


Golden Company
100/01-01-001-01 W1M/00
Surface: 01-01-001-01 W1M

Foreman's Report/Work Order

Work Ordered By: William Domore	Type of work: Dynamometer.
Date work completed: xxxx-xx-xx	Work completed by:  (403)309-2620
Reason for Dynamometer: Production optimization.	Comments: Good pump function. Severe gas interference.

Work requested:

To improve production, increase stroke length from pitman #2 to #1. Monitor production, allow the well to stabilize and re-dyno to evaluate the increased equipment loading and counterbalance requirement.

To reduce the effects of gas interference and increase production, equalize the casing (832 kPa) and tubing (652 kPa) pressure.

Ensure that the well is connected to the 30 hp connection (possible savings of \$1060.00 per month in electricity, prime mover rating: 30-40-50 hp). Horsepower requirements at present time are 15.6 hp.

Work order requested by:	_____
Date requested:	_____
Work performed by:	_____
Date completed:	_____
Comments/results	

100/01-01-001-01 W1M/00
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Prepared For
William Domore

Dynamometer Analysis

1. A producing bottomhole pressure of 2506 kPa and an average fluid gradient of 4.43 kPa/m are calculated from a fluid depression test. An IPR calculation is also conducted. See attached reports for details. A pump intake pressure of 2448 kPa is calculated from the dynamometer test.
2. The depression test results indicate a foamy fluid gradient. The dynamometer test results indicate good pump function with severe gas interference. To improve production, consider increasing the stroke length from pitman #2 to #1. Monitor production, allow the well to stabilize and re-dyno to evaluate the increased equipment loading and counterbalance requirement.
3. Consider equalizing the casing (832 kPa) and tubing (652 kPa) pressure. This will help increase well inflow by reducing the back pressure on reservoir and allow better gas separation in annulus.
4. Horsepower requirements at present time are 15.6 hp. Ensure that the well is connected to the 30 hp connection (possible savings of \$1060.00 per month in electricity, prime mover rating: 30-40-50 hp).
5. Under existing conditions the gearbox torque is at 84.6% of unit rating (balanced torque at 62.4%). The unit is underbalanced.

