



Blackrod Insitu Oil Sands Pilot Project

Scheme Approval No. 11522H

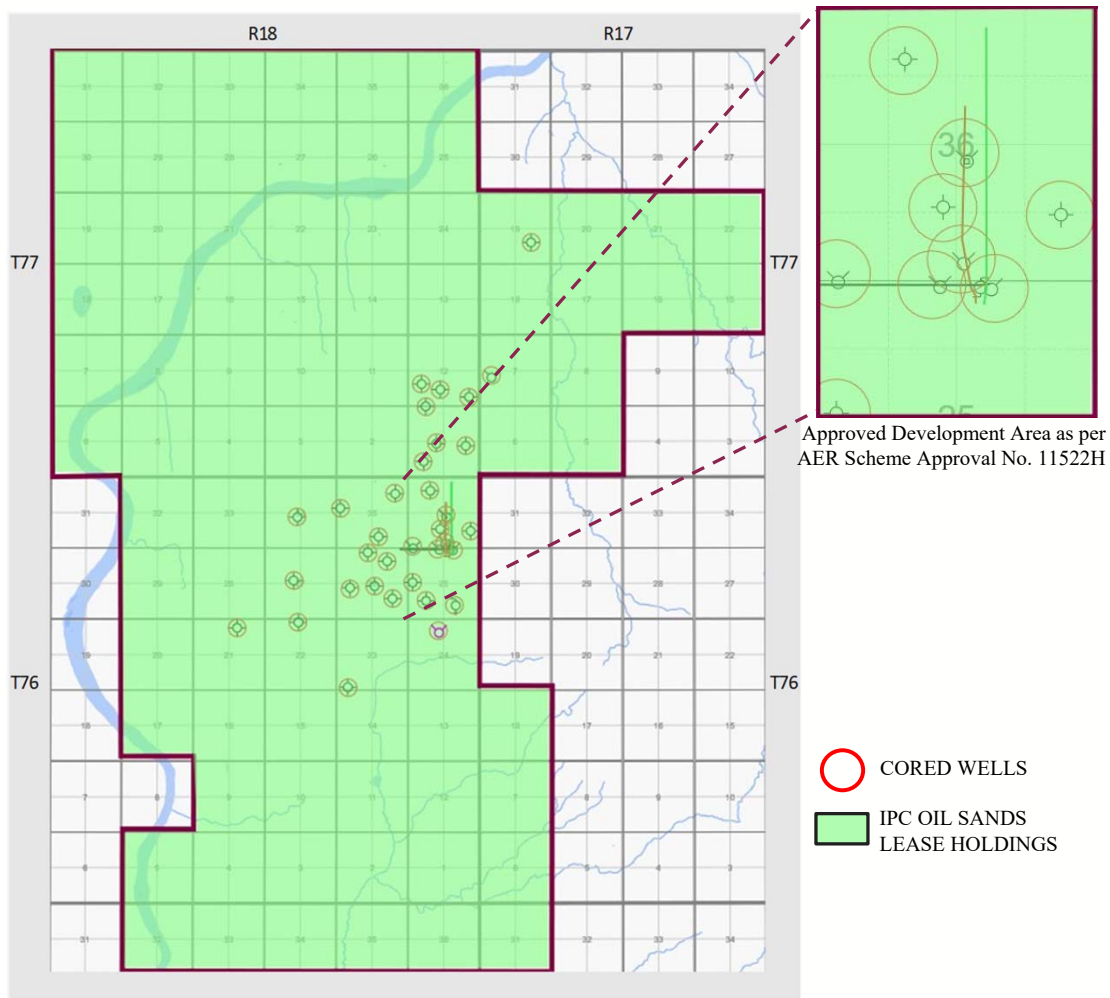
2021 Annual Performance Presentation



Introduction

Directive 54: Section 4.1

Overview



- AER Scheme Approval No. 11522H
- One (1) Operating SAGD Well Pair
- Portage area on Oil Sands Lease 7407060158
- Pilot site located in 02-36-076-18W4
- Target formation is the Lower Grand Rapids Unit 1 (L.GR1)
- Initial reservoir data:
 - Pressure: 1700 KPA
 - Temperature: 13°C
 - Depth: 300m
- Traditional SAGD recovery process
- IPC is the 100% W.I. Owner

Overview



➤ Project History:

