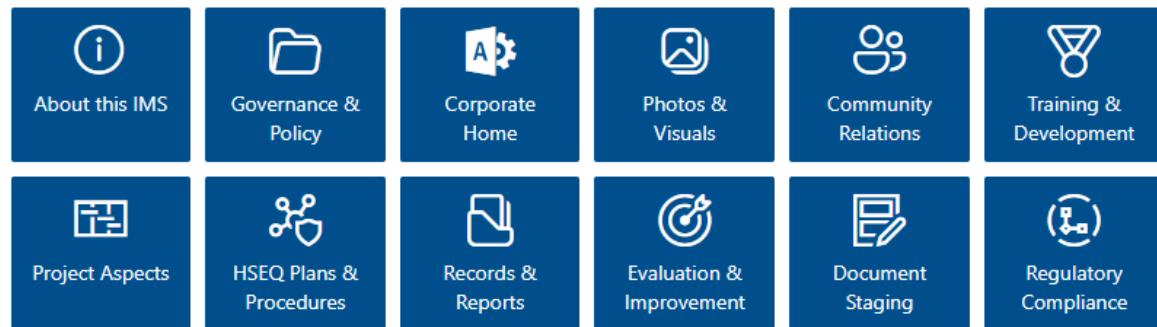
- ▶ The Management System must include 11 elements (as described in OGDPR Section 5) and “must be controlled and set out in a logical and systematic fashion to allow for ease of understanding and efficient implementation.”



Looking North From M-18 in August 2018

THE IESP IMS

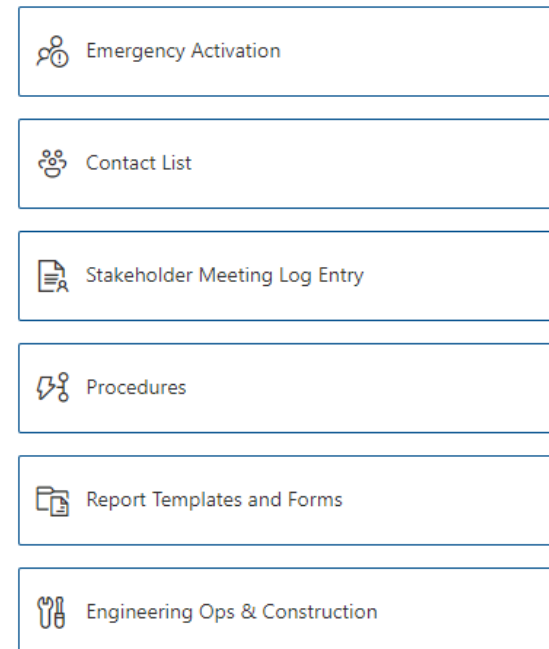
IESP Integrated Management System



Welcome to the Inuvialuit Energy Security Project (IESP) Integrated Management System (IMS) SharePoint Site!

The IMS is a regularly audited and reviewed system that is comprised of 12 key elements, based upon the Inuvialuit Final Agreement (IFA), government regulations, and the integration of five international standards.

Quick Links



The IESP IMS meets the requirements of:

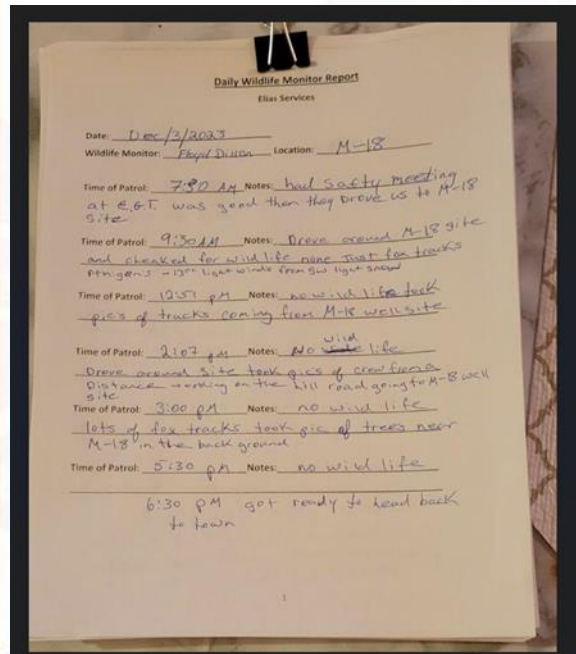
- ▶ Inuvialuit Final Agreement
- ▶ Canada Energy Regulator
- ▶ NWT OGOA and Regulations
- ▶ ISO 9001:2015 (Quality Management Systems)
- ▶ ISO 14001:2015 (Environmental Management Systems)
- ▶ ISO 45001:2018 (Health and Safety Management Systems)
- ▶ ANSI/ASSE Z10-2012 (Occupational Health and Safety MS)
- ▶ CAN/CSA-Z246.2-14 (Emergency Preparedness and Response)