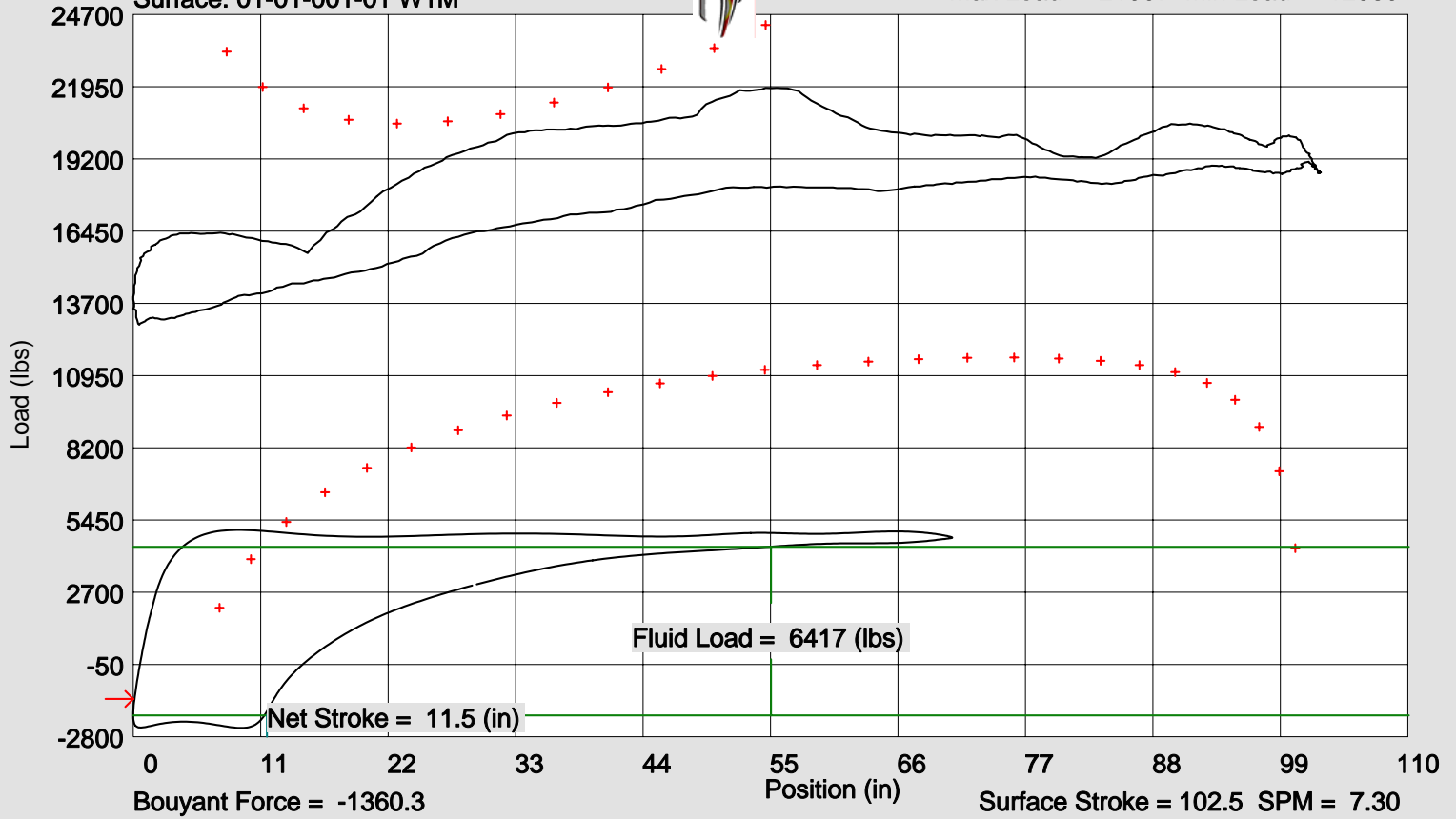
Field Observations
Belts are tight and in good condition.
Brakes are in good condition.
Gearbox backlash is not evident.
Polished rod is in good condition.
Check valve is holding properly.
The downhole pump pressured up from 652 kPa to 1388 kPa in 11 minutes without activating the high pressure shutdown.
Casing pressure: 832 kPa Tubing Pressure: 652 kPa Initial Fluid level was at 208.8 joints from surface.





Downhole: 100/01-01-001-01 W1M/00
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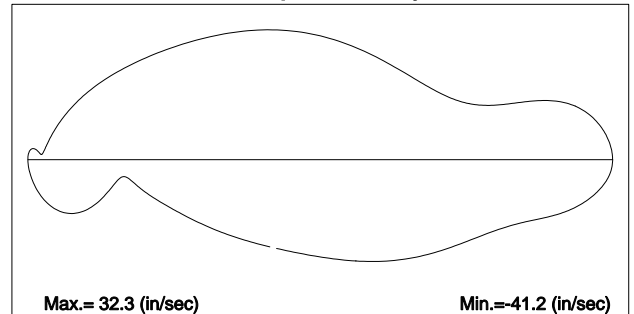
Max Load = 21907 Min Load = 12889



Rod Loading

Depth (m)	Rod Size (mm)	Loads		% Goodman Range Service Factor of		
		Max (lbs)	Min (lbs)	(1.0)	(0.9)	(0.8)
				0.00	38.1	21807.1
9.81	25.4	21383.6	13001.3	26.9	31.4	37.6
483.47	22.2	16898.9	8327.0	34.5	39.8	47.0
1199.75	19.0	11512.3	3251.0	41.2	46.6	53.7
2274.17	19.0	5075.6	-2463.1	31.9	35.0	38.9

