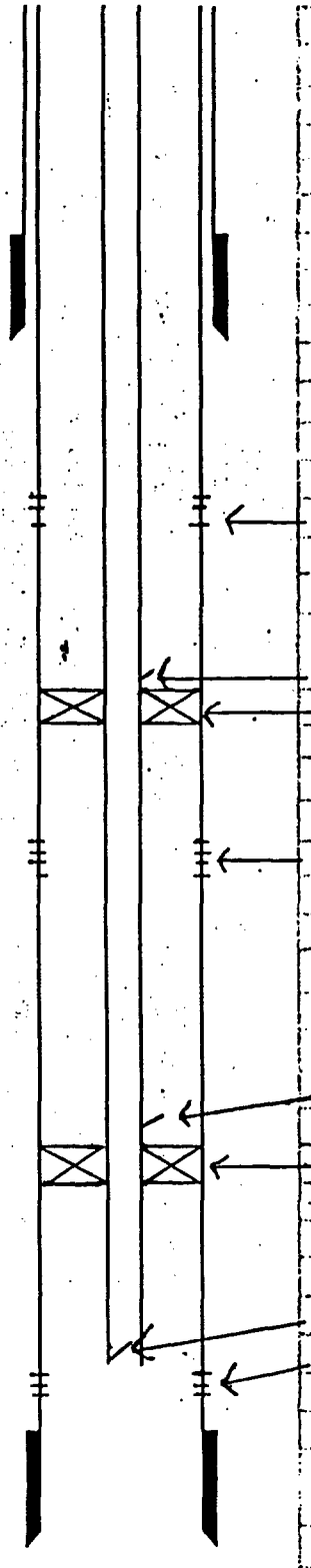
BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Caulkins EXHIBIT NO. 4
CASE NO. 8574



Chacra Perforations

Baker Reverse Flow Check Valve

Baker Model AR-1 Snap set compression Packer

Mesa Verde Perforations

Baker Reverse Flow Check Valve

Baker Model R-3 Double Grip retrievable or Baker Model "D" Production Packer

Baker Check Valve - Wire line retrievable

Dakota Perforations

FORM NO. 20-27 (6/76)

REVERSE FLOW CHECK VALVES

STANDARD OUTSIDE-MOUNTED

Type "DOS" Check Valve
Product No. 868-03.

The Type "DOS" Check Valve is manufactured only in the 1-1/2 in. OD size. It contains two seats with spring loaded O-ring seal drops which offer a double checking arrangement.

Type "OS" Check Valve, Product No. 868-01.

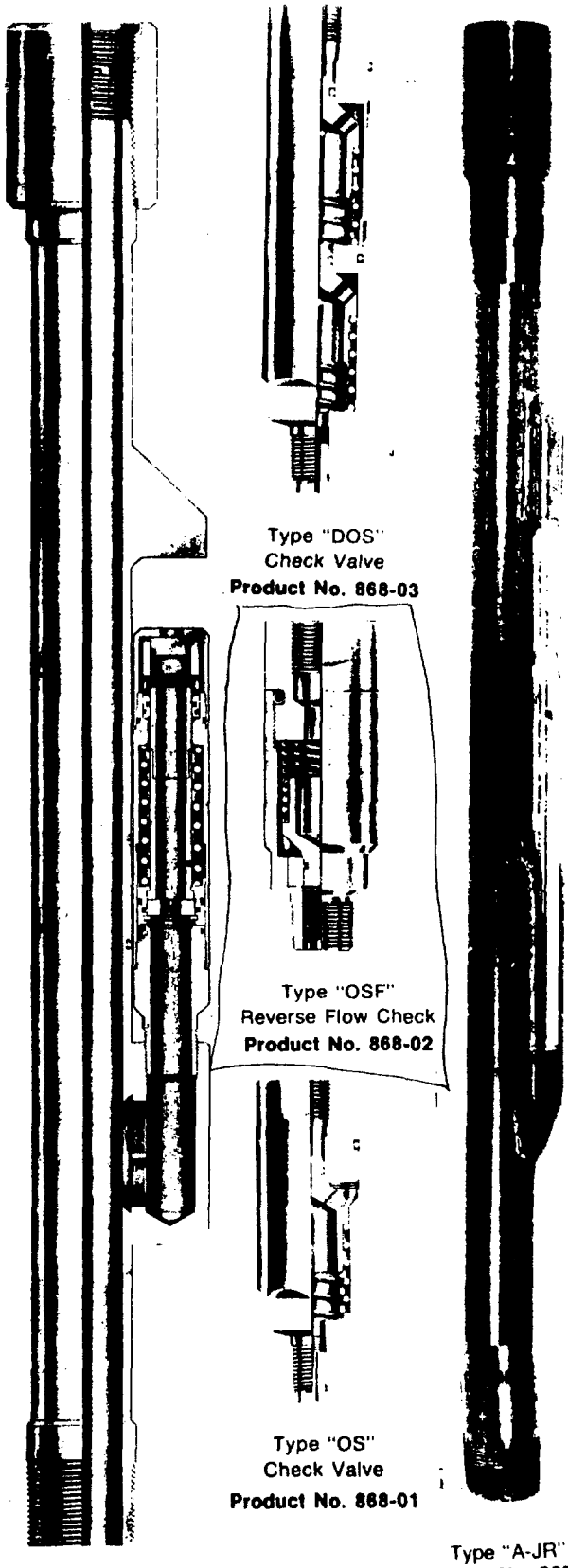
The Type "OS" Check Valve is a spring-loaded, normally closed check valve with an O-ring as well as metal-to-metal sealing surface. This product is made for 1-1/2 in. OD conventional gas lift valves.