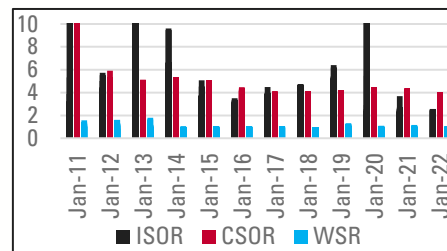
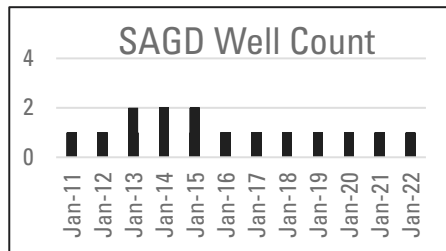
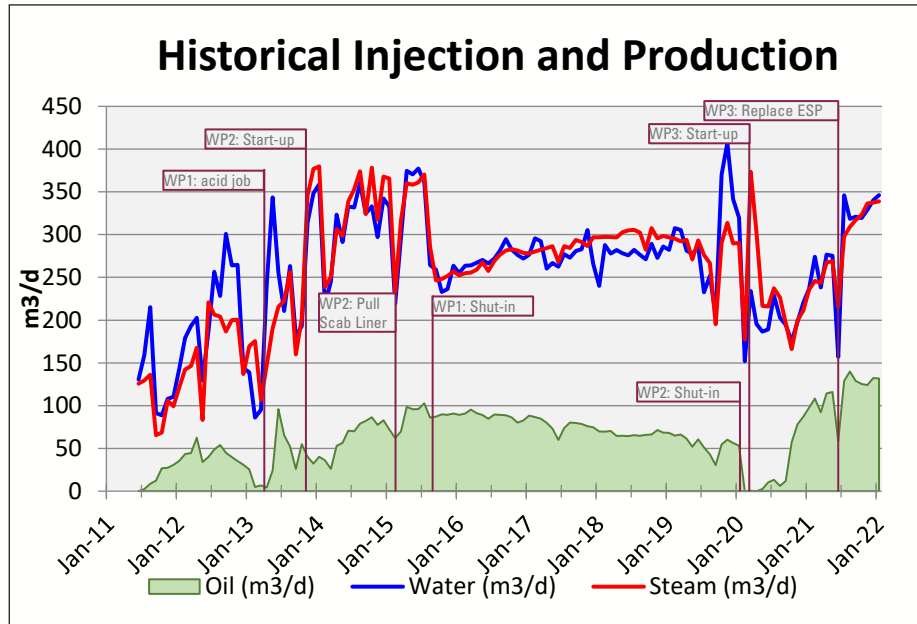
- 2011 – Constructed Blackrod facility and start Well Pair 1 (WP1)
- 2013 – Commission Well Pair 2 (WP2) facility expansion and start WP2
- 2015 – Shut-in WP1
- 2019 – Drill and complete Well Pair 3 (WP3)
- 2020 – Shut-in WP2 and start WP3
- 2021 – Continue ramping up WP3 production



