Persistence Energy Ltd.

November 17, 2025

Persistence is seeking an operating partner to acquire 50% interest in the Holburn Area of Alberta.

Partner to reimburse Persistence for $375,000.00 which Persistence paid Astara to purchase their entire interest in the area. The purchased lands and interests are described in the attached memo and illustrated on the attached plat. Partner must be an operator licenced by Alberta Energy and will agree to accept a transfer of the well licence for the 00/16-11-051-02W5 well.

Partner and Persistence will jointly rework and refurbish the 16-11 well in accordance with the attached workover program and cost estimate. This does not include an estimate for production facilities and pump jack.

Partner and Persistence will set up a mutually acceptable Joint Operating Agreement for the lands and interests. The JOA will include an area of mutual interest with interests to be shared equally.

Suite 630, 505 – 3rd Street S.W., Calgary, Alberta T2P 3E6 Tel: 403-389-8222 Fax: 403-266-3185

Persistence Energy Ltd. Land Interests - September 10, 2025

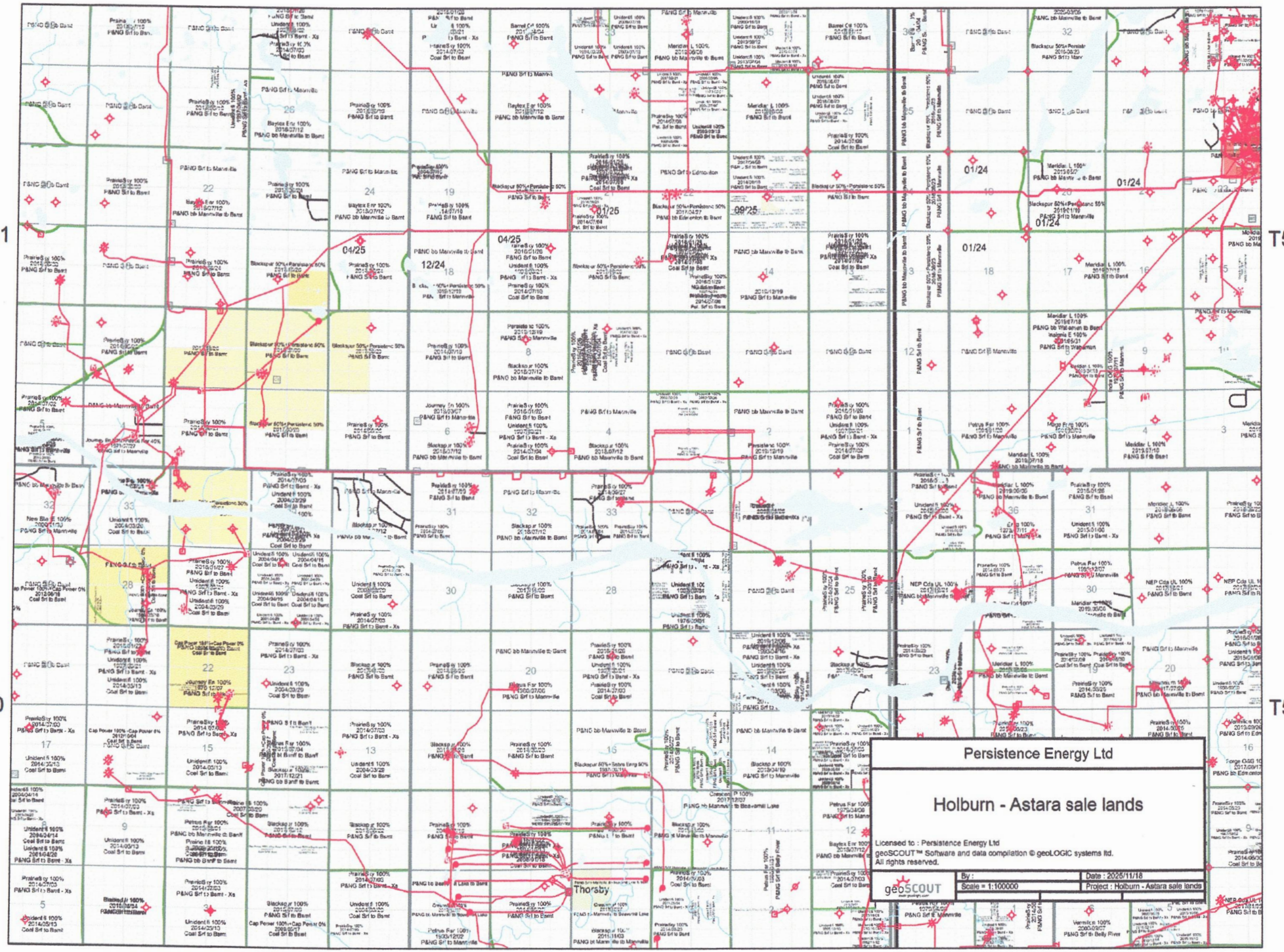
file #	lease name #	description	rights held	royalty	r $	rental date	expiry year	rental payor	gross ha	PEL %
Holburn # 03										
03-M03 0415070079		51-2W5: 11	all PNG to bs Mannville	Crown **	896	Jul-09	**sec 15**	PEL	256	50
								Astara		50
03-M05 0417030159		51-2W5: N2,W12	all PNG to bs Mannville	Crown **	672	Mar-31	**sec 15**	PEL	192	50
								Astara		50
03-M42 0417100155		51-2W5: S & NE 10	all PNG to bs Mannville	Crown **	672	Oct-25	**sec 15**	PEL	192	50
								Astara		50
03-M43 0417100156		51-2W5: SE 14	all PNG to bs Mannville	Crown **	224	Oct-25	**sec 15**	PEL	64	50
								Astara		50
03-M54 0422110018		50-2W5: 22	PNG below Viking to bs Mann	Crown	896	Nov-03	**2027**	PEL	256	50
								Astara		50
03-M55 0422110019		50-2W5: NE28	PNG to bs Beaverhill Lk	Crown	672	Nov-03	**2027**	PEL	192	50
		50-2W5: W28	PNG to bs Mannville					Astara		50
03-M56 0422110020		50-2W5: 34	PNG to bs Banff	Crown **	896	Nov-03	**2027**	PEL	256	50
								Astara		50

03-C01 applies to all
03-C04

** 6% GORR on Astara's 50% of production
JOA dated June 12, 2014 - PEL and Astara
P&S Agreement dated October 22, 2024 - Astara & PEL

Persistence interest wells - April 25, 2025

Licence #	unique WI	status	operator	PEL interest		
Holburn # 03						
0502001	00/16-11-051-02W5/	P OIL	Aspenleaf	50	Astara	50


R2
R1W5
R28
R27W4
T51
T50
Persistence Energy Ltd
Holburn - Astara sale lands
Licensed to : Persistence Energy Ltd
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All rights reserved.
geoSCOUT
By :
Date : 2025/11/18
Scale = 1:100000
Project : Holburn - Astara sale lands
Thorsby

HOLBURN
Mid Mannville Horizontal Play

TWP 51

TWP 51

TWP 50

TWP 50

TWP 49

Mid Mannville
Net Sand Isopach
C.I. : 10m

Planned 06-22 Hz.

Drilled 16-11 Hz.

Planned 06-34 Hz.

Peak Prod. 206 Bbls/d 159 Mcf/d

Peak Prod. 393 Bbls/d 238 Mcf/d

Peak Prod. 262 Bbls/d 834 Mcf/d

Peak Prod. 169 Bbls/d 575 Mcf/d

Peak Prod. 608 Bbls/d 575 Mcf/d

Peak Prod. 449 Bbls/d 169 Mcf/d

Peak Prod. 172 Bbls/d 811 Mcf/d

Peak Prod. 242 Bbls/d 874 Mcf/d

Peak Prod. 222 Bbls/d 636 Mcf/d

Peak Prod. 201 Bbls/d 2027 Mcf/d

Peak Prod. 146 Bbls/d 3634 Mcf/d

Peak Prod. 270 Bbls/d 290 Mcf/d

Peak Prod. 160 Bbls/d 1600 Mcf/d

OOIP: 800,793,259 barrels
Rf: 7.5% or 60,059,494 barrels

Holburn Mid Mannville Sand
18 API Oil
300 Centipoise @ 57 deg. @ formation
9% Porosity Cut Off

Expected Production Holburn
IP3: 300 bopd, 400 mcf/d, 367 boepd

CapEx: $3.8MM/well (D&C&C)

Holburn Held Lands

PSK Land to Re-obtain

Net Sand Isopach (m)

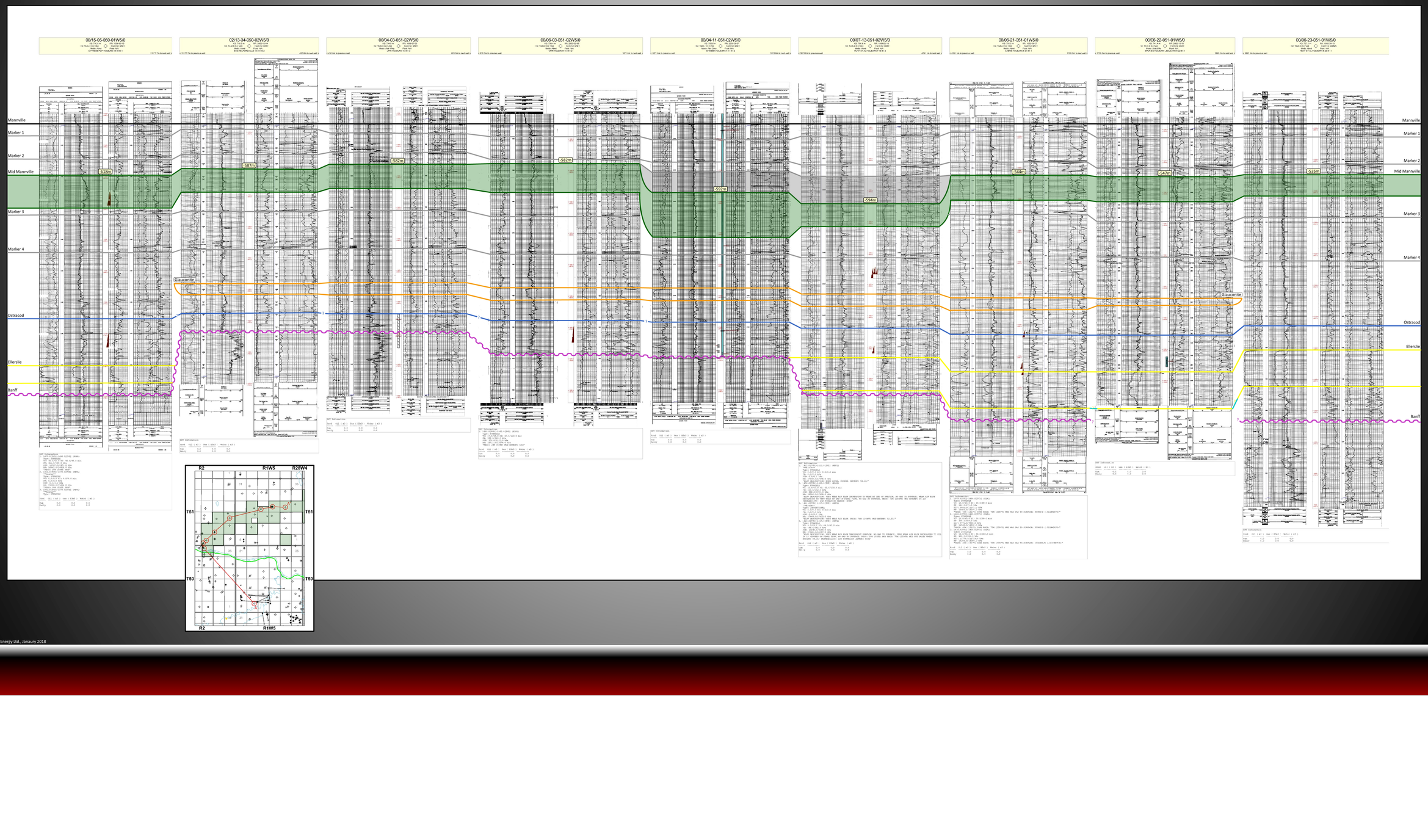
6.75 Sections at 100% W.I.
2+ PSK Sections Available

