

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-045-25557
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL ☐ GAS WELL ☐ OTHER ☐	5. Lease Name or Unit Agreement Name State Gas Com "BP"
2. Name of Operator Cross Timbers Operating Company	8. Well No. #1E
3. Address of Operator 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401	9. Pool name or Wildcat Basin Dakota
4. Well Location Unit Letter <u>J</u> : <u>1770</u> Feet From The <u>south</u> Line and <u>1810</u> Feet From The <u>east</u> Line Section <u>32</u> Township <u>29N</u> Range <u>09W</u> NMPM San Juan County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 6264' GL	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: Add additional pay in the Mesaverde ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Cross Timbers is requesting approval to open additional pay in the above mentioned well. A copy of the procedure to be used for the Mesaverde pay-add is enclosed for you review and approval. Cross Timbers is planning to begin this workover by June 30th, 1999. If there are any questions regarding this procedure please feel free to contact Cross Timbers Operating Co.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jeffery W. Patton TITLE Production Engineer DATE 5/24/99
TYPE OR PRINT NAME Jeffery W. Patton TELEPHONE NO. 324-1090

(This space for State Use)

ORIGINAL SIGNED BY ERNIE BUSCH

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

DEPUTY OIL & GAS INSPECTOR, DIST. 43

MAY 27 1999



State Gas Com "BP" #1E

OAP in the MV Workover Procedure

Surface Location: 1,490' FSL & 1,555' FEL, UNIT J, SEC 32, T29N, R09W.

Casing: **Surface:** 9-5/8", 36#, K-55, STC csg @ 331' KB. Cmt'd w/240 sx cmt w/2% CaCl₂. TOC 10' below GL.

Intermediate: 7", 20.0#, J-55, STC csg @ 3,005' KB. Cmt'd w/370 sx 50/50 poz & Class "B" w/6% gel, 0.8% FL & 2# MTP followed by 100 sx Class "B" cmt. Circ cmt to surface.

Liner: 4-1/2", 10.5#, J-55 Liner fr/7,240'-2,830'. Cmt'd w/380 sx 50/50 poz & Class "B" w/6% gel, 0.8% FL & 2# MTP followed by 100 sx Class "B" neat. TOC @ 2,830'. TOL failed PT. Squeezed TOL w/200 sx Class "B" cmt.

Tubing: 219 jts 2-3/8", 4.7#, J-55, EUE, 8rd tbg, SN, 1 jt 2-3/8" & notched collar. Landed EOT @ 7,118' KB.

Perfs: **Dakota:** 7,044'-52' & 7,096'-7,118' (2 JSPF).

Objective : Perforate and stimulate additional pay in the Pt. Lookout and Menefee. Test the MV for allocation factors. Return the well to production as a downhole commingled well.

1. MI & spot 10 (400 bbl upright) frac tanks. Fill frac tanks w/clean 2% KCl wtr. Add 4#/tnk B-115 biocide to tank prior to filling. MI 91 jts 3-1/2", 9.2#, J-55, EUE, 8rd tbg (rental string). MI 2 jts 2-7/8" tbg. MI 4 - 3-1/8" DC's.
2. MIRU PU w/pmp & pit. Fill pit w/2% KCl wtr as required. Kill tbg & csg w/2% KCl wtr as needed. ND WH. NU BOP.
3. Rel donut & TOH w/2 jts tbg. Visually inspect tbg. If tbg looks acceptable, then TIH. Tag for fill (PBTD @ 7,183' KB). Record amount of fill (if any).
4. TOH w/tbg. Kill well as required while TOH.

Stage One

5. MIRU WL. RIH w/GR / CCL log. Pull log fr/PBTD ($\pm$ 7,183)-1,100'. RIH w/setting tool & CIPB. Set CIPB @ $\pm$ 7,000' KB. Check CCL log for collars before setting CIPB. PT CIBP & csg w/2% KCl wtr to 500 psig for 5" with rig pmp.
6. RU lubricator & RIH w/3-1/8" select fire perf gun & perforate Pt Lookout w/1 JSPF (27 holes total), 0.34" dia holes @ the following depths:



