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Bonneville Fuels Corporation

April 16, 1999

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State of New Mexico: Oil Conservation Division Attn.: Mr. David Catenach: Examiner 2040 South Pacheco Santa Fe, NM 87505 Phone: (505) 827-7131

RE: APPLICATION FOR ADMINISTRATIVE APPROVAL: SURFACE COMMINGLING Lake Shore Fed. S.C. 10-#2

Dear Mr. Catenach:

The Bonneville Fuels Corporation (Operator) does seek Administrative Approval to co-mingle gas, oil, and water production AT THE SURFACE from the Burton Flat Strawn Fm. Pool and the Avalon Morrow Fm. Pool intervals on the surface for the:

Lake Shore Fed. S.C. 10-#2 Wellbore

Unit I @ 1750' FSL & 660' FEL,

Section 10, T.21S., R.26E., Eddy County, New Mexico.

Both the Burton Flat Strawn Fm. Pool and the Avalon Morrow Fm. Pool are natural gas reservoirs which produce associated high gravity condensate and trace amounts of water in this wellbore (production streams are segregated down-hole). See Exhibit #1 and Exhibit #2.

All gas, oil and water production from the Strawn Fm. (producing up the casing/tubing annulus) shall be daily and separately metered and recorded. All combined Morrow Fm. and Strawn Frn. gas, oil and water production shall then be metered and gauged. The Morrow production (producing up the tubing) for gas, oil and water shall then be determined by subtracting metered Strawn Fm. production from gross metered and gauged Strawn Fm. and Morrow Fm. production. See Figure #1 and Figure #2 for surface facility diagrams.

BFC established a producing GOR history for the Strawn Fm. between July 1, 1998 and January 1, 1999 (see Exhibit #3: Page 1) producing various Strawn Fm. intervals up tubing (Strawn Fm. BTU Data is presented on Exhibit #4, Exhibit #5 and Exhibit #6):

Production Period:	Producing Interv	val:	GOR	BTU
DATES:	ZONE(S):	DEPTHS:	SCF/STBC	BTU/SCF
7/1/98 to 9/30/98:	Upper Strawn Fm.: 9,7	'24' to 9,777':	101,540	1,181
10/1/98 to 12/31/98:	Upper &			
	Lower Strawn Fm.: 9,7	'24' to 9,952':	96,980	1,122
	Lower Strawn Fm. ONL	Y BTU:		1,076

Producing the Upper and Lower Strawn Fm.'s up the casing/tubing annulus between January 11, 1999 and February 19, 1999 did not substantially alter the GOR (108,300 SCF/STBO: See Exhibit #3: Page 2). Upper and Lower Strawn Fm. gas has averaged 1'22 BTU per SCF. Strawn Fm. condensate gravity has varied between 60° API & 66° API (avg. 63° API: See Exhibit #7).

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BFC has established a producing GOR history for the Morrow Fm. up the tubing (138,580 SCF/STBO: See Exhibit #3: Page 3) between February 21, 1999 and April 14, 1999 with a flowing tubing pressure of 550-670 PSIG. The Strawn Fm. has been shut-in on the annulus side during the pre- and post-frac test periods and has built up from 750 PSIG to 1700 PSIG and then from 1700 PSIG to 1875 PSIG. Morrow Fm. gas has equilibrated at 1071 BTU per SCF (See Exhibit #5: Morrow Gas). This is in line with a Morrow Fm. gas analysis of 1,061 BTU/SCF (See Exhibit #8). Morrow Fm. condensate gravity is 52 ° API (See Exhibit #9).

Attachments include the following:

- 1. An approved Form C-107 complete with a 5 page casing and cementing report.
- 2. An approved BLM Sundry Notice approving of BFC's proposed plan for surface commingling of Strawn Fm. & Morrow Fm. production from this wellbore.
- 3. An approved BLM Sundry Notice outlining successful pre-frac completion operations in the Morrow 'B' Fm.
- 4. A schematic diagram of proposed surface facilities at the well: Figure 1.
- 5. A schematic diagram of proposed production pad facilities identifying metering facilities and points at which Strawn Fm. gas (Pt. A), oil (Pt. B), and water (Pt. C) streams become co-mingled with Morrow Fm. production downstream of metering facilities: Figure 2.
- 6. A plat identifying off-set operated wells (Operators & producing horizons): Figure 3.
- 7. An address list for off-set Operators as required with the C-107.
- 8. Wellbore diagrams indicating flow stream pathways and physical segregation between the Morrow Fm. and Strawn Fm. intervals and production streams in the wellbore: Exhibit #1 and Exhibit #2.
- 9. A production history for each interval with relevant Gas, Condensate, Water & GOR Data: Exhibit #3: 3 Pages.
- 10. Exhibits identifying relevant gas and condensate properties:

Exhibit #4:	Upper Strawn Fm. Gas Analysis:	7/14/98.
Exhibit #5:	Electronic Production/Nomination D Sales Meter:	ata with BTU Content @
	Upper & Lower Strawn Fm. Data:	2/1/99 to 2/18/99.
	Morrow Fm. Data:	2/20/99 to 2/28/99.
Exhibit #6:	Lower Strawn Fm. Gas Analysis:	5/11/98.
Exhibit #7:	Upper & Lower Strawn Fm.:	
	Condensate Gravity @ Sale:	1/22/99.
Exhibit #8:	Morrow Fm. Gas Analysis:	3/4/99.
Exhibit #9:	Morrow Fm. Condensate Analysis:	3/9/99.
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- 11. A Letter from AMOCO Production Company (Condensate Purchaser at this well) Indicating condensate sales terms for Strawn and/or Morrow Condensate: Exhibit #10.
- 12. Exhibit #11: Marked Logs (4 Pages).
- 13. A copy of a letter received from the Office of the State of New Mexico Commissioner of Public Lands (Exhibit #12) supporting this commingling application and waiving objection to this practice contingent on NMOCD and BLM Approval.

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The Lake Shore Fed. S.C. 10-#2 communitizes production in the east half of Section 10 (Communitization Agreement Number NMNM 100717) among Federal, State and Fee leases in this 325.16 acre proration unit for both the Burton Flat Strawn Fm. and the Avalon Morrow Fm. Pools. Both the Bureau of Land Management (by Sundry Notice) and the State of New Mexico Land Office (by letter) have been noticed of, and do approve of, BFC's surface commingling plans - subject to NMOCD approval. BFC is certain this plan will materially benefit ALL PARTIES and be detrimental to none.

BFC has elected to NOT apply for down-hole commingling at this time in order to perform reservoir work required in order to understand the proper depletion of the Avalon Morrow Fm. Pool and the Burton Flat Strawn Fm. Pool in this wellbore. Current post-frac water production rates out of the Morrow Fm. (approx. 28 BWD w/ 2520 MCFD & 17 BCPD) is too high to permit commingling of these reservoirs at this time. At some point in the future liquid loading of the Strawn Fm. annular production, and decreasing BHP in the Morrow Fm. will make it economically necessary and prudent to co-mingle production down-hole. BFC will address down-hole commingling at that time.

ALSO ATTACHED IMMEDIATELY TO THIS LETTER IS AN AFFIDAVIT AND CERTIFICATION OF FACT stating that the value of the commingled gas and condensate production from this well shall NOT diminish the value of gas and condensate production from either the Morrow Frn. or Strawn Fm. production if permission to commingle production at the surface is granted.

Mr. Catenach, I have tried to address all of the issues attendant to the Administrative Approval of this matter. Please inform me immediately at my office (303) 376-2564 if there is any additional information that you need - or if this application is deficient in any manner. Please fax me an Approval @ (303) 863-1558 ASAP after approval so that BFC may commence commingling production and achieve desired economic production of this well. Thank you for your prompt attention to this matter.

Sincerely Yours, BONNEVILLE FUELS CORPORATION

R A. Schwering, P.E. Operations Manager. SE NM

cc: Mr. Tim Gumm: District Supervisor: NMOCD @ Artesia Devon Energy: Working Interest Owner Board of Land Commissioners: State of New Mexico Bureau of Land Management: Roswell Resource Area Well File

AFFIDAVIT AND CERTIFICATION OF FACT:

I, Robert A. Schwering, P.E., do state that approval of this Application for Surface Co-Mingling of Production will result in the economic recovery of oil and gas reserves from the Burton Flat Strawn Fm. Pool and the Avalon Morrow Fm. Pool from the Lake Shore Fed. S.C. 10-#2 wellbore. This approval shall NOT harm either the Mineral or Working Interests in this well and shall NOT harm the correlative rights of off-set Operators and their Working and Mineral Interest Participants.

