Form 3160-: (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED Budget Bureau No. 1004-0135

Expires: March 31, 1993

BUREAU OF LAND	MANAGEMENT	SF-080	132
	DEPORTS ON WELLS	5. Lease Designation and Serial N	0.
SUNDRY NOTICES AND		JSEC7	13 -
Do not use this form for proposeis to drill or to Use "APPLICATION" FOR PER	deepen or reentry to a different reservoir. MIT - " for such proposais	9. If Indian, Allottee or Tribe Nam	16
	,! :	7. If Unit or CA, Agreement Des	ignation
Type of Weil Oil Gas Weil Other		B. Weil Name and No.	
Well Well University 2. Name of Operator	Attention:	Florance /S/ #7A	
Amoco Production Company	Kelly Stearns	9. API Well No.	
3. Address and Telephone No.		300452	2122
P.O. Box 800, Denver, Colorado 80201	(303) 830-4457	10. Field and Pool, or Explorator	y Area
4. Location of Well (Footage, Sac., T., R., M., or Survey Description)		Basin Fruitla	and Coal
	OON ON	11. County or Parish, State	
1750' FNL 1590'FWL Sec	c. 23 T 30N R 9W	San Juan	New Mexico
CUTOV ADDRODDIATE ROY(s)	TO INDICATE NATURE OF NOTICE	, REPORT, OR OTHER I	DATA
TYPE OF SUBMISSION	TYPE OF ACTIO		
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;	Abandanment	Change of Plans	
Natice of Intent	Secompletion	Naw Construction	
	Plugging Back	Van-Routine Frecturing Weter Shut-Off	
Subsequent Report	Casing Repair Altering Casing	Conversion to Injection	
Final Abandonment Notice	Carry Carry	Dispose Water	
	Note	: Report results of multiple completion of mpietion Report and Log form.)	well Completion or
13. Describe Proposed or Completed Operations (Clearly state all pertine	nt details, and give pertinent dates, including estimated date of s	itarting any proposed work . If well is di	ectionally drilled, give
aubsurface locations and measured and true vertical depths for all r Amoco Production Company intends to co	narkers and tones pertinent to this work.		
Amoco Production Company intends to so	THE COLUMN TO SEE THE PERSON OF THE PERSON O		
For your reference a copy of the Application	on for Authorization to Inject is attached.		
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	OIL CON. DIV		•

14. I hereby certify that the foregoing is true and correct \[\int \frac{1}{2} \frac{1}{	Titte	Business Analyst	Date	07-30-1993
Signed KLOU LACOUTEL (This space for Federal or Sisse office use)	APPROVED			ED
Approved by Conditions of approval, if any:	Titla	Al	16 2 8 ·199	3
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and will representations as to any matter within its jurisdiction.	iifuily to make to any department o	or agency of the United States any Talan, lic	ticious, or fraudule	int statements or

DIST. 3

WORKOVER PROCEDURE Conversion to Injection/Production Well

August 23, 1993

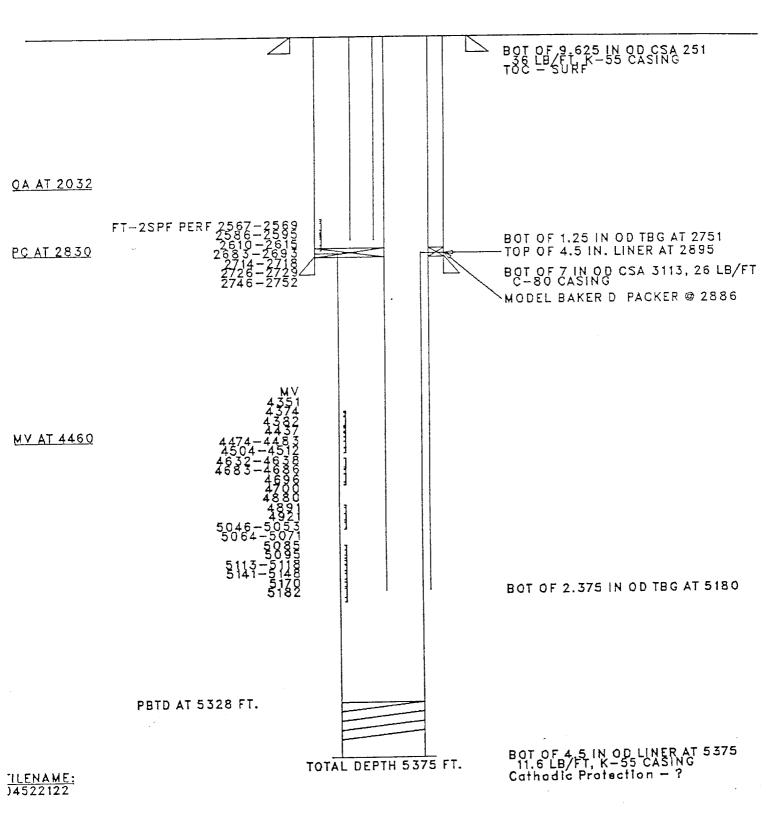
Florance 7A Mesaverde/Fruitland Coal Sec. 23 30N-09W

