

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-114978
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator STRATA PRODUCTION COMPANY (21712)		7. If Unit or CA Agreement, Name and No.
3a. Address PO DRAWER 1030 ROSWELL, NM 88201	3b. Phone No (include area code) 575-622-1127	8. Lease Name and Well No ROADRUNNER FEDERAL #1 H (38771)
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 460' FNL & 330' FWL (D) At proposed prod. zone 430' FNL & 414' FEL		9. API Well No 30-015-39361
14. Distance in miles and direction from nearest town or post office* ~14 MILES EAST OF LOVING, NM		10. Field and Pool, or Exploratory FORTY NINER RIDGE DELAWARE (24750)
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 330'	16. No of acres in lease 960	11. Sec., T. R. M. or Blk. and Survey or Area SEC. 25, T23S-R30E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft NA- FIRST WELL ON LEASE	19. Proposed Depth PILOT 7660 MD&TVD LATERAL 12104 MD 7795' TVD	12. County or Parish EDDY
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3307' GL	22. Approximate date work will start* 07/15/2011	13. State NM
17. Spacing Unit dedicated to this well 160		
20. BLM/BIA Bond No. on file OGB0870		
23. Estimated duration 30 DAYS		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM. |
|--|---|

25. Signature 	Name (Printed/Typed) FRANK MORGAN	Date 06/15/2011
Title VICE PRESIDENT		

Approved by (Signature) /s/ Jesse J. Juen	Name (Printed/Typed) Jesse J. Juen	Date
Title acting STATE DIRECTOR	Office NM STATE OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

(Continued on page 2)

**Instructions on page 2)

CARLSBAD CONTROLLED WATER BASIN

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

HOLE PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
Roadrunner Federal #1
460' FNL & 330' FWL
SECTION 25-23S-30E
EDDY COUNTY, NEW MEXICO

In conjunction with Form 3160-3, Application for Permit to Drill, Deepen, or Plug Back, Strata Production Company submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops:

	<u>TVD</u>	<u>MD</u>
Rustler	Surface	Surface
Top of Salt	700'	700'
Base of Salt	3380'	3380'
Delaware	3870'	3870'
KOP - curve	7295'	7295'
EOC	7773'	8042'
TD*	7900' 7980' max	12104'

*The well will be drilled to an approximate total depth of ~~7900'~~ in the Bone Spring formation, logged, and then a kickoff plug for the horizontal lateral will be set above the targeted pay zone in the Delaware formation.

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas & Drilling Plan:

Surface	150'	Fresh Water
Delaware	3870' - TD	Oil or Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at ~270' and circulating cement back to surface. Potash will be protected by setting 9 5/8" casing at ~3860' and circulating cement back to surface. The Delaware pay intervals will be isolated by the kickoff plug and by setting 7" casing at the EOC at ~8042' and cementing back to surface. A 6 1/8" lateral hole will be drilled to TD and a 4 1/2" liner will be run for completion and cemented through the Delaware. The top of the 4 1/2" liner will be set approximately 100' above the KOP of the curve.

Top of
Bone Spring 7779'
Per Operator
7/26/11

See
COA

4. Casing Program:

<u>Hole Size</u>	<u>Depth</u>	<u>OD Csg</u>	<u>Weight, Grade, Collars, New/Used</u>
5" 1 1/2"	330' 270'	13 3/8"	48#, H-40, STC, New
12 1/4"	3860'	9 5/8"	40#, J-55, STC, New
8 3/4"	8042'	7 "	26#, HCP-110, LTC/BTC, New
6 1/8"	12104'	4 1/2"	11.6#, HCP-110, BTC, New

On the 7" casing BTC will be run through the curve from 7295' - 8042'.
Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

Cementing Program:

Surface Casing: 13 3/8" casing will be set at ~270' and cemented with 306 sacks Class C + .005 lbs/sack Static Free + 2% bwoc Calcium Cl + 1 gal/100 sack FP-6L + 56.3% Fresh Water. 14.8 density, 1.37 yield, 6.34 gal/sk H2O. Cement in sufficient quantities to circulate to surface will be utilized.