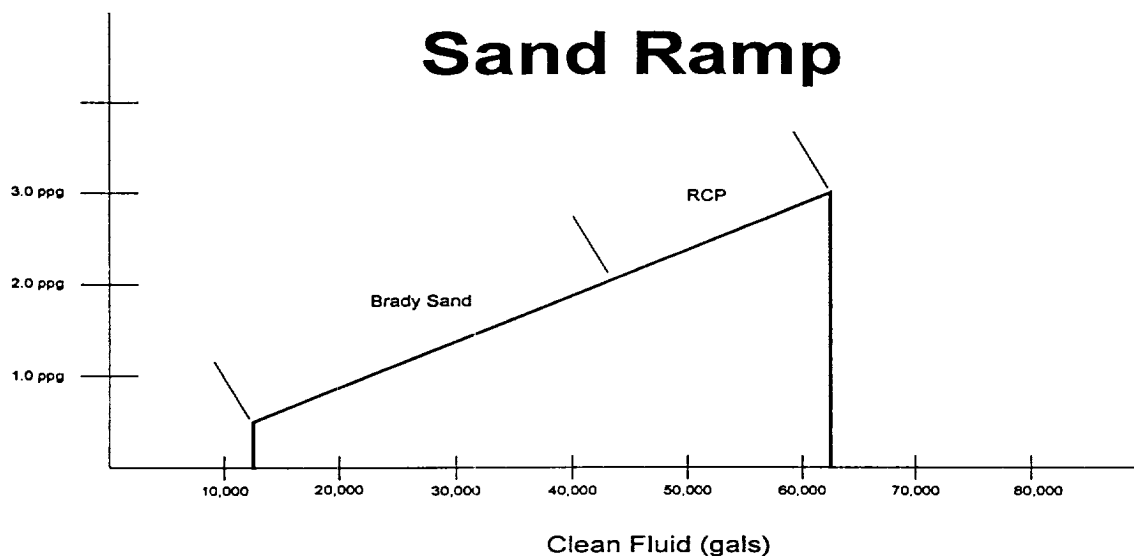
4,947', 4,946', 4,936', 4,934', 4,932', 4,927', 4,926', 4,909', 4,907', 4,897',
4,889', 4,887', 4,885', 4,883', 4,874', 4,872', 4,870', 4,868', 4,866', 4,850',
4,844', 4,842', 4,840', 4,838', 4,836', 4,834' & 4,832'.

7. RD WL.
8. PU & TIH w/4-1/2" pkr & 2-3/8" tbg. Set pkr @ $\pm 4,750'$. Chk CCL log for collars before setting pkr.
9. MIRU acid crew. Press up to 500 psig on tbg/csg annulus. Breakdown perfs dwn tbg w/2% KCl wtr if possible. Max press is 5,000 psig. Record breakdown pressure.
10. If perfs will not breakdown, rel pkr. TIH to 4,947'. Spot 75 gals of 15% HCl acid fr/4,947'-4,835'.
11. PU to $\pm 4,750'$. Rev circ 2 bbls 2% KCl wtr. Re-set pkr (@ $\pm 4,750'$). Press up to 500 psig on tbg/csg annulus.
12. EIR into perfs w/2% KCl wtr @ 5 BPM. Pmp 5-7 bbls of wtr then SD. Record press, rate & ISIP. Switch to acid. Acidize perfs @ 5 BPM w/500 gals 15% HCl acid (w/inhibitor & surfactant). Drop 70 ea 1.3 spgr, 7/8", RCN ball sealers spaced evenly through the last 400 gals of acid. Flush acid w/2% KCl wtr. Over displace acid by 1 bbl past bottom perf if well does not "ball off". Record 5", 10" & 15" SIP's.
Max pressure during ball off is 5,000 psig dwn tbg.
13. Blow well dwn to pit. Rel pkr & TIH. Knock balls loose w/pkr. TOH.
14. PU & TIH w/4-1/2" pkr, 2 jts 2-7/8" tbg, XO & 2,820' (± 91 jts) 3-1/2" tbg. Set pkr @ 2,880'.
15. MIRU frac crew. Press up to 500 psig on tbg/csg annulus. Frac the Pt Lookout down 3-1/2" tbg using a 15-20# low viscosity crosslinked gel system. Use the appropriate additives and breakers for the well conditions. Prop the frac w/65,000# 20/40 mesh Brady sand followed by 20,000# Super LC RCP (w/activator). Use the following frac schedule. Flush well with 15-20# linear gel. Est BHT 110°F.
Max press during the frac is 5,000 psig.