The price received for each barrel of condensate produced at this well is the same whether the condensate is from the Strawn Fm. (63° API) or the Morrow Fm. (52° API), or a commingled condensate from both zones with an intermediate gravity (between 52° API and 63° API: See Exhibit #10). The gas is sold on a BTU basis at an Electronic Meter with gas sampling ability and the full value of any gas produced from either the Strawn Fm. or the Morrow Fm., or a commingled gas from both zones, shall be received. No inert gases or gas contaminants in either interval shall harm the value of gas production from either or both zones in this well.

THEREFORE, THE FULL VALUE OF CONDENSATE AND GAS PRODUCTION FROM THE STRAWN FM. INTERVAL AND THE MORROW FM. INTERVAL SHALL BE RECEIVED WHETHER THESE INTERVALS ARE PRODUCED SEPARATELY OR ON A COMMINGLED BASIS. Granting permission to commingle this production at the surface shall NOT impair the value of production from either the Strawn Fm. or the Morrow Fm.

So Saith I:

R. A. Schwering, P.E. Operations Manager: SE NM

Dated:

Witness: <u>John Concernent</u> Notary Public

Expires: 5/30/2000

License Number:_____: Colorado

FAA NV. 0001400120

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719

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DISTRICT III 1000 Rio Brazos Rd, Aztec, NM 87410

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

PISTRICT 1

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Filing Instruction Bottom of Page

APPLICATION FOR MULTIPLE COMPLETION

Operator	Addre	83	
BONNEVILLE FUELS CORPOR	ATION 1660 Lincoln: Su	ite 2200; Denver, Color	ado 80264
Lease	Well No. Unit L	tr Soc - Twp - Rge	County
Lake Shore Fed. S.C. 10	-#2_ Unit I Section 1	0, T.21S., R.26E., Edd	V County, New Merico
All applicants for multiple compl	etion must complete Items 1 and 2	2 below.	- councy - new mexicut
1. The following facts are submitted:	Upper Zone	Intermodiate Zone	Lower Zons
a. Name of Pool and Formation	Burton Flat: STRAWN		Avalon: Morrow
b. Top and Bottom of Pay Section (Perforations)	EXISTING: 9724' to 9952': OA		Existing: 10,743' to 10,848': Over all
c. Type of production (Oil or Gas)	GAS		GAS
d. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
e. Daily Production	ACTUAL STRAWN: 1400 MCFD w/ 13 STBOD From Annulus Production 1/11/99 to 2/11/99		Actu a) Morrow: 1585 MCFD with 12 STBOD From tubing Producti 2/21/99 to 3/8/99

2. The following must be attached:

> Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or nurboliz 8. and location thereof, quantities used and top of coment, perforated intervals, mbing strings, including diameters and setting depth. location and ty of packers and side door ohokes, and such other information as may be pertinent.

> Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leas Ъ. offsetting applicant's lease.

> Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If s ç, log is not available at the time application is filed it shall be submitted as provided by Role 112-A.)

OPERATIOR:	OIL CONSERVATION DIVISION 1367
Signature R. A. SCHWERING, P.E.	Approved by: Ristrict Supervisor
Printed Name & Title Operations Manager: SE NM	
Date 3/12/99 Telephone (303) 376-2564	Date: 3-25-49

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard provision unit in one or more of the producing zones, then sepapplication for approval of the same should be filed simultaneously with this application.

FILING INSTRUCTIONS:

- District Approval -- See rule 112-A-B -- Submit 4 copies of Form C-107 with attachments to appropriate district office. 1)
- Division Director Administrative Approval See Rule 112-C Submit 2 copies of Form C-107 with attachments to Division office in Santa Fe and 2 copies of F 2) C-107 with anachments to appropriate district office.
- Multiple completions not qualifying for District or Division Director approval may be set for hearing as collined in Rule 112-A-E. 3)

I. L

Hum C-107 Revised 4-1-91

COD DIDIVIDI II

CASING AND CEMENTING REPORT

HELL AFE NO. DF 0245 Lake Shore Fed. 5.C. 10-#2 Aad F. Cowart ASING STRING: COND/SURF/P1/P2/P3/P4/ROD (CIRCLE ONE) D: 11,344 TVD 11,344 BIT SIZE 7%" OPEN HOLE VOLUME 3,904,44 FT 9.25 pp PV/YP 15/12 UD PROPERTIES: TYPE MUD KCI-Referen Gelk, MW API W.L. 5.8 . HTHP @ 180 F: 16 CC . LE/BEL LIGNOSULFONATE _ NO HLT: 160 F TIME SINCE CIRCULATING _____ 6 HRS BHST: _/80 MUD FLOWLINE TEMP: //O 'F MUD SUCTION TEMP: 60'F SURFACE TEMP: 40 F JLE PROBLEMS ENCOUNTERED WHILE DRILLING (HIGH GAS)LOST CIRC, TIGHT HOLE, OTHER . CASING DETAIL FULL STRING/LINER CASING DESCRIPTION (BOTTOM TO TOP) NO. OF BOTTOM TOP TOROUE CRADE CONECTION 31ZE (0.D.) LENGTH DEPTH DEPTH HEIGHT I.D. JOINTS (FT. LBS.) 1.31 -loat 5'3" 11, 342.69 20# N-80 8rd LTC: 2" <u>11.344</u> 6.700 Th shoe 4.728 84.66 6-80/ 11.342.62 11.258.03 6,700 JL, 0,95 2" 11,25803 11,25708 N-80 6,000 TL ollar 4.228" 11,257.08 L-80/N-80** 554,24 4,800-5,000AP1 89 2.13 4S 7.702.24 K-55 6,000 TL 17= 17.1711.90 +11.67 18 1200-5,150AP1 7,700,21 6-80 189 20# 67 <u>11,355</u> TUTAL PIPE RUN IN HOLE Th: Thread locked 26.30 w/ Tube-Lok LESS CUTOFF PIPE 11,329.39 TOTAL PIPE TALLY LEFT IN HOLE API: API Mad Add Dope ** Marker Jts. (20') nre N-80 RKB TO CUTOFF 11,344 TOTAL SETTING DEPTH INER HANGER COMPANY (MWL, TIW, BOT, OT IS, OTHER, NONE) SUCESS (Y/N) CENTRALIZERS: MANUFACTURER Gemoco /Howco TYPE 12 Turbelizes NUMBER RUN X 64- Centralizon> PLACEMENT (DEPTHS) : Centralizers: 11,300; 11,214; 11,051; 11,051'; 11,012'; 10,928'; 10,868'; 10,785' 10,747; 10, 467; 10, 485; 10, 562; 10, 442; 10, 321; 10,197; 10,113; 10,031; 9,948; 9,823; 9,740; 9,639; 9, 516'; 9,433'; 9,373'; 9,352'; 9,331'; 9,207'; 9002'; 8,840'; 8,675'; 8,633'; 8,591'; 8,551'; 8,515; 8,435'; 8352: 8,192: 7,985; 7,790; 7,741: 7,815; 7,658; 7,574: 7,455; 7,209'; 6,961; 6,718; 6,437'; 6,148'; 6,064' 5,812; 5,533; 5,492; 5,242; 4,866; 4,623; 4,378; 4,100; 3,812; 3,578; 3,137; 2,895; 2,651; 2,446 & 2,281 Tindizes: 11,330'; 10,970'; 10,826'; 9,948'; 9781'; 9,557; 9,473'; 8,646'; 7,690'; 4,270'; 3,420' 3,295. FRM2 * ATTACH PIPE TALLY t. 11,928.49': N-80 ** : 21.29' 11,907.30' Morrow 'C' Marker Jts: to 10,561.96': N-80 ** : 20,28' 10,561.96' Moorow 'A' : 20,82 ' to 9,699,26': 9,679.08' N-80 ** **\$** Strewn N-80 * * : 20,32 to 9,3511 121: 9330.85' : 35,22' Cisco to 8,550,52': L-80 8,515.23' Wolfcomp : 34 35' 4,134.61' : L-80 4,100.26 : 37,90/ t_{\circ} Brushy Canyon ! to 3,253.29' : to 3,174.39' : L-80 3,215, 39

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T.W. @ 11,344' 51/2 20# L-80 LTECCom Page 2 of 2

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hake Shoor Fed. S.C. 10-#2 2nd Stage : 3 Sturnies