Type "OS-JR" Check Valve
Product No. 868-30.

The Type "OS-JR" Check Valve has the same characteristics as the Type "OS" Check Valve, except it is made for 1 in. conventional gas lift valves.

Type "OSF" Reverse Flow Check
Product No. 868-02

The Type "OSF" Reverse Flow Check is a spring-loaded, normally closed check valve with an O-Ring as well as metal-to-metal sealing surface. This product is made for an 1-1/2" OD BFC-1 gas lift valve. (This product is also available in the 1" OD version, the Type "OSF Jr." Valve, Product No. 868-31 for use with a 1" OD BFC-Jr. Gas Lift Valve.)

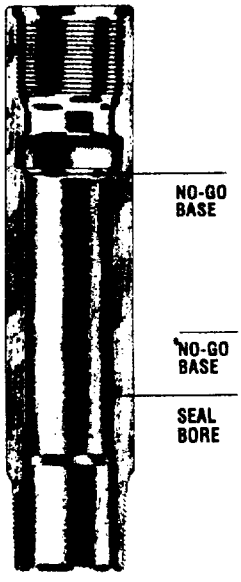


STANDARD OUTSIDE-MOUNTED VALVE MANDRELS
Type "A", Product No. 869-01
No. 869-02, Mandrels.

EQUALIZING CHECK VALVES

Model "F" Seating Nipple
(Product No. 801-50 Alloy Steel)
(Product No. 801-51 Stainless Steel)
(Product No. 801-52 9 CR-1 MO)

[Uses Dog-Type or Collet-Type Locks]



Sizes: 1.18-3.81

The Model "F" Seating Nipple is a Top No-Go or Selective Seating Nipple that provides for the location of various wireline flow control devices in the production string.

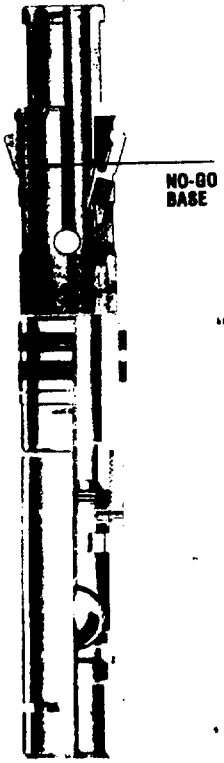
The location and number of Model "F" Seating Nipples should be carefully considered in the completion planning stages to allow maximum versatility in the positioning of various flow control accessories.

Model "F" Seating Nipples are manufactured per NACE MR-01-75 (1980 Revision)

APPLICATIONS:

Model "F" Seating Nipples may be used for the following operations:

- Land blanking plugs to shut in well or to test the production tubing.
- Land Velocity Type Safety Valves (SSCSV).
- Land equalizing check valves.
- Land circulating blanking plugs.
- Land chokes to reduce surface flowing pressures or to have pressure drops downhole to prevent surface freezing in gas production.
- When installed above Blast Joints with a Model "A" Polish Nipple below the Blast Joints, separation sleeves may be installed to repair eroded Blast Joints.
- Land instrument hangers with geophysical devices such as pressure and temperature recorders.



