

NELLIS FEDERAL NO. 3

1980' FNL & 1980' FWL, Section 6, Unit F, T-19-S, R-33-E,
Lea County, New Mexico.

DST RESULTS

DST No. 1, 12,597-12,640' Atoka, to evaluate sn drlg break 12,604-12,612' by teleflow tst. On 5 min initial pre-flow an avg flow of 16,000 BPD was calculated. Liquid rates probably exaggerated due to two-phase flow. Ran 60-min ISIBHP with surf prs remaining stable low gas breakout. Liquid recovery of 78.8 bbls indicated by blowdown. On 60-min final flow avg closed chamber flow rate of 2,600 BPD was calculated with results indicating large liquid recovery. Ran 122-min FSIBHP with gas breakout rate increasing then declining. Liquid recovery of 120.2 bbls indicated by blowdown. Recovered 2,650' or 37 bbls fresh water blanket and 6,250' or 89 bbls of salt water with chlorides 41,000 MPL and resistivity 0.19 at 50 deg F vs pit mud 150,000 MPL and 0.08 at 74 deg F. Sample chamber recovery at 550 psi of 0.15 cu. ft. of gas and 2,400 cc salt water with chlorides 43,000 MPL and resistivity 0.22 at 48 deg F.

IHH 6,203 psi.

5-min IFBHP 4,553-4,560 psi.

60-min ISIBHP 6,084 psi still building.

60-min FFBHP 5,154-5,913 psi.

122-min FSIBHP 6,215 psi still building.

FHH 6,247 psi.

BHT 220 deg. F.

DST No. 2, 13,240-13,319' Morrow, to evaluate sn drlg breaks 13,249-13,276' and 13,287-13,302' by teleflow test: On 5.5 min initial pre-flow an avg flow of 960 BPD was calculated with gas and rat hole mud being produced. Ran 77-min ISIBHP with gas breaking out of water cushion after 50 mins at avg breakout rate 17 MCFPD. On 42-min second flow period avg closed chamber flow rate of 33 MCFPD was calculated. Ran 105-min second SIBHP with gas breaking out rapidly after 90 mins at breakout rate 200 MCFPD. On 60-min final flow avg closed chamber flow rate of 17.7 MCFPD was calculated. Opened at surface after 45 mins on 1/8" ch at rate 35 MCFPD decreasing to 23 MCFPD at 60 mins. Ran 125-min FSIBHP with gas continuing to break out of water cushion. Liquid recovery of 8 bbls indicated by blowdown. Recovered 250' or 3.5 bbls gas-cut drilling fluid with chlorides 175,000 MPL and resistivity 0.04 at 54 deg F 3,000' or 35.0 bbls water cushion 9,500 MPL and 1.8 at 54 deg F and 1,500' gas-cut salt water 40,000 MPL and 0.18 at 56 deg. F. Sample chamber recovery at 2,400 psi of 4.41 cu. ft. of gas 70 cc condensate and 1,900 cc salt water 53,000 MPL and 0.15 at 56 deg F vs pit mud 167,000 MPL and 0.04 at 54 deg F. IHH 6,964 psi. 5.5-min IFBHP 1,241-1,277 psi. 77-min ISIBHP 6,289 psi approaching stabilization. 42-min 2nd FBHP 1,313-1,550 psi.