

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-10
May 27, 2007

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

RCVD DEC 13 '07
OIL CON. DIV.
DIST. 3

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN,
PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address FOUR STAR OIL & GAS COMPANY P O Box 36366 Houston, TX 77236		² OGRID Number 131994
³ Property Code —36865 17725	⁵ Property Name PAUL WILLIAMS	⁶ Well No. 004
⁹ Proposed Pool 1 MESA VERDE		¹⁰ Proposed Pool 2 DAKOTA

⁷ Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	35	26N	6W		1522	NORTH	1224	WEST	RIO ARRIBA

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	26N	6W		1507	NORTH	2618	EAST	RIO ARRIBA

Additional Well Information

¹¹ Work Type Code NEW WELL	¹² Well Type Code GAS	¹³ Cable/Rotary	¹⁴ Lease Type Code PRIVATE	¹⁵ Ground Level Elevation 6332
¹⁶ Multiple N	¹⁷ Proposed Depth 7544'	¹⁸ Formation DAKOTA	¹⁹ Contractor	²⁰ Spud Date 3/1/2007
Depth to Groundwater ~25'		Distance from nearest fresh water well >1000		Distance from nearest surface water 10 FT
Pit Liner: Synthetic mils thick Clay <input type="checkbox"/> Pit Volume: bbls		Drilling Method Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>		
Closed-Loop System <input checked="" type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.25	9.625	36	400	245	0
8.75	7	23	2900	450	0
6.25	4.5	11.6	7544	560	0

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Closed loop system to be used due to shallow alluvial groundwater and proximity to arroyo channel in Tapacito Creek

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature

Printed name: Pamela Rainey

Title: Regulatory Specialist

E-mail Address: prcx@chevron.com

Date: 12/10/2007

Phone: 281-561-4859

OIL CONSERVATION DIVISION

Approved by

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: DEC 17 2007

Expiration Date:

Conditions of Approval Attached ☐

HOLD C-104 For directional

Survey & as drilled C-102

B 12/15

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30436	² Pool Code 71599/72319	³ Pool Name MESA VERDE / DAKOTA
⁴ Property Code 17225	⁵ Property Name PAUL WILLIAMS	⁶ Well Number 4
⁷ GRID No. 131994	⁸ Operator Name FOUR STAR OIL & GAS CO.	⁹ Elevation 6332

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	35	26 N	6 W		1522	NORTH	1224	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	26 N	6 W		1507	NORTH	2618	EAST	RIO ARriba

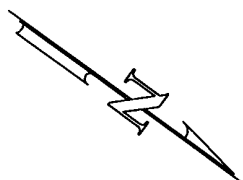
¹² Dedicated Acres 320 N/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