11. PRIMARY CEMENTING DETAIL CEMENTING CO: MOWCO, DOWELL, BJ, WESTERN) LEAD: TYPE: Swed C'VOL: 550 SX HT: 13.º PPC YIELD 1.67 FT³/SK MIX HTR 8.89 CAL/SK ADDITIVES: 70% C' + 17% Pozmix'A' + 13% Store Flour + 2*/SXKCI + 0.3% Halad-9 LAB MEASUREMENTS: 12/24 HR. COMPRESSIVE STRENGTH _____PSI/____PSI AT _____ BHCT_____F API H.L. _____CC/30MIN FREE WATER ______/ N'_____K'_____ THICKENING TIME (100UC) ______HRS, PUMPING TIME (70 UC) _____HRS, 20MIN UC TEST ____UC Middle: Type: Tatentill'H! Vol. 280 sx. WT: 11- AG Yield: 2:45 FT3/SX Mix WT. Acditives: 50%/H' + 50% PozMix A' + 10% Gel + 8 #/sx. Macl TAIL: TYPE: 50%/Stivol: 350 SX WT: 14.4 PPC YIELD 1.20 FT3/SK MIX WTR _____CAL/SK ADDITIVES: 50% H'+50% Pozmx A'+ 2% Gel+1.5#/5x K'1+0+9, Halad-9 LAB MEASUREMENTS: 12/24 HR. COMPRESSIVE STRENGTH 588 PS1/1800 PSI AT 140 BHCT 10 F API H.L. 454 CC/30MIN FREE WATER 2 N' 0, 42 K' 0, 49 THICKENING TIME (100VC) 57 HRS. PUMPING TIME (70 UC) 5:15 HRS. 20HIN UC TEST ____ UC CONDITIONING TIME WITH CASING AT T.D. <u>6</u> HRS AT <u>7</u> BPM AND <u>200</u> PSI SPACER TYPE: <u>HD</u> BBLS; <u>30</u> WT: <u>3,34</u> VISC: <u>27</u> PV/YP <u>-/-</u> MIXED AND PUMPED <u>363</u> BBLS CEMENT FOR <u>0:55</u> HRS AT <u>5-8</u> BPM AND <u>250-500</u> PSI DISPLACED CEMENT WITH <u>170</u> BBLS FOR <u>0:29</u> HRS AT <u>8-1</u> BPM AND <u>150-3000</u> PSI CALCULATED DISPLACEMENT <u>170</u> BBLS BUMPED PLUGIY/N) <u>YCS</u> WITH <u>3000</u> PSI (TOTAL) BATCH MIX CEMENT (Y/N) <u>NO</u> RETURNS (FULL, PARTIAL, NONE) <u>Auti, RECIPROCATED PIPE (Y/N)</u> CEMENT TO SURFACE 14/N TO CALCULATED TOC: 1976 HI - - ZEXCESS AND Galaged HOLE SIZE Bunned Plug & Closed NV Tool. * Had Partial Returns from 1/2 Job to end. REMARKS : _ Masore of TOC TAG TOC AT NOC TESTED TOL TO _____ PPG TESTED SHOE TO _____ SUCCESSFUL CEMENT JOB (Y/N) 105 SQUEEZE (TOL, SHOE, ZONE) ____ CBL BOND (GOOD/FAIR/POOR) 1000 STAGE JOB (Y/N) Yes DV TOOL AT 177002 IF SO, COMPLETE ANOTHER DETAIL FOR 2ND STAGE II. SECONDARY CEMENT JOB CEMENTING CO: (HOWCO, DOWELL, BJ, WESTERN) TYPE OF REMEDIAL WORK (SHOE/TOL/ZONE) _____ATTEMPT NO:_____ BREAKDOWN PRESSURE: _____PSI AT RATE OF _____BPN INJECTION PRESSURE: INITIAL PSI AT _____BPM; FINAL:_____PSI AT _____BPM ,ISIP_____ **PS1** SLURRY: TYPE:_____ VOL:_____SX HT:____PPC YIELD____FT3/SK HIX HTR_____GAL/SK ADDITIVES:___ SUCCESSFUL SQUEEZE JOB(Y/N) _____ TESTED SHOE TO _____PPG TESTED TOL TO _____PPG REMARKS: R.a. parmening E. F. Coway P A' leam

Lake Shore Fed. S.C. 10-#2 1st Stage @ 11,344'

. PRIMARY CEMENTING DETAIL CEMENTING CO: HOHCO, DOWELL, BJ, WESTERN) AD: TYPE: <u>Spec'H' vol: 50</u> sx HT: <u>13.</u> ppc yield <u>1.62</u> FT³/sk Mix HTR <u>8,25</u> CAL/sk ADDITIVES: <u>70% 'H' + 17% Pozenk'A' + 13% Subch Flour + 2*KC//sk. + 0,5% Huld 344 + 04% CFR-3</u> LAB MEASUREMENTS: 12/24 HR. COMPRESSIVE STRENGTH <u>350</u> PSI/<u>1/BC</u> PSI AT <u>160</u> F BHCT <u>140</u> F API H.L. <u>76</u> CC/30MIN FREE WATER <u>0.2</u> X N'<u>0.69</u> K'<u>0.90X</u> THICKENING TIME(100UC) <u>6</u> HRS, PUMPING TIME(70 UC) <u>6:20</u> HRS, 20HIN UC TEST <u>UC</u>

1L: TYPE: <u>Spec H</u> VOL: 535 SX HT: 13 PPG YIELD 1.50 FT³/SK MIX HTR 7.55 CAL/SK ADDITIVES: 70% 'H' + 19% Postan 'A' + 13% Silica F-box + 2#KC/SX, + 0.5% (Table 344 + 0.4% CFA-3 LAB MEASUREMENTS: 12/24 HR. COMPRESSIVE STRENGTH 1212 PS1/2,338 PS1 AT 160 F BHCT 140 F API H.L. 69 CC/30HIN FREE HATER 2 N' 0.24 K' 0.003 THICKENING TIME (100VC) 12 HRS. PUMPING TIME (70 UC) 4100HRS. 20HIN UC TEST UC

DNDITIONING TIME HITH CASTNG AT T.D. <u>6</u> HRS AT <u>6</u> BPH AND <u>(80)</u> PSI PACER TYPE: <u>SuperField</u> Gal.; <u>1,000</u> WT: <u>554</u> VISC: <u>504</u> PV/YP <u>100000000</u> XED AND PUMPED <u>157</u> BBLS CEMENT FOR <u>0:25</u> HRS AT <u>7.2</u> BPM AND <u>380-700</u> PSI ISPLACED CEMENT WITH <u>252</u> BBLS FOR <u>0:35</u> HRS AT <u>8-3-8-2</u> BPM AND <u>300-1000</u> PSI UCULATED DISPLACEMENT <u>250</u> BBLS BUMPED PLUG(Y/N) <u>NO</u> WITH <u>N/M</u> PSI (TOTAL) ATCH MIX CEMENT (Y)N) <u>CS</u> RETURNS (FULL, PARTIAL, NONE) <u>FULC</u> RECIPROCATED PIPE (Y/N) <u>NO</u> EMENT TO SURFACE (Y/N)<u>ND</u> CALCULATED TOC: <u>7.00</u> W/<u>D</u> ZEXCESS AND <u>Calculated</u> SIZE

MARKS: Circ: 10 B61. F/WKCI Flush to pit. after Dropped Bond & Opened Tool. Floats Held Est. T.D.C. @ 8,550' (Middle of Wolfpamp May) * Unsuccessful in bringing cement to DV Tool.

IG TOC AT <u>W.O.C.</u> TESTED TOL TO <u>N/4</u> PPG TESTED SHOE TO <u>N/A</u> PPG ICCESSFUL CEMENT JOB(Y/N) <u>Yes</u> squeeze (TOL. SHOE. ZONE) <u>No</u> CBL BOND (GOOD/FAIR/PODR) <u>W.O.C.</u> TAGE JOB (Y/N) <u>Yes</u> DV TOOL AT <u>7.700</u>. IF SD. COMPLETE ANOTHER DETAIL FOR 2ND STAGE

. SECONDARY CEMENT JOB CEMENTING CO: (HOWCO, DOWELL, BJ, WESTERN)

PE OF REMEDIAL WORK (SHOE/TOL/ZONE) _____ATTEMPT NO:_____ EAKDOWN PRESSURE: _____PSI AT RATE OF ______BPM JECTION PRESSURE: INITIAL _____PSI AT _____BPM; FINAL: _____PSI AT _____BPM PE SQUEEZE (RUNNING/HESITATION/DISPLACE & HOLD):______,ISIP_____PS1 LD____PSI FOR _____HRS. HAD _____BBLS. BLEED BACK URRY: TYPE:_____ VOL:_____SX HT:____PPG YIELD____FT³/SK HIX HTR_____GAL/SK ADDITIVES:_____ CCESSFUL SQUEEZE JOB(Y/N) _____TESTED SHOE TO ____PPG TESTED TOL TO _____PPG MARKS : R. d. porturo 7 7 F. Coward FRM227