Subsurface

Directive 54: Section 4.2

Scheme-level lifespan

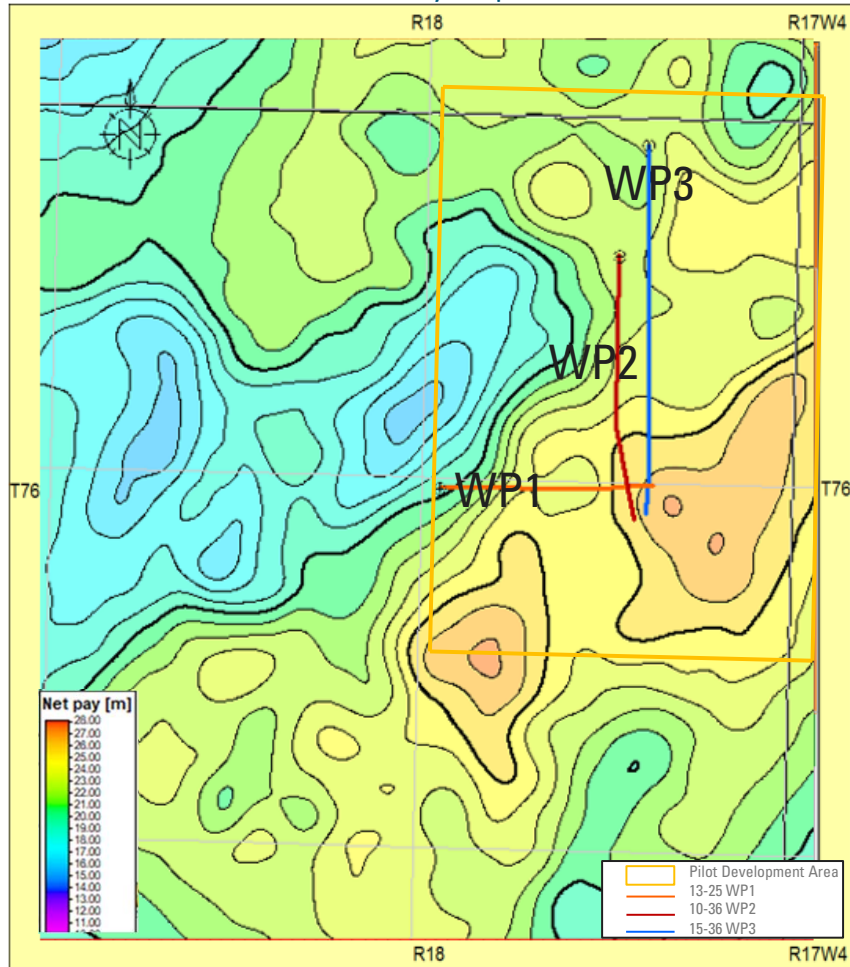


2021 Highlights

- Continue ramping WP3
- June – WP3 ESP cable failure

Development Maps

Net Pay Map

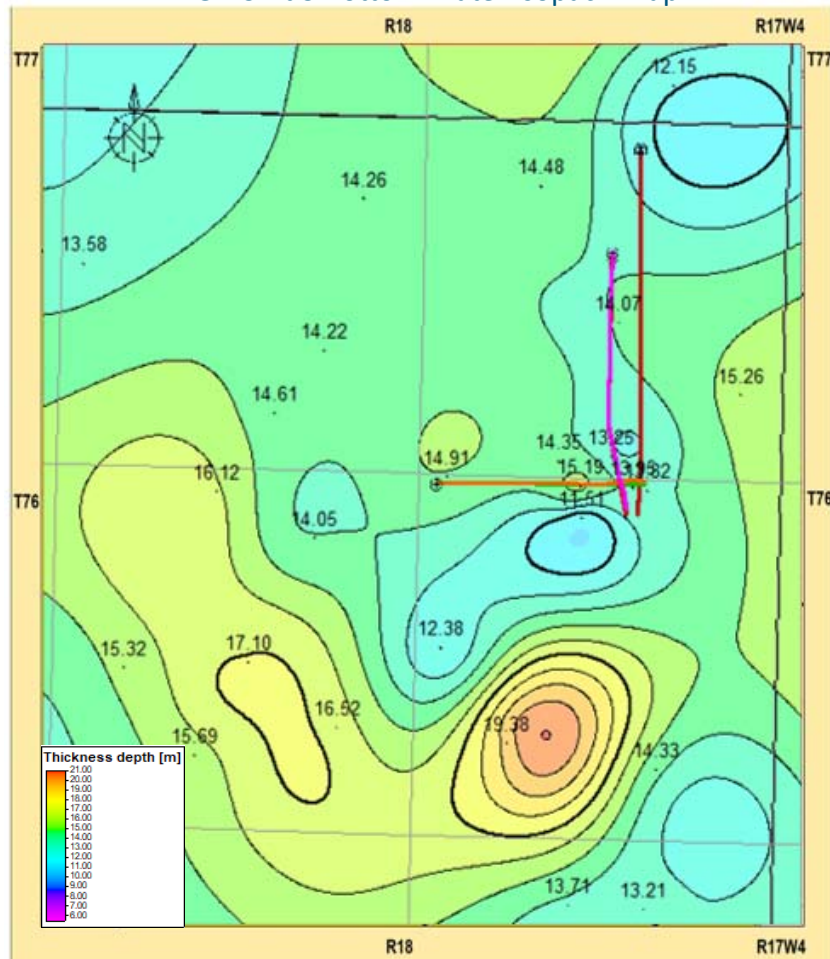