Stg.	Stg size in gals	Sand Conc.	BH Rate
Pad	12,000 gals		45 BPM
SLF	48,575 gals	0.5 ppg to 3.0 ppg ramp	45 BPM
Flush	6,000 gals		45 BPM

Switch to RCP during the sand ramp after 65,000# of Brady has been pumped. Do not forget to start activator. Do not hold a 3 ppg sand stg.



16. Record ISIP, 5", 10" & 15" SIP's. RD frac crew. Blow well dwn to pit. TOH w/3-1/2" tbg, XO, 2-7/8" tbg & pkr.

Stage Two

17. RU WL. RIH w/setting tool & CIBP. Set CIBP @ $\pm 4,750'$. Check CCL log for collars before setting CIPB. PT CIBP & csg w/2% KCl wtr to 500 psig for 5" with rig pmp.
18. RU lubricator & RIH w/3-1/8" select fire perf gun & perforate the Menefee w/1 JSPF (35 holes total), 0.34" dia holes @ the following depths:

4,663', 4,661', 4,659', 4,657', 4,655', 4,653', 4,651', 4,649', 4,647', 4,645',
4,643', 4,632', 4,631', 4,606', 4,604', 4,602', 4,600', 4,564', 4,562', 4,560',
4,536', 4,534', 4,532', 4,530', 4,508', 4,506', 4,504', 4,502', 4,494', 4,492',
4,489', 4,481', 4,479', 4,477' & 4,475'.



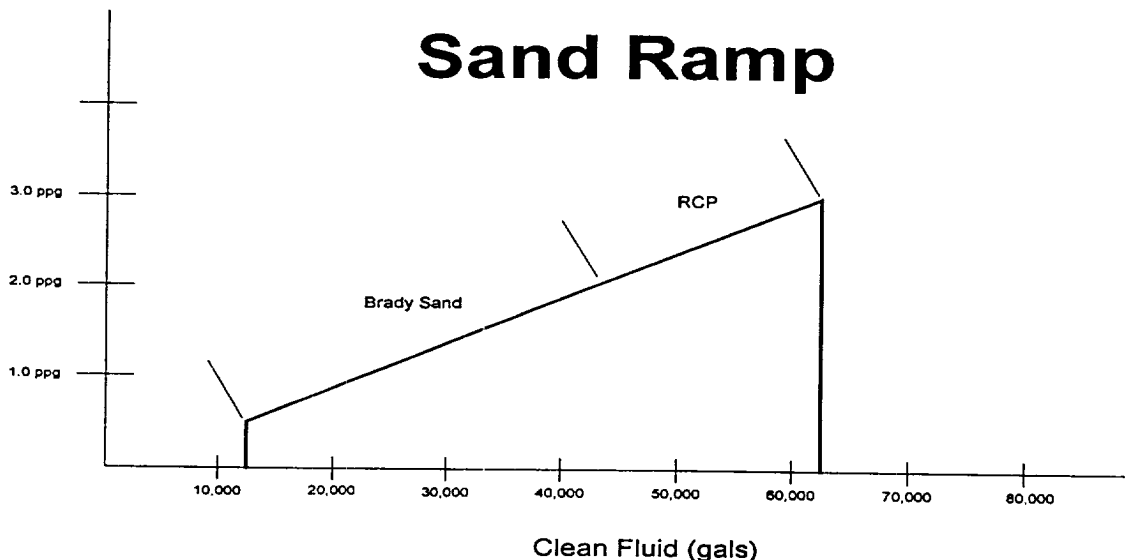
19. RDMO WL & lubricator.
20. PU & TIH w/4-1/2" pkr & 2-3/8" tbg. Set pkr @ $\pm 4,375'$. Check CCL log for collars before setting pkr.
21. RU acid crew. Press up to 500 psig on tbg/csg annulus. Breakdown perfs dwn tbg w/2% KCl wtr if possible. Max press is 5,000 psig. Record breakdown pressure.
22. If perfs will not breakdown, rel pkr. TIH to 4,663'. Spot 125 gals of 15% HCl acid fr/4,663'-4,476'.
23. PU to $\pm 4,375'$. Rev circ 2 bbls 2% KCl wtr. Re-set pkr (@ $\pm 4,375'$). Press up to 500 psig on tbg/csg annulus.
24. EIR into perfs w/2% KCl wtr @ 5 BPM. Pmp 5-7 bbls of wtr then SD. Record press, rate & ISIP. Switch to acid. Acidize perfs @ 5 BPM w/500 gal 15% HCl acid (w/inhibitor & surfactant). Drop 70 ea 1.3 spgr, 7/8", RCN ball sealers spaced evenly through the last 400 gals of acid. Over displace acid by 1 bbl past bottom perf if well does not "ball off". Record 5", 10" & 15" SIP's.
Max pressure during ball off is 5,000 psig dwn tbg.
25. Blow well dwn to pit. Rel pkr & TIH. Knock balls loose w/pkr. TOH.
26. TIH w/3-1/2" frac string as run in step 14. Set pkr @ 2,880'.
27. RU frac crew. Press up to 500 psig on tbg/csg annulus. Frac the Menefee down 3-1/2" tbg using a 15-20# low viscosity crosslinked gel system. Use the appropriate additives and breakers for the well conditions. Prop the frac w/65,000# 20/40 mesh Brady sand followed by 20,000# Super LC RCP (w/activator). Use the following frac schedule. Flush well with 15-20# linear gel. Est BHT 110°F.
Max press during the frac is 5,000 psig.

