

DYNAMOMETER ANALYSIS

SAMPLE COMPANY
SAMPLE et al SASKATCHEWAN 1-2-3-14
100/01-02-003-14W2/0
FIELD: PROLIFIC
FORMATION: GOODSAND

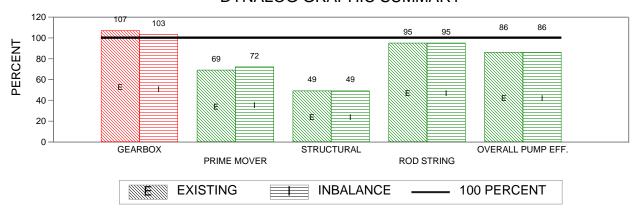
TEST DATE: November 20, 2008 (Analysis Provided by NR-Tec Ltd.)

DISTRIBUTION: BOB LOBLAW

PREPARED BY: NR-Tec Analyst

DATE: November 21, 2008

DYNALOG GRAPHIC SUMMARY



PRODUCTION POTENTIAL

The results of the pumping fluid level test indicate approximately 337 meters of pump submergence. A pump intake pressure of 2828 kPa was determined from these results using an estimated annular fluid gradient of 6.000 kPa/m. Based on these results additional production may be available from the well.

GENERAL COMMENTS

The pump card indicates very good efficiency with slight losses due to tubing movement (tubing is unanchored).

The valve checks indicate that the bottomhole pump is in excellent mechanical condition with only a slight amount of travelling valve leakage and/or plunger slippage.

RECOMMENDATIONS

If a more accurate calculation of the pump intake pressure is desired to determine the amount of available productivity, an annular fluid depression test and inflow performance relationship study should be conducted.

If the existing gearbox torque (107% of rating) cannot be tolerated, a reduction in pumping speed of approximately 0.5 SPM would be required. A complete system re-design should be considered to maintain or increase production levels without experiencing any equipment overload.

When the well is next serviced, consider installing a tension type tubing anchor to eliminate efficiency losses and equipment wear due to tubing movement and extend the life of the equipment.

Counterbalance requirements should be re-evaluated following any changes to equipment or operation.

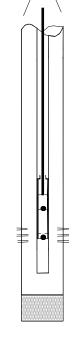






PRIME MOVER			
PRIME MOVER			
BALDOR	ELECTRIC		
SHEAVE O.D. (cm)			22.86
RATED HORSEPOWER			30 / 25 / 20
RATED AMPS (RMS)			37 / 31 / 25
RATED RPM			1125
		EXISTING	INBALANCE
POLISHED ROD H.P.		11.79	11.79
CYCLIC LOAD FACTOR		1.498	1.555
APPROX. MOTOR H.P.		20.8	21.6

PUMP EFFICIENCY	
TOTAL PLUNGER STROKE (cm)	240
PUMP DISPLACEMENT (m3/d)	72.6
FLUID PROD'N AS % OF TOTAL DISP.	86
OIL PRODUCTION RATE (m3/d)	1.65
WATER PRODUCTION RATE (m3/d)	60.85
TOTAL FLUID PROD. RATE (m3/d)	62.50
GAS - OIL RATIO	152
EFFECTIVE PLUNGER STROKE (cm)	229
EFFECTIVE PUMP DISPLACEMENT (m3/d)	69.3
FLUID PROD. AS % OF EFF. PUMP DISP.	90
PRODUCTION TEST DATE	2008-11