Intermediate Casing: 9 5/8" casing will be set at ~3860' and cemented with 810 sacks lead of 35:65 Poz; Class C Cement + .005 lb/sack Static Free + 5% bwow Sodium cl + .125 lb/sack Cello Flake + 5 lb/sack LCM-1 + 1 gal/100 sack FP-6L + 4% bwoc Bentonite + 1.3 % bwoc Sodium Metasilicate + 5% bwoc MPA-5 + 107.2% Fresh Water. 12.5 density, 2.13 yield, 11.18 gal/sk H2O. 485 sacks tail of Class C Cement + .005 lb/sack Static Free + .15% bwoc R-3 + 1 gal/100 sack FP-6L + 56 % Fresh Water. 14.8 density, 1.33 yield, 6.31 gal/sk H2O. Cement in sufficient quantities to circulate to surface will be utilized.

Intermediate Casing: 7" casing will be set through the curve at ~8042' and cemented with 572 sacks lead of 35:65 Poz; Class H Cement + .005 lb/sack Static Free + 5% bwow Sodium Cl + .125 lb/sack Cello Flake + 5 Lb/sack LCM-1 + .2% bwoc FL-52 + 1 gal/100 sack FP-6L + 4% bwoc Bentonite + .2% bwoc Sodium Metasilicate + 5% bwoc MPA-5 +

106.5% Fresh Water. 2.11 yield, 12.5 density, 11.1 gal/sk. 300 sacks tail of Class H Cement + .005 lb/sack Static Free + 1% bwow Sodium Cl + .2% bwoc FL-52 + 1 gal/100 sack FP-6L + 46.5% Fresh Water. 1.19 yield, 15.6 density, 5.24 gal/sk. Cement in sufficient quantities to circulate to surface will be utilized.

Production Casing:

*See
COA*

4 1/2" casing will be run from 7195' to TD and cemented with 560 sacks Class H Cement + .005 lbs/sack Static Free + 1% bwow Sodium Cl + .2% bwoc FL-52 + 1 gal/100 sack FP-6L + 46.5% Fresh Water. 15.6 lb/gal, yield 1.19, 5.24 gal/sack

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOP's will be nipped up on the 13 3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to ~~1000~~ psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 70% of rated working pressure (2100 psi).

*See
COA*

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Proposed Mud System:

Depth	Type	MW	FV	PV	YP	FL	Ph
0'-270' ³³⁰	FW/Native	8.4-8.7	28-32	4-8	4-6	NC	9-9.5
540'-3860'	Brine Wtr	9.7-10	28-30	NA	NA	NC	9.5-10

3860'-8042' Cut Brine/ 8.8-9 28-30 NA NA NC 9.5-10
Gel Sweeps

8042'-TD Cut Brine/ 9-9.5 34-38 12-16 4-8 8 9.5-10
Poly-Starch

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Testing, Logging and Coring Program:

Two (2) man Mudlogging unit from top of Delaware to TD DLL-MSFL, CNL-Density, Gamma Ray, Caliper.

Mudlogging unit will be employed from approximately 3860' to TD. The Dual Laterolog will be run from TD back to the intermediate casing and the Compensated Neutron/Density and Gamma Ray logs will be run from TD back to surface. In some cases, Strata elects to run rotary sidewall cores from selected intervals dependent upon logging results.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. BHT should not exceed 150 F and BHP should not exceed 3500 psi.

Loss of circulation is possible in the Delaware section of the hole, however, no major loss circulation zones have been reported in offsetting wells. Strata has drilled and completed eighteen (18) wells in the immediate area. To date, Hydrogen Sulfide has not been encountered. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out pre-venter and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

10. Anticipated Starting Date and Duration of Operations:

Work will not begin until approval has been received from the BLM. The anticipated spud date is July 15, 2011. Once commenced, the drilling operation should be finished in approximately 25 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities.