· -		GPERATOR'S CC	
Form 3160-5 (June 1990)	UNITED DEPARTMENT C BUREAU OF LAN	STATES OF THE INTERIOR ID MANAGEMENT	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No.
Do not use this t	SUNDRY NOTICES AN form for proposals to drill of Use "APPLICATION FOR PE	D REPORTS ON WELLS r to deepen or reentry to a different reservoir. ERMIT—" for such proposals	NM 3606 6. If Indian, Allottee or Tribe Name
•	SUBMIT IN	TRIPLICATE	7. If Unit or CA, Agreement Designation
I. Type of Well Oil Well Well	Other		8. Well Name and No.
2. Name of Operator Bonneville	Fuels Corporation		Jake Shore Fed. S.C. 10- 9. API Well No.
3. Address and Telephone 1660 Liricol 4. Location of Well (Foots 1750' FSL &	No. n Street, Suite 2200, ge.Sec., T., R., M., or Survey Descript 660' FEL, Section 10	, Denver, Colorado New Mexico ^{ion)}), T.21S., R.26E. N.M.P.M.	30-015-29879 10. Field and Pool, or Exploratory Area Burton Flat Strawn/Avalo Morro 11. County or Parish, State Eddy County, New Mex
12. CHECK	APPROPRIATE BOX(s) T	O INDICATE NATURE OF NOTICE, REPO	I RT, OR OTHER DATA
TYPE OF	SUBMISSION	TYPE OF ACTION	
Subsequent Const A	of Intent ient Report haudonment Notice	Abandonment Recompletion ! Plugging Back Casing Repair Altering Casing Other : <u>Resp</u> uest to <u>Commin</u>	Change of Plans Change of Plans Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water
 Describe Proposed or Congive subsurface loc The following 1. Acidize neede 2. Receive Make THE S 	mpleted Operations (Clearly state all perim minons and measured and true vertical dep g operations are prop e and/or fracture sti ed. Flow to clean-up e and rig-up Strawn F the well ready for c STRAWN FM. AND MORROW S WELLBORE: SEE ATT	The formal sector of the secto	any proposed work. If well is directionally drilled, at 10,743'-10,848':OA as tubing. Get 4 point test. action up annulus. prrow Fm. at the surface. JATED FROM EACH OTHER IN
With approval action: (NG BFC seeks wellbore at the su combined BFC will t production BFC WILL N Land Comp	L of this Sundry Noti DTE: Royalty, Minera to meter the Strawn BFC will then com arface (after Oil, Ga flow of Gas, Oil and then determine the Mo on from metered and g DOT commence said com aissioners and NMOCD	ce Federal Approval by the BLM is 1 & Working Interests: Identical Fm. Gas, Oil, and Water production mingle Morrow Fm. production with s, and Water separation) and meter Water from this wellbore to sales rrow Fm. production by subtracting auged gross well production of Gas mingled sales until Federal BLM, S Approval of this propsed action	sought for the following in Morrow/Strawn zones). from the annulus of the said Strawn Fm. productio/ and gauge daily the s/production facilities. metered Strawn Fm. Goil and Water. State of New Mexico Board is received (attachments)
14. I hereby certify that the	Toggoing in Jug and correct : R. A	: Schwering, F.E.	
Signed	or Sue office use	Dilouun inmunu	
Approved by Conditions of approval.	rig igo Jes B:	bych	Daic
Title 18 U.S.C. Section 100 or representations as to any	 J makes it a crime for any person knowi matter within its jurisdiction. 	ngly and willfully to make to any department or agency of the United	States any false, fictitious or fraudulent statements

Form 3160-5 (June 1990)	UNITED S DEPARTMENT OF	THE INTERIOR OPERATOR'S COPY	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993
	BUREAU OF LAND	MANAGEMENT	5. Lease Designation and Serial No.
Do not use this	SUNDRY NOTICES AND form for proposals to drill or to Use "APPLICATION FOR PER	REPORTS ON WELLS o deepen or reentry to a different reservoir MIT—'' for such proposals	6. If Indian, Allottee or Tribe Name
	SUBMIT IN TI	RIPLICATE	7. If Unit or CA, Agreement Designation NM NM 100717
1. Type of Well Oil Well 2. Name of Operator	s Other		8. Well Name and No. Lake Shore Fed. S.C. 10-#
Bonneville	• Fuels Corporation		9 API Well No.
3. Address and Telephon 1660 Linco 4. Location of Well (Fo	ne No. Din Street, Suite 2200, place Sec. L. R. M. or Survey Description	Denver, Colorado 80264	30-015-29879 10. Field and Pool, or Exploratory Area Burton Flat Strawn/ Morre
17 5 0' F'SL	& 660' FEL, Section 10	, T.215., R.26E.	H. County or Parish, State
			Eady County, MM
12. CHEC	K APPROPRIATE BOX(s) TO	INDICATE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
TYPE C	DF SUBMISSION	TYPE OF ACTIO	N
	re of Intent	Abandonment X Recompletion: Add Morrow B' Prod	Change of Plans
. K.Subs	equent Report	Casing Repair	Non Routine Fracturing
🗍 Final	Abandonment Notice	Altering Casing	Conversion to Injection
13. Describe Proposed or give subsurface	Completed Operations (Clearly state all pertinen locations and measured and true vertical depths	t detail ., and give pertinent dates, including estimated date of star for all markets and zones pertinent to this work.)*	(Nute: Report results of multiple completion on Well Completion or Recompletion Report and Log form) ling any proposed work. If well is directionally drilled,
The following subject we subject we subject we subject we subject we subject we subject to subject the subject with the subject we subject with the subject we subject	ing operations were succ ell: (After the tubing/ IBP was set @ 10,910' & peration completed the a acker was set on the wir or to this operation the nulus at a rate of 1400 Strawn Fm. was then cle	essfully undertaken to establish packer/fish was recovered from 4 3 sx. of Class 'H' cement was do bandonment of wet Morrow 'C' per e line @ 10,427' to 10,436' w/ 4 well produced from the Strawn H MCFD & 13 BOPD from 1/11/99 to aned up up the tubing (after the	h Morrow 'B' production in the well): ump-bailed on plug. This rfs. @ 10,924' to 10,943': tailpipe to 10,443'. Fm. up the casing/tubing 2/11/99.
tř 5. The	<pre>be sliding sleeve was cl Morrow 'B' Fm. was then 10,845' - 10,848': 4 10,819' - 10,822': 4 10,810' - 10,816': 4</pre>	osed: See attached schematics I perforated as follows (thru tub SPF @ 0.24" diam.: 12 Holes. SPF @ 0.24" diam.: 12 Holes. SPF @ 0.24" diam.: 25 Holes.	MAR 2 5 1999
6. The ra up	10,743' - 10,753': 4 Morrow 'B' Fm. was then ate of 1585 MCFD & 12 BO o from an SICP of 750 PS	SPF @ 0.24" diam.: 41 Holes. produced to sales from 2/21/99 PD up the tubing while the Straw IG to an SICP of 1700 PSIG (Morn	to 3/9/99 with an average wn Fm. on the annulus built row FTP steady @ 550 PSIG).
14. I hereby certify hav	the foregoing is fue and correct: R. A.	Schwering, P.E.	
Signed Le		Tile Operations Manager: SE NM	Date 3/14/99
	ali Balyat		NNR 2 5 1999
Approved by			



FIGURE 3



Bor	Bonneville Fuels Corp.										
Eddy	County, New Me	exico									
Multiple	Completion App	lication									
#2 LAKE	SHORE FED.	S. C. 10									
Philip Wood	1" = 2000"	March, 1999									
	Scale 1:24000.										