Pump Velocity



Pump Efficiencies

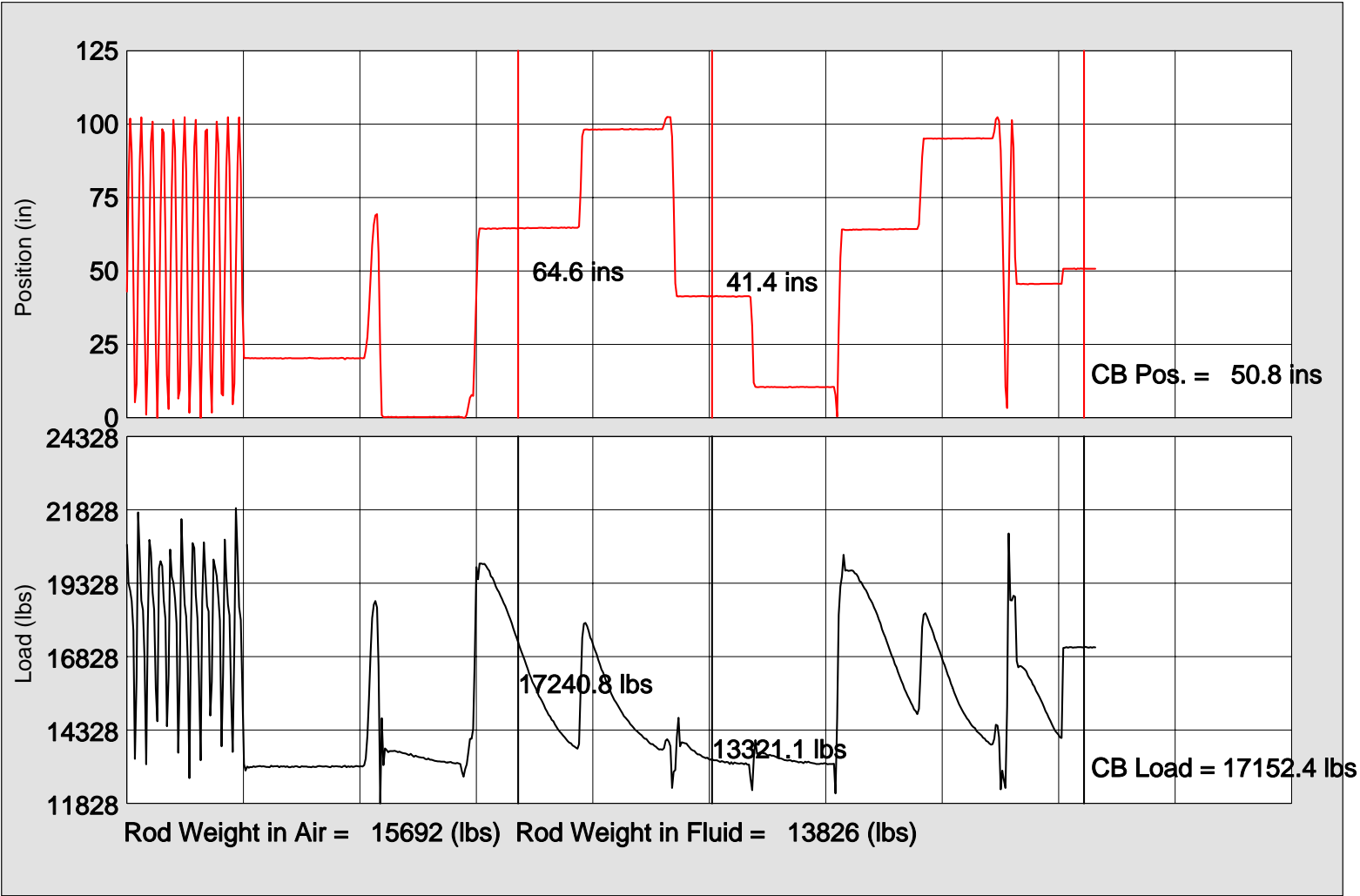
Pump Size (in): 2.00	Gross	Net
Downhole Stroke (in):	70.69	11.54
Displacement (m3/day):	38.25	6.25
Efficiency (%)	12.26	75.09

Current Production

Oil (m3/day):	0.70
Water (m3/day):	3.99
Gas (E3m3/day):	3.75

Comments

The downhole pumpcard indicates good pump function with severe gas interference.