Drilling Fluid Summary

Strata Production Company
Roadrunner Federal #1

Hole Size	Depth (feet)	Density (lb/gal)	Viscosity (sec/qt)	YP (lb/100ft ²)	API FL (ml/30min)	Cl ⁻ (mg/L)	pH	Solids (% vol)
17 1/2"	0'-270'	8.5 - 8.7	30 - 34	4 - 6	NC	< 6,000	9.0 - 10.0	< 5
Set 13 3/8" Surface Casing								
12 1/4"	270'-3860'	9.7 - 10.1	29 - 32	1 - 2	NC	160 - 180 K	10.0 - 10.5	< 5
Set 9 5/8" Casing								
8 3/4"	3860'-8042'	8.8 - 9.2	28 - 30	1 - 2	NC	60 - 110 K	10.0 - 10.5	< 5
Set 7" Casing								
6 1/8"	8042'-12104'	9.1 - 9.5	34 - 38	6 - 10	8 - 10	80 - 120 K	10.0 - 10.5	< 5
Set 4 1/2" Production Liner								

1. Spud in with fresh water spud mud to 250' containing **Anco Gel** with a viscosity of 30 - 34 sec/qt. Add 1 sack **Drill Paper** every connection. Mix **Lime** for a 9.0 - 10.0 pH. At TD, sweep the hole with 100 bbls of premixed **Anco Gel** with a 45 - 50 sec/qt viscosity prior to tripping out of the hole, to ensure a clean well bore before running casing.
2. After setting 13 3/8" surface casing, drill out with native brine. Mix **Lime** to control the pH at 10.0 - 10.5. Add 1 gallon **Anco Drill N** at the flow line every 90' drilled. Add 1 sack **Drill Paper** every other connection for added hole cleaning and seepage control. Sweep the hole with 50 bbl **Anco Salt Gel** sweeps with a viscosity of 40 - 60 sec/qt every 250' drilled for hole cleaning. At interval TD, sweep the hole with 100 bbl **Anco Salt Gel** with viscosity of 60 - 80 sec/qt prior to POH to ensure a clean well bore to run intermediate casing.
3. After setting 9 5/8" intermediate casing, drill out with cut brine. Mix **Lime** for 10.0 - 10.5 pH. Add 1 gallon **Anco Drill N** at flow line every 90' drilled. Add 1 sack **Drill Paper** every other connection for seepage control. Sweep the hole with 50 bbl **Anco Salt Gel** sweeps with a viscosity of 40 - 60 sec/qt every 250' drilled. At interval TD, circulate a 100 bbls **Anco Salt Gel** sweep with viscosity of 60 - 80 sec/qt to ensure a clean well bore prior to running casing.
4. After setting 7" casing and prior to drilling the lateral interval, build 9.1 - 9.5 lb/gal **Anco Zan / Starch** system in steel pits with cut brine, **Anco Zan**, **Anco Starch White**, and **Caustic Soda**. Mix **Anco Zan** for a viscosity of 34 - 38 sec/qt and Yield Point of 6 - 10 lb/100ft². Mix **Anco Starch White** API filtrate control of 8 - 10 ml/30 min. Mix **Caustic Soda** to control pH at 10.0 - 10.5. Add **WT-22** at 5 gallons per 100 bbls active drilling fluid for control of bacteria. Sweep the hole every 250' drilled with 50 bbls active fluid containing 10 - 15 lb/bbl **Walnut Hulls (M)** or 25 gallons **Tork Buster Plus**. Jet the **Shale Pit** every 4 hours or as needed to control solids concentration and fluid density. Circulate to move cuttings above BHA prior to connections to reduce packing off and/or stuck pipe. Prior to trips, circulate at least bottoms up to clean hole.
5. At TD, pump a low viscosity sweep, followed by a high viscosity sweep, and circulate for minimum of three hours prior to tripping out of the hole for logging and casing operations.

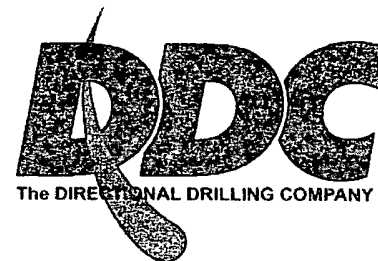
Mud weights for guidelines only, allow hole conditions to dictate actual mud weights



Anchor Drilling
Fluids USA, Inc.

