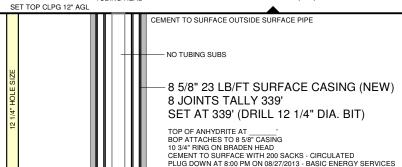
SUBFACE TEMP: 30 DEG E

5 1/2" X 2 7/8" TUBING HEAD

DRILLED TO 342'

K.B.: 8' G.L. ELEVATION 1354' (SHL) POSSIBLE FUTURE PERFORATIONS: Layton from 2236' to 2241' (or maybe less) Marmaton from 2626' - 2630': *The limestone at 2767 is too tight

REV



215 SACKS 60/40 POZ (2% CC AND 1/4 LB CF)

2 7/8" PRODUCTION TUBING 6.4 LB/FT API J55 UPSET (NEW) 94 JOINTS TOTAL

5.5" PRODUCTION CASING (NEW) 15.50 LB/FT -- 84 JOINTS SET AT 3531.63' (TALLY) SET AT 3539.50' (DRILL 7 7/8" DIA. BIT - HOLE)

2062' TOP OF CEMENT (TOC) 225 SACKS (AA-2) SEE CEMENT TICKETS LAYTON 2262.5-2263.0' 2 HOLES

SANDSTONE 2446'-2448 4 SP MARMATON 2626'-2632' 4 SPF PAWNEE 2704'-2710' 4 SPF FT. SCOTT 2742'-2748' 4 SPF (TIGHT) CATTLEMAN 2866'-2872' 4 SPF

2 7/8" STANDARD TUBING COUPLING 2 7/8" STANDARD SEATING NIPPLE

2 7/8" STANDARD TUBING COUPLING 2 7/8" X 15' STANDARD TUBING MUD ANCHOR PUMP INTAKE

3002' IS BOTTOM OF MUD ANCHOR

OLD MISSISSIPPIAN CHERT/CHAT & LIME

NOTES:

CONVENTIONAL PARKERSBURG UNIT 30 HP ELECTRIC MOTOR WITH 50 HP SPOCC VFD VFD INSTALLED RUN TIME: 24 HRS PER DAY 1.25" X 16' POLISHED ROD WITH LINER ASSEMBLY (16') 2' PONY ROD ON TOP (7/8" GRADE D) (2') 1.50" X 8' HARD LINED POLISHED ROD LINER WITH SEAL (8') 42 - 7/8" GRADE D SUCKER RODS ON TOP (1350) 62 - 3/4" GRADE D SUCKER RODS ON BOTTOM (2075') 14 - 7/8" X 25' SINKER BAR ON TOP OF PUMP ONE 2' X 7/8" GRADE D PONY ROD ON BOTTOM (TOP OF PUMP) (2') SPEED RANGE: 4 TO 14 SPM MAX. SPEED: 14 SPM

PUMPING UNIT: C - 160 -190 - 74 (74" SURFACE STROKE)

CURRENT DISPLACEMENT: 390 BPD (2.00" BORE PUMP AT 12 SPM)
MAX. DISPLACEMENT: 900 BPD (2.75" BORE PUMP W/TUBING ANCHOR)

TUBULARS

PURPOSE	CONDUCTOR	SURFACE	INTERMEDIATE	PRODUCTION	PROD. TUBING
SIZE	13 3/8"	8 5/8"		5 1/2"	2 7/8"
WEIGHT	NONE	2,946 PSIG	NONE	15.5 LB/FT	6.40 LB/FT
GRADE	NONE	J-55	NONE	J-55	J-55
BURST	NONE	24.0 LB/FT	NONE	4,812 PSIG	7,265 PSIG
COLLASPE	NONE	381,395 LBF	NONE	4,043 PSIG	7,676 PSIG
YIELD	NONE	1,434 PSIG	NONE	248,274 LBF	99,661 LBF
CAPACITY	NONE	0.064 BBLS/FT	NONE	0.024 BBLS/FT	0.006 BBLS/FT
THICKNESS	NONE	0.2640"	NONE	0.2750"	0.2170"
ID	NONE	8.0970"	NONE	4.9500"	2.4410"
DRIFT ID	NONE	7.9720"	NONE	4.8250"	2.3470"
AREA	NONE	51.49 IN2	NONE	19.42 IN2	4.68 IN2
SETTING DEPTH	NONE	339'	NONE	3,532'	3,000' TO PUMP
LENGTH	NONE	339'	NONE	3,532'	NEED 3,525'
FOB	NONE	CHASE, KS	NONE	CHASE, KS	CHASE, KS
COST	NONE	\$/ FT	NONE	\$/ FT	\$/ FT