WHAT DOES THE IMS INCLUDE?

- ▶ HSSEQ Integration with Legal, Finance, HR, IT/IS, Marketing, Engineering and Procurement
- ▶ Tracking of compliance obligations, commitments, impacts and risks, policies and goals
- ▶ Monitoring Plans and Procedures
- ▶ Standardized templates and forms
- ▶ Document approval and staging process
- ▶ Repository of all photos, videos, maps, meeting records, reports, assessments, audits, etc.
- ▶ Training and Awareness – repository of approved training materials, links and records of training certificates
- ▶ Communication plans, current contact lists, and engagement records
- ▶ Governance structure and organization
- ▶ Commitment Tracking
- ▶ Emergency Preparedness plans and procedures
- ▶ Environment and Safety policy, plans and procedures
- ▶ Quality policy, plans and procedures
- ▶ Documenting near-misses, incidents, and non-conformances
- ▶ Management of Change process
- ▶ Performance evaluation
- ▶ Procedures for HSSEQ and operational audits
- ▶ Regular management reviews and continual improvement

MONITORING

- ▶ Bear den screening complete each Fall.
- ▶ Wildlife and environmental monitors onsite for every day of construction.
- ▶ No significant wildlife activity to report during ESW or WW to date.



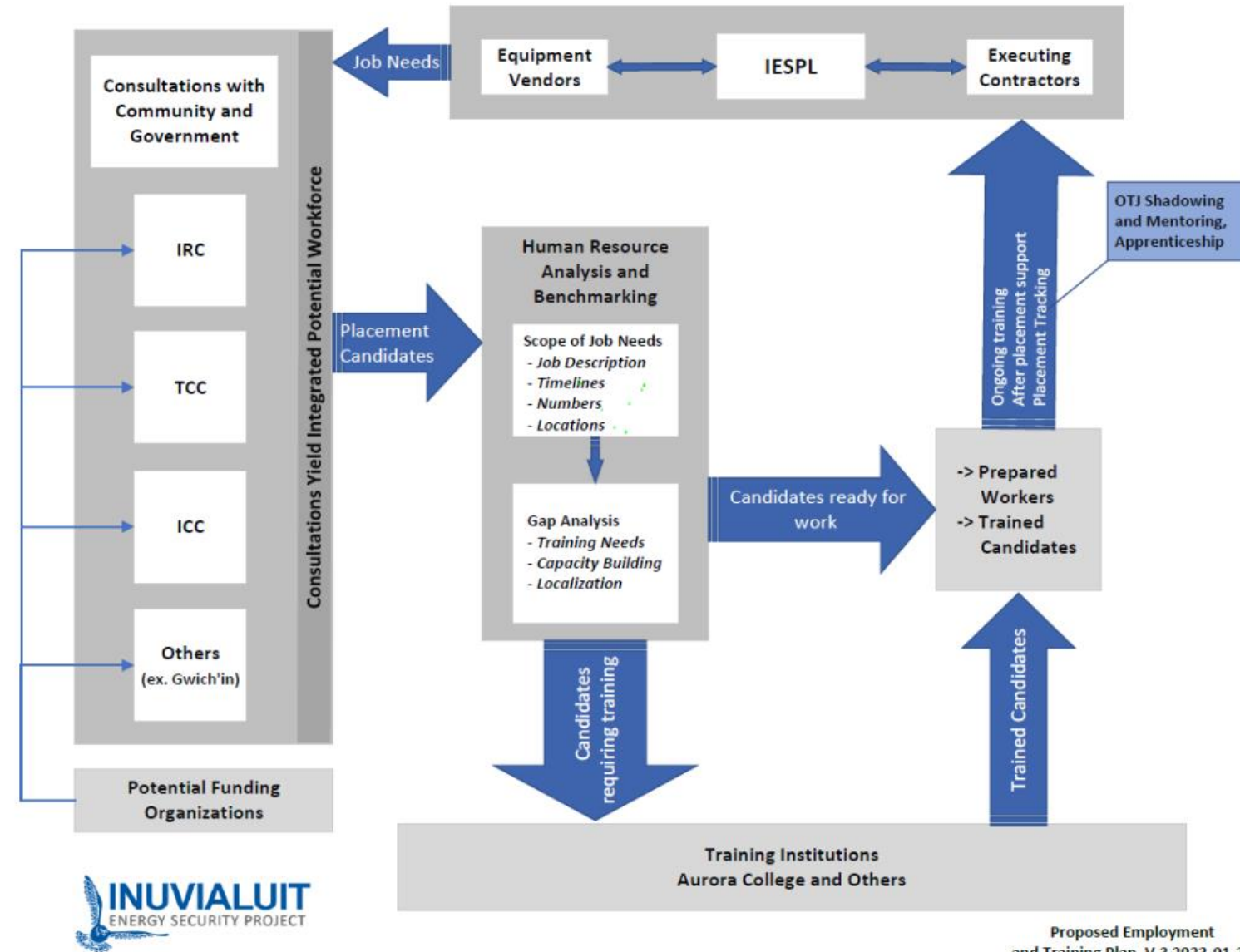
Sample: Daily Wildlife Monitoring Report