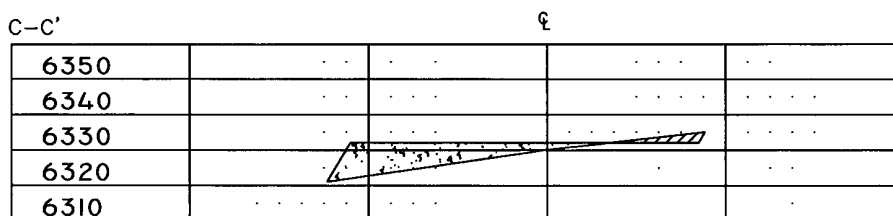
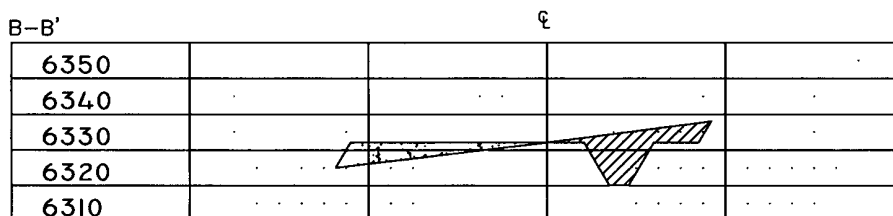
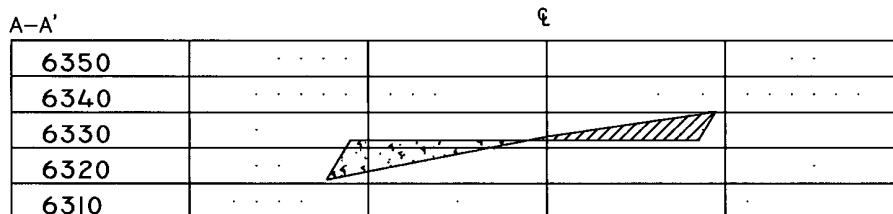
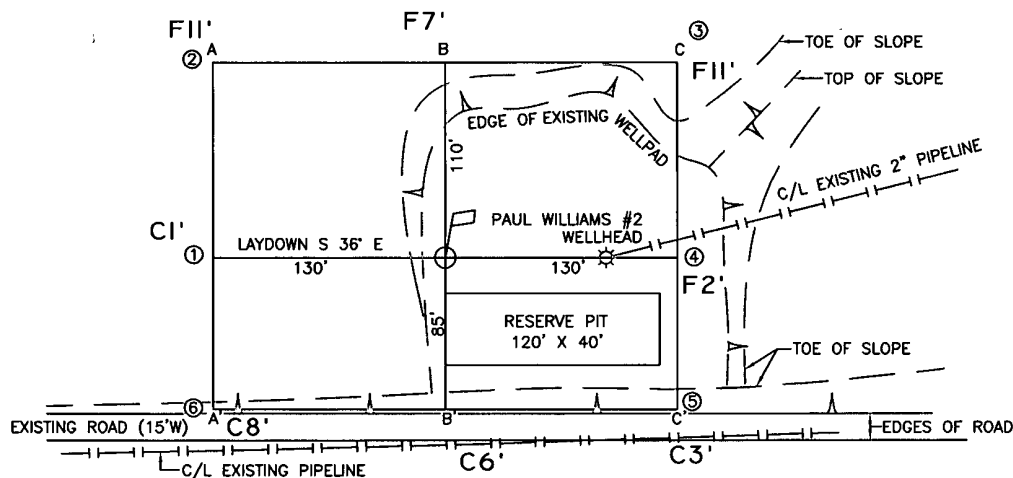
<p>16 N 89°19'30" E 2641.15'</p> <p>2676.87'</p> <p>1522'</p> <p>1224'</p> <p>N 1°42'00" W</p> <p>NAD 83 LAT: 36.446221° N LONG: 107.441852° W</p> <p>NAD 27 LAT: 36° 26.7726' N LONG: 107° 26.4749' W</p>		<p>N 89°18'39" E 2641.14'</p> <p>1507'</p> <p>2618'</p> <p>NAD 83 LAT: 36.446293° N LONG: 107.436941° W</p> <p>NAD 27 LAT: 36° 26.7769' N LONG: 107° 26.1802' W</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature: <u>Paul Rainey</u> Date: <u>12/5/07</u></p> <p>Printed Name: <u>Pamela Rainey</u></p>	
<p>2676.87'</p> <p>N 1°42'00" W</p> <p>S 89°03'05" W</p>		<p>SECTION 35</p> <p>5293.41'</p>		<p>18 SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>9/27/07</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p>Certificate Number: <u>6849</u></p>	

○ = SURFACE LOCATION
● = BOTTOM HOLE LOCATION

BEFORE DIGGING
CALL FOR UTILITY
LINE LOCATION!



0 50 100
SCALE: 1"=100'



CROSS SECTIONS
HORIZONTAL: 1"=100'
VERTICAL: 1"=50'

LEASE: PAUL WILLIAMS #4

1522' FNL, 1224' FWL (SURFACE)

FOOTAGES: 1507' FNL, 2618' FEL (BOTTOM)

SEC. 35 TWN. 26 N RNG. 6 W N.M.P.M.

LAT: N 36.446221° LONG: W 107.441852° (NAD 83)

LAT: N 36°26.7726' LONG: W 107°26.4749' (NAD 27)

ELEVATION: 6332

FOUR STAR OIL & GAS CO.
HOUSTON, TEXAS

SURVEYED: 9/27/07

REV. DATE:

APP. BY R.L.P.

DRAWN BY: H.S.