The objective of this workover is to convert the existing wellbore to allow injection of CO2 into the Fruitland Coal formation. The Mesaverde formation will continue to produce during the injection test.

General Procedures

- 1) Check location for anchors. Install if necessary. Test anchors.
- 2) MIRUSU. Work well hot. NDWH. NUBOP.
- TIH with short string and tag PBTD at 2886'. Check for fill. If fill found above perfs, circulate out sand to 2886' with 70 quality foam. Tally OOH with 1 1/4" tubing. Lay down tubing.
- 4) TOOH with long string and Model Baker D pkr set at 2886'.
- 5) TIH with bit and scraper. TOOH. TIH with permanent pkr and set at 2886'. TOOH, TIH with Baker 47C2 "T2" DSR pkr and set at 2400'. Land long string at 5180'.
- TIH with 2 3/8' tubing, hydrotest while running in hole. Sting into upper pkr and land tubing between 2500' 2560'. Pressure test backside to 2500# to confirm casing and pkr integrity.
- 7) If necessary, swab well in and put on line.
- 8) NDBOP. NUWH. RDMOSU.

Report any problems to Cris Zogorski at: (303) 830-4118 work (303) 751-2218 home FLORANCE 007A
Location - 23F- 30N- 9W
SINGLE MV
Orig.Completion - 9/76
LAST FILE UPDATE - 3/93 BY CSW
GL 6082'



OIL CONSERVATION DIVISION FO BOX 2088 SANTA FE, NM 37504-2088

FORM C-108 Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

	MILLIONICA
I.	PURPOSE: X Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes X No 11
11.	OPERATOR: Amoco Production Company
	ADDRESS: P.O. Box 800, Denver, CO 80201
	CONTACT PARTY: J. W. Hawkins PHONE: (303) 830–5072
111.	WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project: Yes X No If yes, give the Division order number authorizing the project.
٧.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged weil illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
+ VIII.	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing and depth appropriate proposed injection zone as well as
	and depth. Give the geologic name, and depth to bottom of all underground sources of drinking which (aquivers and depth). Give the geologic name, and depth to bottom of all underground sources of drinking which (aquivers and depth) and depth to bottom of all underground sources of drinking which (aquivers as well as waters with total dissolved solids concentrations of 10,000 mg/1 or less) overlying the proposed injection zone as well as waters with total dissolved solids concentrations of 10,000 mg/1 or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
* X	Describe the proposed stimulation program, Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
+ XI	- diaporal well showing to the state of the
XII	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground rough of drinking water.
ХШ	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIX	Cartification: I hereby certify that the information submitted with this application is true and correct to the
	NAME: J. W. Hawkins TITLE: OT. 16623103
	NAME: J. W. Hawkins TITLE: Sr. Petroleum Engr. Assoc. NAME: DATE: 3/12/93 SIGNATURE: DATE: 3/12/93
*	If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal.
	The state of the s