Comments

The valve checks indicate that the downhole pump has a slight trave valve leak. This is considered normal for high watercut wells.

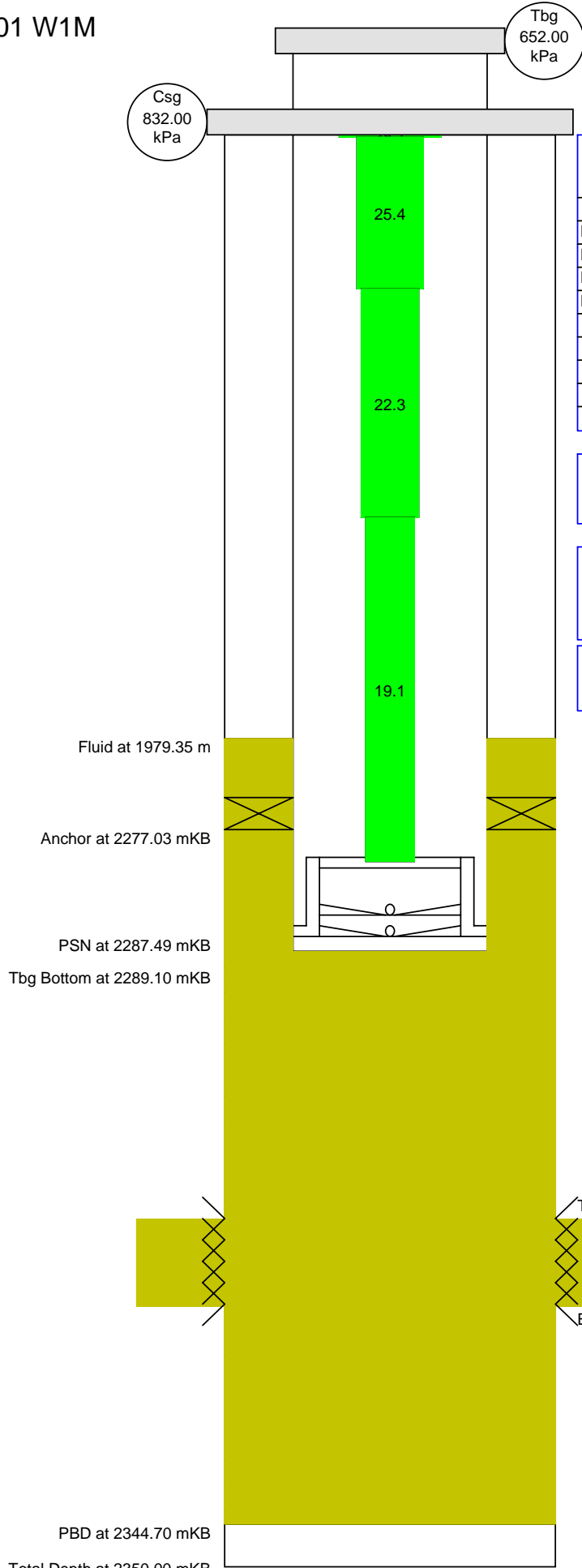


Elevations:
 KB (m): 984.00
 CF (m): 979.50

Casing:
 OD (mm): 139.70
 ID (mm): 122.58
 Weight(kg/m): 23.10
 Depth (mKB): 2350.00