Stg.	Stg size in gals	Sand Conc.	BH Rate
Pad	12,000 gals		45 BPM
SLF	48,575 gals	0.5 ppg – 3.0 ppg ramp	45 BPM
Flush	5,750 gals		45 BPM

Switch to RCP during the sand ramp after 65,000# of Brady has been pumped.



Do not forget to start activator. Do not hold a 3 ppg sand stg.



28. Record ISIP, 5", 10" & 15" SIP's. RD & release frac crew. RU flowback manifold. Start flwg well back up 3-1/2" tbg to flare pit after frac crew is safely out of the way. Start well on 1/4" choke. If well starts making sand reduce choke size. If well quits making fluid increase choke size. Flare gas if possible. Gauge amount of fluid recovered if possible.
29. Once well dies, TOH & LD 3-1/2" frac string.
30. PU & TIH w/3-7/8" cone bit, (4) 3-1/8" DC's & tbg & CO sd w/2% KCl wtr, if possible, to CIBP. RU air/foam unit if necessary.
31. DO CIBP @ $\pm 4,750'$.
32. CO sd fill to top of 2nd CIBP @ $\pm 7,000'$. **DO NOT DRILL OUT CIBP.** CO sd w/2% KCl wtr (or w/air/foam). Circ well clean w/2% KCl wtr (or w/air/foam) until well stops flwg sd.
33. TOH & LD bit & collars.
34. PU & land tbg as follows: 2-3/8" mule shoe, SN & ± 159 jts 2-3/8". 4.7#, J-55, EUE, 8rd tbg. Land EOT @ 4,950' KB. ND BOP. NU WH. RU swab. Swab well in. Send gas to sales for allocation tests. Mesaverde will be tested until downhole commingle is approved and allocation values are obtained.
35. RDMO PU.
36. The CIBP above Dakota (@ $\pm 7,000'$) will be drilled out approx 30-60 days after the Mesaverde recompletion.

