



SUMMARY REPORT

4/2/98

HAPPY VALLEY '4' FED #22

10/08/97 Days- 49; Depth- 11457; FTG- 162; DRILLING; morrow clastic 70% sand 20% lime 10% shale; DRILLING; MW- 10.6; Vis- 41; PV/YP- 10/20; Gels- 9/14; pH- 10.0; WL- 7.2; Cake- 1; Sand- TR; Solids- 6.0; Chls- 150,000; LCM- 4#; Calc- 120; Mix- KCL 4.5; Liner- 5 1/2; Stroke- 16; SPM- 44; Press- 1850; GPM- 204; NV- 99; AVDP- 209; AVDC- 350; Bit#- 11; SN- H68YF; Size- 6 1/8; Mfg- HTC; Type- STR 44C; Jets- 3-18; In- 11293; Ftg- 164; Hrs- 23 1/2; Ft/Hr- 6.97; WOB- 30; RPM- 50; BHA(ft)- 1110.94; 2 3/4 hrs- Drlg; 1/2 hr-Serv rig; 8 hrs- Drlg; 1/2 hr-Change out rot head rubber; 12 1/4 hrs-Drlg to 11457. BG gas 50-75. Con gas 150-200. Str Wt 190,000. SPR 775#, 25 SPM.

DMC-\$ 4309 TMC-\$ 56,797 TDC-\$ 15813 CWC-\$ 931,478 CMIC- KJ

10/09/97 Days- 50; Depth- 11595; FTG- 138; DRILLING; Basal lower morrow; DRILLING; MW- 10.5+; Vis- 44; PV/YP- 11/26; Gels- 10/16; pH- 9.5; WL- 6.6; Cake- 1; Sand- TR; Solids- 6.2; Chls- 147K; LCM- 4; Calc- 100; Mix- KCL 4.5; Liner- 5 1/2; Stroke- 16; SPM- 44; Press- 1975; GPM- 204; NV- 99; AVDP- 205; AVDC- 350; Bit#- 11; SN- H68YF; Size- 6 1/8; Mfg- HTC; Type- STR 44C; Jets- 3-18; In- 11293; Ftg- 302; Hrs- 47 1/4; Ft/Hr- 6.3; WOB- 30; RPM- 50; BHA(ft)- 1110.94; 1 1/2 hr- Drlg; 1/4 hr-Serv rig; 22 1/4 hr-Drlg.
Drlg Breaks: 11380 to 11394 2-4 min/ft, 195 unit show.
11476 to 11496 1-2 min/ft, 270 unit show.
11503 to 11510 2-4 min/ft, 75 unit show.
11521 to 11533 4 min/ft, 120 unit show.

BG gas-60-80. Con gas-150. Str Wt-192K. SPR 825#, 25 SPM.
Lith: 60% sand. 30% shale. 10% lime.

DMC-\$ 3923 TMC-\$ 60,720 TDC-\$ 14473 CWC-\$ 945,951 CMIC- KJ