RG 2w5

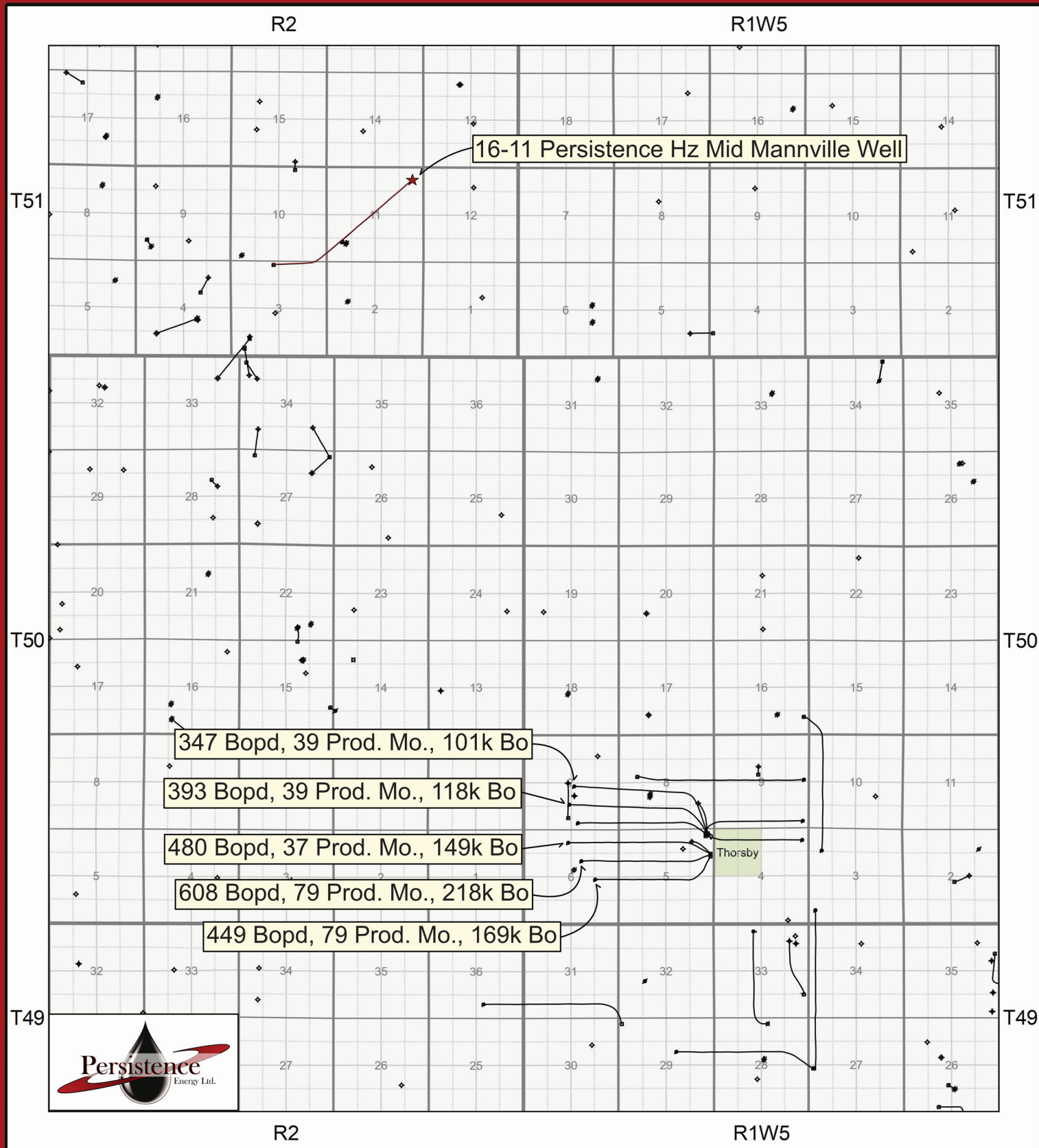
RG 1w5

Persistence Energy Ltd. - August 2025

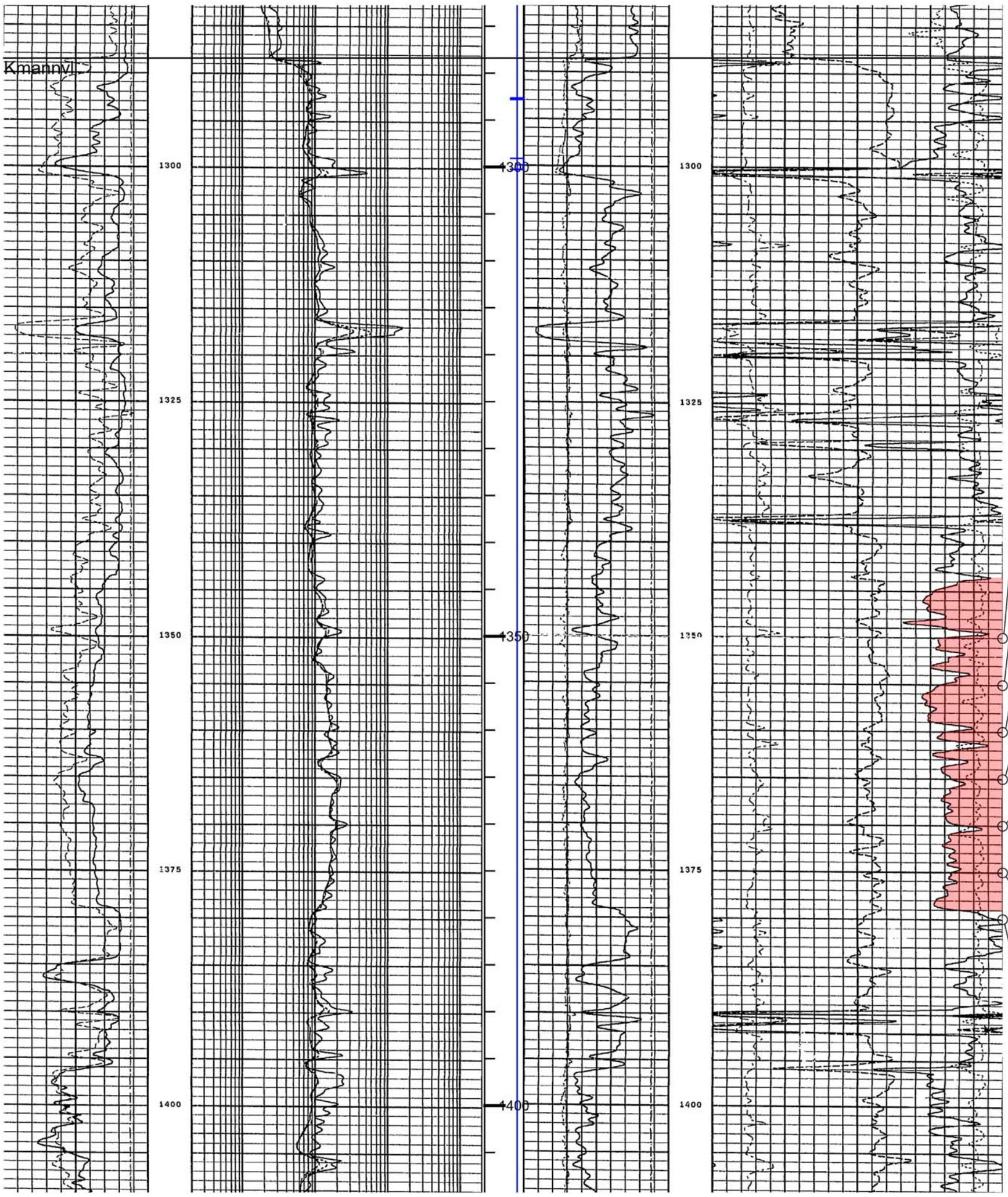
Holburn
Stratigraphic Cross Section



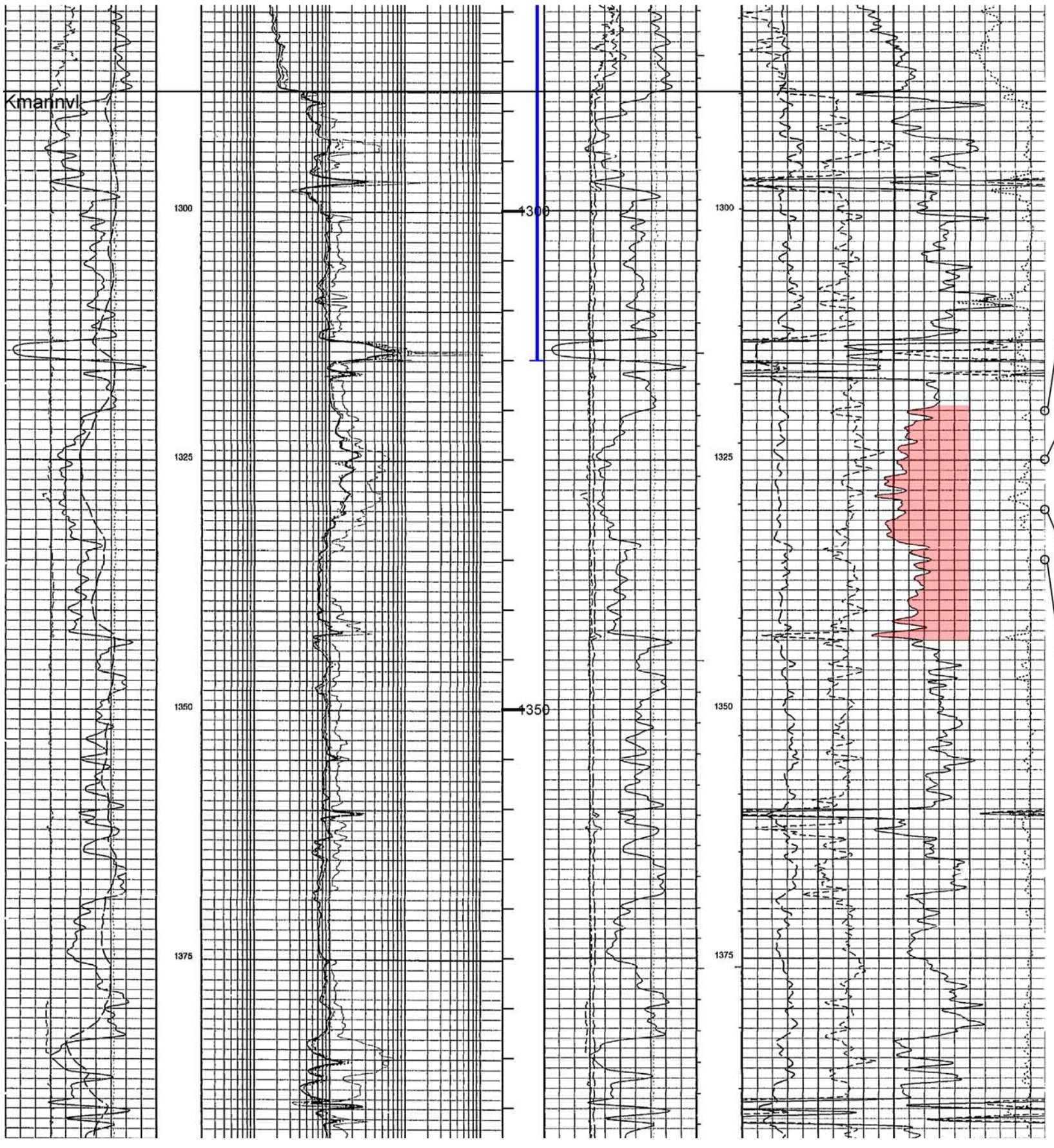
Persistence Energy Ltd., January 2018


R2
R1W5
T51
T50
T49
16-11 Persistence Hz Mid Mannville Well
347 Bopd, 39 Prod. Mo., 101k Bo
393 Bopd, 39 Prod. Mo., 118k Bo
480 Bopd, 37 Prod. Mo., 149k Bo
608 Bopd, 79 Prod. Mo., 218k Bo
449 Bopd, 79 Prod. Mo., 169k Bo
Thorsby
Persistence
Energy Ltd.

100/04-11-051-02w5m

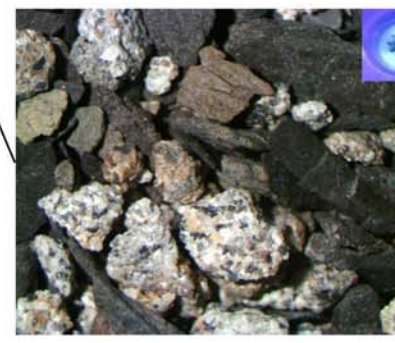


100/06-03-051-02w5m





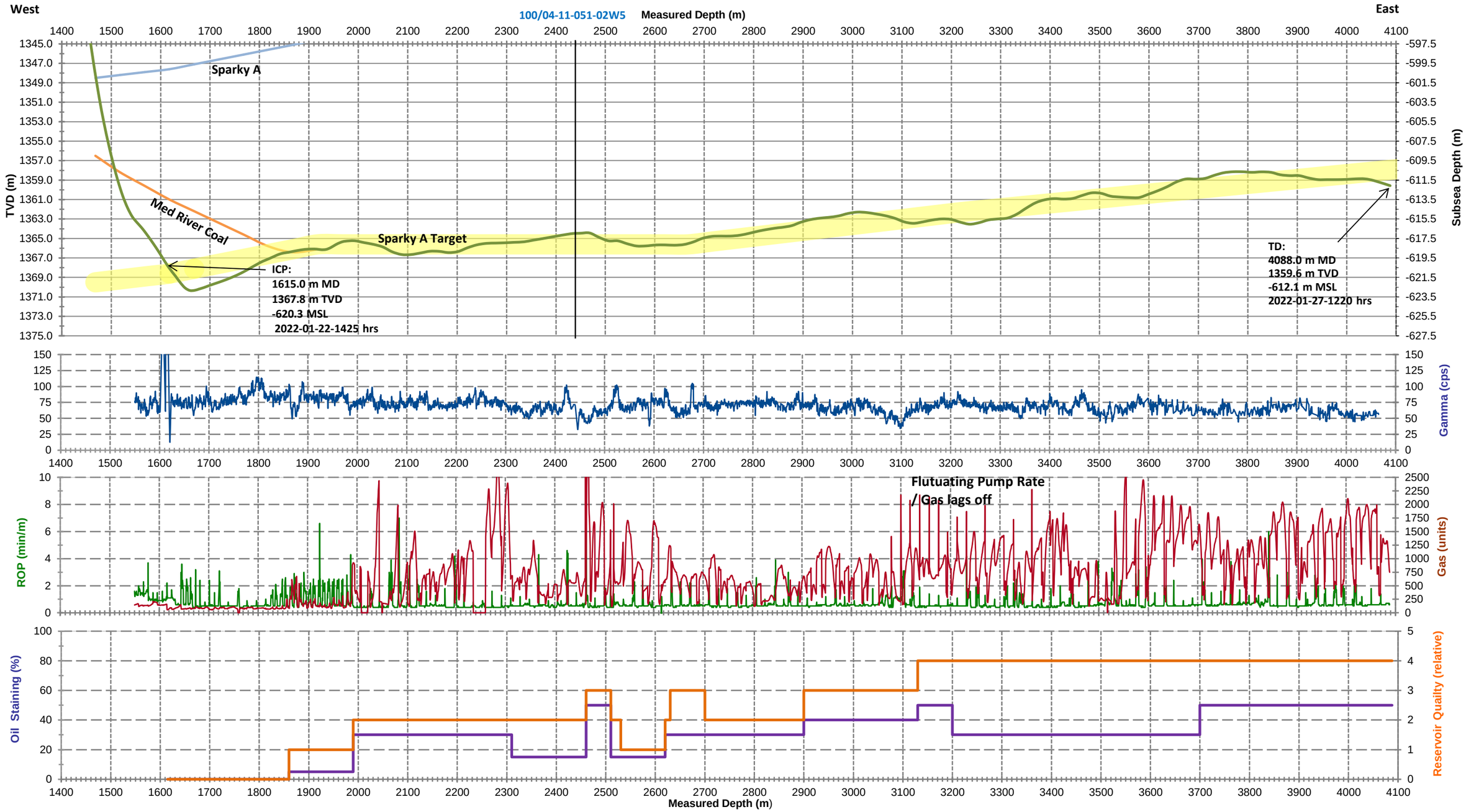






Well Name: Blackspur 100 HZ Leduc-WB 16-11-051-02W5
Well Location: 14-03-051-02W5
Well UWI: 100/16-11-051-02W5/00
KB: 747.5 m

Spud: 2022-01-19-1600 hrs
KOP: 1007.0 m MD
ICP: 1615.0 m MD
TD: 4088.0 m MD
Open Hole: 2473.0 m



Tallman

DESIGN DRIVING 25

Tallman Equipment Co., Inc.