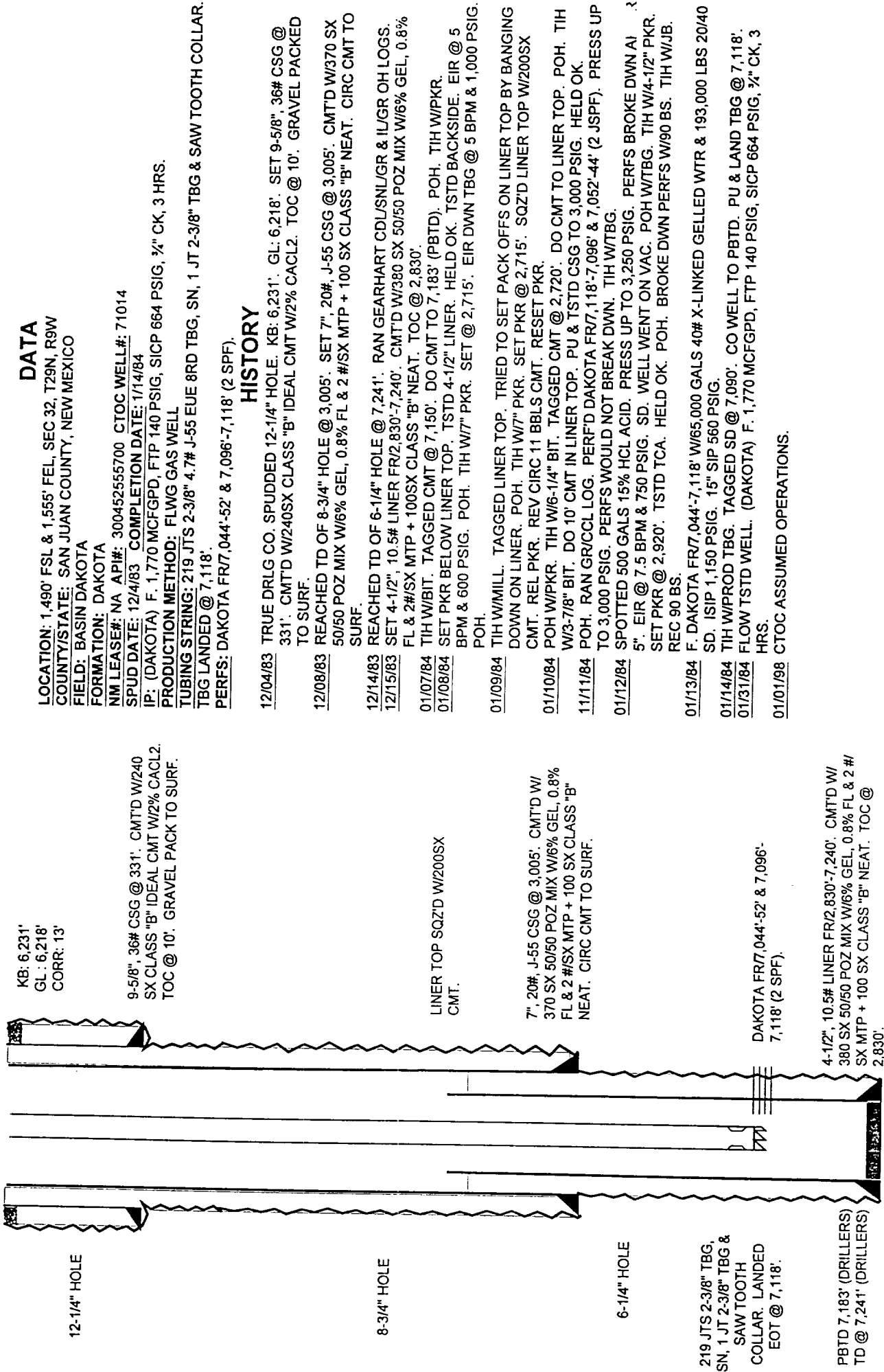


At a later date.....

37. MIRU PU. Blow dwn well. Kill well w/2% KCl wtr if required. ND WH. NU BOP.
38. TOH w/tbg.
39. PU & TIH w/3-7/8" cone bit, (4) 3-1/8" DC's & tbg & CO sd w/2% KCl wtr to CIBP (@ $\pm 7,000'$). RU air/foam unit if necessary.
40. DO CIBP @ $\pm 7,000'$. CO sd fill to PBDT @ 7,183', if any. Circ on btm until clean.
41. TOH & LD BHA.
42. TIH & land tbg as follows: 2-3/8" mule shoe, SN & ± 229 jts 2-3/8", 4.7#, J-55, EUE, 8rd tbg. Land EOT @ 7,118' KB.
43. RU swab. Swab well in. RDMO PU. MIRU SU if required.
44. RWTP.