P. O. Box 61310
Midland, Texas 79711-1310

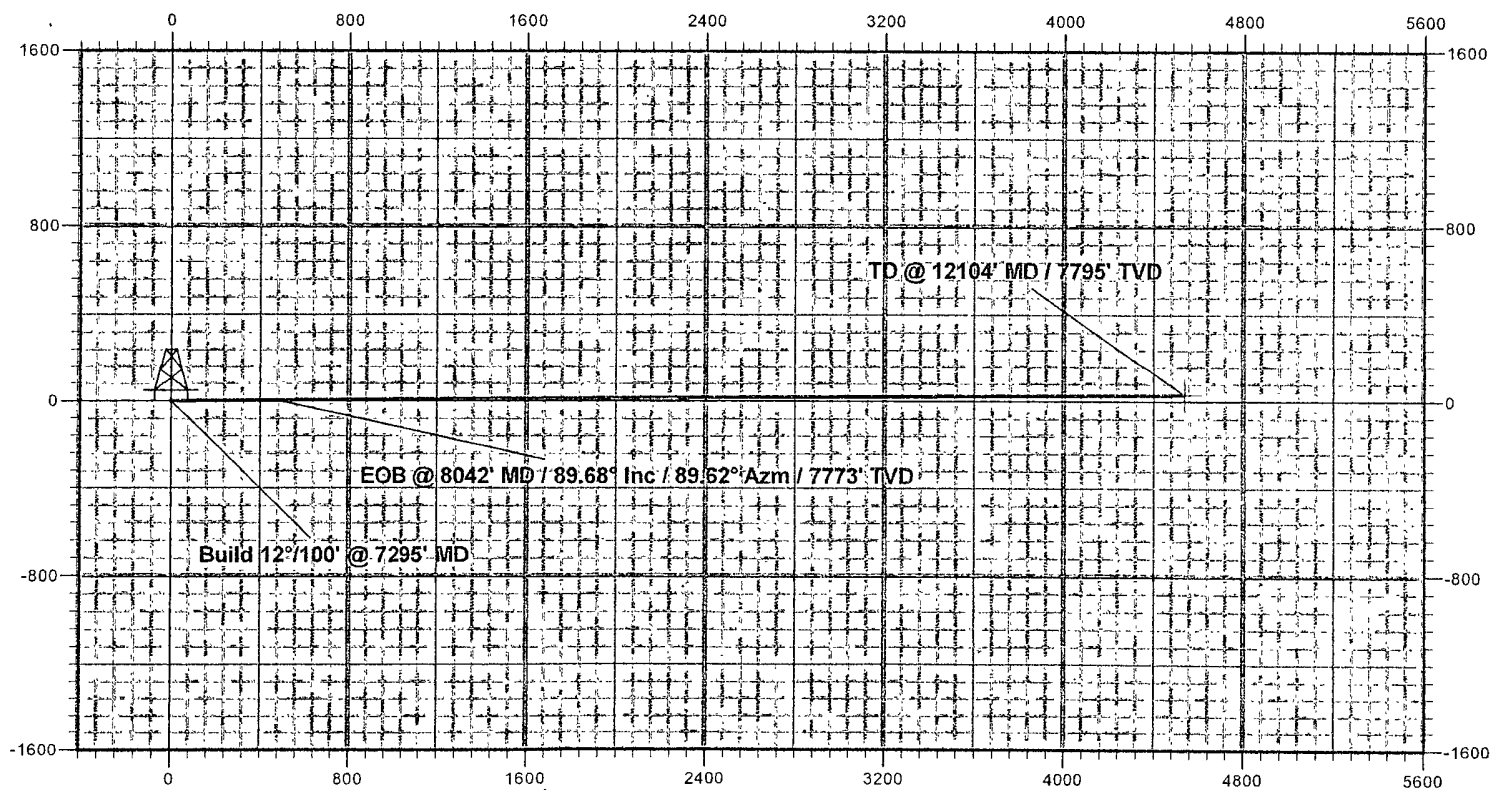
Strata Production Co.