FLORANCE GAS COM /S/ #7A CO2 INJECTION WELL Sec. 23, T30N-R09W

- III. See attachment III, Injection Well Data Sheet.
 - V. 1. 1 IN. = 4000 FT. 25 section plat, with one-half mile radius circle.
 - 2. 1 IN. = 2000 FT. 9 section plat, with one half mile radius circle.
 - VI. See attachment VI, Well Tabulations. Amoco Production Company operates twelve wells within a one-half mile radius of the subject well.
 - VII. The proposed operation is to inject CO2 into the Fruitland Coal formation and to monitor production and pressure response. Data on the proposed operation is as follows:
 - Average daily injection rate 2.4 MMCFD. Maximum daily injection rate 3.0 MMCFD.
 - 2. Closed system.
 - Average injection pressure 1000 psi. Maximum injection pressure 2000 psi.
 - 4. The injection fluid is primarily CO2. The source of the injection fluid is a Cynara membrane unit located in the NE/4 of Sec. 27, T30N-R9W, at the Horse Canyon gas gathering system CPD. The injection fluid is the permeate from the membrane unit which is currently vented to atmosphere. The expected composition is approximately 80% atmosphere. The expected compositional analysis will be CO2 and 20% methane. A compositional analysis will be provided prior to initiating operations. The injection fluid is compatible with the Fruitland Coal formation.
 - VIII. The injection zone is the Basin Fruitland Coal Gas Pool.

 It is comprised of eight coalbed seams interspersed with sand and shale stringers. The Fruitland coal with interval is approximately 250 feet gross thickness, with interval is approximately 250 feet gross thickness, with 50 feet net coal. Individual seams range from 2 to 13 feet in thickness. The gross interval is found at 2522' feet in the proposed injection well. The to 2752' in the proposed injection well. The underground sources of drinking water in the area are the Alluvium, Nacimiento, and Ojo Alamo formations, all above 1400'.

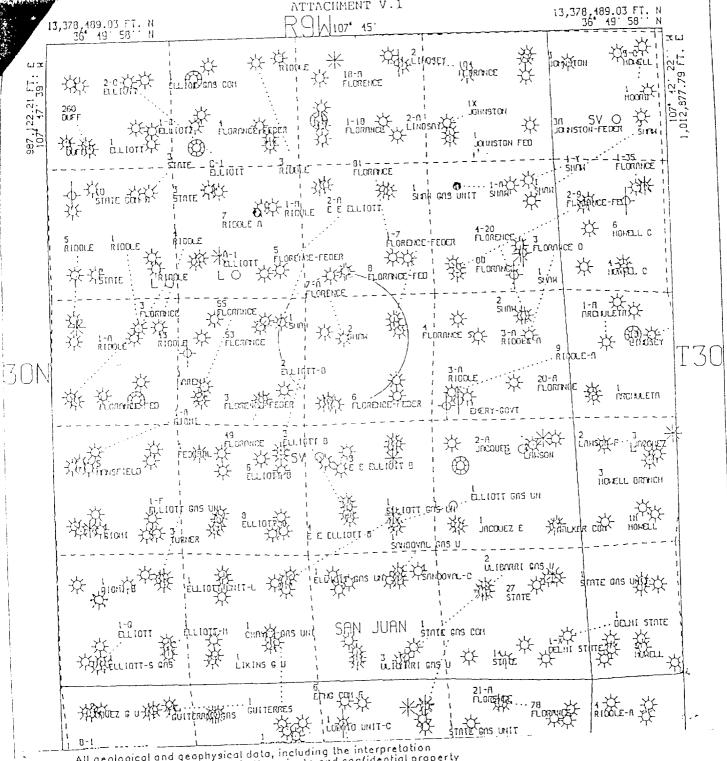
- IX. The Fruitland Coal formation was completed in the subject well in 1984 by perforating from 2567' to 2752', and water fracing with 124,000 pounds of 20/40 sand and 99,000 gallons foam. No additional stimulation is anticipated at this time.
 - X. All well logs are currently on file with the Division.
- XI. A search of state records with the State Engineers office did not reveal any fresh water wells within a one mile radius of the subject well.
- XII. I hereby certify that I have examined available geologic and engineering data and can find no evidence of connection between the injection zone and underground drinking water sources.

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XIII. See attachment XIII, Proof of Notice.