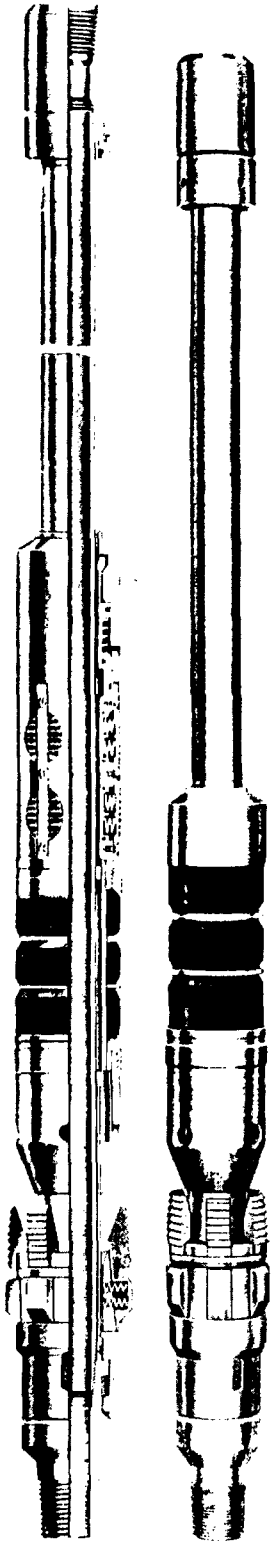
MODEL "V" EQUALIZING CHECK VALVE

"FWV" Prod. No. 809-03; "RZV" Prod. No. 809-04;
Baker provides two types of Equalizing Check Valves. They are sometimes called "Standing Valves" because they prevent fluid flow in one direction (downward) while allowing full fluid flow in the opposite direction (upward). Both types have a built-in method of allowing equalizing before pulling.

"V" EQUALIZING CHECK VALVE

The "V" Valve differs from the "B-2" Valve in that it is locked into the nipple or sleeve. It cannot be run with an "S" type lock because the ball cannot be held off the seat during running and landing. (The ball and seat design would prevent the upward movement required when landing with an "S" lock.)

BAKER PACKERS
A BAKER OIL TOOLS COMPANY



Model "R-3" Double-Grip (left) and Single-Grip (right) Retrievable Casing Packers

MODEL "R-3" DOUBLE-GRIP RETRIEVABLE CASING PACKER PRODUCT NO. 642-01

The "R-3 Double-Grip" is a truly versatile setdown-type packer. Proven by its worldwide use, it performs reliably in production, stimulation and testing operations.

FEATURES/BENEFITS

- Hydraulic button-type hold down located below the bypass valve
- Unique, built-in, "differential lock" helps keep the bypass valve closed
- Effective bypass design speeds equalization and resists swab-off
- Field-proven, three-element packing system and rocker-type slips

MODEL "R-3" SINGLE-GRIP RETRIEVABLE CASING PACKER PRODUCT NO. 641-01

In wells where excessive bottom-hole pressure is not expected, the "Single-Grip R-3" is the answer to your needs for a setdown retrievable packer. From the packing elements down, the "R-3 Single-Grip" is identical to the Double-Grip Model. Running, setting and releasing procedures are the same for both packers.

TO SET THE PACKER: The "R-3" is set by packing up, rotating to the right and then slacking off on the tubing. Setdown weight closes and seals the bypass valve, sets the slips and packs-off the packing elements.