Any use of 3-D data files is
subject to the following:

Work Space - Minimum 100' W x 100' Long with 40' W x 14'-6H ADAM / LATERAL
Work Space - Minimum 100' W x 100' Long with CARAMBA

Licensing Level - LICENSE Required
Service Class - SERVICE OR REPAIR Only
Service Class - SERVICE OR REPAIR Only - Must have a Factory Certified Technician

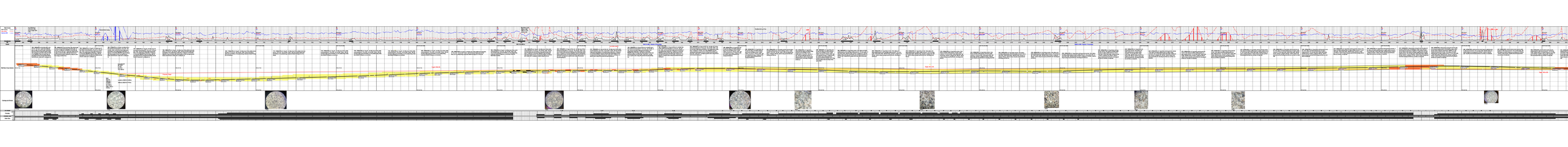
Working Envelope - 360° Rotation
Working Envelope - 360°/0°-15° Grid

Service Class - Lift 10 ft and 15 ft ONLY or Equal Lift and Under
Service Class - Lift 10 ft

Occupant Protection - Type A
Occupant Protection - Type B

Type of Work Being Done - Welding
Type of Work Being Done - Welding

Operator - Must have 1 yr. exp. Driver Lic.
Operator - Must have 1 yr. exp. Driver Lic.
Operator - Must have 1 yr. exp. Driver Lic.


Well Group
Well Name
Well No.
Logging Date
Logging Unit
Logging Engineer
Drilling Engineer
Mud Logging Engineer
Mud Logging Unit
Mud Logging Date
Mud Logging Time
Mud Logging Depth
Mud Logging Interval
Mud Logging Footage
Mud Logging Drilling Time
Mud Logging Drilling Rate
Mud Logging Drilling Pressure
Mud Logging Drilling Torque
Mud Logging Drilling Weight
Mud Logging Drilling Speed
Mud Logging Drilling Direction
Mud Logging Drilling Inclination
Mud Logging Drilling Azimuth
Mud Logging Drilling Toolface
Mud Logging Drilling Gamma Ray
Mud Logging Drilling Resistivity
Mud Logging Drilling Density
Mud Logging Drilling Neutron
Mud Logging Drilling Porosity
Mud Logging Drilling Permeability
Mud Logging Drilling Saturation
Mud Logging Drilling Lithology
Mud Logging Drilling Fluid
Mud Logging Drilling Gas
Mud Logging Drilling Oil
Mud Logging Drilling Water
Mud Logging Drilling Cuttings
Mud Logging Drilling Core
Mud Logging Drilling Sidewall
Mud Logging Drilling Mudlog
Mud Logging Drilling Report
Mud Logging Drilling Summary
Mud Logging Drilling Conclusion
Mud Logging Drilling Recommendation
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Mud Logging Drilling Introduction
Mud Logging Drilling Methodology
Mud Logging Drilling Results
Mud Logging Drilling Discussion

Low Gap - Running on Grade
Low Gap
Low Gap
Low Gap

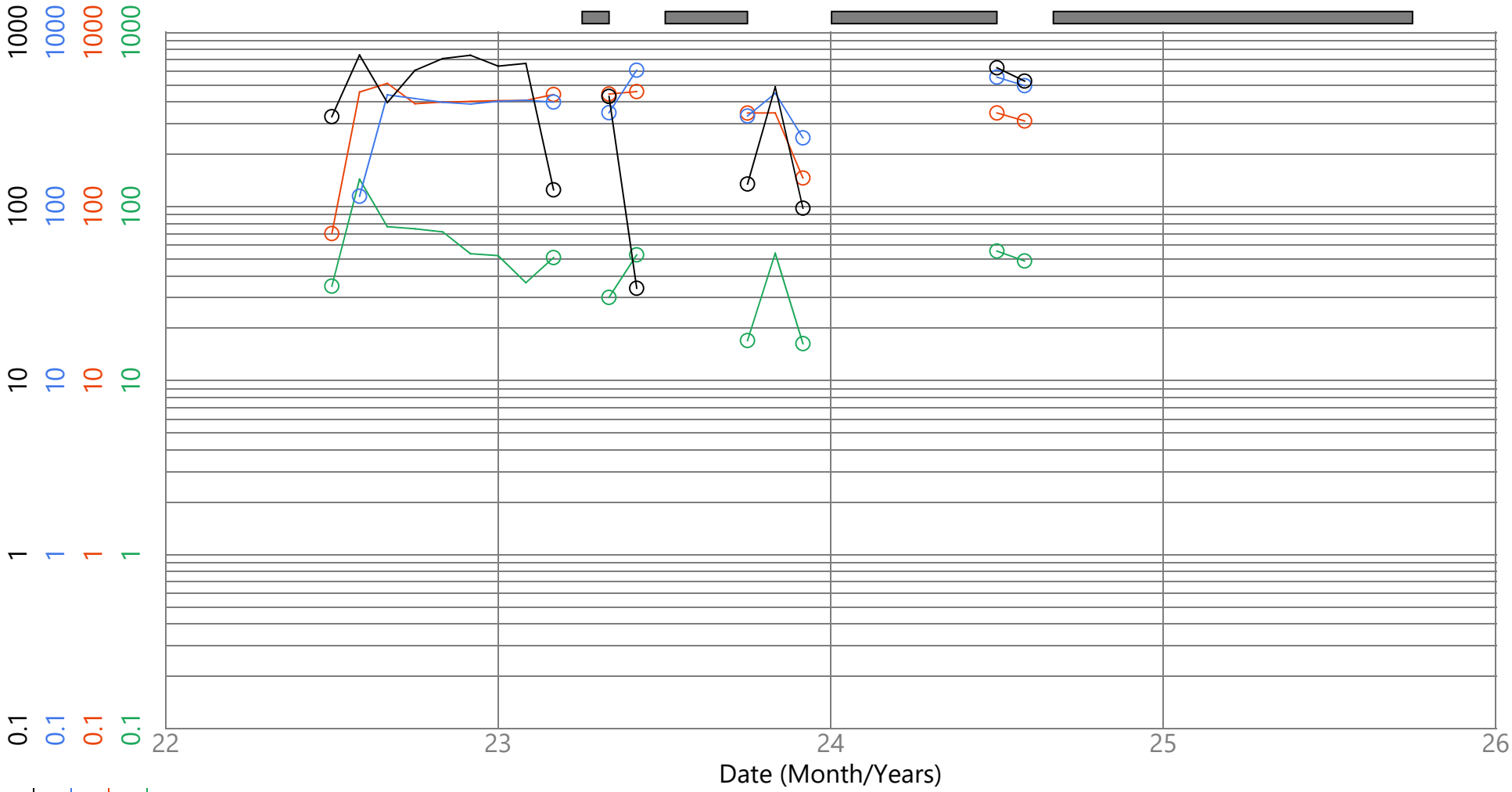
Unique Well ID	Report Month	PRD Prd-Day Avg OIL (Bbl/Day)	PRD Cum OIL (Bbl)	PRD Prd-Day Avg GAS (Mcf/Day)	PRD Cum GAS (Mcf)	PRD Prd-Day Avg WTR (Bbl/Day)	PRD Cum WTR (Bbl)	PRD Percent: WTR Cut (%)	PRD Monthly Hours (hrs)	Notes
100/16-11-051-02W5/00	07-2022	34.93	478.89	70.07	960.56	0	0	0	329	
100/16-11-051-02W5/00	08-2022	143.86	4938.64	455.9	15093.49	114.89	3561.45	44.41	744	Well started flowing up casing. ESD tripped.
100/16-11-051-02W5/00	09-2022	76.73	6207.92	511.52	23554.88	439.5	10831.55	85.14	397	Ran bailer to 2745mKb. Through 20 sleeves. Recovered frac sand. Ran new 59-1800 pump.
100/16-11-051-02W5/00	10-2022	74.65	8098.92	390.74	33453.58	418.37	21430.37	84.87	608	Rotor broken, ran new 59-1800 pump. Cleanout suggested, Corporate denied request.
100/16-11-051-02W5/00	11-2022	71.66	10218.99	399.3	45266.33	398.26	33212.35	84.76	710	
100/16-11-051-02W5/00	12-2022	53.71	11879.68	402.76	57718.28	389.12	45242.8	87.88	742	
100/16-11-051-02W5/00	**2022**	**75.93**		**371.72**		**293.36**		**64.51**	**3530**	
100/16-11-051-02W5/00	01-2023	52.33	13281.73	407.17	68626.98	402.95	56038.49	88.51	643	
100/16-11-051-02W5/00	02-2023	36.58	14296.77	408.12	79952.4	408.87	67384.57	91.79	666	Op Notes: pump starting to fail
100/16-11-051-02W5/00	03-2023	50.99	14562.33	441.41	82251.38	399.27	69464.08	88.68	125	Replaced pump with 59-1800 pump. Corod looked good, failure was pump.
100/16-11-051-02W5/00	04-2023	0	14562.33	0	82251.38	0	69464.08	0	0	
100/16-11-051-02W5/00	05-2023	30.1	15101.63	443.68	90200.71	346.97	75680.58	92.02	430	
100/16-11-051-02W5/00	06-2023	52.86	15176.51	458.68	90850.5	608.73	76542.96	92.01	34	
100/16-11-051-02W5/00	07-2023	0	15176.51	0	90850.5	0	76542.96	0	0	
100/16-11-051-02W5/00	08-2023	0	15176.51	0	90850.5	0	76542.96	0	0	
100/16-11-051-02W5/00	09-2023	0	15176.51	0	90850.5	0	76542.96	0	0	
100/16-11-051-02W5/00	10-2023	17	15272.17	345.3	92792.81	331.89	78409.86	95.13	135	Fish parted rod above stator - POOH parted corod and stator re welded corod and RIH w/ same stator
100/16-11-051-02W5/00	11-2023	54.04	16370.9	345.62	99820.42	448.65	87532.39	89.25	488	Spider Oilfield repair 780M Pro Rod string, cut to 350 off and installed 350m NEW 780M Pro-Rod. Weld to spec and spooled back onto real. RIH new 59-1800 pump.
100/16-11-051-02W5/00	12-2023	16.34	16437.61	146.16	100417.24	248.63	88547.61	93.84	98	
100/16-11-051-02W5/00	**2023**	**25.85**		**249.68**		**266.33**		**60.94**	**2619**	
100/16-11-051-02W5/00	01-2024	0	16437.61	0	100417.24	0	88547.61	0	0	Tidewater gas plant shut down.
100/16-11-051-02W5/00	02-2024	0	16437.61	0	100417.24	0	88547.61	0	0	
100/16-11-051-02W5/00	03-2024	0	16437.61	0	100417.24	0	88547.61	0	0	
100/16-11-051-02W5/00	04-2024	0	16437.61	0	100417.24	0	88547.61	0	0	
100/16-11-051-02W5/00	05-2024	0	16437.61	0	100417.24	0	88547.61	0	0	
100/16-11-051-02W5/00	06-2024	0	16437.61	0	100417.24	0	88547.61	0	0	
100/16-11-051-02W5/00	07-2024	55.56	17893.78	345.76	109478.99	555.51	103106.67	90.91	629	D60 Flare permit authorized.
100/16-11-051-02W5/00	08-2024	48.75	18964.19	310.88	116305.31	495.83	113994.21	91.05	527	Pump starts to fail.
100/16-11-051-02W5/00	09-2024	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	10-2024	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	11-2024	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	12-2024	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	**2024**	**8.69**		**54.72**		**87.61**		**15.16**	**1156**	
100/16-11-051-02W5/00	01-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	02-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	03-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	04-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	05-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	06-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	07-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	08-2025	0	18964.19	0	116305.31	0	113994.21	0	0	
100/16-11-051-02W5/00	09-2025	0	18964.19	0	116305.31	0	113994.21	0	0	900 PSI recorded at well head.
100/16-11-051-02W5/00	**2025**	**0**		**0**		**0**		**0**	**0**	