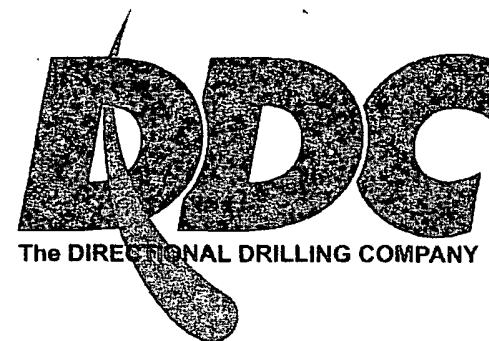
Eddy County New Mexico

Roadrunner Federal #1

Design #1



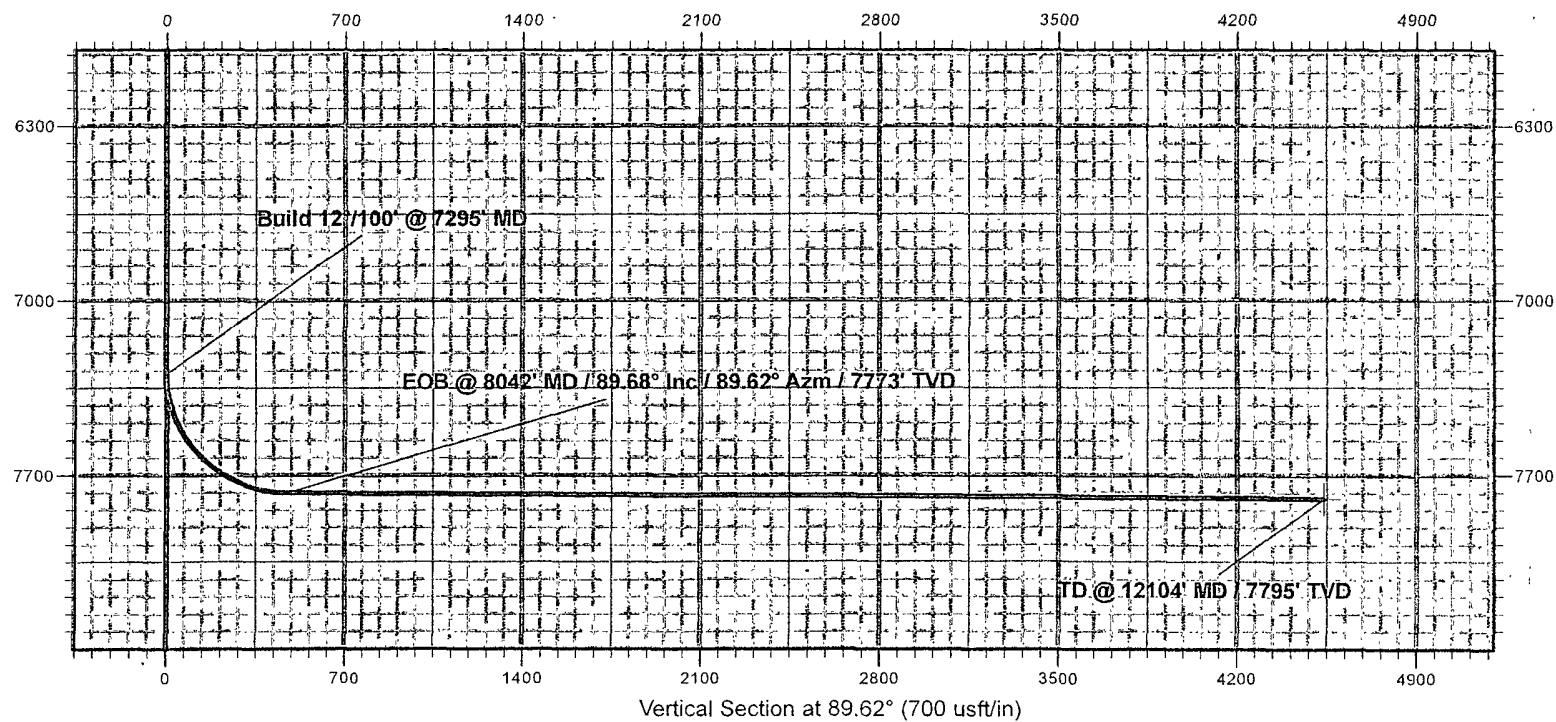
Strata Production Co.



Eddy County New Mexico

Roadrunner Federal #1

Design #1



Strata Production Co.