IESP ENVIRONMENTAL MONITORING PROCEDURES	
Procedure	Frequency
AIR LIGHT and NOISE	
Ambient Air (Dust) Monitoring	Constant during dust season
Noise Monitoring	Monthly
Digital Light Intensity Monitoring	Monthly
WILDLIFE	
Bear Encounter Protocol	As Needed
Wildlife Sighting Reporting	As Needed
Bear Den Screening	Annual (Fall)
WATER, FISH AND FISH HABITAT	
Surface Water Quality Monitoring	Annual
Turbidity Monitoring	As needed (spring)
PERMAFROST AND EROSION	
Ground Temperature Monitoring	Quarterly
Bridge, Road, and Pad Performance Visual Monitoring	Constant/Weekly
PEOPLE	
Contractor Monitoring	Constant
Driver and Speed Monitoring	Constant
Land User Interaction Reporting	As needed
Historical Resources Chance Find Procedure	As Needed

JOBS AND BENEFITS

- ▶ Long-term skilled positions to operate the Energy Centre (over 20 direct positions).
 - ▶ Power engineers (plant operators), electricians, millwrights, instrument technicians, regional management, health and safety personnel, environmental and wildlife personnel, and general labourers.
- ▶ Indirect jobs and business opportunities related to all phases of the IESP construction and operations (transportation and logistics, maintenance, monitoring, camp and catering, and support for the major contractors and equipment vendors).
- ▶ Significant energy cost reduction for households and businesses in the region.
- ▶ Environmental savings of up to 40,000 tonnes of CO2 emissions per year by eliminating the need for southern import and transportation of fuels.
- ▶ Energy Security!

OPPORTUNITIES GUIDE



Proposed Employment and Training Plan V.3 2023-01-27

INUVIALUIT TRAINING AND JOBS

- ▶ IESP has provided and will continue to offer safety and emergency preparedness training for all involved and impacted by the construction and operations of the project.
- ▶ IESP has recently received several resumes from skilled Inuvialuit beneficiaries interested in the long-term operating and maintenance jobs at the Energy Facility.
- ▶ IESP, IRC, and Aurora College worked together to do a Trades Awareness Program in Inuvik in February 2024, introducing high school students to what skilled trades are required for working on the IESP long-term.



Spill Training

PROJECT NEXT STEPS

- ▶ Place more than 700 ad-freeze piles.
- ▶ Finalize engineering design and construction execution plans.
- ▶ Recruit and train local staff.
- ▶ Procure and assemble the Energy Facility modules for transport.
- ▶ Continued development of project financing and management systems.



M-18 Well Site – March 2024



**THANK YOU
QUYANAINNI
MAHSI CHO**