INDIVIDUAL PRODUCTION/INJECTION

Data As Of: 2025-09 (AB)
From: 2022-07
To: 2025-09

100/16-11-051-02W5/00
ASPENLEAF LEDUC-WB 16-11-51-2
Pumping Crude Oil

Field: LEDUC-WOODBEND (0551)
Pool: SPARKY C (0276003)
Unit:



PRD Prd-Day Avg OIL (Bbl/Day)
PRD Prd-Day Avg GAS (Mcf/Day)
PRD Prd-Day Avg WTR (Bbl/Day)
PRD Monthly Hours (hrs)

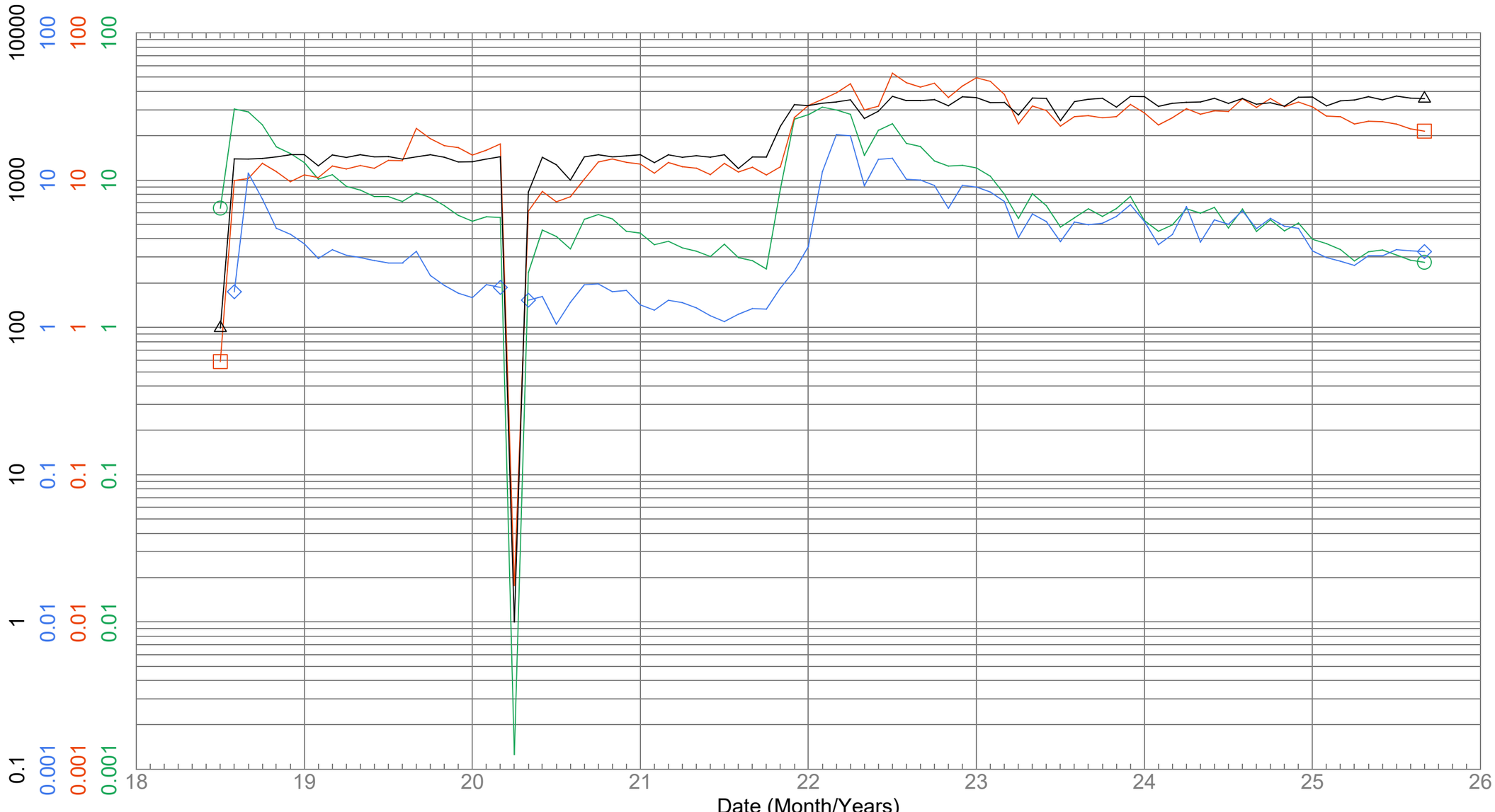
Cum PRD OIL	19.0	Mbbl
Cum PRD GAS	116.3	MMcf
Cum PRD WTR	114.0	Mbbl
Cum PRD HRS	7305.0	Hour

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SELECTED WELLS PRODUCTION/INJECTION

Producing Wells: 5
Injecting Wells: 0

From: 2018-07
To: 2025-09
Unit(M\A): API



PRD Monthly OIL (Mbbl)
PRD Monthly GAS (MMcf)
PRD Monthly WTR (Mbbl)
PRD Monthly Hours (hrs)

Cum PRD OIL	777.2	Mbbl
Cum PRD GAS	2.0	Bcf
Cum PRD WTR	395.5	Mbbl
Cum PRD HRS	211795.0	Hour
Cum INJ WTR	0.0	Bbl
Cum INJ Source WTR	0.0	Bbl

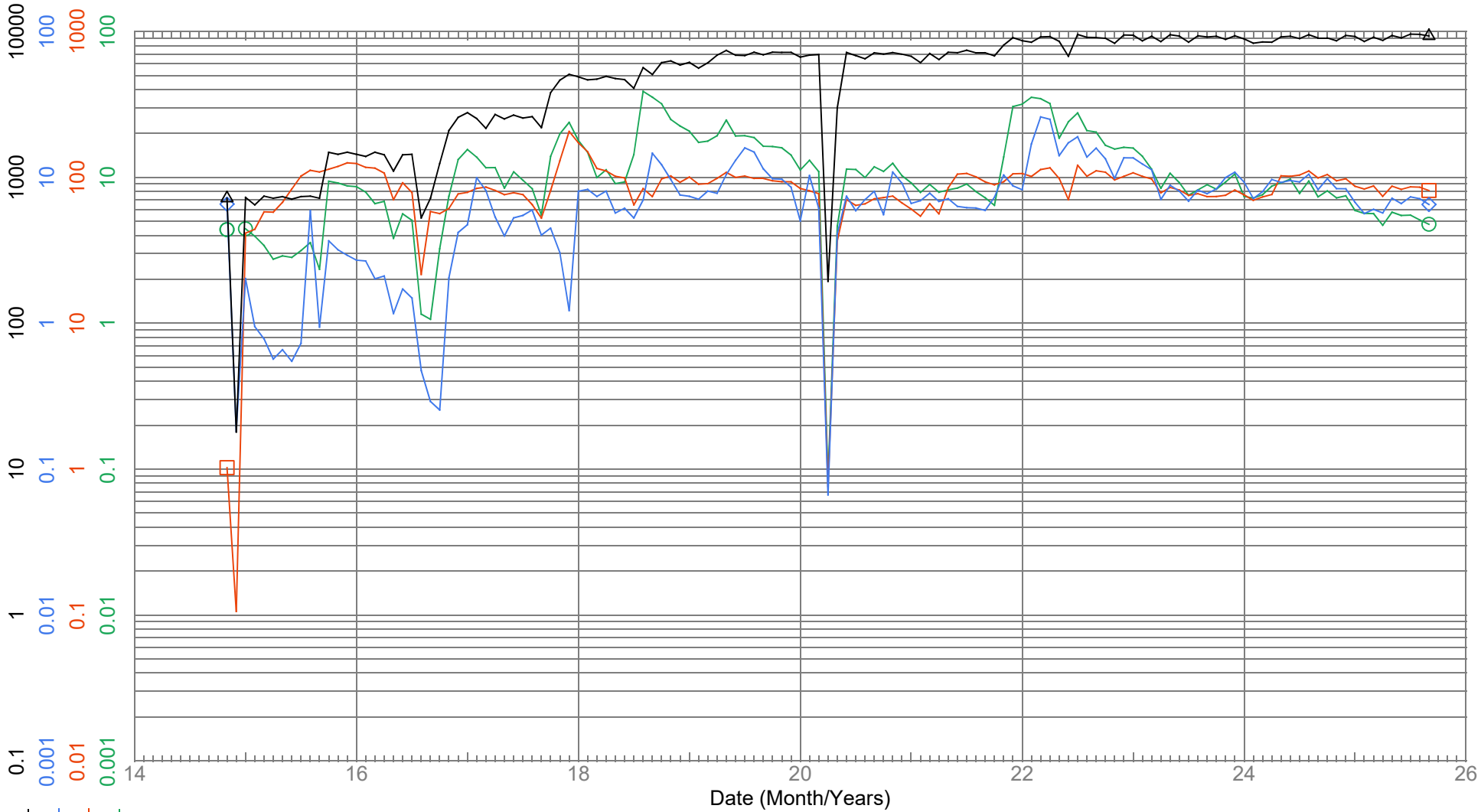
INJ Monthly GAS (No Data)
INJ Monthly Water (No Data)
INJ Monthly Steam (No Data)
INJ Monthly Hours (No Data)

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SELECTED WELLS PRODUCTION/INJECTION

From: 2014-11
To: 2025-09
Unit(M\A): API

Producing Wells: 13
Injecting Wells: 0



PRD Monthly OIL (Mbbl)
PRD Monthly GAS (MMcf)
PRD Monthly WTR (Mbbl)
PRD Monthly Hours (hrs)

Cum PRD OIL	1.6	MMbbl
Cum PRD GAS	11.5	Bcf
Cum PRD WTR	975.5	Mbbl
Cum PRD HRS	771396.0	Hour
Cum INJ WTR	0.0	Bbl
Cum INJ Source WTR	0.0	Bbl

INJ Monthly GAS (No Data)
INJ Monthly Water (No Data)
INJ Monthly Steam (No Data)
INJ Monthly Hours (No Data)

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	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12	2023-01	2023-02	2023-03	2023-04	2023-05	2023-06	Total
Sales Gas (10^3m^3)	9	142	90	104	122	124	106	122	23	0	84	7	933
Sales Liquids (m^3)	6	64	42	57	64	78	56	49	11	0	42	3	472
Sales Gas (MMcf)	0.318	5.015	3.178	3.673	4.308	4.379	3.743	4.308	0.812	0.000	2.966	0.247	32.949
Sales Liquids (bbls)	37.7	402.5	264.2	358.5	402.5	490.6	352.2	308.2	69.2	0.0	264.2	18.9	2968.8
Condi / MMcf	*118.7*	*80.3*	*83.1*	*97.6*	*93.4*	*112.0*	*94.1*	*71.5*	*85.2*	-	*89.1*	*76.3*	*90.1*

Recombined Wellstream Mole %

- H_2 0.01%
- He 0.04%
- N_2 2.81%
- CO_2 0.60%
- H_2S 0.00%
- C_1 83.50%
- C_2 6.07% C_3 3.88% iC_4 0.78% nC_4 1.15% iC_5 0.33% nC_5 0.31% C_6 0.25% C_7+ 0.27% (MW = 97.6, density = 0.7394 g/cm^3 = 739.4 kg/m^3 ≈ 60° API)

Heating Value (exactly as reported by Core Lab)

Gross (HHV) 43.55 MJ/m^3 (as received) ≈ **1,170 BTU/scf** Gross (HHV) 43.82 MJ/m^3 (moisture & acid-gas free) ≈ **1,176 BTU/scf**

Relative Density (SG air=1.0) ≈ 0.676 Molecular Weight ≈ 19.58

This is a **very high-quality, rich, sweet natural gas** – high BTU, low inerts, no H_2S, only 0.6% CO_2, very low N_2. Pipeline spec everywhere in Alberta with no treating required.

Condensate (Stock Tank Liquid) Yield

C5+ content = 1.16 mol% (very typical for "lean-ish" rich gas in Alberta)

Using the characterized C7+ properties and standard Alberta two-stage separation efficiency (typical 800–1,000 kPa primary separator @ 80–110°F, then stock tank), the **stock tank condensate yield is ≈ 9.5 – 11 bbl/MMscf** (I used 10.2 bbl/MMscf as the midpoint after flash efficiency).

Calculated NGL Yield = 48–52 bbl/MMscf of C3+ liquid (I used precise liquid density for each component at 60 °F + 98 % average C3 recovery + 100 % C4+ recovery → **≈ 50 bbl/MMscf** midpoint — this is conservative and matches real-world plant settlements I've seen on similar rich solution gas.)

Breakdown of contribution:

- Propane (C3): ~25–26 bbl/MMscf
- Butanes (C4s): ~14–15 bbl/MMscf

- Pentanes+ (C5+): ~9–10 bbl/MMscf Total ≈ 50 bbl/MMscf mixed NGL (spec products will be separated into propane, butane, and condensate streams)
- This conservative estimate does not match the sales gas v. sale liquids we saw when going to a deep cut plant like Tidewater.