ERFORATIONS SQUEEZED OFF WITH 150 SACKS (12/16/2013) CEMENT FELL TO 3075' AND SET UP -- 3075' TO 3108' SEALED OFF

PERFORATIONS RE SQUUEZED OFF WITH 140 SACKS (12/18/2013) ALL PERFORATIONS ARE SEALED OFF -- 3040' TO 3075' SEALED OFF

DATE	07/29/2013	
APPROVED BY	B. KELSO	
AFE	TBD	
API No.	15035245130000	
GL ELEVATION	1354'	
KB	8'	
KB ELEVATION	1362'	
RIG	FOSSIL #2	

ALL PERFS NEW MISSISSIPPIAN CHERT/CHAT SQUEEZED **PERFORATIONS** OFF AND TOP 6 3040'-3046' (RAT HOLE 3046' TO 3075' - 29') OPEN BACK UP

MISSISSIPPIAN PERFORATIONS:

PERFORATIONS 3040'-3077' FRAC ON 10/04/2013 3081'-3108' OPEN AFTER FRAC TRACER SURVEY INDICATES PERFORATIONS FROM 3040' CHANNEL DOWN TO 3162'

7.000 PSIG CIBP SET AT 3180' (NEW PBTD) MISSISSIPPIAN LIME **PERFORATIONS**

3192'-3196' (5 HOLES) 1 SPF 7,000 PSIG CIBP SET AT 3205' MISSISSIPPIAN LIME PERFORATIONS 3208'-3211' (4 HOLES) 1 SPF 7,000 PSIG CIBP SET AT 3215' MISSISSIPPIAN LIME

PERFORATIONS

0.450" DIA. 36.0" PEN

3218'-3219' (2 HOLES) 1 SPF 7,000 PSIG CIBP SET AT 3475' ARBUCKLE PERFORATIONS

3486.0'-3486.5' (2 HOLES) 36.0" PEN.

GUN OWEN 4000-317

GUN OWEN 4039-323T 0.450" DIA

SINGLE STAGE FRAC (22 HOLES TOTAL)

MISSISSIPPIAN CHERT/CHAT 3040'-3046' (2 SPF) HEIGHT (FT): 6 TOTAL HOLES: 13

AND

MISSISSIPPIAN LIME 3063'-3077' (1 SPF) HEIGHT (FT): 14 **TOTAL HOLES: 9** 3063, 3064, 3066, 3067, 3068, 3069, 3073, 3076 & 3077

DOWN HOLE SUCKER ROD PUMP:

2.00" INSERT PUMP PUMP LENGTH: 16' (NICARD AND SS) BOTTOM HOLD DOWN TYPE TRAVELING BARREL 2' X 7/8" PONY ROD ON TOP OF PUMP 8' GAS SEPERATOR ON THE BOTTOM PUMP INTAKE DEPTH: 3002 PUMP IS SETTING 38' ABOVE THE PERFORATIONS GAS IS VENTING AT WELL HEAD (TUBING/CASING)

7.000 PSIG CIBP

3040' TOP PERF.

SET AT 3010'

3075' TOC

3108' BOTTOM PERF.

TOP OF FRAC SAND

THROUGH PIPE

TEST THROUGH PIPE

PBTD: 3500' MD TVD (NEW PBTD 3075')

RTD: 3541' MD TVD LTD: 3541' MD TVD DOWNHOLE TEMP: 120 DEG F

BAIR #1

COWLEY COUNTY, KANSAS 23-T32S-R06E SHL: 660 FSL, 660 FWL BHL: 660 FSL, 660 FWL

LORTON FIELD

AFTER FRAC (24 HOLES)

3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108

*(2 SPF ON 3081, 3087, 3103 & 3108)

RAT HOLE WILL BE FROM 3108' TO 3180' (72')