INJECTION WELL DATA SHEET

Scientis 1. 1950 FRIL 1950' FOL 22 30 NOTES OF SECTION SECTIO			TION WELL DRIK		·
Settomatic System Horses System Syste	AMOCO PRODI	UCTION COMPANY FLOR	ANCE GC /5/		· · · · · · · · · · · · · · · · · · ·
Schremits Surfece Casing 9.625° CSG 100	7A #EEE #57.	1750' FML, 1590' FWL	23 5[CTION	30 NORTH TURNSHIP	9 WEST
Schematic 9.625" CSG Size 9 5/8" " townested with					
Surface Tealing 9.622" CSS Size 9.502" "Generated with				Tobular Data	
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TOP 4.5" Hole size 6 3/4" LINER 9 2395' "CSG 9 3113' Size 4 1/2 " Cemented with 275 91 100 2895 feet determined by CIRCULATION Note size 5 1/8" Total depth 5375 Imperior according to the control of the cont	1 1 1		Slic	· 7 " Cemented w	ith 300 **.
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2.375" TDG Q 5180' BOT 4.5" LINER Q 5375' iobing site 2 3/8" lined with TUROSCOPE TXII set in a BAKER 47C2 "T2" DSR packer at 2400 feet. (brand and wodel) (or describe any other casing-lubing seal). Bther Data 1. Name of the injection formation FRUITLAND COAL 2. Hame of field or Pool (if applicable) BASIN ERUITLAND COAL 3. Is this a new well drilled for injection? [77 Yes XV No If no, for what purpose was the well originally, drilled? MESAVERDE PRODUCTION 4. Has the well ever been perforated in any other iono(3)? Liet all such perforated inter and give plugging detail (ascks of coment or bridge plug(a) used) MESAVERDE PERFS; 4471' - 4807'; 4800' - 5182'			injection interv	(a) 2752	reet
BOT 4.5" LINER 2 5375' BOT 4.5" LINER 2 5375' BOKER 47C2 "T2" DSR [Urand and model] (or describe any other casing-tubing scal). Bother Data 1. Name of the injection formation			(perforated max)		AAAA
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BOT 4.5" LINER 2 5375' BOT 4.5" LINER 2 5375' BOX A 5" lined withTUROSCOPE_TX77					•
Tubing size 2 3/6" lined with TUBOSCOPE TX77 set in a BAKER 47C2 "T2" DSR packer at 2400 feet. (brand and wodel) (or describe any other casing-tubing seal). Other Data 1. Name of the injection formation FRUITLAND COAL 2. Name of field or Pool (if applicable) BASIN FRUITLAND COAL 3. Is this a new well drilled for injection? /77 Yes /X7 No 16 no, for what purpose was the well originally, drilled? MESAVERDE PRODUCTION 4. Has the well ever been necforated in any other iono(a)? List all such perforated interest and give plugging detail (asacks of coment or bridge plug(a) used) MESAVERDE PERFS: 4471' - 4807'; 4880' - 5182'		(a. 2190)			
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2. Name of Field or Pool (if applicable)BASIC FRACE. 3. Is this a new well drilled for injection?7 Yes/X7 No 16 no, for what purpose was the well originally drilled?MESAVERDE PRODUCTION 16 no, for what purpose was the well originally drilled?MESAVERDE PRODUCTION 4. Had the well ever been perforated in any other iono(a)? List all auch perforated interpolation of give plugging detail (backs of coment or bridge plug(a) used)MESAVERDE PERFS: 4471' - 4807'; 4880' - 5182'	Other Dat	ta Cana	FRUITLAND		
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have applying the or got reach (pouls)	44	71 <u>' - 4807'; 4880' - 5</u>	5182'		
				outer underlying oil	or dua toucu (honja)



All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoca Production Company. The publication or reproduction thereof without the written permission of soid Company is strictly prohibited.

JOB-PY312502

8 nAR, 1993

AMOCO PRODUCTION COMPANY
FLORANCE GC /S/ #7A
INJECTION WELL
SEC 23-T3ON-RO9W
SAN JUAN NM
25 SEC. PLAT
SCALE 1 IN. = 4,000 FT. MAR 8, 1993

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