EXTENDED GAS ANALYSIS

V3886 - 1			52134-2022-4019
CONTAINER IDENTITY	METER ID	WELL LICENSE NUMBER	LABORATORY FILE NUMBER

Blackspur Oil Corp. — OPERATOR — PAGE 1

100/16-11-051-02W5/00	BLACKSPUR HZ LEDUC-WB 16-11-51-2	747.5	742.4
LOCATION (UWI)	WELL NAME	KB ELEV (m)	GR ELEV (m)

Leduc-Woodbend		Core Lab - Edmonton
FIELD OR AREA	POOL OR ZONE	SAMPLER

TEST TYPE AND NO. — TEST RECOVERY

Meter Run — POINT OF SAMPLE — SAMPLE POINT ID

PUMPING | FLOWING | GAS LIFT | SWAB

WATER m³/d | OIL m³/d | GAS m³/d

TEST INTERVAL or PERFS (meters)

Pressures, kPa (gauge)					Temperatures, °C	
SEPARATOR	RESERVOIR	OTHER	CONTAINER WHEN SAMPLED	CONTAINER WHEN RECEIVED	SEPARATOR	OTHER
		650	650 @ 38 °C	520 @ 22 °C		38

09:30:00

2022 07 28	2022 07 29	2022 08 02	PZ		@ °C
DATE SAMPLED (Y/M/D)	DATE RECEIVED (Y/M/D)	DATE ANALYZED (Y/M/D)	ANALYST	AMT. AND TYPE CUSHION	MUD RESISTIVITY

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	mL/m³ AIR FREE AS RECEIVED
H_2	0.0001	Trace	
He	0.0004	0.0004	
N_2	0.0281	0.0283	
CO_2	0.0060	0.0000	
H_2S	0.0000	0.0000	
C_1	0.8350	0.8402	
C_2	0.0607	0.0610	215.7
C_3	0.0388	0.0390	142.6
iC_4	0.0078	0.0078	34.1
C_4	0.0115	0.0116	48.4
iC_5	0.0033	0.0033	16.1
C_5	0.0031	0.0031	15.0
C_6	0.0025	0.0026	13.7
C_{7+}	0.0027	0.0027	15.2
Total	1.0000	1.0000	500.8

CALCULATED GROSS HEATING VALUE MJ/m³ @ 15°C & 101.325 kPa (abs.)		CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C
43.55	43.82	85.6
MOISTURE FREE	MOISTURE & ACID GAS FREE	PENTANES PLUS

CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa
MOISTURE FREE AS SAMPLED

0.848 kg/m³	0.692	20.0
DENSITY	RELATIVE DENSITY	RELATIVE MOLECULAR MASS

CALCULATED PSEUDOCRITICAL PROPERTIES

AS SAMPLED		ACID GAS FREE	
4550.5 kPa (abs)	211.2 K	4533.7 kPa (abs)	210.6 K
pPc	pTc	pPc	pTc

C_{7+} PROPERTIES @ 15°C & 101.325 kPa		MOLE FRACTION	LOCATION	METHOD
739.4 kg/m³	97.6	0.0000000	Field	Gastec
DENSITY	MOLECULAR WEIGHT	HYDROGEN SULPHIDE		

REMARKS:

H2S was not detected in the field by Gastec.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO AGA REPORT #5 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING PHYSICAL CONSTANTS AND BOILING POINT GROUPING.

ATMOSPHERIC OIL LABORATORY ANALYSES RESULTS

Date: August 2, 2022

Client Contact: Lantz Mayr

Client Contact Details: lantz.blackspurthorsby@gmail.com

Report Issued by: Pakinam Demian

Atmospheric Oil Laboratory Analyses are performed in accordance with the standard methods as per below table.

Laboratory Analysis	Standard Method of Analysis
BS&W	ASTM D4007
Density	ASTM D4052
Sulfur Content	ASTM D4294
Pour Point	ASTM D97
Distillation	ASTM D86
Total Acid Number	ASTM D664
Viscosity	ASTM D7042
Organic Chlorides	ASTM D4929
Wax Content	UOP 46 (modified)
Salt Content	ASTM D3230

All field and sample details were provided by the client and these laboratory results apply to the sample as received.

Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244

This report shall not be reproduced except in full without written approval from the laboratory manager or supervisor.

LABORATORY ADDRESS: 2810 12th Street NE, Calgary, AB, T2E 7P7, Canada | Phone +1 (403) 250-4000

OIL ANALYSIS

CONTAINER IDENTITY	METER ID	WELL LICENSE NUMBER	LABORATORY FILE NUMBER
374 - 2			52134-2022-4019

OPERATOR	PAGE
Blackspur Oil Corp.	2

LOCATION (UWI)	WELL NAME	KB ELEV (m)	GR ELEV (m)
100/16-11-051-02W5/00	BLACKSPUR HZ LEDUC-WB 16-11-51-2	747.5	742.4

FIELD OR AREA	POOL OR ZONE	SAMPLER
Leduc-Woodbend		Core Lab - Edmonton

TEST TYPE AND NO.	TEST RECOVERY

POINT OF SAMPLE	SAMPLE POINT ID
Wellhead	

PUMPING | FLOWING | GAS LIFT | SWAB

WATER m³/d | OIL m³/d | GAS m³/d

TEST INTERVAL or PERFS (meters)

SEPARATOR | RESERVOIR | OTHER | @ °C CONTAINER WHEN SAMPLED | @ °C CONTAINER WHEN RECEIVED

Pressures, kPa (gauge)

SEPARATOR | OTHER

Temperatures, °C

DATE SAMPLED (Y/M/D)	DATE RECEIVED (Y/M/D)	DATE ANALYZED (Y/M/D)	ANALYST	AMT. AND TYPE CUSHION	MUD RESISTIVITY
09:30:00 2022 07 28	2022 07 29	2022 08 02	YW/RK		@ °C

SAMPLE PROPERTIES

APPEARANCE OF CLEAN OIL	WATER	BS	TOTAL BS & W
DARK BROWN	0.140	0.000	0.140

ABSOLUTE DENSITY kg/m³ @15°C

AS RECEIVED	AFTER CLEANING
	947.1

API GRAVITY @15.6°C

AS RECEIVED	AFTER CLEANING
	17.8

SULPHUR	SALT	WAX CONTENT	POUR POINT °C
24.9 grams/kg	kg/m³	wt. %	-15 A.S.T.M.

REID VAPOUR PRESSURE

kPa @ 37.8 °C

FLASH POINT °C

Pensky-Martens Closed Cup (ASTM D-93)	Cleveland Open Cup (ASTM D-92)

VISCOSITY

TEMP °C	DYNAMIC mPa's	KINEMATIC mm²/s
20	1962	2079
30	859.1	916.4
40	394.8	424.1

Organic Chloride

Organic Chloride in Naphtha Fraction

mg/kg

Naphtha Volume Fraction

Volume Fraction

Organic Chloride in Whole Sample

mg/kg

FRACTION DISTILLED	TEMP °C
FBP	
CRACKED	

METHOD | kPa BAROM PRESS

°C ROOM TEMP | °C INITIAL BOIL PT

DISTILLATION SUMMARY

204 °C NAPHTHA | 274 °C KEROSENE

343 °C LIGHT GAS/OIL | RECOVERED

RESIDUE | DISTILLATION LOSS

TOTAL ACID NUMBER

mg KOH/g

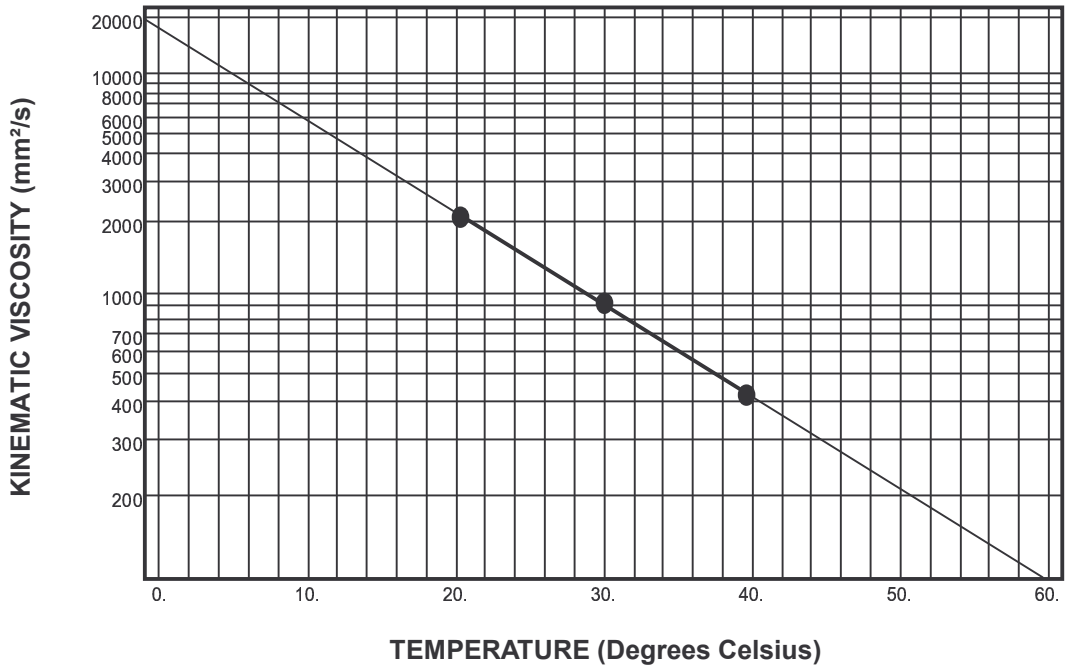
Total Phosphorus Content in Volatile Fraction (CAPP, D86, D5185)

mg/Kg

REMARKS: Free water (volume %) = 89

Company Name: Blackspur Oil Corp.
Well Name: BLACKSPUR HZ LEDUC-WB 16-11-51-2
Location: 100/16-11-051-02W5/00
Sampled From: Wellhead
Sampling Date: 2022 07 28

VISCOSITY - TEMPERATURE CHART



WATER ANALYSIS

374 - 2			52134-2022-4019
CONTAINER IDENTITY	METER ID	WELL LICENSE NUMBER	LABORATORY FILE NUMBER

Blackspur Oil Corp.	1
OPERATOR	PAGE

100/16-11-051-02W5/00	BLACKSPUR HZ LEDUC-WB 16-11-51-2	747.5	742.4
LOCATION (UWI)	WELL NAME	KB ELEV (m)	GR ELEV (m)

Leduc-Woodbend		Core Lab - Edmonton
FIELD OR AREA	POOL OR ZONE	SAMPLER

TEST TYPE AND NO. | TEST RECOVERY

Wellhead

POINT OF SAMPLE | SAMPLE POINT ID

PUMPING | FLOWING | GAS LIFT | SWAB

WATER m³/d | OIL m³/d | GAS m³/d

TEST INTERVAL or PERFS (meters)

SEPARATOR | RESERVOIR | OTHER | @ °C CONTAINER WHEN SAMPLED | @ °C CONTAINER WHEN RECEIVED

Pressures, kPa (gauge)

SEPARATOR | OTHER

Temperatures, °C

09:30:00

2022 07 28	2022 07 29	2022 08 02	SR/YW		@ °C
DATE SAMPLED (Y/M/D)	DATE RECEIVED (Y/M/D)	DATE ANALYZED (Y/M/D)	ANALYST	AMT. AND TYPE CUSHION	MUD RESISTIVITY

CATIONS

ION	mg/L	mg Fraction	meq/L
Na	14,867	0.3567	646.7
K	272	0.0065	7.0
Ca	864	0.0207	43.1
Mg	181	0.0043	14.9
Ba			
Sr			
Fe	Pres.		
Mn			

ANIONS

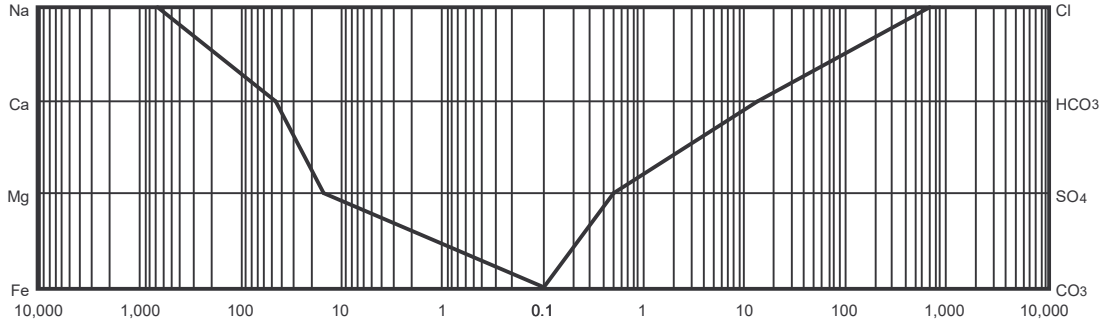
ION	mg/L	mg Fraction	meq/L
Cl	24,624	0.5908	694.5
Br			
I			
HCO_3	842	0.0202	13.8
SO_4	26	0.0006	0.5
CO_3	0.00	0.0000	0.0
OH	0.00	0.0000	0.0
H_2S	N.D.		

Total Dissolved Solids (mg/L)

Not Requested	Not Requested
By Evaporation @ 110 °C	By Evaporation @ 180 °C
	41676
	Calculated
1.0301 @ 15.6 °C	1.3401 @ 20 °C
Specific Gravity	Refractive Index (n_D)
6.4 @ 25.0 °C	0.157 @ 25 °C
pH	Resistivity (Ohm-Meters)

LOGARITHMIC PATTERNS OF DISSOLVED IONS

meq/L



REMARKS: Pres.- Analyte Present.
N.D.- Not Detected.