Lake Shore Fed. S.C. 10-#2 Wellbore Diggram Coment to surface w/ H 1,050 sx. Coment H EXHIBIT #1 1332" Swit. Caung + 2 Gas Production w/ Oil & Water 5 From Stoawn Dm. Up Tubing/Casing Annulus Cencit to surface w/s 1,200 sx. Coment (Green 858" Intermediate Cusing ~ 2 Gas Production w/ Oil & Water From Morrow 'B' Fm. Up Taking (Yellow) Bradenhead Squeeze w/ \$30 sx. Cement \$ Squeeze to 4,500 # Base of Certoit@ 4 . 4,430' (Temp. Survey) B.D.C. : Brackenhend Saverze@ 4,430. Void in Coverage @ 4,430'-4,998. = T.O.C .: 2 nd Stage @ 4,990' 5,000' Cement and Stage w/1,180 ar. Cenort-> 528" 6.5 # N-80 Brd. EVE Tubing Bottom of Tubing@ 10,445'. W/ Lost Circulation T.O.C. @ 4,990'(CBL) D. V. Tool@ 7,700'-7,702'. 8,000' 5 5 " 20# L-80 LT& C Casing Cement 1st Sty. to D.V. Tool w/: 585 sx. SuperH'conjent Tubing Detail : See Attached Viagram Strawn Fm. Perts. 9,725'-9,952:04 10,000' Guiberson UNI-VI 10k Packer @ 10, 427'-10, 436': Isolates Strawn Normal CIBRE 10,910' W/35x. Comput on top (Isolates Wet Morrow'C'Zone) Monrow B' Pests 10,748'- 10,848':04 CIBP@ 10,980 Montow'C' Anto 10,924-10,942:04 WET 11,000' Fill @ 10,985' - Float Coller @ 11,257. - Float Shoe @ 11,342. 5'a" Casing @ 11, 344'.

FIGURE4

LAKE SHORE FEDERAL S. C. 10-#2 E/2 SECTION 10, T21S, R26E APPLICATION FOR MULTIPLE COMPLETION

OFFSET OPERATOR ADDRESS LIST

Operator

. .

Well(s)

Devon Energy Corporation (Nevada) 20 North Broadway, Suite 1500 Oklahoma City, Oklahoma 73102-8260 Attn: Ms. Carla Wood

Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210 Attn: Ms. Janet Richardson

Fasken Oil And Ranch, Ltd. 303 West Wall Avenue, Suite 1900 Midland, Texas 79701 Attn: Ms. Sally M. Kvasnicka Avalon 15-C State Com. #1 Section 15: NW/4 State "BO" Com. #1 Section 15: NE/4

So. AQY Fed. Com. #1 Section 11: SW/4 LakeShore XH Fed. #1 Section 11: NW/4

El Paso Federal #2 Section 2: CW/2 Lake Federal #1 Section 3: SW/3 bili Hansen

505-625-2512 EXHIBIT#2 1 . .

Droccor	Oil	Toole	-
Diessel		10015	(DRI
Common S. Portugation of Contracting Contracting	CALCULATION OF THE OWNER		-

ESSER PACKER INSTALLATION PLAN

BILL	HAN	ISFN	B	INNEVILLE FUELS FE	B. 10,	1999	
LAKE S	HORE I	CD.S.C. 1		DY CO., NEW MEXICO NEW COM	PLETI	N	
		FROM	10 00	DE SCRIPTION	2875	2 4 4 1	
a-A	10.00		10.00	1 UTINET 2 7 (0% N-00 TD(-	2.975	2441	
	31.50	10.00	41.50	$I = JUINI \ge 778 N=80 TBG.$	2.075	C. 1 11	
	5.93	41.50	47.43	2 7/8" X 6' N-80 SUB.	2.875	2.441	1
	3.97	47.73	51.40	2 7/8" X 4' N-80 SUB.	2.875	2.441	0
ATA	6.13	51.40	57.53	2 7/8" X 6' N-80 SUB.	2875	2.441	
	10.00	57.53	67.53	2 7/8" X 10' N-80 SUB.	2.875	2.441	
	10290.56	67.53	10358.09	327 JUINTS 2 7/8" N 80	2.875	2.441	
				TUBING.	0.075	2 200	
	1.10	10358.09	10359.19	2.28" I.D.	C.875	2.280	
1	31.60	10359.19	10390.79	1 - JOINT 2 7/8" N-80 TUBING.	2.875	2.441	
	LCN	10000111	R'E.	Flows Up Tubins IN (4	e(()		
00		0	ovi.		4000		
	2.85	10390.79	10393.64	2 7/8" X 2.25" "GL" SLIDING SLEFVE W/2.25" "GL" PROFILE.	3.668	2.250 SED P	OSITION
	31.50	1039364	1042514	1 - JOINT 2 7/8" N-80 TBG.	2875	2 4 4 1	
	41	10425 11	10425 55		2 750	1920	
	.41	1047.5.11	10420.00	2 778 X C 378 CKU33-UVER	3.750	1.750	
			2.				1.20
	1.97	10425.55	10427.52	5 1/2" X 2 3/8" "XL" ON/OFF	4.375	1.875	
					12		
	0.25	1042752	10425 77	5 1/2" V 2 3/8" 17-20# \//L	4 6 2 5	1938	
	8.23	10427.52	10433.77	10K UNI-PACKER VI.	1.020	1.750	
J				From Strawn Product	13		
				The Constant Product	110 (
	-			and the second states of		1.2.1	
	11.0	and a second	e mere				
	6.14	10435.77	10441.91	6' X 2 3/8" N-80 SUB.	2.875	1.995	
5:2		104 41 01	1044277		3063	1822	
	.86	10441.91	10442.77	W/1.822 ND-GD.	0.000		
	.41	10442.77	10443.18	2 3/8" RE-ENTRY GUIDE.	3.063	2.548	
19	GENER	AL REMA	RKS:	10,743'-10,848': OA	1	1	
	PACKE	R HUNG	IN 15,000				
10,885'	PACKE RIGHT	HAND R	R RUBBE	R @ 10,430;			
BILL F	PIERCE	HOBBS	, NEW M	EXICO (505) 392-5583			

EXHIBIT#3: Page 1:

LAKE SHORE FEDERAL S.C. 10-#3:

PRODUCTION DATA: 7/1/98 TO 12/26/98:

PRODUCING UPPER STRAWN FM. UP TUBING: 9,724 to 9,777':								
	GAS:	OIL:	GOR:					
MONTH:	MCF:	STBC:	SCF/STBO:					
JULY :	51,543	355	145,192					
AUGUST:	33,544	413	81,220					
SEPTEMBER:	32,490	390	83,308					
CUMULATIVE PRODUCTION =	117,577	1,158						
AVG. GOR FOR UPPER STRAWN	ONLY =		101,535					

PRODUCING UPPER & LOWER S	STRAWN FM.	UP TUBING	9,724 to 9,952	2'.
	GAS:	OIL:	GOR:	
MONTH:	MCF:	STBC:	SCF/STBO:	
OCTOBER:	46,116	407	113,307	
NOVEMBER:	39,145	441	88,764	
DECEMBER:	27, 42 5	314	87,341	
CUMULATIVE PRODUCTION =	112,686	1,162		
AVG. GOR FOR LOWER & UPPEI	R STRAWN =	=	96,976	
CUMULATIVE STRAWN PRODUC	CTION 1998:	230,263	2,320	
AVG. GOR: 1998: STRAWN PRO	DDUCED UP	TUBING =		99,251

EXHIBIT #3: PAGE 2:

LAKE SHORE FEDERAL S.C. 10-#3:

PRODUCTION DATA: 1/11/99 TO 2/11/99:

PRODUCING STRAWN FM. UP CASING ANNULUS: 9,724 to 9,952':