LOG CUTOFFS

- Gamma Ray <75 API
- Resistivity >20 Ohm.m
- Porosity >33%

Development Maps

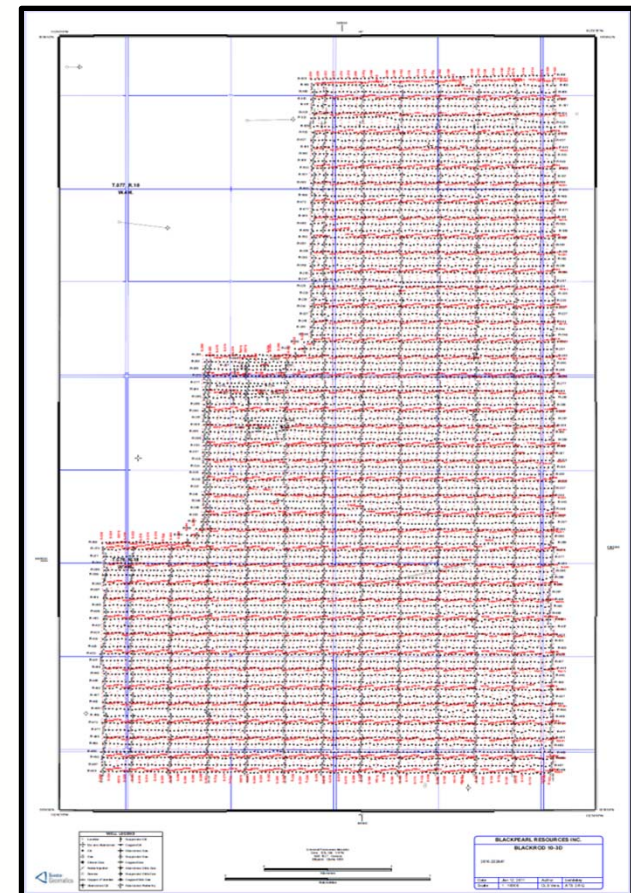
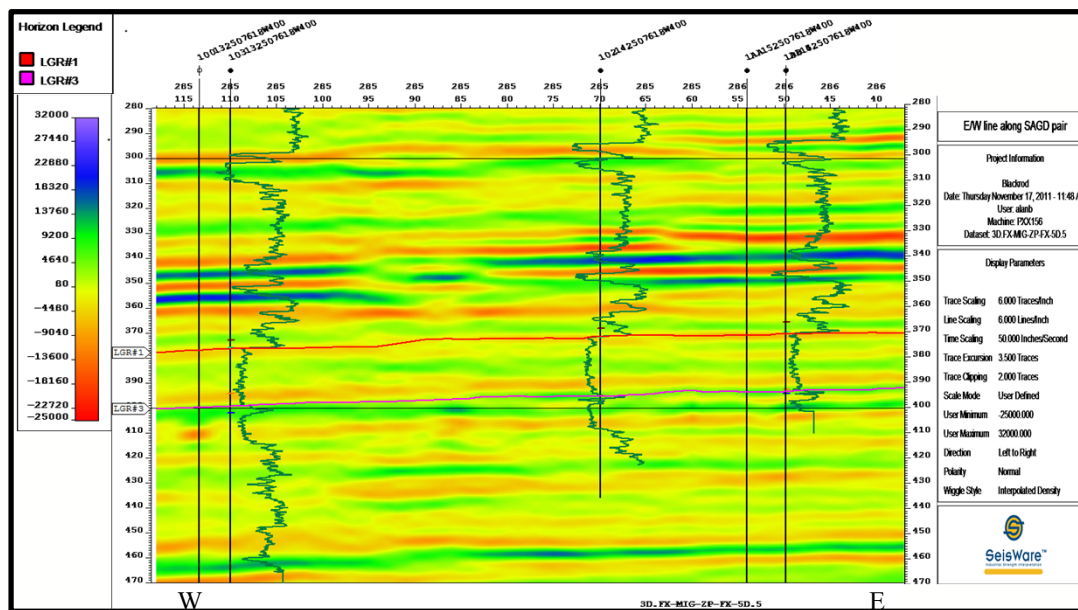
L. GR Unit 3 Bottom Water Isopach Map