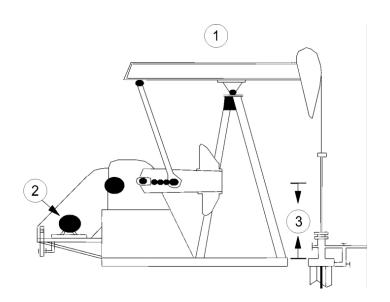
PUMP UNIT					
LUFKIN CONVE	ENTIONAL	228-213-100			
ROTATION		CW			
PITMAN POSITION		1 OF 4			
PUMPING SPEED (SPM)		10.3			
STROKE LENGTH (cm) / (in	n)	254 / 100			
BALANCE CONDITION		UNDER			
	EXISTING	INBALANCE			
MAX. TORQUE (in-lb)	243543	234204			
- % OF RATING	107	103			
MIN. TORQUE (in-lb)	-56364	-68190			
- % OF RATING	25	30			
MAX. LOAD (lb)	10505	10505			
- % OF RATING	49	49			
C.B. EFFECT (lb)	7163	7469			
C.B. MOMENT (in-lb)	346448	361206			

FLUID LEVEL AND PRESSURES	
TUBING PRESSURE (kPa)	802
CASING PRESSURE (kPa)	762
PUMPING FLUID LEVEL (mCF)	600.03
PUMP SUBMERGENCE (m)	337.17
* ANNULAR FLUID GRADIENT (kPa/m)	6.000
PRESS. DUE TO GAS COLUMN (kPa)	43
PRESS. DUE TO FLUID COLUMN (kPa)	2023
PUMP INTAKE PRESSURE (kPa)	2828
* ESTIMATED	
CASING TIED-IN AND OPEN TO FLOWLINE	

	ROD LOADING								
	DIAM.	LOAD (lb)		STRESS (psi)		PERCENT API GOODMAN			ROD
SECTION	(mm)	MAX.	MIN.	MAX.	MIN.	1.0 S.F.	0.8 S.F.	0.6 S.F.	GRADE
POL. ROD	31.75	10505	1870	8561	1523	32	41	56	С
2	19.05	10505	1870	23779	4232	73	95	135	D
3	19.05	7527	634	17037	1434	55	70	96	D







NOTES:

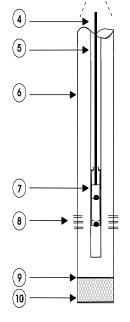
Rod rotator installed and functioning properly.

Belts are tight and in good condition.

The brake is in good mechanical condition.

A visual inspection of the polished rod indicates it is in good condition.

Well is equipped with rod pump controller. Runtime - 100 %



	SUMMARY OF BASIC V	VELL INFOR	MATION				
1. PL	JMP UNIT	VELL IIII OI	MATION				
		VENTIONAL	228-213-100				
	STROKE LENGTH (cm) / (in)						
	SHEAVE O.D.: 28.0 inches	, , , ,					
	BELT SIZE: 3 type C285						
	**	ALIVILIADV	CRANK #: 7478B				
	COUNTER	AUXILIARY	WEIGHT				
	<u>WEIGHTS</u> LEAD A 3CR0	WEIGHTS	POSITION 3.0"				
			3.0				
	LAG A						
	LEAD B		0.01				
0 DE	LAG B 3CR0		3.0"				
2. Ph	RIME MOVER	ECTRIC					
		ECTRIC	00.00				
	SHEAVE O.D. (cm)		22.86				
	RATED HORSEPOWER		30 / 25 / 20				
	RATED AMPS (RMS)		37 / 31 / 25				
	RATED RPM		1125				
	VOLT RATING		460				
3. EL	EVATIONS						
	KB ELEVATION (m)		698.51				
	CF ELEVATION (m)	CF ELEVATION (m)					
	KB - CF (m)		3.80				
5. TU	IBING						
	DIAMETER (mm)		73.03				
	SET AT (mKB)		952.13				
	NO. OF JTS. / AVG. JT. LENG	STH (m)	99.0 / 9.579				
6. CA	ASING						
	DIAMETER (mm)		139.70				
	SET AT (mKB)		999.00				
7. BC	OTTOMHOLE PUMP						
	63.5 X 50.8 X RWAC X 4.9 X	0.9					
	PLUNGER DIAMETER (in) / (r	nm)	2.00 / 50.80				
	BARREL LENGTH (ft) / (m)	BARREL LENGTH (ft) / (m)					
	SETTING DEPTH (mKB)		941.00				
COM	PLETION DETAILS						
8.	PRODUCING INTERVAL (mKI	B)					
	TOP / BOTTOM		932.00 / 933.00				
	MID-POINT		932.50				
9.	PLUG-BACK DEPTH (mKB) 968						
10.	TOTAL DEPTH (mKB)	TOTAL DEPTH (mKB) 9					