	GAS:	OIL:	GOR:	WATER:	
DATE:	MCF:	STBC:	SCF/STBO:		STBW:
1/11/99 UP ANNULUS	1,052	0.1	10,520,000		0
1/12/99 UP ANNULUS	2,130	20	106,500		6
1/13/99 UP ANNULUS	2,042	23	88,783		0
1/14/99 UP ANNULUS	1,768	18	98,222		0
1/15/99 UP ANNULUS	1,555	19	81,842		0
1/16/99 try to recover	SI	SI	SI		SI
1/17/99 tubing fish @	SI	SI	SI	ç	SI
1/18/99 Morrow 'C'	SI	SI	SI	(SI
1/19/99 UP ANNULUS	1,797	30	59,900		0
1/20/99 UP ANNULUS	2,222	18	123,444		0
1/21/99 UP ANNULUS	1,986	27	73,556		0
1/22/99 UP ANNULUS	1,721	12	143,417		0
1/23/99 UP ANNULUS	1,721	20	86,050		0
1/24/99 UP ANNULUS	1,468	18	81,556		0
1/25/99 UP ANNULUS	1,432	7	204.571		0
1/26/99 UP ANNULUS	1,032	3	344,000		0
1/27/99 UP ANNULUS	605	4	151,250		0
1/28/99 UP ANNULUS	605	3	201.667		0 0
1/29/99 UP ANNULUS	425	0.1	4.250.000		0
1/30/99 UP ANNULUS	343	0.1	3,430,000		0
1/31/99 UP ANNULUS	2,082	20	104,100		0
2/1/99 UP ANNULUS	1,738	20	86,900		2
2/2/99 UP ANNULUS	1,738	30	57,933		0
2/3/99 UP ANNULUS	1,052	13	80,923		8
2/4/99 UP ANNULUS	1,286	3	428,667		0
2/5/99 UP ANNULUS	1,194	11	108,545		0
2/6/99 UP ANNULUS	1,178	10	117,800		1
2/7/99 UP ANNULUS	1,178	7	168,286		3
2/8/99 UP ANNULUS	1,073	0.1	10,730,000		0
2/9/99 recover fish &	SI	SI	SI	e S	SI
2/10/99 set packer @	SI	SI	SI	e e e e e e e e e e e e e e e e e e e	SI
2/11/99 Morrow 'B'	SI	SI	SI		SI
			GAS:	OIL:	WATER:
			MCF:	STBC:	STBW:
CUMULATIVE STRAWN PRODU	CTION UP AN	INULUS =	36,423	336	20
AVG. GOR FOR STRAWN PROD	UCED UP AN	INULUS =			108,273
					,
PRODUCING STRAWN FM. UP	TUBING TO R	ECOVER KIL	L LOAD: 9,724	to 9,952':	
	GAS:	OIL:	GOR:		WATER:
DATE:	MCF:	STBC:	SCF/STBO:		STBW:
2/12/99 UP TUBING	1,039	8	129,875		11
2/13/99 UP TUBING	1,042	13	80,154		9
2/14/99 UP TUBING	1,117	15	74,467		6
2/15/99 UP TUBING	1,147	29	39,552		4
2/16/99 UP TUBING	1,151	8	143,875		1
2/17/99 UP TUBING	1,142	15	76,133		4
2/18/99 UP TUBING	1,112	10	111,200		3
2/19/99 UP TUBING	348	0	3,480,000		0

CUMULATIVE STRAWN PRODUCTION UP ANNULUS = AVG. GOR FOR STRAWN PRODUCED UP ANNULUS =

ON 2/19/99 CLOSED SLIDING SLEEVE AND ISOLATED STRAWN PRODUCTION ON ANNULUS. ON 2/20/99 TO 2/21/99 PERFORATED MORROW 'B' FM. AND BEGAN PRODUCTION UP TUBING.

82,548

GAS: OIL: WATER: MCF: STBC: STBW:

8,098 98 38

EXHIBIT#3: Page 3

LAKE SHORE FEDERAL S.C. 10-#3:

3/29/99 UP TUBING

3/30/99 UP TUBING

3/31/99 UP TUBING

4/1/99 UP TUBING

4/2/99 UP TUBING

4/3/99 UP TUBING

4/4/99 UP TUBING

4/9/99 UP TUBING

4/10/99 UP TUBING

4/11/99 UP TUBING

4/12/99 UP TUBING

4/13/99 UP TUBING

4/14/99 UP TUBING

PRODUCTION DATA: 1/11/99 TO 2/11/99:

PRODUCING MORROW FM. UP	TUBING: 10,7	'43' to 10,848'	: Pre-Frac:		
	GAS:	OIL:	GOR:		WATER:
DATE:	MCF:	STBC:	SCF/STBO:		STBW:
2/21/99 UP TUBING	668	0	6,680,000		3
2/22/99 UP TUBING	1,372	13	105,538		4
2/23/99 UP TUBING	1,394	12	116,167		1
2/24/99 UP TUBING	1,571	17	92,412		2
2/25/99 UP TUBING	1,578	10	157,800		0
2/26/99 UP TUBING	1,571	11	142,818		0
2/27/99 UP TUBING	1,571	15	104,733		0
2/28/99 UP TUBING	1,575	2	787,500		2
3/1/99 UP TUBING	1,578	14	112,714		3
3/2/99 UP TUBING	1,583	21	75,381		0
3/3/99 UP TUBING	1,576	7	225,143		0
3/4/99 UP TUBING	1,565	15	104,333		0
3/5/99 UP TUBING	1,558	35	44,514		0
3/6/99 UP TUBING	1,558	0	15,580,000		0
3/7/99 UP TUBING	1,543	5	308,600		2
3/8/99 UP TUBING	1,539	12.0	128,250		0
			GAS:	OIL:	WATER:
			MCF:	STBC:	STBW:
CUM. PRE-FRAC MORROW PRO	DUCTION UP	TUBING =	23,800	189	17
AVG. PRE-FRAC GOR FOR MOR	ROW PRODU	ICED UP TUE	BING =		125,793
					·
PRODUCING MORROW FM. UP	TUBING: 10,7	'43' to 10,848'	: Post-Frac:		
	GAS:	OIL:	GOR:		WATER:
DATE:	MCF:	STBC:	SCF/STBO:		STBW:
3/24/99 UP TUBING	1,777	25	71,080		42
3/25/99 UP TUBING	2,066	20	103,300		24
3/26/99 UP TUBING	2,186	19	115,053		35
3/27/99 UP TUBING	2,234	10	223,400		36
3/28/99 UP TUBING	2,327	7	332,429		13

7 20

25

27

18

332,429

118,350

97,800

91,074

142,500

17 150,882

20 127,100

23 121,304

23 121,652

208,308

227,833

152,444

OIL:

GAS:

MCF:

13

12

18

25

27

25

33

23

24

31

20

34

28

29

25

35

20

20

34

28

WATER:

13 12 4/5/99 UP TUBING 2,708 208,308 4/6/99 UP TUBING 2,734 227,833 4/7/99 UP TUBING 2,744 18 152,444 20 137,800 15 185,400 4/8/99 UP TUBING 2,756

2,327

2,367

2,445

2,459

2,565

2,565

2,542

2,781

2,790

2,798

2,708

2,734

2,744

STBC: STBW: CUM. POST FRAC MORROW PRODUCTION UP TUBING 55,357 382 611 AVG. POST FRAC GOR FOR MORROW PRODUCED UP TUBING = 144,914 TOTAL MORROW PRODUCTION UP TUBING = 79,157 571 628 AVG. GOR FOR MORROW PRODUCED UP TUBING = 138,580

EXHIBIT#4

در جنب تعام

Precision Gas Massurament, Inc. P.O. Box 8323 Roswell, NM 88202

DOS 2.0

• • •

Run No. 980714-2 Date Run 07/14/98

Pressure Base: 14,650

Butane+ GPM:

Pentane+ GPM;

0.738

0.254

(505) 622-9874 Analysis Results Summary Date Sampled 07/14/98

براوالد ما التعليمات فالتحاد

Analysis for BONNEVILLE FUELS Field: AVALON Well Name: LAKESHORE S.C 10 FED 2 Sta. Number: Purpose: SPOT Sampling Temp: 88 DEG F Volume/day: Pressure on Cylinder: 584 PSIG

and a second of the

Upper Straum GPANGL.LC6 Producer: BONNEVILLE FUELS State: NN County: EDDY Sampled By: RANDY DROSS Atmos Temp: 109 DEG F Formation:

PSTA

Line Pressure: 597.2

GAS COMPONENT ANALYSIS

Mol X GPM

Real BTU Dry:	1177
Real BTU Wet:	1157
Real Calc, Specific Gravity:	0.683
Field Specific Gravity:	0.000
Standard Pressure:	14,696
BTU Dry:	1181
BTU Wet:	1160
7 Factor	0.9970
N Value:	1,2856
Ava Kol Weight.	19.7432
Avg Cuft/Gal:	56.0135
26 1b Product:	0.3687
Usthanet CDU-	19 226
Ethenet ADU.	1 168
Decomance CDH.	4,300 (74)
riupaner erm;	1.164

Carbon Dioxide	C02	0.485	
Nitrogen	H2	0.961	
Nethane	C1	82.861	
Ethane	C2	9.903	2.834
Propane	C3	3.596	0.985
Iso-Butane	104	0.556	0.181
Nor-Butane	NC4	0.986	0.303
Iso-Pentane	105	0.262	0.095
Nor-Pentane	NC5	0,234	0.084
Hexanes Plus	C8+	0.175	0.075

TOTAL 100.000 4.358

REMARKS:

•

SAMPLE TAKEN FROM NGPL SALES METER

Approved by: JEFF DECK

. - ·

Tue Jul 14 13:20:08 1998

VATA

TO: BOB 863-1558 From Jill

BONNEWELL FLATS EDDY

11398 Point: Central Heart Fare

Flow Date: 02/01/99 Thru: 02/28/99

EXHIBIT #5

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(All volumes at 14.73 Dry)