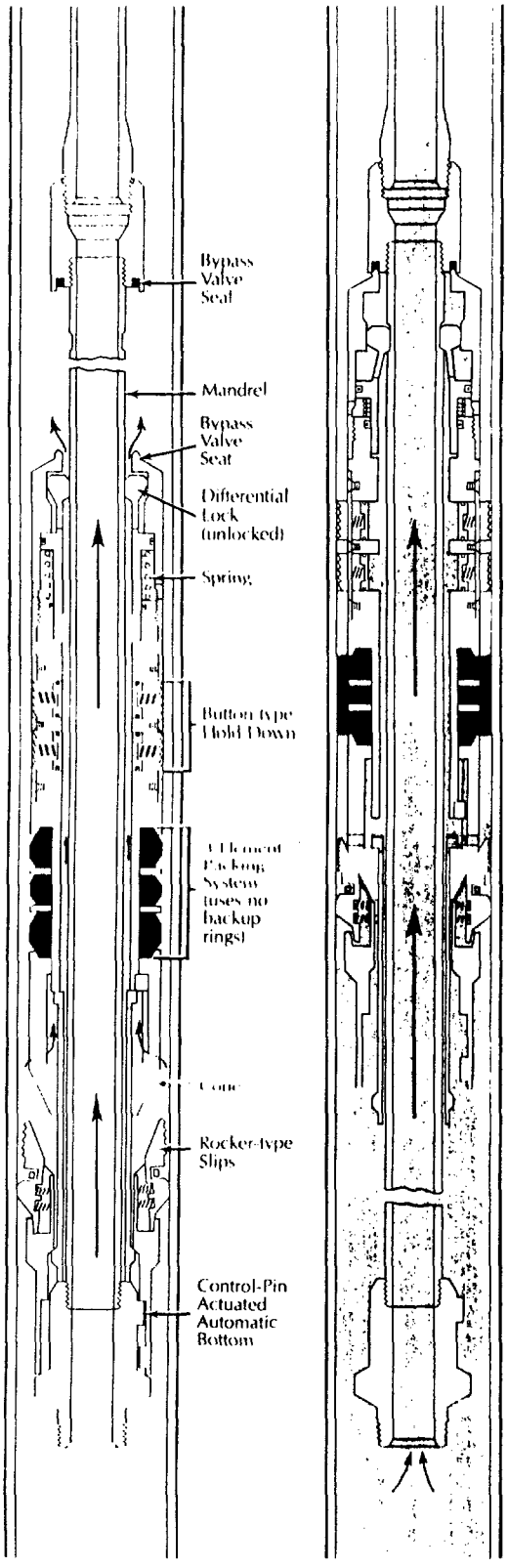
TO RELEASE THE PACKER: Picking up the tubing releases the packer (no rotation required). When the tubing is raised, the bypass valve opens to permit circulation through and around the packer.

When the tubing string is raised the full length of the packer, the J-pins (on the bottom sub) are oriented for automatic reengagement. By then lowering the tubing slightly, the J-pin engages the J-slot thus assuring complete release and preventing accidental resetting while retrieving the packer.

ORDERING EXAMPLE:

PRODUCT NO. 642-01
SIZE 47B4 (7" OD 20-26 lbs/ft casing)
MODEL "R-3" DOUBLE-GRIP RETRIEVABLE CASING PACKER
w/2 7/8" OD EU 8Rd Box x Pin, for
J-55, 6.5 lbs/ft tubing

MODEL "R-3" DOUBLE-GRIP PACKER OPERATION



Running In

Producing

"AR-1" SNAP-SET COMPRESSION PACKERS AND "MR-1" SNAP-SET PACKERS
Product Nos. 635-31, 636-31, 635-21, 636-21

Baker Models 'AR-1' Snap Set Compression Packer, 'AR-1' Snap Set Compression Packer with hold down and the 'MR-1' Single and Double Grip Snap-Set Packers are Retrievable Set Down Packers featuring a bypass area through the packer and an integral unloader. They are used as the upper packer in a single string two-packer installation for zone isolation, injection, or production. The "MR-1" Packers (with slips) are used above Baker Retainer Production Packers and the "AR-1" Packers (without slips) are used above either Retainer Production Packers or Retrievable Packers (see **OPERATION**).

FEATURES:

1. Reliable - A multiple packing element system that has been proven on the Model "R-3" Retrievable Casing Packer.
2. Simple Operation - No tubing rotation is required. Application of approximately 7,000 lbs. setdown weight (against a lower packer)will set and pack-off the packer. A straight upstrain releases the packer.
3. Simple - A collet type snap-latch prevents the packer from setting before landing the seal assembly (or setting a lower retrievable packer). The lower portion of the tool is rotationally locked in order to deliver torque in either direction through the packer.
4. Versatile - The four models available can fulfill a variety of requirements. The Double-Grip "MR-1" Snap-Set Packer, with slips and integral hold-down, will support high differentials from either direction while supporting the load in the annulus. The Single-Grip "MR-1" does not provide the holddown and may be used when high differentials from below are not anticipated. The "AR-1" Compression Packers (without slips) are more economical than the "MR-1" Packers and may be used where differentials from above are not severe.