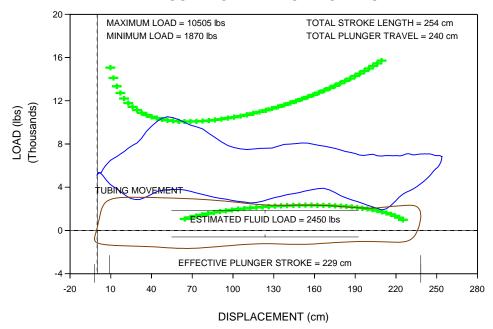
ROD STR	ROD STRING								
	DIAMETER	LENGTH	UNIT WT.	WT. IN AIR	WT. IN FLUID	API	TENSILE		
SECTION	(mm)	(m)	(lb/m)	(lb)	(lb)	ROD GRADE	STRENGTH (psi)	COMMENTS	
POL. ROD	31.75	7.82	13.93	109	95	С	90000		
2	19.05	387.80	5.35	2074	1831	D	115000	Ryton Scrapered c/w Ponies	
3	19.05	548.64	5.35	2934	2590	D	115000	Plain	
		944.26		5117	4516				

11.

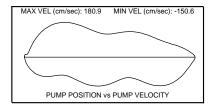


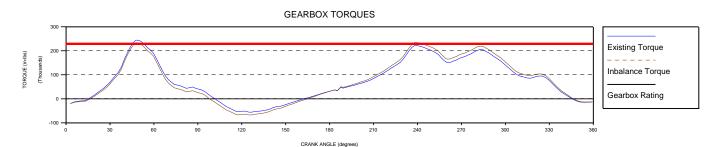


SURFACE AND PUMP CARDS



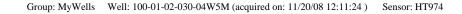
PUMP VELOCITY PLOT

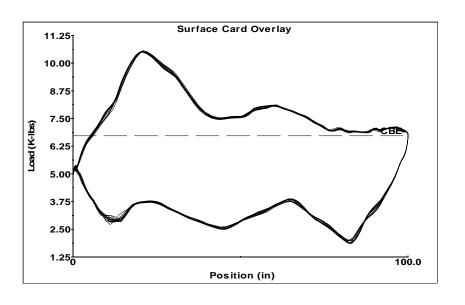


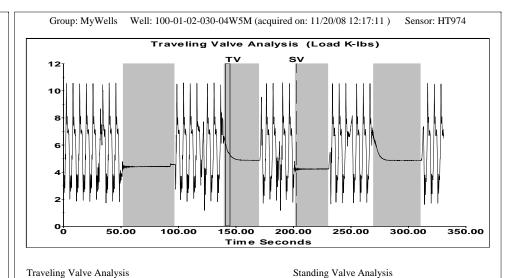












- * - lbf

- * - BBL/D

6145 lbf

Calculate Buoyant Rod Weight

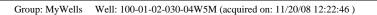
Measured Load SV

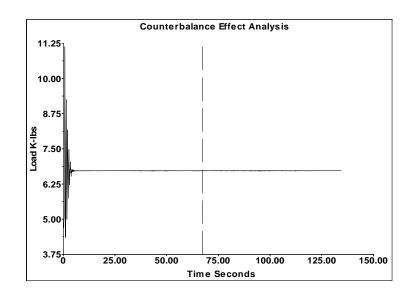
Intake Pressure

Calc. Buoyant Rod Weight + Fluid Load

Measured Load TV

Leakage





TOTAL WELL MANAGEMENT by ECHOMETER Company

11/26/08 10:20:36

4225 lbf -*- psi (g)