	Day	Mcf	Dth	Rpt Stat	Direction Of Flow	Btu Content	Confirmed Dth	Variance	Var%		
	·	29,217	32,153		Source	• •	28,728	3,425	12%		
	1	1,453	1,631		Source	1.122	1,026	605	59%	1	
	.2	1,052	1,181	Α	Source	1.122	1,026	155	15%		
	3	1,286	1,443	A	Source	1,122	1,026	417	41%	~	
	4	1,194	1,340	Α	Source	1,122	1,026	314	31%	\rightarrow	
	5	1,178	1,322	A	Source	1.122	1,026	296	29%	-	
	5	1,073	1,205	A	Source	1.122	1,026	179	17 %	1	
	7	1,103	1,238	Α	Source	1.122	1,026	212	21%	A	
	9	120	135	A	Source	1.122	1,026	(891)	(87)%		
	Э	0	0	A	Source	0.000	1,026	(1,026)	(100)%	H	-
	10	O	0	A	Source	0.000	1,026	(1,026)	(100)%	1 / /	/
	11	610	685	А	Source	1.122	1,026	(341)	(33)%	10	, i
1 d	12	1,082	1,214	А	Source	1.122	1,026	188	18%	Λ.	/
Oppers	13	1,118	1,255	Α	Source	1.122	1,026	229	22 %	10	
ower	14	1,147	1,287	A	Source	1.122	1,026	261	25%		
STOWN	15	1,151	1,291	A	Source	1.122	1,026	265	26%	\	
0.04	15	1,142	1,281	A	Source	1.122	1,026	255	25 %		
e l	17	1,112	1,248	A	Source	1.122	1,026	222	22 %		
	<u>1B</u>	349	391	Α	Source	1.123	1,026	(635)	(62) %		
	19	0	0	Α	Source	0.000	1,026	(1,026)	(100)%		
1	20	669	751	A	Source	1.122¥	- 1,026	(275)	(27)%		
Ψ	21	1,394	1,565	A	Source	1,122	1,026	539	53%	\mathcal{M}	
Manou	22	1,538	1,629	A	Source	1.059	1,026	603	59%)		
1 10.000	23	1,572	1,656	A	Source	1.053	1,026	630	61%	1	Λ
	24	1,578	1,662	Α	Source	1.053	1,026	636	62 %	Ú,	U
	25	1,571	1,682	Α	Source	1,070	1,026	656	64 %	R	A
	26	1,576	1,688	Α	Source	1.071	1,026	662	65%	à	"
	27	1,571	1,683	A	Source	1.071	1,026	657	64 %	L R	T
	28	1,578	1,690	A	Source	1.071	1,026	664	65%	' 0	A

* Error in gutomation

W

EXHIBITAG

Laboratory Services, Inc. 1331 Tasker Drive

Hobbs, New Moxico 88240

Telephone: (505) 397-3713

1 ang S rawn

FOR:

Pro Well Testing & Wiroline Attention: Mr. Loonard Abnoy P. O. Box 791 Hobbs, New Mexico 88241

10

SAMPLE IDENTIFICATION: Lake Shore Fed. #2 Bonnoville Fuels COMPANY: LEASE: **PLANT:**

SAMPLE DATA:	DATE SAMPLED:	5/11/98 2:00 PM
	ANALYSIS DATE:	5/12/98
	PRESSURE - PSIG	600
	SAMPLE TEMP. °F	100
•	ATMOS. TEMP. •F	90

GAS (XX) SAMPLED BY: ANALYSIS BY: LIQUID () Rice Vickie Wallcor

REMARKS:

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
-Ivdrogen Sulfide	(H2S)		
Vitrogen	(N2)	0.987	
Carbon DloxIde	(ငဝ်ဍ)	1.231	
Velhane	(01)	90.791	
Ethane	(C2)	4.611	1.230
Propane	(C3)	1.912	0,861
Bulane	(IC4)	0.246	0.080
N-Butane	(NC4)	0.287	0,090
-Pentane	(1C5)	0.153	0.056
Penlane	(NC5)	0.110	0.040
lexane Plus	(C6+)	0.322	0.132

100.000

1.989

MOLECULAR WT. 18.1092

BTU/CU.FT. - DRY 1075 14.650 DRY 14.650 WET 14.73 DRY 1077 14.73 WET 1059

1071 1053 -> OTU (Ay) C 14.696 = 1076 OTU/OF

SP	ECIFIC GHAVITY ~	
	CALCULATED	0.625
:	MEASURED	•

AT

AT

AT

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ŧ P.O. Box 591 Tulsa, Oklahoma 74102

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Oil Statement

Page 02/11/1999 3 Retain this Statement for Income tax Purposes Duplicate will not be Furnished Without Charge

EXHIBIT #7

Operator Lease & No. Location Field Purchaser

BONNEVILLE FUELS CORPORATION 02935500 00001 LAKESHORE FEDERAL #2 EDDY NMKNOWN REG FIELD OR NOT IN REG FLD AMOCO PRODUCTION COMPANY

1

BONNEVILLE FUELS CORPORATION 1660 LINCOLN Suite 2200 Denver Co 80264-2201

Business Associate No: 019374 00

Volume Type (VT)

03, 21 Sales

26 Skim Oil

28 Scrubber Oil L1 Load Oil Sales L4, L5 Load Oil Recovered TK Take-In-Kind

Da Mo.	ate Yr.	Net Barreis	Gross Value	Total Tax	Deductions	Net Value	
01	99	365.08	4,011.82	0.00	0.00	4,011.82	

Π	rom	Dete	Ť	ó D	ale	Not Barrels	VT	Ticket No.	Transp/Tenk No.	Gravity	Price	Gross Value
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Precision Gas Measurement, Inc. P.O. Box 8323 Roswell, NM 88202

(505) 622-9874

Analysis Results Summary

DOS 2.0

Run No. 990305-1 Date Run 03/05/99 Date Sampled 03/04/99

GPANGL.LC6

Gas ornow Analysis for BONNEVILLE FUELS Field: AVALON Producer: BONNEVILLE FUELS Well Name: LAKESHORE FED SC 10 #2 Morrow-County: EDDY Sta. Number: Purpose: QUARTERLY Sampled By: RANDY DROSS Atmos Temp: 63 DEG F Sampling Temp: 61 DEG F Volume/day: Formation: Line Pressure: 484.2 PSIA Pressure on Cylinder: 471 PSIG

GAS COMPONENT ANALYSIS

Pressure Base: 14.650

State: NM

		Mol.X	GPM	Real BTU Dry:	1058
				Real BTU Wet:	1039
				Real Calc. Specific Gravity:	0.605
				Field Specific Gravity:	0.000
Carbon Dioxide	C02	0,915			
				Standard Pressure:	14.696
Nitrogen	N2	0,264		BTU Dry:	1061
-				BTU Wet:	1043
Nethane	C1	93.157			
Ethane	C2	3.971	1.056		
Propane	C3	1.057	0.290	Z Factor:	0.9977
Iso-But ane	IC4	0.199	0.065	N Value:	1.2995
Nor-Butane	NC4	0.212	0.066	Avg Mol Weight:	17.5013
Iso-Pentane	105	0.085	0.031	Avg CuFt/Gal:	58.1087
Nor-Pentane	NC5	0.048	0.017	26 Lb Product:	0.1312
				Methane+ GPM:	17.269
Hexanes Plus	C6+	0.092	0.039	Ethane+ GPM:	1.565
		••••		Propane+ GPM:	0,508
				Butane+ GPM:	0.219
				Pentane+ GPM:	0.088
TOTAL		100.000	1.565		

REMARKS:

Approved by: JEFF DECK

Mon Mar 08 08:55:08 1999

Laboratory Services, Inc. 4016 Fiesta Drive Hobbs, New Mexico 88240 Telephone: (505) 397-3713

ASTM DISTILLATION

EXHIBIT #9

Morrow Oil

Bonneville Fuels Corporation Attention: Mr. Bob Schwering 1660 Lincoln St. Suite 1800 Denver, Colorado 80264

March 9, 1999 Sampled By: Peter Wilson

Lakeshore Federal 10 #2

ercent Distilled	Temperature
IBP	122
5	181
10	207
20	236
30	262
40	290
50	323
60	364
70	410
80	471
90	558
95	611
ED	631

API Gravity @ 60° F = 52.80

% Recovered = % Residue = % Loss =

99.0 0.5 0.5

1

Rolland Perry





Amoco Production Company Crude Oil Supply 200 N. Loraine Suite 1222 Midland, TX 79701 Phone: 915-687-9900

Facsimile: 915-687-9900 Facsimile: 915-687-9917

March 10, 1999

Mr. Bob Schwering Bonneville Fuels Corporation 1660 Lincoln, Suite 2200 Denver, CO 80264

Via FAX: (303) 863-1558

Re: Commingling of Strawn and Morrow formation crude oil/condensate Lake Shore Federal S.C. 10-2, Eddy County, New Mexico

In reference to our conversation this afternoon, this letter is to confirm that our purchase arrangement on the above well is as follows:

Koch Oll Company's posted price for West Texas Intermediate crude oil deemed 40.0° API gravity, EDQ plus \$1.35/bbl.