Tubing:
 OD (mm): 73.00
 ID (mm): 62.00
 Weight(kg/m): 9.67
 Depth (mKB): 2289.10
 Number of Jts: 241

Liner:
 ID (mm): 0.00
 Top (mKB): 0.00
 Bottom(mKB): 0.00

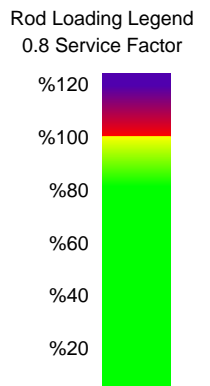


Type	Scraper	Rod String Rod Dia. (mm)	# Rods	Length (m)
STEEL C	No	38.10	1	9.81
NORRIS 97	No	25.40	2	1.22
NORRIS 97	Yes	25.40	62	472.44
NORRIS 97	No	22.20	94	716.28
NORRIS 97	No	19.10	141	1074.42

API Pump Description: 25-200 RWBC 20.0- 5.0- 0.0
 PSN (mKB): 2287.49

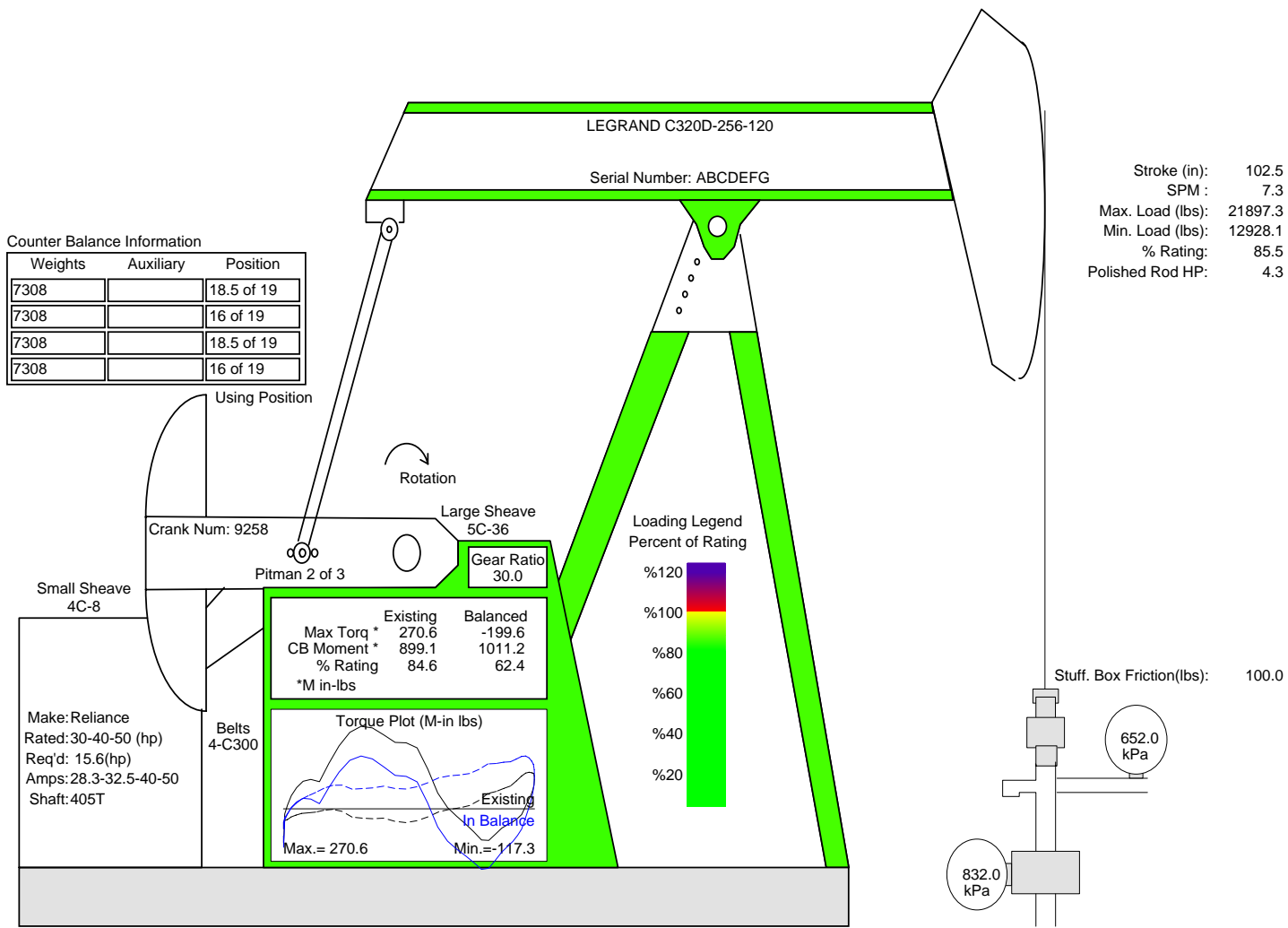
Perforations:
 From (mKB) 2315.00 to 2323.50