Eddy County New Mexico

Sec 25, T23S, R30E

Roadrunner Federal #1

Wellbore #1

Plan: Design #1

DDC Well Planning Report

12 May, 2011



DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Strata Production Co.
Project: Eddy County New Mexico
Site: Sec 25, T23S, R30E
Well: Roadrunner Federal #1
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Roadrunner Federal #1
TVD Reference: WELL @ 0 0usft (Original Well Elev)
MD Reference: WELL @ 0 0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 25, T23S, R30E		
Site Position:		Northing:	466,564.74 usft
From:	Lat/Long	Easting:	652,069.74 usft
Position Uncertainty:	0 0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 16' 54.280 N
		Longitude:	103° 50' 28.570 W
		Grid Convergence:	0.26 °

Well	Roadrunner Federal #1		
Well Position	+N/-S	0 0 usft	Northing: 466,564.74 usft
	+E/-W	0 0 usft	Easting: 652,069.74 usft
Position Uncertainty	0 0 usft	Wellhead Elevation:	Latitude: 32° 16' 54.280 N
			Longitude: 103° 50' 28.570 W
			Ground Level: 0.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	4/29/2011	(°) 7.73
			Dip Angle (°) 60.20
			Field Strength (nT) 48,660

Design	Design #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0 0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0 0	0 0
			Direction (°) 89.62

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,295.0	0.00	0.00	7,295.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,042.4	89.68	89.62	7,772.5	3.1	474.8	12.00	12.00	11.99	89.62	
12,103.7	89.68	89.62	7,794.8	30.0	4,536.0	0.00	0.00	0.00	0.00	PBHL Roadrunner I

DDC
Well Planning Report



Database: EDM 5000 1 Single User Db
Company: Strata Production Co.
Project: Eddy County New Mexico
Site: Sec.25, T23S, R30E
Well: Roadrunner Federal #1
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Roadrunner Federal #1
TVD Reference: WELL @ 0.0usft (Original Well Elev)
MD Reference: WELL @ 0.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

DDC
Well Planning Report



Database: EDM 5000.1 Single User Db
Company: Strata Production Co.
Project: Eddy County New Mexico
Site: Sec 25, T23S, R30E
Well: Roadrunner Federal #1
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Roadrunner Federal #1
TVD Reference: WELL @ 0 0usft (Original Well Elev)
MD Reference: WELL @ 0 0usft (Original Well Elev)
North Reference: Grd
Survey Calculation Method: Minimum Curvature

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
Build 12°/100' @ 7295' MD										
7,295.0	0.00	0.00	7,295.0	0.0	0.0	0.0	0.00	0.00	0.00	
7,300.0	0.60	89.62	7,300.0	0.0	0.0	0.0	12.00	12.00	0.00	
7,400.0	12.60	89.62	7,399.2	0.1	11.5	11.5	12.00	12.00	0.00	
7,500.0	24.60	89.62	7,493.8	0.3	43.3	43.3	12.00	12.00	0.00	
7,600.0	36.60	89.62	7,579.7	0.6	94.1	94.1	12.00	12.00	0.00	
7,700.0	48.60	89.62	7,653.2	1.1	161.7	161.7	12.00	12.00	0.00	
7,800.0	60.60	89.62	7,711.0	1.6	243.1	243.1	12.00	12.00	0.00	
7,900.0	72.60	89.62	7,750.6	2.2	334.7	334.7	12.00	12.00	0.00	
8,000.0	84.60	89.62	7,770.3	2.9	432.5	432.5	12.00	12.00	0.00	
EOB @ 8042' MD / 89.68° Inc / 89.62° Azm / 7773' TVD										
8,042.4	89.68	89.62	7,772.5	3.1	474.8	474.8	12.00	12.00	0.00	
8,100.0	89.68	89.62	7,772.8	3.5	532.5	532.5	0.00	0.00	0.00	
8,200.0	89.68	89.62	7,773.3	4.2	632.4	632.5	0.00	0.00	0.00	
8,300.0	89.68	89.62	7,773.9	4.8	732.4	732.5	0.00	0.00	0.00	
8,400.0	89.68	89.62	7,774.4	5.5	832.4	832.5	0.00	0.00	0.00	
8,500.0	89.68	89.62	7,775.0	6.2	932.4	932.5	0.00	0.00	0.00	
8,600.0	89.68	89.62	7,775.5	6.8	1,032.4	1,032.5	0.00	0.00	0.00	
8,700.0	89.68	89.62	7,776.1	7.5	1,132.4	1,132.5	0.00	0.00	0.00	
8,800.0	89.68	89.62	7,776.6	8.2	1,232.4	1,232.5	0.00	0.00	0.00	
8,900.0	89.68	89.62	7,777.2	8.8	1,332.4	1,332.5	0.00	0.00	0.00	
9,000.0	89.68	89.62	7,777.7	9.5	1,432.4	1,432.5	0.00	0.00	0.00	
9,100.0	89.68	89.62	7,778.3	10.1	1,532.4	1,532.4	0.00	0.00	0.00	
9,200.0	89.68	89.62	7,778.8	10.8	1,632.4	1,632.4	0.00	0.00	0.00	
9,300.0	89.68	89.62	7,779.4	11.5	1,732.4	1,732.4	0.00	0.00	0.00	
9,400.0	89.68	89.62	7,779.9	12.1	1,832.4	1,832.4	0.00	0.00	0.00	
9,500.0	89.68	89.62	7,780.5	12.8	1,932.4	1,932.4	0.00	0.00	0.00	
9,600.0	89.68	89.62	7,781.0	13.4	2,032.4	2,032.4	0.00	0.00	0.00	
9,700.0	89.68	89.62	7,781.6	14.1	2,132.4	2,132.4	0.00	0.00	0.00	
9,800.0	89.68	89.62	7,782.1	14.8	2,232.4	2,232.4	0.00	0.00	0.00	
9,900.0	89.68	89.62	7,782.7	15.4	2,332.4	2,332.4	0.00	0.00	0.00	
10,000.0	89.68	89.62	7,783.2	16.1	2,432.4	2,432.4	0.00	0.00	0.00	
10,100.0	89.68	89.62	7,783.8	16.8	2,532.4	2,532.4	0.00	0.00	0.00	
10,200.0	89.68	89.62	7,784.3	17.4	2,632.4	2,632.4	0.00	0.00	0.00	