As this settlement price is based on a deemed API gravity of 40.0° (no price deduction for gravity), your crude settlement price will not be affected by the commingling of 63.0° API gravity Strawn production and 52.0° API gravity Morrow production.

Should you have any questions regarding this arrangement, please feel free to call me at (915) 687-9902.

Sincerely,

Tim Gawne Marketing Specialist





EXHIBITEN: Page 3: INDUCTION LOG: Lake Shore Fed. 5.C. 10-42







State of New Mexico

Commissioner of Public Lands

Ray Powell, M.S., D.V.M.

310 Old Santa Fe Trail, P. O. Box 1148 Santa Fe, New Mexico 87504-1148

Phone (505)-827-5760, Fax (505)-827-5766

COMMERCIAL RESOURCES (505)-827-5724

SURFACE RESOURCES (505)-827-5795

MINERAL RESOURCES (505)-827-5744

> ROYALTY (505)-827-5772

> > April 6, 1999

Bonneville Fuels Corporation 1660 Lincoln Street, Suite 2200 Denver, Colorado 80264

Attention: Mr. R. A. Schwering

Re: Surface Commingling Application Lake Shore 10 Federal Com Well No. 2 Lot 7, Sec. 10-21S-26E Eddy County, New Mexico

Dear Mr. Schwering:

We are in receipt of your letter of March 14, 1999, wherein you have requested our approval to surface commingle Burton Flat Strawn and Avalon Morrow production from the Lake Shore 10 Federal Com Well No. 2.

It is our understanding that BFC will meter the Strawn gas, oil, and water production from the annulus of the wellbore. BFC will then commingle Morrow production with said Strawn production at the surface and meter and gauge daily the combined flow of gas, oil and water from this wellbore to sales/production facilities. BFC will then determine the Morrow production by subtracting metered Strawn production from metered and gauged gross well production of gas, oil and water.

Since it appears that all the New Mexico Oil Conservation Division's rules and regulations have been complied with, and there will be no loss of revenue to the State of New Mexico as a result of your proposed operation, your request is hereby approved. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Please submit a \$30.00 dollar filing fee.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M. COMMISSIONER OF PUBLIC LANDS

America BY:

JAMI BAILEY, Director Oil, Gas and Minerals Division (505) 827-5744 RP/JB/pm pc: Reader File, OCD-Attention: David Catanach, Ben Stone, BLM-Roswell, New Mexico Attention: Mr. Les Babyak

REC'D

APR 2 2 1999

PUBLIC AFFAIRS (505)-827-5765

ADMINISTRATIVE MOMT. (505)-827-5700

> LEGAL (505)-827-5713

PLANNING (505)-827-5752

"WE WORK FOR EDUCATION"

Bonneville Fuels Corporation

March 14, 1999

Mr. Pete Martinez State of New Mexico: Board of Land Commissioners 310 Old Santa Fe Trail Santa Fe, New Mexico 87501 Phone: (505) 827-5791

RE: SURFACE COMMINGLING REQUEST: OIL, GAS AND WATER PRODUCTION Lake Shore Fed. S.C. 10-#2 Wellbore

Dear Mr. Martinez:

The Bonneville Fuels Corporation is seeking approval from the State of New Mexico Commissioner of Public Lands to commingle gas, oil and water production at the surface from the Burton Flat Strawn Fm. (9,724' to 9,952': OA) and the Avalon Morrow Fm. (10,743' to 10,848': OA) produced separately from these two separate sources of supply in the wellbore of the:

Lake Shore Federal S.C. 10-#2: 1750' FSL & 660' FEL, Section 10, T.21S., R.26E. N.M.P.M. Eddy County, New Mexico Communitization Agreement #: NM NM 100717 API #: 30-015-29879

Attached you will find the following documents supporting this surface commingling application:

- 1. A completed Form C-107 complete with a 5 page casing and cementing report.
- 2. A Sundry Notice submitted to the BLM requesting approval of BFC's proposed plan for surface commingling of Strawn Fm. & Morrow Fm. production from this wellbore.
- 3. A Sundry Notice submitted to the BLM and NMOCD outlining successful completion operation in the Morrow 'B' Fm.
- 4. A schematic diagrams of proposed surface facilities at the well: Figure 1.
- 5. A schematic diagram of proposed production pad facilities identifying metering facilities and points at which Strawn Fm. gas (Pt. A), oil (Pt. B), and water (Pt. C) streams become co-mingled with Morrow Fm. production downstream of metering facilities: Figure 2.
- 6. A plat identifying off-set operated wells (Operators & producing horizons): Figure 3.
- 7. An address list for off-set Operators as required with the C-107.
- 8. Wellbore diagrams indicating flow stream pathways and physical segregation between the Morrow Fm. and Strawn Fm. intervals and production streams in the wellbore: Exhibit #1 and Exhibit #2.
- 9. A production history for each interval with relevant GOR, BTU & Oil Gravity Data: Exhibit #3: 3 Pages.
- 10. Exhibits identifying relevant gas and condensate properties:

		U U U U	
	Exhibit #4:	Upper Strawn Fm. Gas Analysis:	7/14/98.
	Exhibit #5:	Electronic Production/Nomination D Sales Meter:	ata with BTU Content @
		Upper & Lower Strawn Fm. Data:	2/1/99 to 2/18/99.
• •		Morrow Fm. Data:	2/20/99 to 2/28/99.
	Exhibit #6:	Lower Strawn Fm. Gas Analysis:	5/11/98.
	Exhibit #7:	Upper & Lower Strawn Fm.:	
		Condensate Gravity @ Sale:	1/22/99.
	Exhibit #8:	Morrow Fm. Gas Analysis:	3/5/99.
	Exhibit #9:	Morrow Fm. Condensate Analysis:	3/9/99.
٨	Latter from AN	ACCO Production Company (Condone	ata Durchasar at this wal

- 11. A Letter from AMOCO Production Company (Condensate Purchaser at this well) Indicating condensate sales terms for Strawn and/or Morrow Condensate: Exhibit #10.
- 12. Exhibit #11: Marked Logs (4 Pages).
- 13. An Affidavit and Certification of Fact stating that proposed Surface Commingling Operations shall benefit ALL working, mineral and royalty interests in the well (all interests are common for both producing horizons) and shall not result in a diminution of value for the production from either producing horizon.
- 14. A copy of a planned letter to the NMOCD requesting approval of this Surface Commingling Application.

Page 2 Letter to Mr. Pete Martinez State of New Mexico: Board of Land Commissioners Permission Sought to Commingle Production at the Surface Avalon Morrow Fm. and Burton Flat Strawn Fm. Production Lake Shore Fed. S.C. 10-#2 Wellbore 3/14/99

BFC is requesting that the Board of Land Commissioners either write a Letter to BFC and the NMOCD supporting BFC's Application to Commingle at the Surface referenced Avalon Morrow Fm. and Burton Flat Strawn Fm. production from the Lake Shore Fed. S.C. 10-#2 wellbore OR the fully executed attached Waiver in Support of this Surface Commingling Application. This will insure that BFC may pursue this commingling of production in a timely and expeditious manner.

Inspection of the attachments should assure you that such Surface Commingling shall result in an enhanced revenue mineral/royalty interest to the State of New Mexico while protecting the reservoir integrity AND VALUE of all producing horizons in the Lake Shore Fed. S.C. 10-#2 wellbore. Potential drainage of commercial reserves may result from off-set production if this application is not supported in a timely fashion.

I appreciate your timely response to this request. Please do not hesitate to call me at (303) 376-2564 if I can be of any further assistance in this matter. Please fax your approval to this proposal to (303) 863-1558 if it is all acceptable to you (follow by mail with hard copy) so that I can make NMOCD application ASAP.

Thank you for your timely attention to this matter.

Sincerely Yours, BONNEVILLE FUELS CORPORATION

A. Schwering, P.E

Operations Manager: SE NM

Attachments

Cc: Well File NMOCD @ Artesia & Santa Fe BLM @ Roswell

APR APR	6	1999
Kong Pou	e(201 B
COMMISSIONER O	F P	UBLIC LANDS