A fish top @ 2289.98 mKB. The producing string has a perforated pup and the bottom is bull plugged.



Downhole: 100/01-01-001-01 W1M/00

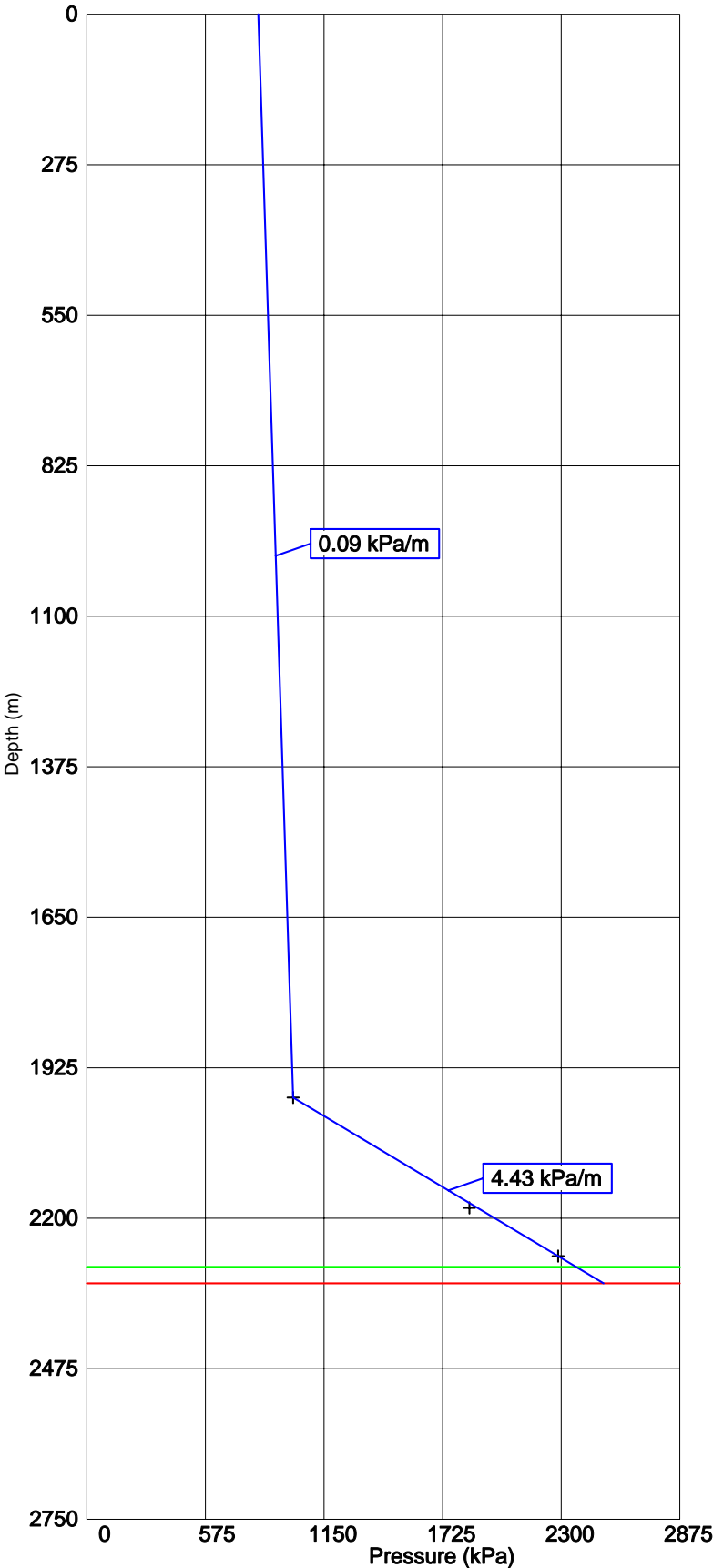
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Fluid Depression Test