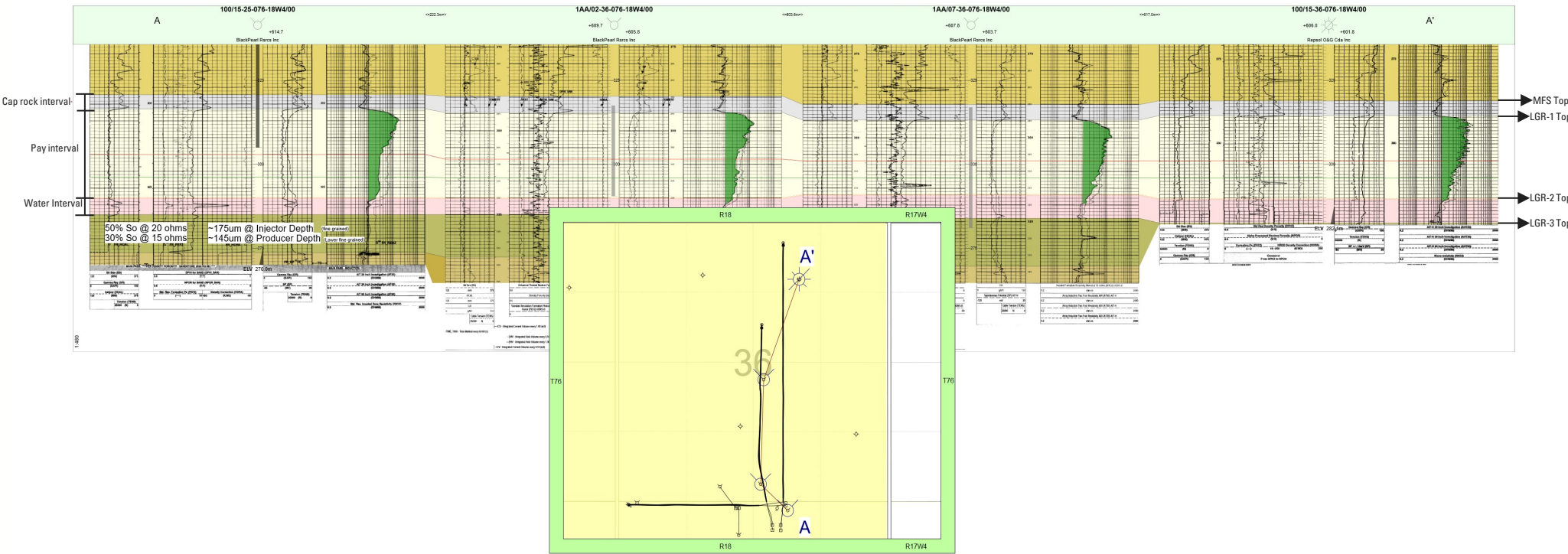
- No major gas intervals in communication with pay within the development area
- No geomechanical anomalies within the development area

3D Seismic Area Coverage

3D X-Line along 13-25 WP1



Representative Well Cross-Section A - A'



Original Bitumen in Place and Reservoir Properties

➤ Development Area OBIP

Well	Area (m ²)	Net Pay thickness (m)	Porosity (%)	S _o (%)	Horizontal Permeability (mD)	Vertical Permeability (mD)	OBIP (Mm ³)	PBIP (Mm ³)	Cumulative Oil Prod. (Mm ³)	Current Recovery (%)	Estimated Ultimate Recovery (%)
WP1	56,000	22	34	63	3450*	3024*	264	133	45	17%	55%
WP2	73,500	25	35	59	3450*	3024*	379	285	149	39.3%	55%
WP3	100,000	25	35	61	3450*	3024*	534	423	50	9.4%	55%
Pilot Totals	229,500	25	35	60	3450*	3024*	1205	898	244	20.2%	55%
Project/Development Area	3,804,190	25	35	60	3450	3024	19972	14,300	244	1.2%	55%

*Permeability for the well pairs are assumed to be the same as the development area average