Date	T	C	RPM	Torq	Amp	Volume (m3)	Oil (m3)	WC%	JTF	PE	Gas (e3m3)	
July 28	206	101	325	325	31	176	7	96	25	89	3.92	
July 29	216	101	325	325	31	168	8	95	26	95		
July 30	202	116	325	326	31	168	10	94	26	91	4.52	
July 31	230	109	325	326	31	167	10	94	30	90	5.41	
August 1	224	116	325	349	31	165	17	90	31	76	5.78	
August 2	248	92	325	357	33	164	21	87	30	86	5.78	
August 3	246	102	325	325	33	163	23	86	32	85	6.81	
August 4	256	98	325	344	32	154	22	86	33	80	6.80	
August 5	242	92	325	339	32	153	23	85	33	80	7.77	
August 6	230	107	325	308	30	154	18	88	27	80	2.23	
August 7	240	95	325	357	33	155	20	87	31	81	9.17	
August 8	240	93	325	360	33	152	20	87	32	79	9.46	
August 9	246	97	325	368	33	151	21	86	33	79	9.93	
August 10	263	100	325	376	34	146	20	86	37	76	10.43	
August 11	209	98	325	325	33	146	18	88	38	76	10.86	
August 13	229	101	325	365	33	149	21	86	40	78	11.57	
August 14	229	101	325	365	33	144	22	85	40	75	11.90	
August 15	252	104	325	395	35	135	20	85	43	70	12.40	
August 16	219	101	325	368	33	142	24	83	42	74	12.56	
August 17	216	102	325	365	33	147	29	80	45	97	12.80	
August 18	214	101	325		33	137	27	80	45	71	13.08	
August 19	206	84	325	357	32	138	28	80	29	70	13.28	
August 20	231	93	325	360	33	143	31	78	14	78	16.62	ESD due to fluid slugging
August 21	217	157	325	68	33	204	45	78	17	106	18.77	Pinched, flowing up casing
August 22	212	140	325	357	33	170	37	78	17	89	17.20	Casing pinched further
August 23	210	147	325	363	33	167	37	78	15	87	17.10	
August 24	201	121	325	359	33	155	31	80	17	81	16.57	
August 25	218	97	325	351	33	128	26	80	33	66	14.60	
August 26	244	102	325	403	35	121	18	85	46	63	12.43	
August 27	214	100	325	360	35	116	17	85	34	60	13.89	
August 29	271	100	325	437	37	115	14	88	58	60	13.96	
August 30	196	95	325	387	34	115	14	88	59	61	13.84	
August 31	214	95	325	381	35	118	15	87	60	57	14.27	
September 1	215	96	350	371	34	117	15	87	57	57	14.50	
September 2	206	98	350	381	35	112	16	86	57	54	14.70	
September 5	213	101	350	403	36	116	17	85	62	56	14.70	
September 7	211	105	350	405	36	117	18	85	63	57	14.60	
September 8	206	103	350	403	36	111	18	84	66	54	14.73	
September 22	133	1016	175	50	22	52		100		65		Presco tripped, 1000psi casing pressure, shu
September 23	201	939	150	176	25	38	2	96	33	64	18.00	
September 24	202	496	150	451	37	68	3	96	50	77	21.21	
September 25	198	203	150	461	37	79	6	93	50	89	20.00	
September 26	167	101	150	459	37	79	9	88	45	89	11.06	
September 27	203	104	175	493	39	94	14	85	48	91	11.16	
September 28	180	103	175	469	38	92	14	85	52	89	10.31	
September 29	202	90	175	491	39	92	12	87	54	89	10.13	
September 30	204	94	200	512	40	102	13	87	56	87	10.30	
October 1	198	99	201	499	39	99	13	87	53	84	8.44	
October 2	197	85	200	496	39	97	13	87	54	82	10.64	
October 3	195	100	200	499	39	93	14	85	57	79	9.30	Opened choke
October 4	190	81	200	493	39	90	14	85	58	76	10.60	
October 6	215	89	200	517	41	90	15	83	57	76	14.78	
October 10	210	86	200	450	37	76	13	83	57	73	10.50	Torque and Amp fluctuated great deal
October 12	129	76	200	450	37	79	3	96	22	84	11.22	Torque and Amp fluctuated great deal, gens
October 13	142	83	175	563	43	82	6	93	28	79	10.27	
October 17	188	99	175	550	40	83	15	82	38	80	13.89	
												20-Oct Pump Change. Comment from Blackspur Eng to consider learnings from Thorsby move directly to Coil cleanout. Blackspur didn't listen
October 23	251	820	120	280	29	50		100		71		Trouble controling gas
October 24	251	820	120	280	29	50		100	71	20.5		
October 25	234	99	120	504	33	63	4	94	43	89	7.50	
October 26	228	95	130	507	39	69	8	89	56	90	9.80	
October 27	226	94	130	504	39	70	11	85	46	91	8.90	
October 28	180	215	140	520	40	56	8	85		90	7.12	
October 29	150	104	140	493	39	62	11	83	45	90	7.40	
October 30	151	103	140	491	39	75	13	83	38	91	9.22	
October 31	150	103	140	499	39	76	13	83	42	92	9.04	
November 1	153	103	140	507	39	76	13	83	49	92	9.54	
November 2	151	106	140	503	39	76	13	83	53	92	9.83	
November 3	83	77	150	475	36	81	14	83	49	92	10.10	
November 4	155	109	150	520	40	78	16	80	59	88	10.36	
November 6	133	120	150	352	32	74	15	80		87	10.39	
November 7	125	110	150	533	41	75	15	80	57	88	10.41	
November 8	173	11	150	531	41	57	11	80	59	83	11.00	
												Well went down. Shut in casing for short time, sent more gas thru pump, pump started torque up, field Op believes the issue is the gas and pump is starting to fail
February 6	74	69	150	665	48	74	7	90	109	84	11.81	

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	
Description	**MIRU, pull rods, pull pump**	**Cleanout Day 1**	**Cleanout Day 2**	**Cleanout Day 3**	**Cleanout Day 4**	**Run pump, run rods, rig out**	**Total**
Water	$ 600.00	$ 600.00	$ 600.00	$ 600.00	$ 600.00		$ 3,000.00
Vac	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00		$ 12,500.00
Service Rig	$ 8,000.00	$ 11,000.00	$ 11,000.00	$ 11,000.00	$ 11,000.00	$ 8,000.00	$ 60,000.00
Tool		$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 4,000.00	$ 12,000.00
WSS	$ 1,600.00	$ 1,600.00	$ 1,600.00	$ 1,600.00	$ 1,600.00	$ 1,600.00	$ 9,600.00
Disposal	$ 1,000.00	$ 1,000.00	$ 1,000.00	$ 1,000.00	$ 1,000.00		$ 5,000.00
Pump						$ 12,000.00	$ 12,000.00
Tubing Work String + Inspection	$ 15,000.00						$ 15,000.00
Jet Sweep		$ 7,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00		$ 15,000.00
Tubing Inspection	$ 2,000.00						$ 2,000.00
Trucking	$ 2,000.00					$ 2,000.00	$ 4,000.00
Engineering/Project Management	$ 1,000.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 500.00	$ 3,500.00
Subt Total	$ 33,700.00	$ 26,700.00	$ 21,700.00	$ 21,700.00	$ 21,700.00	$ 28,100.00	$ 153,600.00
Contingency (10%)	$ 3,370.00	$ 2,670.00	$ 2,170.00	$ 2,170.00	$ 2,170.00	$ 2,810.00	$ 15,360.00
TOTAL	$ 37,070.00	$ 29,370.00	$ 23,870.00	$ 23,870.00	$ 23,870.00	$ 30,910.00	$ 168,960.00

Jet Lift Systems™

Operations Bulletin:

Successful JetSweep™ Cleanout in Rex Formation Horizontal Oil Well

JetSweep™ :

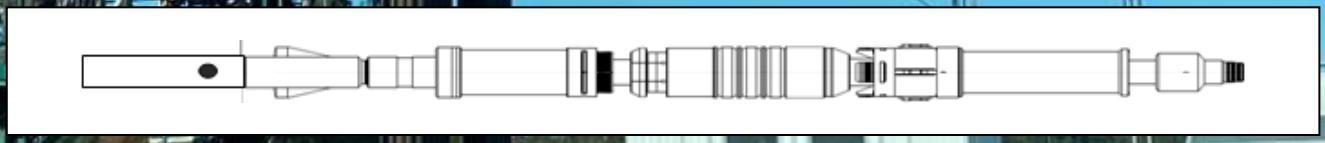
Balanced Pressure Well Cleanout

- *Service rig based*
- *No nitrogen*
- *Advanced jet pump technology*
- *Proven process:*
  - *successfully run in over 100 wells to date*
- *Minimal fluid losses*
- *Faster return to production*

Jet Lift Systems has successfully conducted another JetSweep horizontal sand cleanout for an operator in the Rex heavy oil formation in Central Alberta.

The well has 34 frac stages, and after a costly bailing operation was only able to clean half way into the liner, the JetSweep system was deployed and cleaned 34,000 lbs (10 m3) of sand from the well – all the way to below the bottom frac stage at 2,950 m MD.

The well has just been put back on production, and for the first time in it's production history, it is getting inflow from all of its 34 frac stages.









Jet Lift Systems 403-209-6161
jetliftsystems.ca

JetSweep Operations Update:

Cardium Underbalanced Horizontal Well Cleanout

JetSweep Performance:

- Sand Return Rate: 0.3 m3/hr
- Fluid Gain Rate: 3.3 m3/hr

Results:

- 2 day JetSweep cleanout
- +/- 1.5 m3 of sand removed
  - Equates to +/-200 m of fully plugged liner
- Final AFE reported to be less than 50% the cost of a previous CT / nitrogen cleanout and more effective



Jet Lift Systems™

Products

Line	Quantity	Description	UOM	Unit Price	Amount
1	1	Jet Sweep BHA - Includes: Jet Pump, Packer, Redress - 1st Day Charge	EACH	$ 7,000.00	$ 7,000.00
2	1	Jet Sweep BHA - Includes: Jet Pump, Packer, Redress - 2nd Day Charge	EACH	$ 3,500.00	$ 3,500.00
3	1	Downhole Gauges c/w Gauge Carrier - 1st Day Charge	EACH	$ 550.00	$ 550.00
4	1	Downhole Gauges c/w Gauge Carrier - 2nd Day Charge	EACH	$ 250.00	$ 250.00
5	1	Programming & Engineering Charge To Program Well	EACH	$ 1,250.00	$ 1,250.00
6	1	Senior Service Engineer & Operator Day Rate	EACH	$ 1,290.00	$ 1,290.00
7	1	Vehicle Mileage per KM	EACH	$ 1.75	$ 1.75

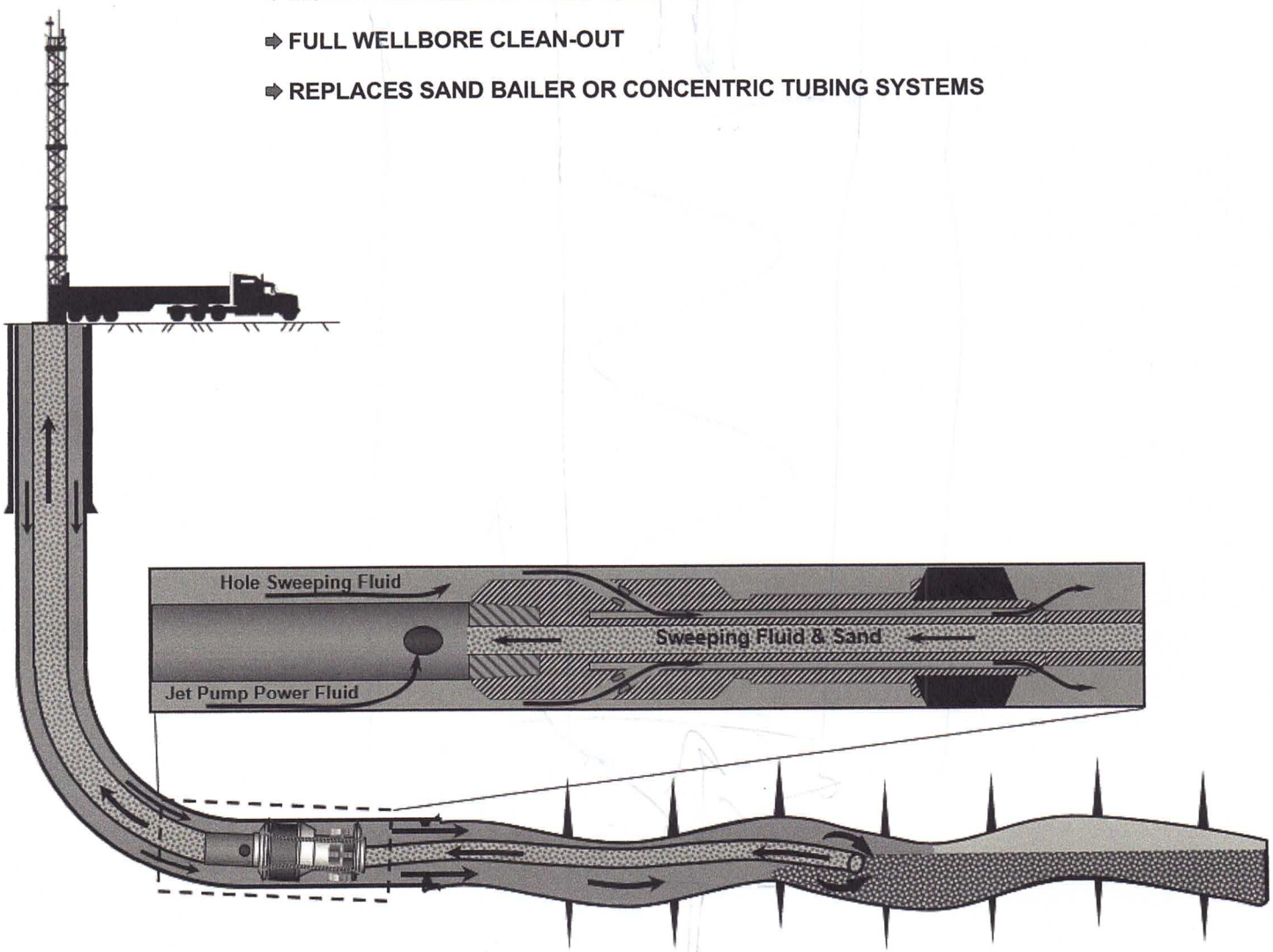
For any questions concerning this quotation, please contact:
Greg McDonnell @ 4038312740
Thank you for your business!