Golden Company

Surface:01-01-001-01 W1M
Downhole:100/01-01-001-01 W1M/00



Wellname:	Black Tea	SPM:	7.30
Field name:	Black Gold	Stroke Length (in):	102.5

Oil Rate (m3pd):	0.70	Gas Rate (M m3pd):	3.75
Water Rate (m3pd):	3.99	Gas Gravity:	0.73

KB to CF (mKB):	4.50	MPP (mKB):	2319.25
Tubing bottom (mKB):	2289.10	MPP (mTVD):	2319.25
Number of Joints:	241	Reservoir Temp (C):	68.00

Date	Time	Joints	Fluid (m TVD)	Casing (kPa)	Interface (kPa)	Gradient (kPa/m)
xxxx-xx-xx	10:28:29	208.8	1979.3	832.0	1000.6	0.0
xxxx-xx-xx	12:22:11	230.1	2181.3	1523.0	1855.4	4.2
xxxx-xx-xx	13:19:01	239.4	2269.4	1862.0	2285.5	4.9

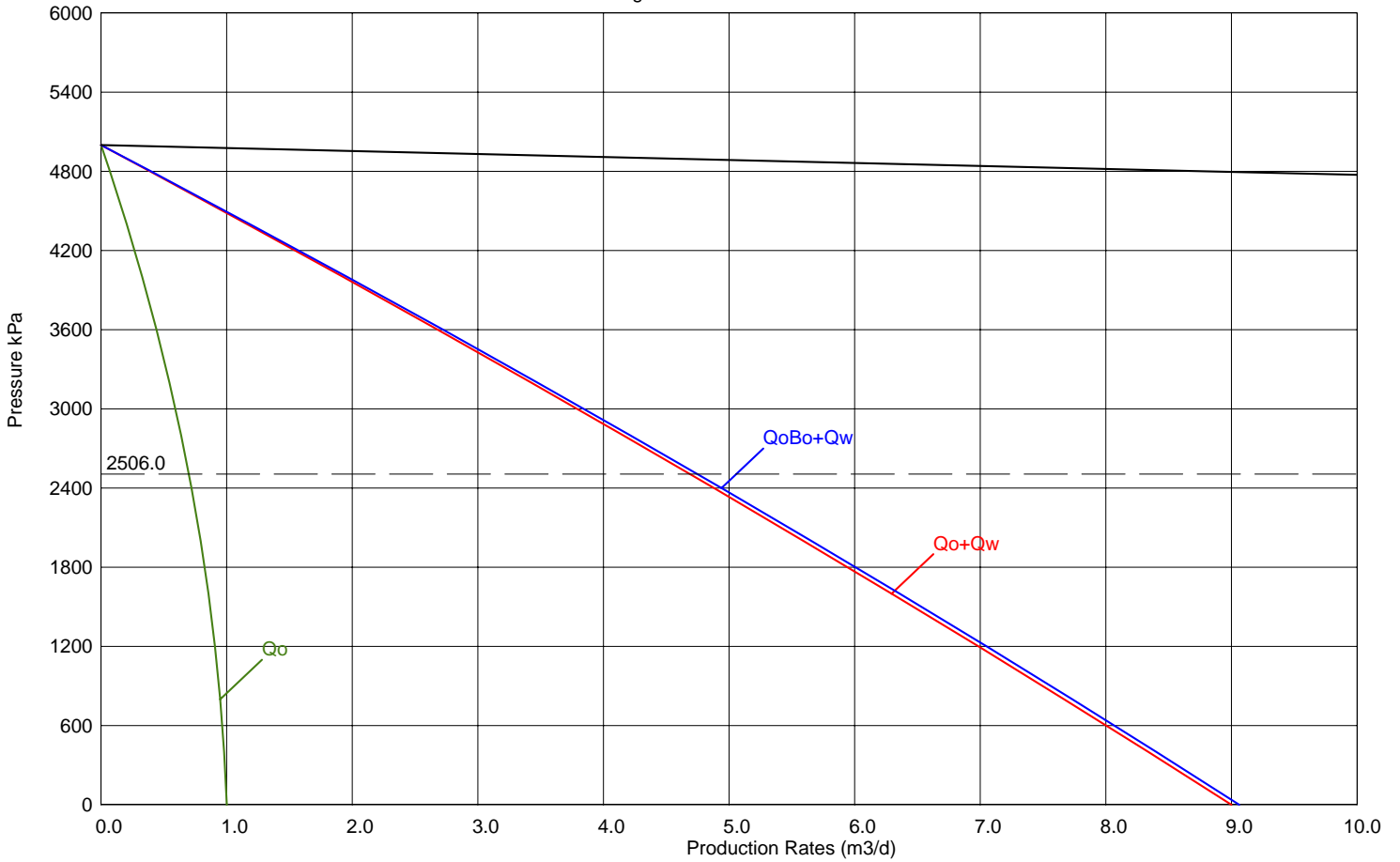
Producing Bottomhole Pressure = 2506.1 kPa

Inflow Performance Relationship

Golden Company
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xxxx-xx-xx



Producing Pressure vs. Production Rate



