

Cities Service Oil and Gas Corporation
Federal AB Well No. 1
Page 2

14 hr. SITP 550#. Swabbed -0- BO + 30 BLW/2 hrs. Burning a 2' flare. SI for BHP buildup. 165 hr. SIBHP 3679#. POOH w/BHP bomb. CAOF for Morrow Perfs 13,326 - 13,431' was 199 MCFD. Flowed thru stack pack as follows:

Gas Rate	Choke Size	FTP	BP
137 MCFPD	7/64"	595#	425#
127 MCFD	7/64"	495#	420#
82 MCFD	7/64"	430#	420#
30 MCFD	Open	420#	420#

Flowed 14.6 MCFD thru 8/64" choke, FTP 30#. POOH w/tubing and packer. Set a CIBP @ 13,286' and spotted 12 sacks (100') of Class C neat cement on top of CIBP @ 13,286 - 13,186'. Pulled tubing to 12,399' and spotted a 12 sack (100') Class C neat cement plug @ 12,399 - 12,299', across the top of the Strawn Formation. Pulled tubing to 9857' and spotted a 12 sack (100') Class C neat cement plug @ 9857 - 9757', across the top of the Wolfcamp Formation. POOH w/tubing. Perforated the Bone Springs w/2 SPF @ 8631, 32, 33, 38, 42, 47, 48, 52, 55, 58, 59, 60, 64, 67, 72, 76, 78, 81 and 8685'. Total 38 holes (0.43" dia & 15.07" pen). RIH w/tubing and RTTS and set RTTS @ 8550'. 14 hr. SITP 400#. Swabbed 15 BO + 10 BLW/3 hrs. Acidize Bone Springs Perfs 8631 - 8685' w/5000 gals 15% NeFe HCL acid. Max press 6000#, min press 3300#, ATP 3500#, AIR 5.0 BPM, ISIP 2600#, 5 min SIP 2100#, 10 min SIP 2000#, 15 min SIP 2000#. 14 hr. SITP 700#. Flowed 121 BO + -0- BW/24 hrs. thru 1" choke, FTP 50#, GR 98 MCFD. POOH w/tubing and RTTS set @ 8550'. RIH w/tubing and packer and set tubing @ 8553' and packer @ 8545'. Swabbed 25 BO + 25 BLW/2 hrs. Acidized Bone Springs Perfs 8631 - 8685' w/30,000 gals PUR-GEL 30 pad + 20,000 gals 20% CRA acid. Max press 5040#, min press 4510#, ATP 4820#, AIR 16.0 BPM, ISIP 2400#, 5 min SIP 2350#, 10 min SIP 2320#, 15 min SIP 2260#. 14 hr. SITP 700#. Flowed 43 BO + -0- BLW/7 hrs. thru 1" choke, FTP 100# and died. Swabbed 83 BO + 37 BLW/3 hrs. POOH w/tubing and packer. RIH w/2-7/8" tubing and set tubing @ 8736'. Ran rods and BHP and put well on the pump. Pumped on NMOC potential 373 BO + 20 BLW/16 hrs., Grav. 38.1°, GOR 468, GR 175 MCFD. Rated 24 hr. potential 560 BO + 30 BLWPD + GR 262 MCFD/