CAD Subtotal	$ 13,841.75
Safety and Environmental 1.25%	$ 173.02
CAD Total	**$ 14,014.77**

JET SWEEP™ WELL CLEAN-OUT SYSTEM

Jet Sweep™ is an innovative, service rig assisted sand clean-out system utilizing jet pump technology. With the Jet Sweep™ system, sand clean-outs can be done without the use of sand bailing equipment or the higher expenses of concentric tubing systems or nitrogen.

- HIGH PERFORMANCE JET PUMP LIFT
- HIGH SAND LIFT RATE
- REDUCED CLEAN-OUT FLUID VOLUMES
- MORE ECONOMICAL WELL CLEAN-OUTS
- FULL WELLBORE CLEAN-OUT
- REPLACES SAND BAILER OR CONCENTRIC TUBING SYSTEMS



R2W5

T51

T50

Persistence 16-11 Hz

168mm

219mm

168mm

168mm

89mm

168mm

3.6 BCF

0.6 BCF

11.7 BCF from
Lwr Mann. DD
(0310030)

0.8 BCF

Disposal Well
Candidates

3.2 BCF

3.5 BCF

8 9 10 11

5 4 3 2

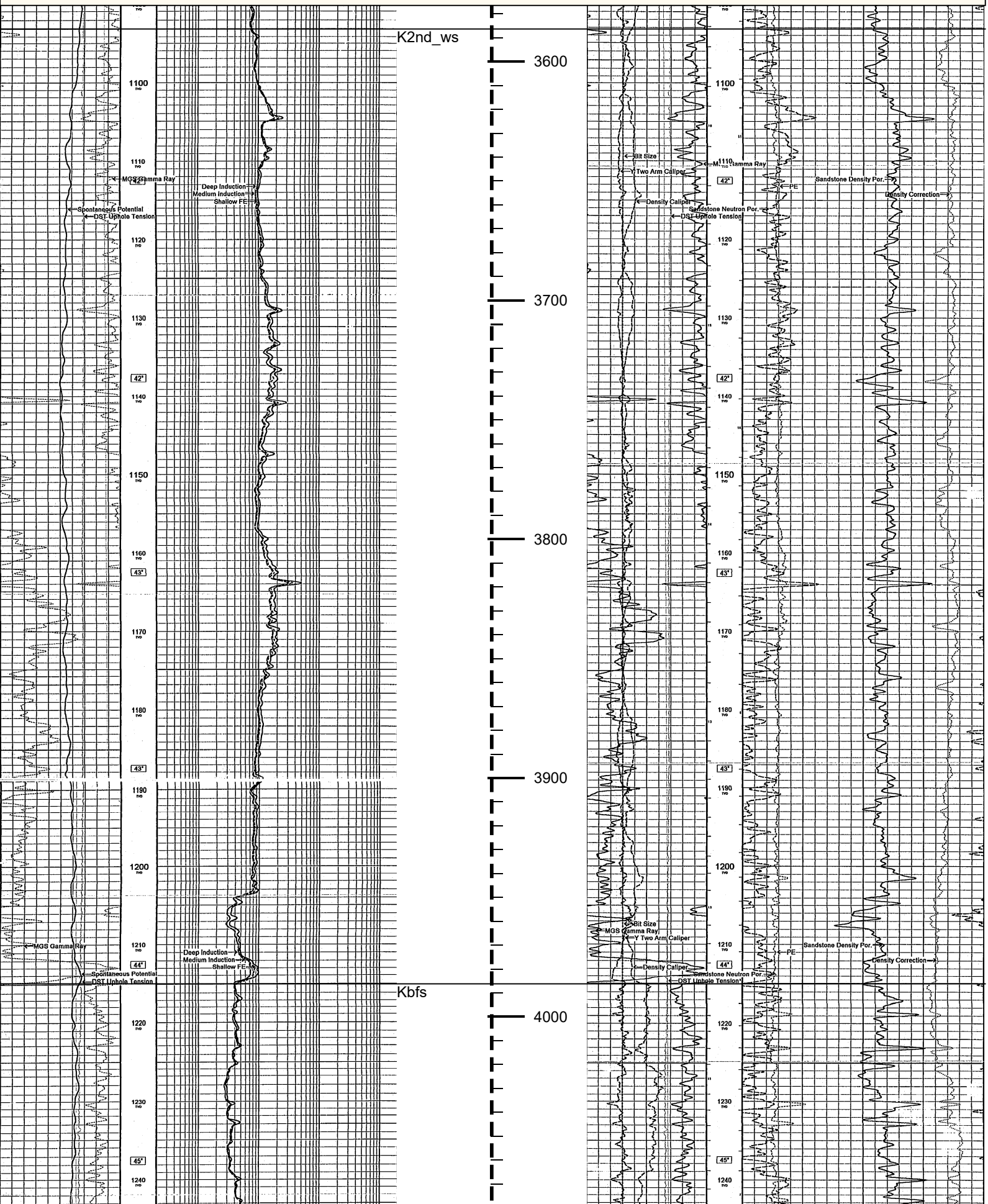
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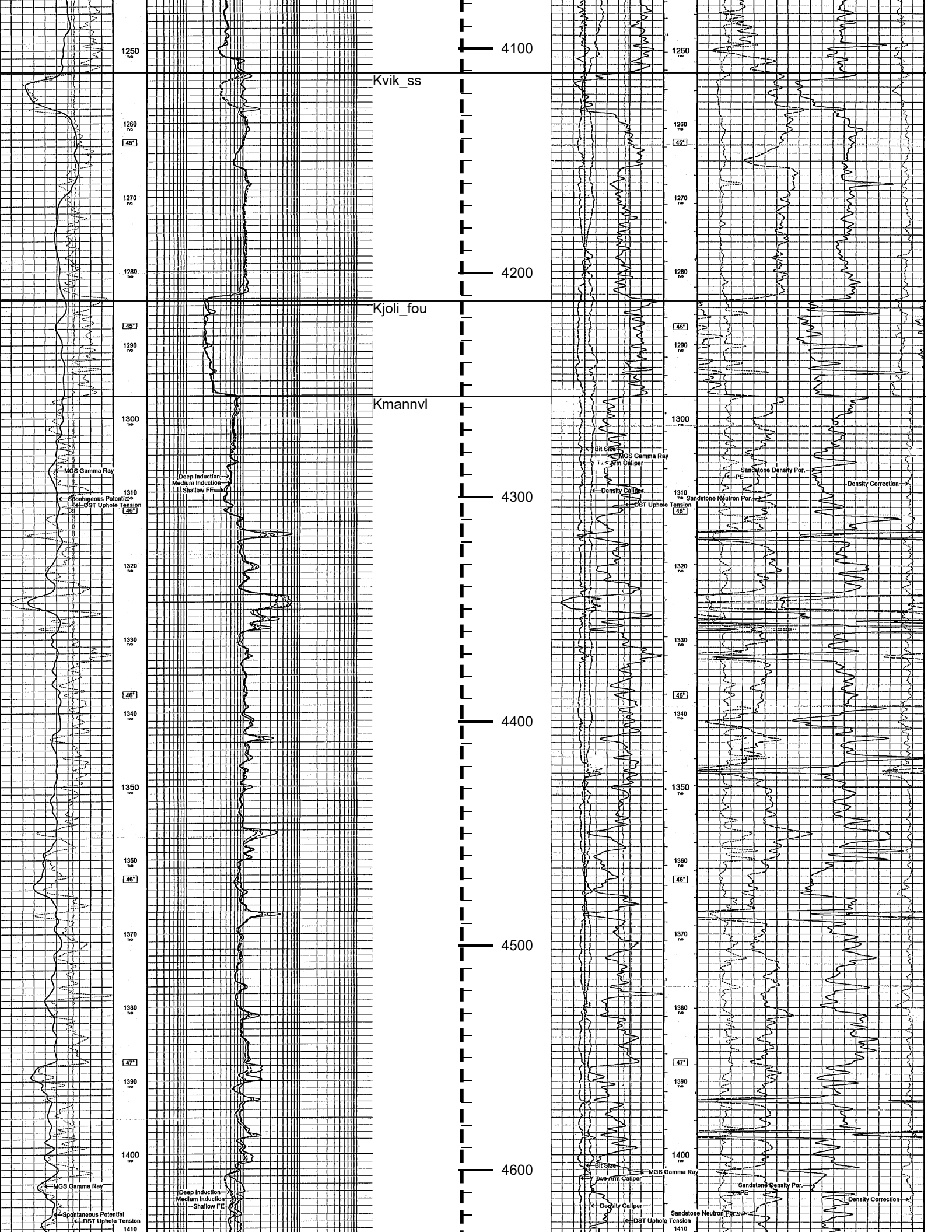
R2W5

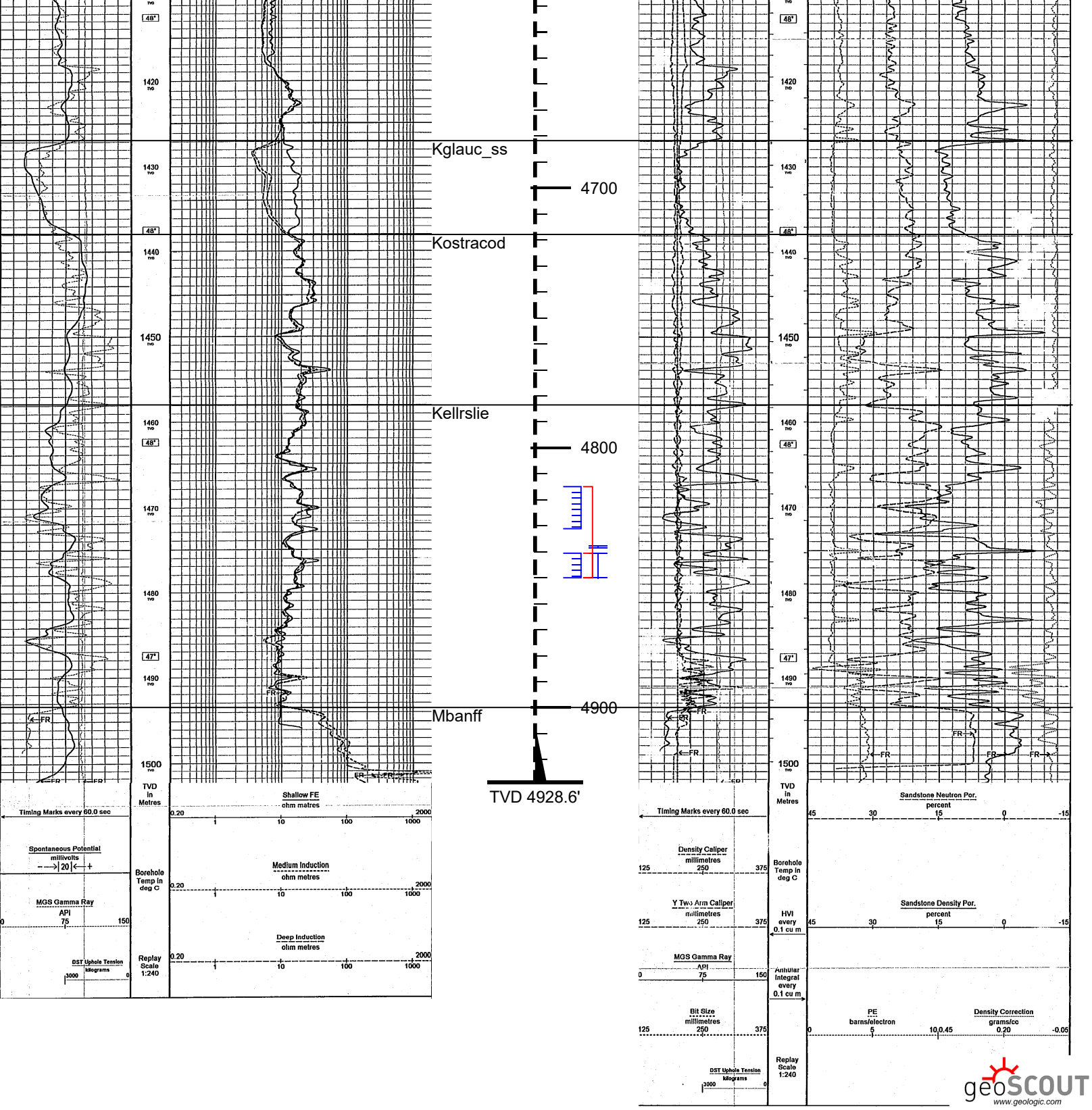
geoSCOUT
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100/04-04-051-02W5/00

Prod./Inject. Frmtn: Kellrslie
Cur Operator Name: Free Rein Rsrcs Ltd
Reference (KB) Elev.: +2402
Date Rig Released: 2002/08/27
Well Status Text: Flow GAS