OPERATION:

"MR-1" and "AR-1" Setting Above a Baker Retainer Production Packer

1. Run and set a Baker Retainer Production Packer.
2. Make up the Snap-Set Packer in the tubing at the desired location and run the tubing string into the well until the Locator Sub of the Tubing Seal Assembly lands in the Retainer Production Packer.
3. Apply set-down weight (see chart below) to set and pack-off the packer.

"AR-1" Only Setting Above A Retrievable Packer

1. Make up both packers on the tubing string and run them into the well.
2. Rotate the tubing as required to prepare the lower packer for setting, and apply set-down weight (shown in chart below) to set and pack-off both packers.

SET-DOWN WEIGHT REQUIRED TO PACK-OFF PACKING ELEMENT SYSTEM

PACKER SIZE	SPEC. HARDNESS 80-60-80	STANDARD HARDNESS 90-70-90	SPEC. HARDNESS 95-80-95
43, 45, or 47	6,000 lbs.	7,000 lbs.	8,000 lbs.

Note: The maximum telescoping motion to set and pack-off packers in any size casing is seven inches and must be considered when spacing out equipment through the packers.

Releasing:

To release the packer simply pick up on the tubing string. If the weight of the tubing string below the packer is less than 1,500 lbs., the snap-latch will not "recock", and any attempt to lower the tool back down the hole during retrieving may not be successful. The unloader will not be locked open, or in the case of the "MR-1" Packers, the slips may not be fully retracted. However; if the weight of the tubing below the packer is greater than 1,500 lbs., the snap-latch will "recock" to the running-in position. The packer can then be raised or lowered during the retrieving operation.

EFFECT OF PRESSURING OPERATIONS ON BYPASS VALVE

The Bypass Valve on the Model "MR-1" Snap-Set Packer is essentially the same as the Valve on the Model "R-3" Retrievable Casing Packer; however, the hydraulic effects of pressuring operations on the bypass valve differ from the Model "R-3".

There are three points at which pressure changes may occur with a Snap-Set Packer instead of the Two points in the Model "R-3" Packer.

The points at which pressure changes may occur are:

1. In the annulus above the Snap-Set Packer.
2. In the isolated zone below the Snap-Set Packer and above the lower packer.
3. In the tubing through the Snap-Set Packer.

The number of square inches acted upon by pressure changes at these three points is listed in the chart on page 3. Areas tending to close the Unloader are **unshaded** and areas tending to open the unloader are **shaded.** The use of this chart is the same as that for the Model "R-3" Packer. Example problems and instructions for use of the chart may be found in the Model "R-3" Retrievable Casing Packer unit filed under this same index.

DISASSEMBLY:

The upper portion of the Compression and Snap-Set Packers use standard Model "R-3" Retrievable Casing Packer parts (refer to unit filed under this same index) and will be disassembled according to the methods presently used on the Model "R-3" Packers. The disassembly procedure which follows below applies only to the lower portion of the Snap-Set and Compression Packers since they are different from the Model "R-3". The lower portion of the Snap-Set and Compression Packers is identical.

1. Place the rotational Lock Sleeve in the vise and remove the Key and all Set Screws.
2. Break the Bottom Sub from the Rotational Lock Sleeve.
3. Place the Connector Sleeve in the vise (Compression Packer) or the Slip Ring (Snap-Set Packer) and remove the Rotational Lock Sleeve.

* *

CAUTION:

This is a left-hand thread.

* *

4. After removing the Set Screw, with back-up on the Upper Body, remove the Rotational Lock Nut.
5. Remove the Latch from the Connector Sleeve (Compression Packer) or the Slip Ring (Snap-Set Packer).
6. Hold Back-up on the Upper Body and remove the Lower Body by placing wrench in groove provided.

* *

CAUTION:

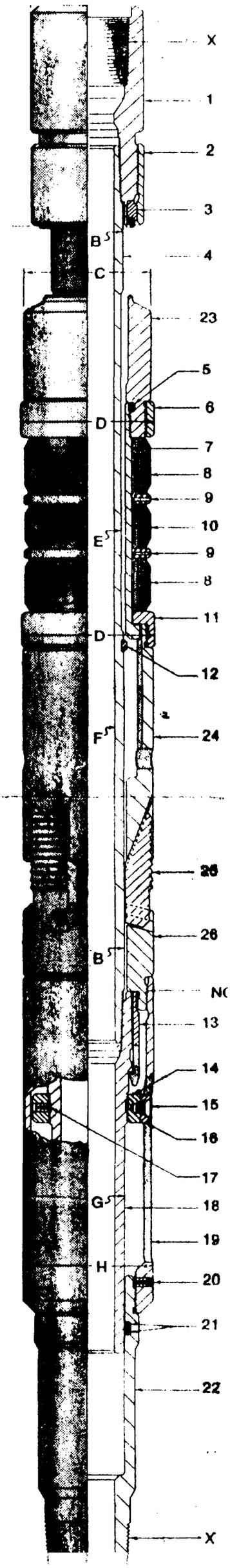
Do not damage seal surface on OD of Lower Body.