Approvals:  4/5/99

STATE GAS COM "BP" #1E
WELLBORE DIAGRAM



DATA

LOCATION: 1,490' FSL & 1,555' FEL, SEC 32, T29N, R9W
COUNTY/STATE: SAN JUAN COUNTY, NEW MEXICO
FIELD: BASIN DAKOTA
FORMATION: DAKOTA
NM LEASE#: NA API#: 300452555700 CTOC WELL#: 71014
SPUD DATE: 12/4/83 COMPLETION DATE: 1/14/84
IP: (DAKOTA) F. 1,770 MCF/GPD, FTP 140 PSIG, SICP 664 PSIG, 3/4" CK, 3 HRS.
PRODUCTION METHOD: FLWG GAS WELL
TUBING STRING: 219 JTS 2-3/8" 4.7# J-55 EUE 8RD TBG, SN, 1 JT 2-3/8" TBG & SAW TOOTH COLLAR.
TBG LANDED @ 7,118'.
PERFS: DAKOTA FR7,044'-52' & 7,096'-7,118' (2 SPF).

HISTORY

12/04/83 TRUE DRLG CO. SPUNDED 12-1/4" HOLE. KB: 6,231'. GL: 6,218'. SET 9-5/8", 36# CSG @ 331'. CMT'D W/240SX CLASS "B" IDEAL CMT W/2% CACL2. TOC @ 10'. GRAVEL PACKED TO SURF.
12/08/83 REACHED TD OF 8-3/4" HOLE @ 3,005'. SET 7", 20#, J-55 CSG @ 3,005'. CMT'D W/370 SX 50/50 POZ MIX W/6% GEL, 0.8% FL & 2 #/SX MTP + 100 SX CLASS "B" NEAT. CIRC CMT TO SURF.
12/14/83 REACHED TD OF 6-1/4" HOLE @ 7,241'. RAN GEARHART CDL/SNL/GR & IL/GR OH LOGS. SET 4-1/2", 10.5# LINER FR2,830'-7,240'. CMT'D W/380 SX 50/50 POZ MIX W/6% GEL, 0.8% FL & 2 #/SX MTP + 100SX CLASS "B" NEAT. TOC @ 2,830'.
01/07/84 TIH W/BIT. TAGGED CMT @ 7,150'. DO CMT TO 7,183' (PBTD). POH. TIH W/PKR.
01/08/84 SET PKR BELOW LINER TOP. TSTD 4-1/2" LINER. HELD OK. TSTD BACKSIDE. EIR @ 5 BPM & 600 PSIG. POH. TIH W/7" PKR. SET @ 2,715'. EIR DWN TBG @ 5 BPM & 1,000 PSIG. POH.
01/09/84 TIH W/MILL. TAGGED LINER TOP. TRIED TO SET PACK OFFS ON LINER TOP BY BANGING DOWN ON LINER. POH. TIH W/7" PKR. SET PKR @ 2,715'. SQZ'D LINER TOP W/200SX CMT. REL PKR. REV CIRC 11 BBLs CMT. RESET PKR.
01/10/84 POH W/PKR. TIH W/6-1/4" BIT. TAGGED CMT @ 2,720'. DO CMT TO LINER TOP. POH. TIH W/3-7/8" BIT. DO 10' CMT IN LINER TOP. PU & TSTD CSG TO 3,000 PSIG. HELD OK.
11/11/84 POH. RAN GRVCL LOG. PERF'D DAKOTA FR7,118'-7,096' & 7,052'-44' (2 JSPF). PRESS UP TO 3,000 PSIG. PERFS WOULD NOT BREAK DWN. TIH W/TBG.
01/12/84 SPOTTED 500 GALS 15% HCL ACID. PRESS UP TO 3,250 PSIG. PERFS BROKE DWN AT 5". EIR @ 7.5 BPM & 750 PSIG. SD. WELL WENT ON VAC. POH W/TBG. TIH W/4-1/2" PKR. SET PKR @ 2,920'. TSTD TCA. HELD OK. POH. BROKE DWN PERFS W/90 BS. TIH W/JB. REC 90 BS.
01/13/84 F. DAKOTA FR7,044'-7,118' W/65,000 GALS 40# X-LINKED GELLED WTR & 193,000 LBS 20/40 SD. ISIP 1,150 PSIG. 15" SIP 560 PSIG.
01/14/84 TIH W/PROD TBG. TAGGED SD @ 7,090'. CO WELL TO PBTD. PU & LAND TBG @ 7,118'.
01/31/84 FLOW TSTD WELL. (DAKOTA) F. 1,770 MCF/GPD, FTP 140 PSIG, SICP 664 PSIG, 3/4" CK, 3 HRS.
01/01/98 CTOC ASSUMED OPERATIONS.