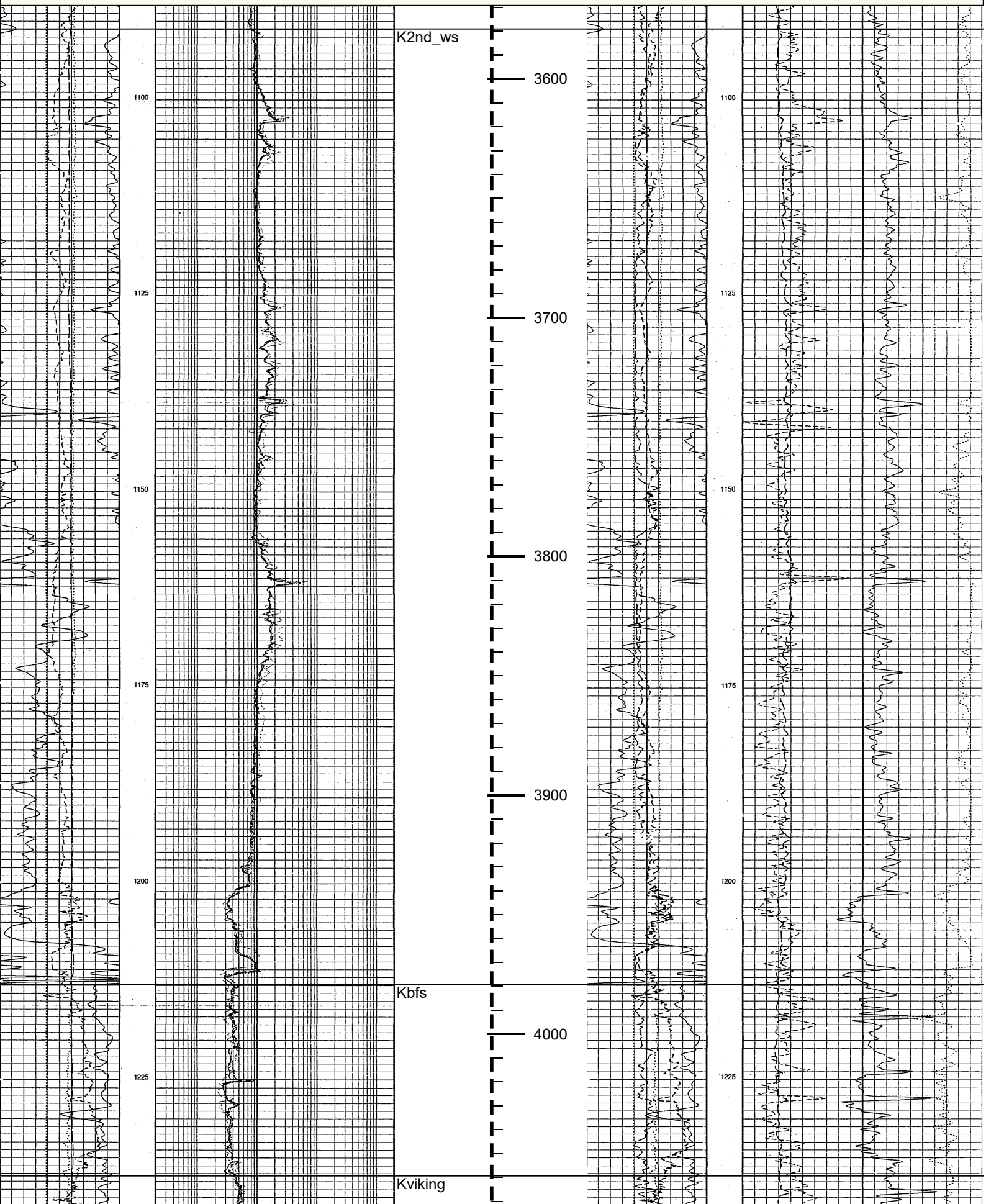

Kvik_ss
Kjoli_fou
Kmannvl
4100
4200
4300
4400
4500
4600
1250
1260
1270
1280
1290
1300
1310
1320
1330
1340
1350
1360
1370
1380
1390
1400
1410
45°
46°
47°
MGS Gamma Ray
Spontaneous Potential
DST Uphole Tension
Deep Induction
Medium Induction
Shallow FE
Bit Size
Two Arm Caliper
Density Caliper
Sandstone Density Por.
PE
Sandstone Neutron Por.
Density Correction

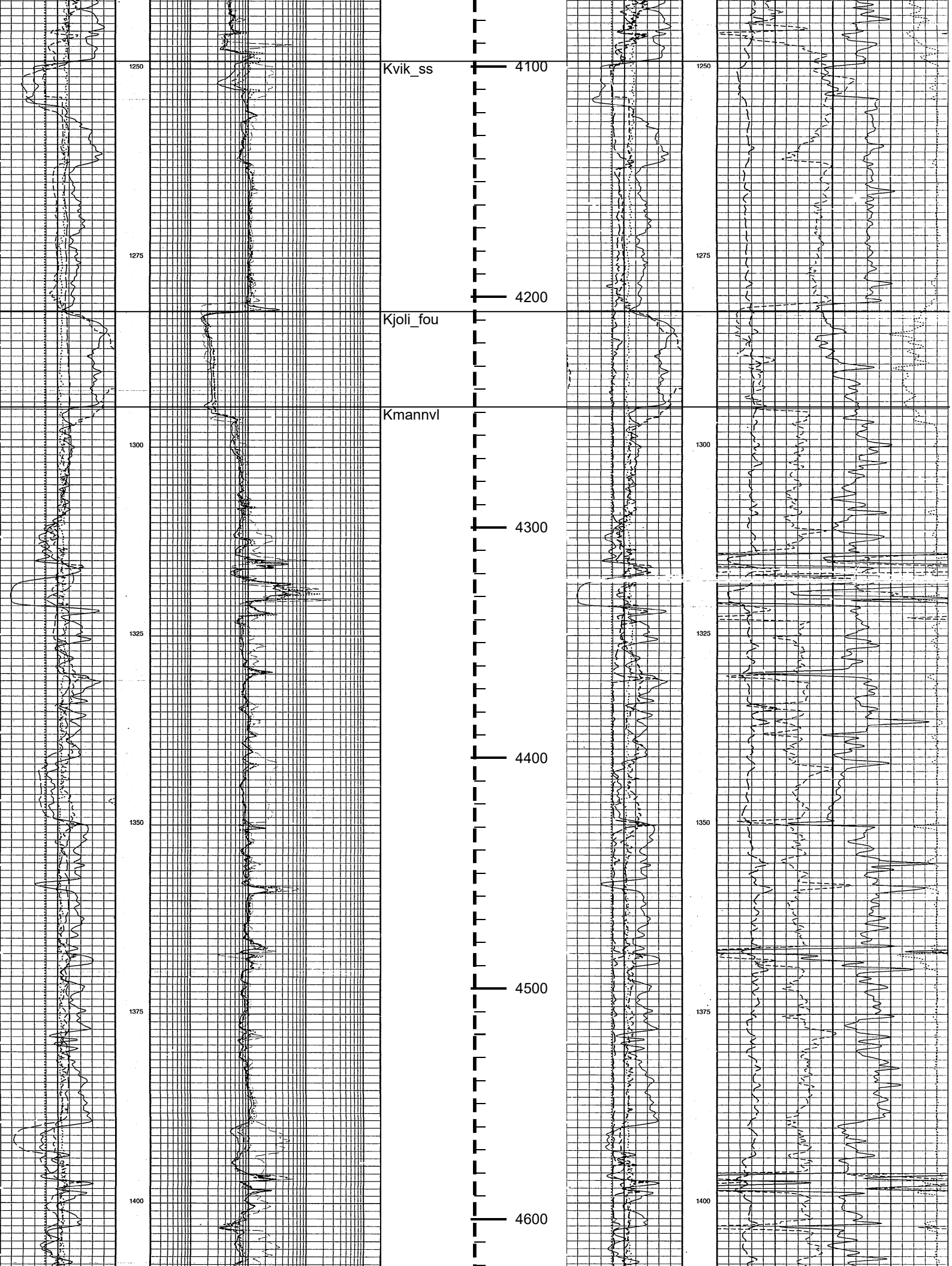


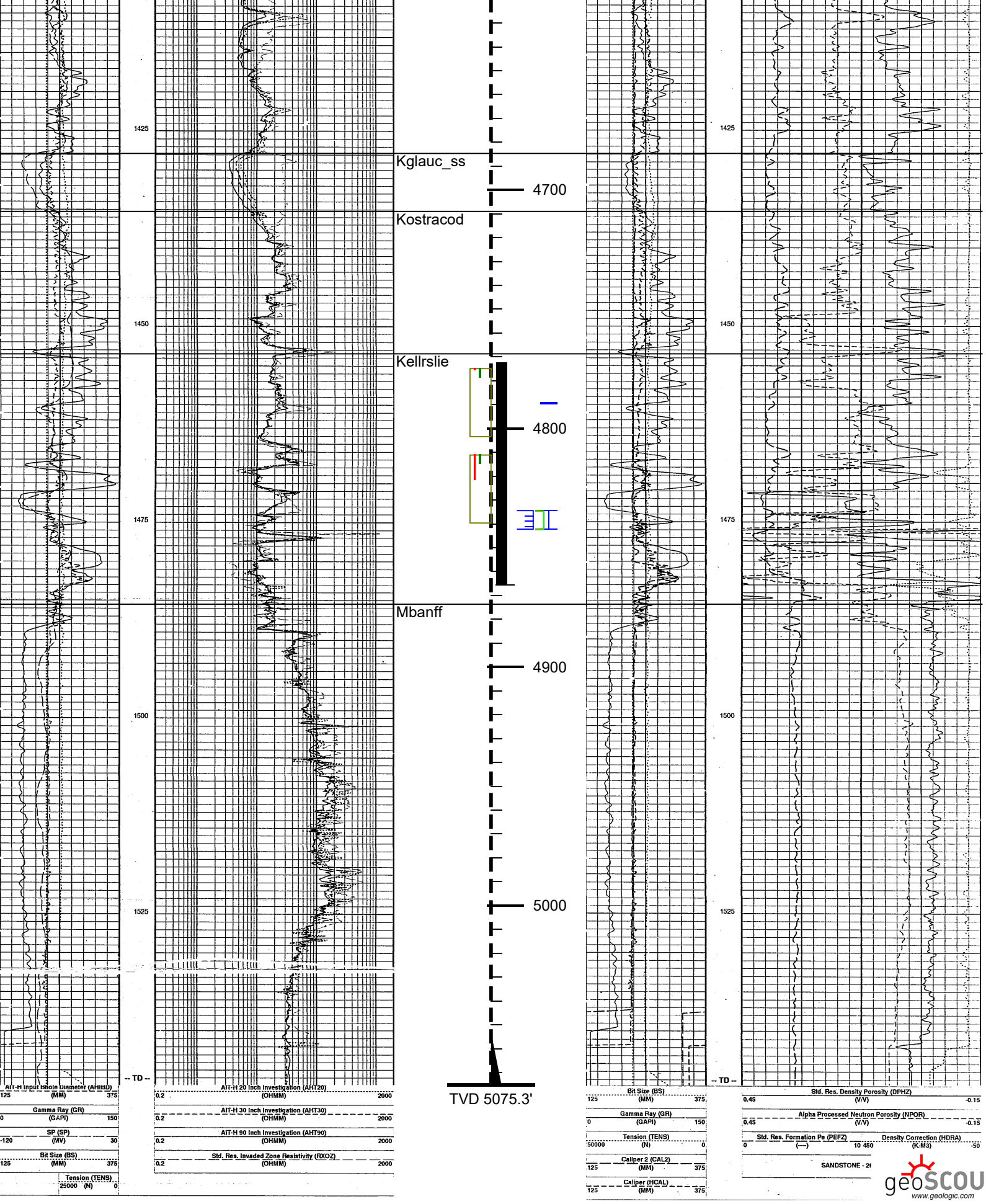
geoSCOUT
www.geologic.com

100/16-33-050-02W5/00

Prod./Inject. Frmtn: Kellrslie
Cur Operator Name: Free Rein Rsrcs Ltd
Reference (KB) Elev.: +2410
Date Rig Released: 1998/08/14
Well Status Text: Flow GAS




Kvik_ss
Kjoli_fou
Kmannvl
4100
4200
4300
4400
4500
4600
1250
1275
1300
1325
1350
1375
1400


1425
1450
1475
1500
1525
Kglauc_ss
4700
Kostracod
Kellrslie
4800
Mbanff
4900
5000
TVD 5075.3'
-- TD --
AIT-H Input Bhole Diameter (AHIBD)
125 (MM) 375
Gamma Ray (GR)
0 (GAPI) 150
SP (SP)
-120 (MV) 30
Bit Size (BS)
125 (MM) 375
Tension (TENS)
25000 (N) 0
AIT-H 20 Inch Investigation (AHT20)
0.2 (OHMM) 2000
AIT-H 30 Inch Investigation (AHT30)
0.2 (OHMM) 2000
AIT-H 90 Inch Investigation (AHT90)
0.2 (OHMM) 2000
Std. Res. Invaded Zone Resistivity (RXOZ)
0.2 (OHMM) 2000
Bit Size (BS)
125 (MM) 375
Gamma Ray (GR)
0 (GAPI) 150
Tension (TENS)
50000 (N) 0
Caliper 2 (CAL2)
125 (MM) 375
Caliper (HCAL)
125 (MM) 375
Std. Res. Density Porosity (DPHZ)
0.45 (V/V) -0.15
Alpha Processed Neutron Porosity (NPOR)
0.45 (V/V) -0.15
Std. Res. Formation Pe (PEFZ)
0 (----) 10
Density Correction (HDRA)
450 (K/M3) -50
SANDSTONE - 2
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