Co-Injection

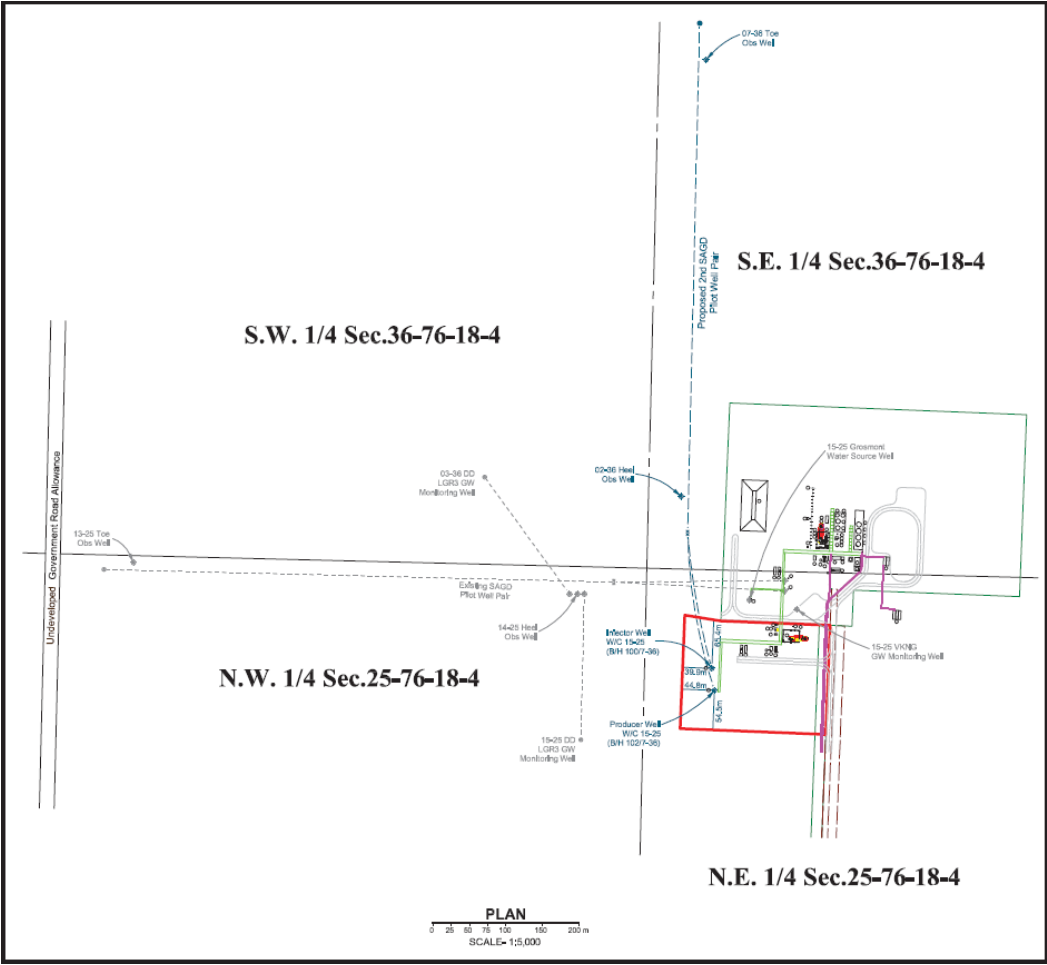
- No Co-Injection has been implemented



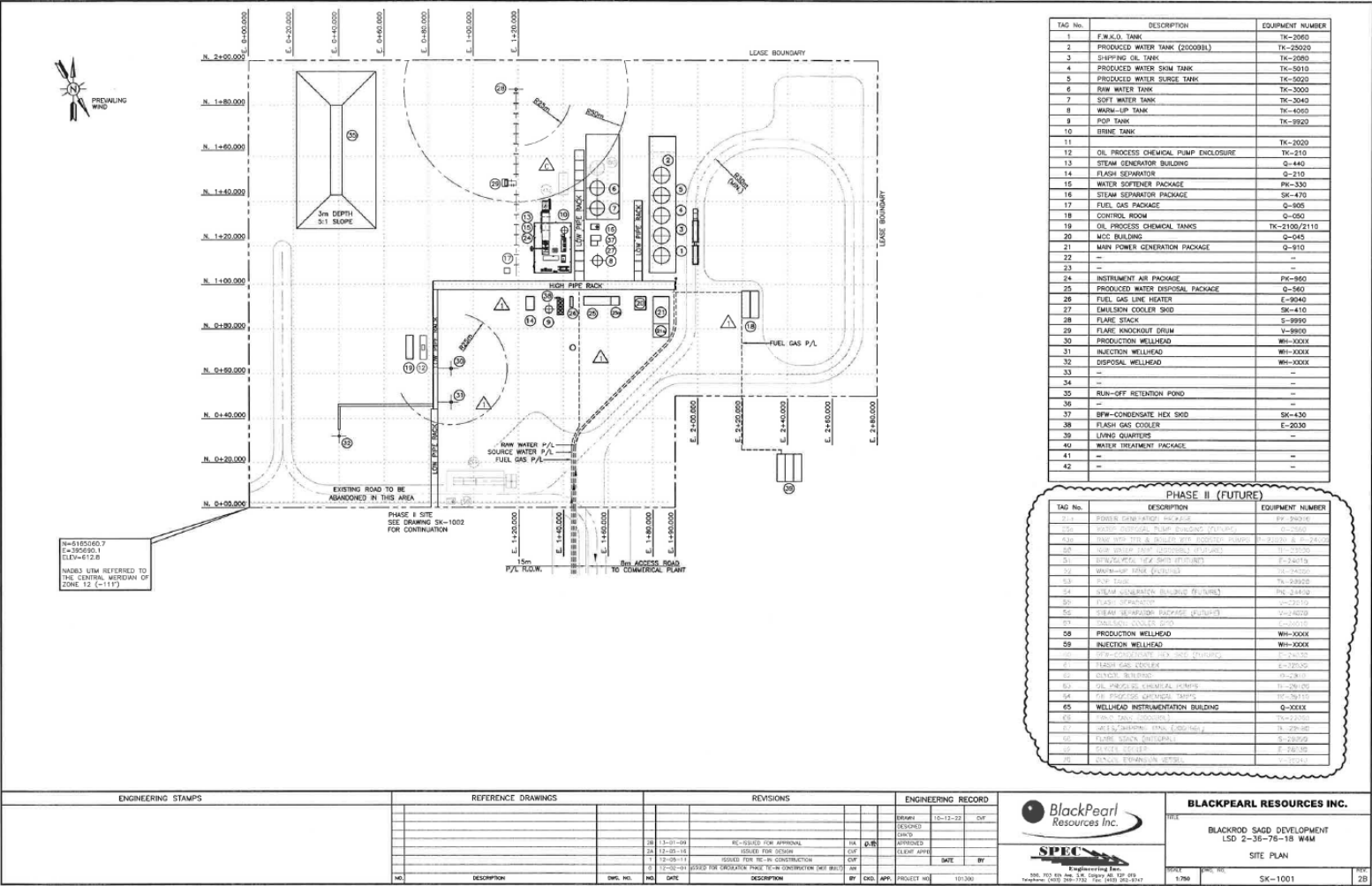
Surface

Directive 54: Section 4.3

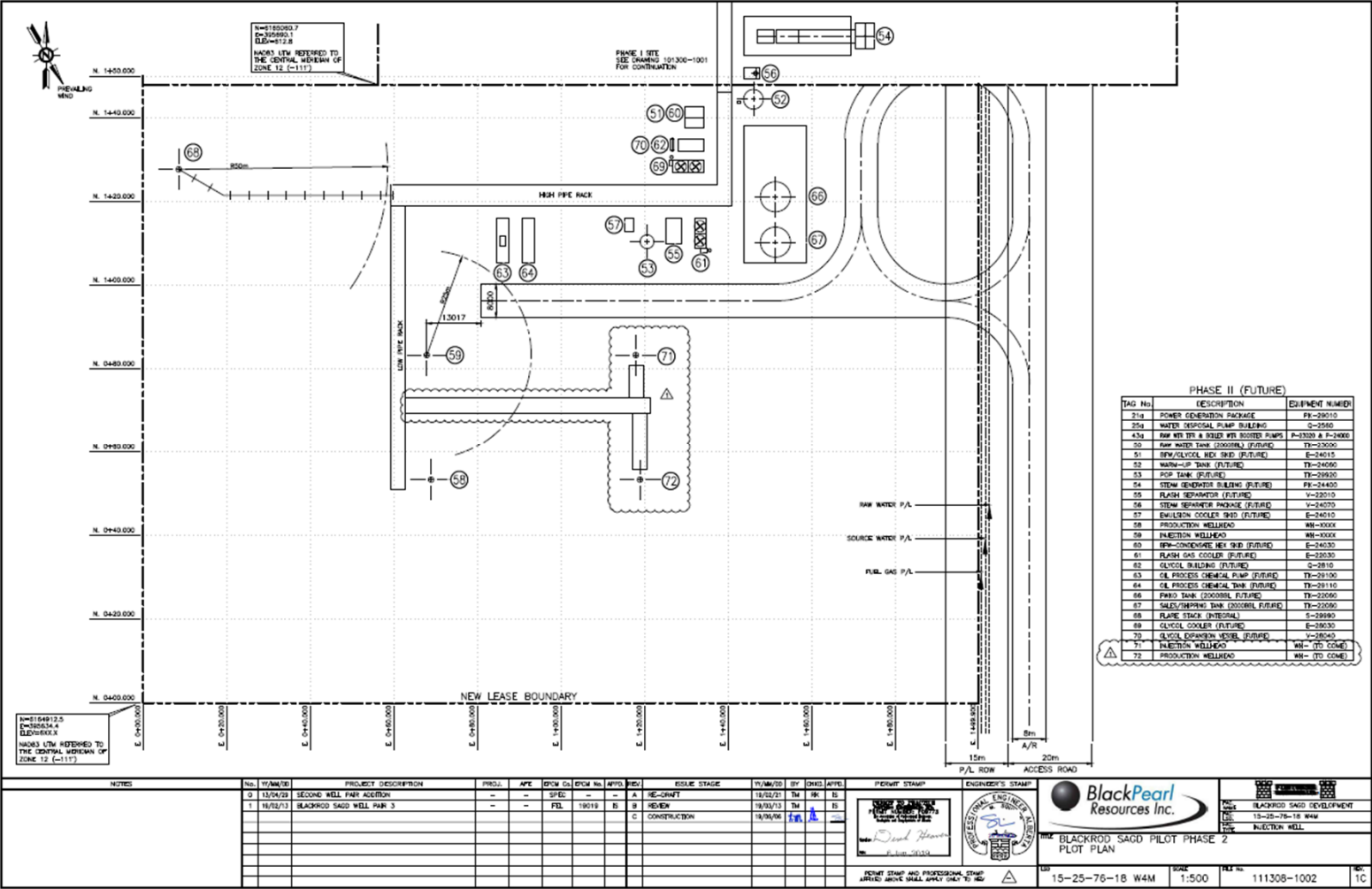
Facility Overview



Plot plan



Plot plan

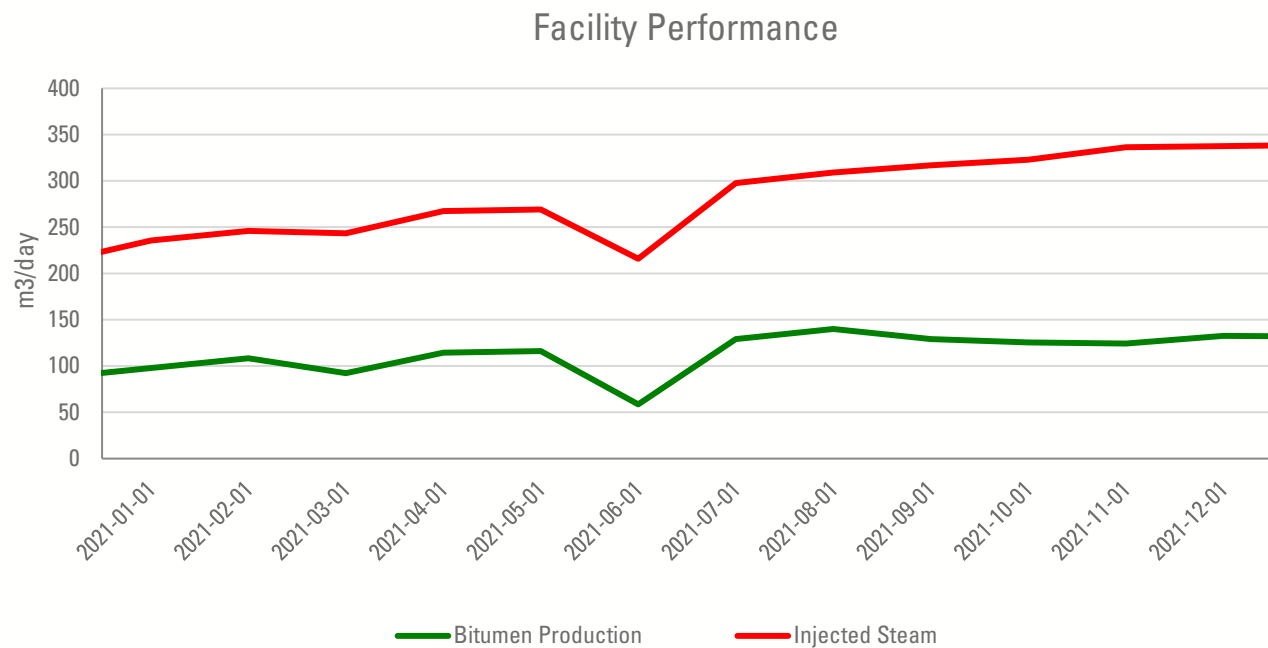


Facility performance

➤ No modifications to the facility that required an AER application approval

➤ Facility Design

- Steam 440m3/d
- Bitumen 160m3/d





History and Upcoming Activity

Directive 54: Section 4.4

Suspension and Abandonment Summary

- Suspended/abandoned wells
 - No abandonments or suspensions

Recent Regulatory and Operational Changes

➤ EPEA renewal

- Application No: 005-264736
- Approval No: 264736-01-00
- Effective Date: June 14, 2021

➤ Technical Innovations

- Trial new produced water treatment technology
 - Re-commissioned zero lime softening package through Q3-Q4 2021
 - Plan to start sending treated produced water to the OTSG in August 2022

Compliance History

- No reportable incidents, self-disclosures, contraventions or corresponding remediation
- To the best of IPC's knowledge, the Blackrod SAGD Pilot Project is currently in full compliance with all conditions and regulatory requirements related to AER Scheme Approval No. 11522H

Future Plans

- Approved Commercial SAGD Application No. 1728831
 - 80,000 bbl/d (12,720 m³/d) to be developed in phases, with the first phase planned for 20,000 bbl/d; two additional phases of 30,000 bbl/d each to follow
- No planned activity expected to significantly alter performance, or material balance of the scheme
- No applications expected to be submitted in the next year