Pressure (kPa)	At Surface			At Reservoir Depth			
	Oil(Qo) (m3/d)	Water(Qw) (m3/d)	Qo+Qw (m3/d)	QoBo (m3/d)	QoBo+Qw (m3/d)	Gas(Qfg) (m3/d)	QoBo+Qw+Qfg (m3/d)
0	1.0	8.0	9.0	1.1	9.1	6338.9	6348.0
400	1.0	7.4	8.3	1.0	8.4	1244.3	1252.7
800	0.9	6.7	7.7	1.0	7.7	664.5	672.2
1200	0.9	6.1	7.0	1.0	7.1	436.5	443.5
1600	0.9	5.4	6.3	0.9	6.4	312.2	318.5
2000	0.8	4.8	5.6	0.9	5.7	232.4	238.1
2400	0.7	4.2	4.9	0.8	4.9	176.0	180.9
2800	0.6	3.5	4.2	0.7	4.2	133.2	137.4
3200	0.5	2.9	3.4	0.6	3.5	99.2	102.7
3600	0.4	2.2	2.7	0.5	2.7	71.1	73.9
4000	0.3	1.6	1.9	0.4	2.0	47.3	49.3
4400	0.2	1.0	1.2	0.2	1.2	26.7	27.9
4800	0.1	0.3	0.4	0.1	0.4	8.4	8.8
5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Production(m3/d)
Oil 0.70
Water 3.99
Gas (E3) 3.75

Pressures(kPa)
Reservoir 5000.00
PBHP 2506.00

Well Parameters
Gas Gravity 0.73
Oil Gravity (API) 26.80
Res. Temp (C) 68.00