

DEPT. OF COMMERCE, BUREAU OF
 DISTRIBUTION
 WASHINGTON, D. C.
 FILE
 U.S. G. O.
 LAND OFFICE
 OPERATOR

36. INCLUSIVE TYPE OF LEASE ☐ ☒

State ☐ Fee ☒

3. State Oil & Gas Lease Inc.

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG SALS TO A DEPTH OF 100 FEET OR MORE.
USE APPLICATION FOR PERMIT - 1 FORM (4-1) FOR SUCH PROPOSALS.

1. OIL ☐ WELL ☐ GAS ☒ WELL ☐ OTHER ☐		6. FROM OLDEST HOME Likins Gas Com A	
2. Name of Operator: Amoco Production Company		5. Well No.: 4	
3. Address of Operator: 2325 E. 30 St., Farmington, NM 87401		10. FILL IN THE BOXES OF WHICH: Undesignated Fruitland Blanco Pictured Cliffs	
4. Location of Well: UNIT LETTER <u>L</u> <u>1820</u> FEET FROM THE <u>South</u> LINE AND <u>1095</u> FEET FROM THE <u>West</u> LINE, SECTION <u>34</u> TOWNSHIP <u>30N</u> RANGE <u>9W</u>		11. ELEVATION (Show whether DF, RT, GR, etc.) 5725' GL	
12. COUNTY San Juan			

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
☐ <u>1</u> ☐ <u>2</u> ☐ <u>3</u> ☐ <u>4</u> ☐ <u>5</u> ☐ <u>6</u> ☐ <u>7</u> ☐ <u>8</u> ☐ <u>9</u> ☐ <u>10</u> ☐ <u>11</u> ☐ <u>12</u> ☐ <u>13</u> ☐ <u>14</u> ☐ <u>15</u> ☐ <u>16</u> ☐ <u>17</u> ☐ <u>18</u> ☐ <u>19</u> ☐ <u>20</u> ☐ <u>21</u> ☐ <u>22</u> ☐ <u>23</u> ☐ <u>24</u> ☐ <u>25</u> ☐ <u>26</u> ☐ <u>27</u> ☐ <u>28</u> ☐ <u>29</u> ☐ <u>30</u> ☐ <u>31</u> ☐ <u>32</u> ☐ <u>33</u> ☐ <u>34</u> ☐ <u>35</u> ☐ <u>36</u> ☐ <u>37</u> ☐ <u>38</u> ☐ <u>39</u> ☐ <u>40</u> ☐ <u>41</u> ☐ <u>42</u> ☐ <u>43</u> ☐ <u>44</u> ☐ <u>45</u> ☐ <u>46</u> ☐ <u>47</u> ☐ <u>48</u> ☐ <u>49</u> ☐ <u>50</u> ☐ <u>51</u> ☐ <u>52</u> ☐ <u>53</u> ☐ <u>54</u> ☐ <u>55</u> ☐ <u>56</u> ☐ <u>57</u> ☐ <u>58</u> ☐ <u>59</u> ☐ <u>60</u> ☐ <u>61</u> ☐ <u>62</u> ☐ <u>63</u> ☐ <u>64</u> ☐ <u>65</u> ☐ <u>66</u> ☐ <u>67</u> ☐ <u>68</u> ☐ <u>69</u> ☐ <u>70</u> ☐ <u>71</u> ☐ <u>72</u> ☐ <u>73</u> ☐ <u>74</u> ☐ <u>75</u> ☐ <u>76</u> ☐ <u>77</u> ☐ <u>78</u> ☐ <u>79</u> ☐ <u>80</u> ☐ <u>81</u> ☐ <u>82</u> ☐ <u>83</u> ☐ <u>84</u> ☐ <u>85</u> ☐ <u>86</u> ☐ <u>87</u> ☐ <u>88</u> ☐ <u>89</u> ☐ <u>90</u> ☐ <u>91</u> ☐ <u>92</u> ☐ <u>93</u> ☐ <u>94</u> ☐ <u>95</u> ☐ <u>96</u> ☐ <u>97</u> ☐ <u>98</u> ☐ <u>99</u> ☐ <u>100</u>	☐ <u>1</u> ☐ <u>2</u> ☐ <u>3</u> ☐ <u>4</u> ☐ <u>5</u> ☐ <u>6</u> ☐ <u>7</u> ☐ <u>8</u> ☐ <u>9</u> ☐ <u>10</u> ☐ <u>11</u> ☐ <u>12</u> ☐ <u>13</u> ☐ <u>14</u> ☐ <u>15</u> ☐ <u>16</u> ☐ <u>17</u> ☐ <u>18</u> ☐ <u>19</u> ☐ <u>20</u> ☐ <u>21</u> ☐ <u>22</u> ☐ <u>23</u> ☐ <u>24</u> ☐ <u>25</u> ☐ <u>26</u> ☐ <u>27</u> ☐ <u>28</u> ☐ <u>29</u> ☐ <u>30</u> ☐ <u>31</u> ☐ <u>32</u> ☐ <u>33</u> ☐ <u>34</u> ☐ <u>35</u> ☐ <u>36</u> ☐ <u>37</u> ☐ <u>38</u> ☐ <u>39</u> ☐ <u>40</u> ☐ <u>41</u> ☐ <u>42</u> ☐ <u>43</u> ☐ <u>44</u> ☐ <u>45</u> ☐ <u>46</u> ☐ <u>47</u> ☐ <u>48</u> ☐ <u>49</u> ☐ <u>50</u> ☐ <u>51</u> ☐ <u>52</u> ☐ <u>53</u> ☐ <u>54</u> ☐ <u>55</u> ☐ <u>56</u> ☐ <u>57</u> ☐ <u>58</u> ☐ <u>59</u> ☐ <u>60</u> ☐ <u>61</u> ☐ <u>62</u> ☐ <u>63</u> ☐ <u>64</u> ☐ <u>65</u> ☐ <u>66</u> ☐ <u>67</u> ☐ <u>68</u> ☐ <u>69</u> ☐ <u>70</u> ☐ <u>71</u> ☐ <u>72</u> ☐ <u>73</u> ☐ <u>74</u> ☐ <u>75</u> ☐ <u>76</u> ☐ <u>77</u> ☐ <u>78</u> ☐ <u>79</u> ☐ <u>80</u> ☐ <u>81</u> ☐ <u>82</u> ☐ <u>83</u> ☐ <u>84</u> ☐ <u>85</u> ☐ <u>86</u> ☐ <u>87</u> ☐ <u>88</u> ☐ <u>89</u> ☐ <u>90</u> ☐ <u>91</u> ☐ <u>92</u> ☐ <u>93</u> ☐ <u>94</u> ☐ <u>95</u> ☐ <u>96</u> ☐ <u>97</u> ☐ <u>98</u> ☐ <u>99</u> ☐ <u>100</u>

PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐			COMMENCE DRILLING OPER.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	CHANGE PLANS	☐	CASING TEST AND ELEMENT JOB	☐		
OTHER <u>Recompletion into Fruitland Coals</u>				☒			

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.

Amoco Production Company requests approval to recomplete the subject well into the Fruitland coals according to the attached procedure. *AK*

T. B. Do with 10 5x5 cement on ditto B. P. @ 2390'

RECEIVED

AFR 8 1987

OIL COR. DIST.
DIST. 3

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

BY B. Shaw Date Adm. Supervisor Date April 28, 1987

..... Carver Brock FBI - JACKSON, MISSISSIPPI, DIST. #3 APR 30 1987

CONDITIONS OF APPROVAL, IF ANY:

CONFIDENTIAL

FARMINGTON DISTRICT
COMPLETION PROCEDURE

RECOMPLETION

Date: 3/24/87

WELL NAME: LIKENS 6.C A-4

FIELD BLANCO P.C / UNDES FRUITLAND

LOCATION: SW/4 34-T3N-R9W

FORMATION(S) FRUITLAND COAL

ELEVATIONS: KB: 5735' TD: 2494' PBD: 2459

CASING: 8 5/8" 24# CSA 225' V 200 SRS

4 1/2" 10.5# CSA 2494' X 600 SRS

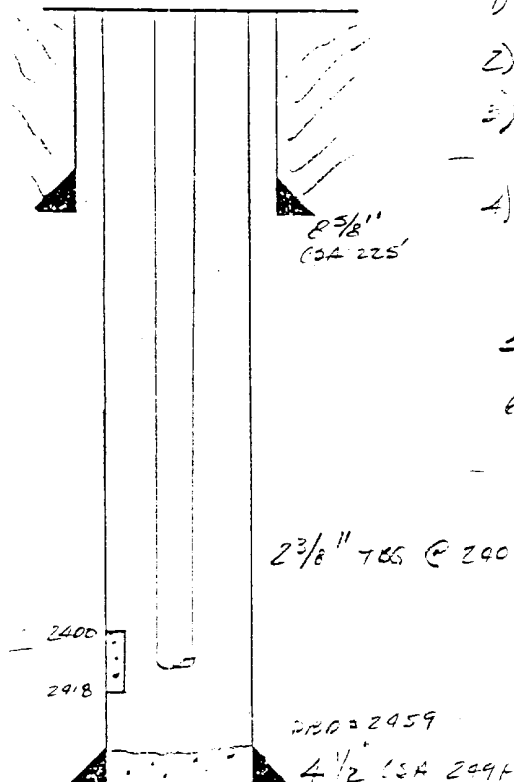
LOGS: I-ES GR-DENSITY

DV TOOL SET AT: NONE

PURPOSE: RECOMPLETION TO TEST FRUITLAND COAL SEAM.

TWE GOM 2DF ENGR FILE
SERVICE CO: DOWELL

WELLBORE SKETCH



PROCEDURE

- 1) Kill well ND W.H, NV. BOP. Pull 2 3/8" log.
- 2) Set drillable BP @ 2390
- 3) Pressure test casing to 3400 psi (NOTE: Internal Yield = 4140 psi (max))
- 4) Perforate Fruitland zone 2332-45 w/ 4 SSPF underbalanced w/ 500' of fluid on the guns. Note if fluid level or pressure increases.
- 5) TIM x log and swab well for water samples.
- 6) IF there is no fluid entry, breakdown formation @ .5 BWP and swab back sample.
- 7) Run tandem BHPBA bombs (to be obtained from Geoservices in Denver) and set in S.N.
- 8) Run AFOT as follows: Inject down annulus at 1/4 BWP for 12 hours. Do not exceed frac gradient. SI 24 hrs. (Ensure that formation is broken down prior to prod.)
- 9) Pull bombs x log.

DISTRICT MANAGER

R. J. Bruns 4/24/87

DISTRICT ENGINEER

J. M. Munson

DISTRICT DRILLING SUPERVISOR

T. W. Pruitt

ENGINEER

BRUCE H. HARRIS X-230

DATE

10) Run step rate test to determine frac porting pressure

@ 1/8, 1/4, 1/2, 1, 2, 4, 8 BPM. for 5 min each.

Pump clean filtered water. Repeat procedure to confirm porting pressure.

11) Frac well with 111M gals. 30 # X-Link gel with borate crosslinker and 200 M lbs 12-20 mesh sand. at 50 BPM as follows. Tag sand w/ 1/2 me/1000 lbs.

Stage	Fluid Volume (gal)	SN (core PPG)	SN Vol (lb)
1	55,000	0	0
2	8000	1.0	8000
3	8000	2.0	16000
4	8000	3.0	24000
5	8000	4.0	32,000
6	8000	4.5	36,000
7	8000	5.0	40,000
*8	8000	*5.5	*44,000
TOTAL	111,000		200,000

FLUSH w/ 1490 gal 30 # gel

* NOTE: LAST 10,000 lbs of sand to be curable resin coated.

Add 1/2 gal/1000 surfactant. See att. for quality control.

12) Set well overnight

13) Flow well back on 1/4" choke do not produce sand

14) Flow or swab test well. Clean out sand to FBD.

Obtain sample → Report water and gas rates. Check w/ District prior to proceed
- & analyze

15) Set RBP at 2320.

16) Perforate fruitland zones 2214-26 and 2256-82

w/ 4 ISPF underbalanced w/ 800' of fluid on the guns.

17) Obtain water sample and run FROF and
step rate tests as outlined in steps
5-10.

18) FRAC ZONES 2214-26 and 2256-82 as in
steps 11-14, except flush w/ 1340 gal.

19) Pull RBP @ 2320, clean out sand to 2390.
Run post frac GR.

QUALITY CONTROL

1) Perform all quality control checks and fill out "Field Quality Control Check List" for both perforation and frac jobs.