DATE DRAWN: 10/26/07

FILE NAME: 7929C01



P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

**Four Star Oil & Gas Company
Paul Williams 4
1522' FNL, 1224' FWL
SW/4 NW/4, Sec 35 T26N R6W
Rio Arriba County, NM**

EIGHT POINT DRILLING PLAN

1. ESTIMATED FORMATION TOPS (KB):

Formation	Depth TVD
Picture Cliffs Sst	2560
Lewis Shale	3440
Mesa Verde (Cliff House)	4225
Mesa Verde (Menefee)	4250
Mesa Verde (Point Lookout)	4800
Mancos	5140
Gallup	5960
Greenhorn	6725
Graneros	6780
Dakota	6935
TD	7544' MD / 7,200' TVD

2. NOTABLE ZONES AND PLAN FOR PROTECTION:

Gas or Oil Zones	Water Zones	Coal Zones
Mesaverde	Ojo Alamo	Fruitland
Gallup	Kirtland	
Dakota		

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the engineer's recommendations.

3. PRESSURE CONTROL EQUIPMENT:

Maximum anticipated pressure is ~ 2700 psi.

Pressure control equipment shall be in accordance with BLM minimum standards.

One 11" 3M double ram preventer and one 11" 3M annular preventer will be used. The double ram preventer will be equipped with pipe rams on bottom and blind rams on top. All BOPs meet API 16D. One Shaffer 7 station accumulator, API 16E. One 3" 5M choke manifold. The choke and kill lines will be connected to outlets below the bottom rams, utilizing either the ram body outlet or a drilling spool with side outlets. Tests will be recorded on IADC log. Please refer to attached schematic. Test procedure and frequency shall be in accordance with BLM minimum standards for 3000 psi equipment, per BLM Oil & Gas Order #2.

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4. SUPPLEMENTAL DRILLING EQUIPMENT AND CASING INFORMATION:

Casing Information: All casing will be new pipe and tested to 1500 psi.

Hole Size	O.D.	Weight (lb/ft)	Grade	Age	Connection	GL Setting Depth
12-1/4"	9-5/8"	36#	J-55	New	LTC	400'
8-3/4"	7"	23#	N-80	New	LTC	2900'
6-1/4"	4-1/2"	11.6#	N-80	New	LTC	7544' MD / 7200' TVD

Surface casing will be cemented to the surface with ~290 cu. ft. (~245 sx) Mountain G Premium cmt (1.2 ft³/sx yield, 15.6 ppg, & 5.24 gps) with 2% CaCl₂ and 1/4#/sx Poly-E-Flake. Volume based on 100% excess. We plan to run a minimum of at least 3 centralizers. A wiper plug will be displaced to within 20' of the shoe. WOC = 8 hours minimum. Surface casing will be tested to 500 psi for 15 minutes.

Cementing equipment will include a guide shoe, one shoe jt and float collar. Centralizers will be placed on the bottom four joints.

Intermediate casing will be cemented to surface. Total cement = 756 cu. ft. Volumes are calculated at 75% excess. If cement does not circulate to surface, then a temperature survey will be run to determine the actual cement top as needed. WOC = 8 hours minimum. Test to 1000 psi for 15 minutes.

Lead cement will be ~540cu. ft. (~290 sx) Halliburton Light Premium w/ 5#/sx gilsonite, 12.4 ppg for a yield of 1.89 cu. ft. per sx.

Tail cement will be ~184 cu. ft. (~160 sx) 50/50 Poz Standard w/ 5#/sx gilsonite & 1/4#/sx Poly-E-Flake, 13.5 ppg for a yield of 1.30 Cu. ft. per sx.

Cementing equipment will include a guide shoe, one shoe jt and float collar will be run 20' off bottom. We plan on running at least 10 centralizers.

Production casing will be cemented up to 500' inside the intermediate casing with a single stage. Volumes are calculated at 50% excess. If necessary, a CBL will be run during completion operations to insure cement coverage inside the 7" intermediate casing. Casing will be pressure tested to 6000 psi during completion operations.

**Four Star Oil & Gas Company
Paul Williams 4
1522' FNL, 1224' FWL
SW/4 NW/4. Sec 35 T26N R6W
Rio Arriba County, NM**

Primary cement will be ~787 cu. ft. (~560 sx) 50/50 Poz Premium w/ 1/4#/sx Poly-E-Flake, 5 lbm/sk Gilsonite, 0.8% Halad @-9, 0.1% HR-5, 13.1 ppg for a yield of 1.41 Cu. ft. per sx.