* *

NOTE:

The Snap Ring on the Upper Body does not require removal if it is not damaged.

* *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Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.: SF 079304

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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—" for such proposals.)

7. UNIT AGREEMENT NAME:

OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Caulkins Oil Company

8. FARM OR LEASE NAME: Sanchez

3. ADDRESS OF OPERATOR: P.O. Box 780 Farmington, New Mexico 87499

9. WELL NO.: 4

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 990' From North Line and 990' From West Line

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 25, 26N 6W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6654 DF

12. COUNTY OR PARISH: Rio Arriba

13. STATE: New Mexico

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other) Perforate and Commingle			X	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to perforate and frac Mesa Verde Zone, then commingle Chacra, Mesa Verde and Dakota Zones in wellbore.

Present condition: TD 7545'. 4 1/2" 10.5 and 11.6# casing cemented at 7545' in two stages.

1st stage thru shoe 7545' with 250 sacks.
2nd stage thru stage tool at 5376' with 500 sacks.
Tempature survey indicates cement top at 3200'.
Dakota Zone perforated and fraced.
On line to El Paso Natural Gas Company 3-17-70 to present.

Perforated and fraced Chacra Zone, dual completed as Chacra-Dakota. June 1976.

Chacra Zone on line to El paso Natural Gas Company 8-16-76.

Both Zones producing at present.

It is now proposed to clean well out to TD, test perforations thru Dakota Zone for plugging, treat as neccessary to open perforations, then set Bridge Plug above Dakota Zone. (Over)

18. I hereby certify that the foregoing is true and correct

SIGNED Charles E. Chapman TITLE Superintendent DATE 4-16-85

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

A Bridge Plug will be set below indicated top of cement at 3200' then perforate 2 holes at 3198' and attempt to circulate to surface. If sucessful hole will be conditioned then cemented with 150% of calculated Volume in an attempt to circulate to surface. If cement does not circulate, temperature survey will be run to find top, then perforate and squeeze as necessary to cover Pictured Cliffs and Alamo Sands.

After cementing completed and casing tested to 2000#, well will be perforated in Mesa Verde Zone, then fraced thru 2 7/8" OD EUE Tubing. Well will be cleaned up and tested in Mesa Verde Zone before moving packers.

After testing complete well will be commingled Chacra, Mesa Verde and Dakota Zones. Zone separation equipment will be run on 2 3/8" OD Tubing to prevent crossflow.

Estimated starting date 6-1-85.

No new surface will be disturbed.

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.: SF 079304

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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—" for such proposals.)

7. UNIT AGREEMENT NAME:

OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Caulkins Oil Company

8. FARM OR LEASE NAME: Sanchez

3. ADDRESS OF OPERATOR: P.O. Box 780 Farmington, New Mexico 87499

9. WELL NO.: 4

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 990' F/N & 990' F/W

RECEIVED
APR 03 1985
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

10. FIELD AND POOL, OR WILDCAT: Dakota & Chacra

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 25, 26N 6W

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 6654 DF

12. COUNTY OR PARISH: Rio Arriba

13. STATE: New Mexico

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(Other) Commingling Application			☒	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

It is proposed to recomplete well in Mesa Verde Zone then commingle production from Chacra, Mesa Verde and Dakota Zones in wellbore.

This notice to advise BLM that hearing with State of New Mexico has been set asking for approval.

BLM approval will be obtained prior to any work being done on well.

TO WHOM IT MAY CONCERN:
A COPY OF THE ATTACHED APPLICATION
HAS BEEN FORWARDED TO NMOCC.

18. I hereby certify that the foregoing is true and correct

SIGNED Charles E. Caulkins TITLE Superintendent DATE 4-5-85

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
APR 10 1985
AREA MANAGER
FARMINGTON RESOURCE AREA
OPERATOR

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.