2) Minimum acceptable gel viscosity is 32 cp @ 170' and 60°F

3) Sieve analysis, minimum specifications

90%	wt in	10-20 mesh screen
1%	>	8 mesh screen
1.0%	<	30 mesh screen.

4) Maximum surface treating pressure 3400 (±10% yield)

5) Average expected treating pressure 2700 psi

6) 4 1/2" CSB Vol = 15.9 BBL / 1000'

OIL CONSERVATION DIVISION

P. O. BOX 2088

Form C-102
Revised 10-1-78STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

All distances must be from the outer boundaries of the Section

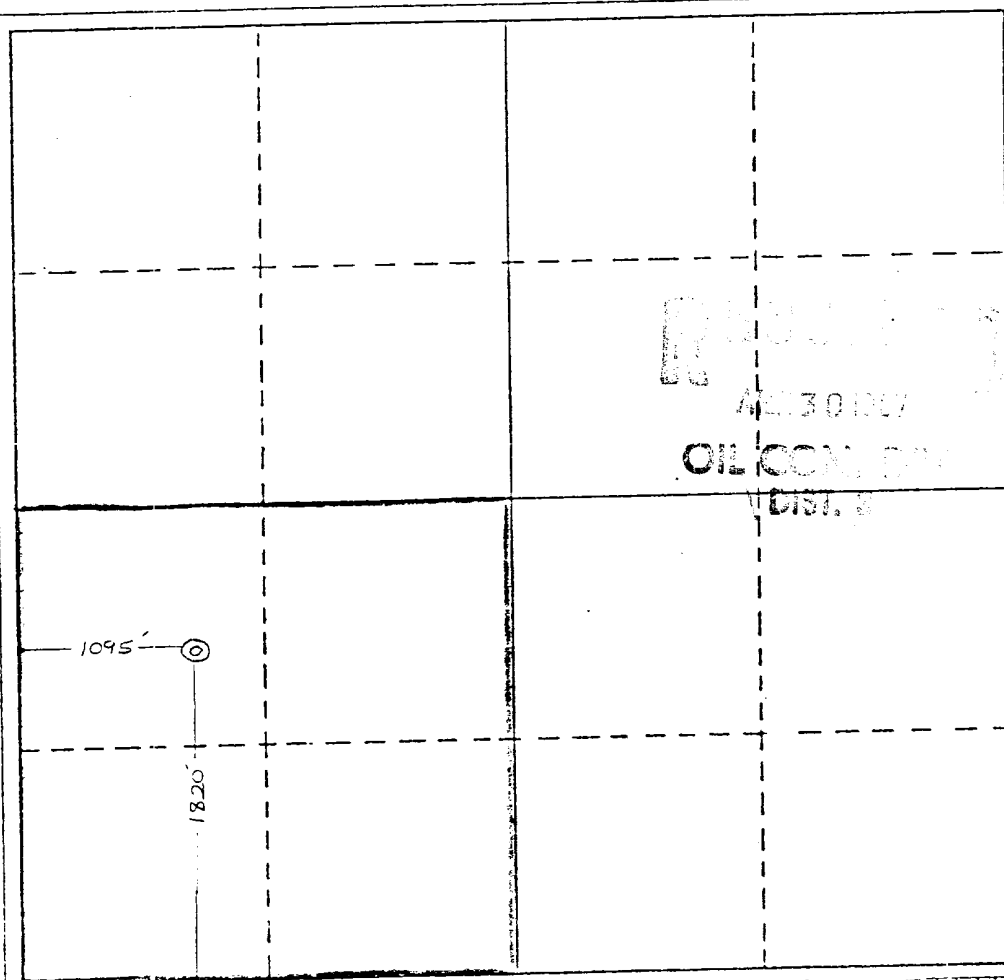
Operator Amoco Production Company			Lease Likins Gas Com A		Well No. 4
Unit Letter L	Section 34	Township 30 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 1820 feet from the South line and 1095 feet from the West line					
Ground Level Elev. 5725'	Producing Formation Fruitland		Pool Blanco	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

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

B. D. Shaw

Name

B. D. Shaw

Position

Adm. Supervisor

Company

Amoco Production Company

Date

April 28, 1987

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.

330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600