Cementing equipment will include a guide shoe, one shoe jt and float collar will be run as close as to the bottom as we can with a centralized shoe joint and next five joints. Centralizers will be run across the producing zones.

5. CIRCULATING MEDIUM AND MUD TYPE:

Depth	Type	Wt./ppg	Viscosity	Fluid Loss	pH
Spud – 400'	WBM	8.4 – 8.8	32 – 38	NC	9-9.5
400' – 2900'	WBM	8.4 – 9.0	28 – 42	10-12	9-10
2900' – TD	Air &/or Air/mist	n/a	n/a	n/a	n/a

Lost circulation and absorption material will be on location.

6. ANTICIPATED TYPE AND AMOUNT OF LOGGING, CORING, AND TESTING:

Open hole logs are planned. No cores or drill stem tests are planned.

7. EXPECTED BOTTOM HOLE PRESSURE AND ANY ANTICIPATED ABNORMAL PRESSURE, TEMPERATURES, OR OTHER HAZARDS (H₂S, STEAM, ETC.) AND ASSOCIATED CONTINGENCY PLANS:

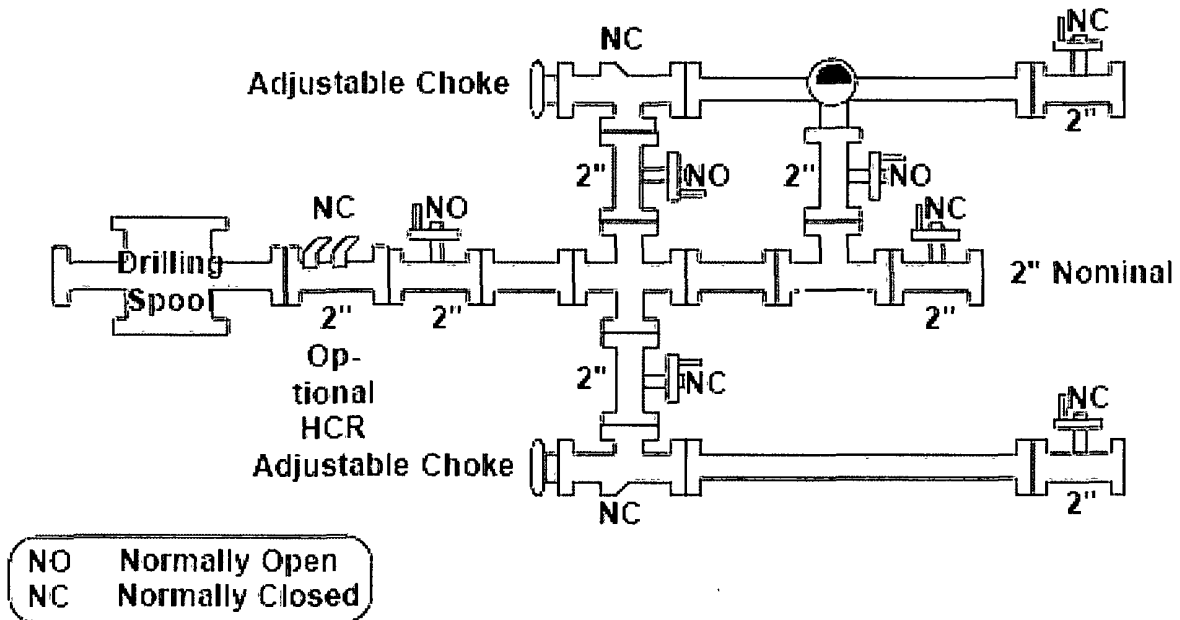
No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum pressure will be less than ~2700 psi.

8. OTHER:

It is expected it will take approximately ten (10) days to drill and ten (10) days to complete the well. Completion will start approximately one month after the spud and will include hydraulic fracturing.

Four Star Oil & Gas Company
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1522' FNL, 1224' FWL
SW/4 NW/4. Sec 35 T26N R6W
Rio Arriba County, NM

CLASS III CHOKE SCHEMATIC



Four Star Oil & Gas Company
Paul Williams 4
1522' FNL, 1224' FWL
SW/4 NW/4. Sec 35 T26N R6W
Rio Arriba County, NM

CLASS III BOP SCHEMATIC