DDC

Well Planning Report



Database: EDM 5000 1 Single User Db
 Company: Strata Production Co
 Project: Eddy County New Mexico
 Site: Sec 25, T23S, R30E
 Well: Roadrunner Federal #1
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference: Well Roadrunner Federal #1
 TVD Reference: WELL @ 0 0usft (Original Well Elev)
 MD Reference: WELL @ 0 0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

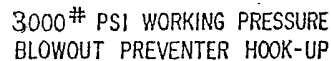
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	89.68	89.62	7,784.9	18.1	2,732.4	2,732.4	0.00	0.00	0.00
10,400.0	89.68	89.62	7,785.4	18.7	2,832.4	2,832.4	0.00	0.00	0.00
10,500.0	89.68	89.62	7,786.0	19.4	2,932.4	2,932.4	0.00	0.00	0.00
10,600.0	89.68	89.62	7,786.5	20.1	3,032.4	3,032.4	0.00	0.00	0.00
10,700.0	89.68	89.62	7,787.1	20.7	3,132.4	3,132.4	0.00	0.00	0.00
10,800.0	89.68	89.62	7,787.6	21.4	3,232.4	3,232.4	0.00	0.00	0.00
10,900.0	89.68	89.62	7,788.2	22.0	3,332.3	3,332.4	0.00	0.00	0.00
11,000.0	89.68	89.62	7,788.7	22.7	3,432.3	3,432.4	0.00	0.00	0.00
11,100.0	89.68	89.62	7,789.3	23.4	3,532.3	3,532.4	0.00	0.00	0.00
11,200.0	89.68	89.62	7,789.8	24.0	3,632.3	3,632.4	0.00	0.00	0.00
11,300.0	89.68	89.62	7,790.4	24.7	3,732.3	3,732.4	0.00	0.00	0.00
11,400.0	89.68	89.62	7,790.9	25.3	3,832.3	3,832.4	0.00	0.00	0.00
11,500.0	89.68	89.62	7,791.5	26.0	3,932.3	3,932.4	0.00	0.00	0.00
11,600.0	89.68	89.62	7,792.0	26.7	4,032.3	4,032.4	0.00	0.00	0.00
11,700.0	89.68	89.62	7,792.6	27.3	4,132.3	4,132.4	0.00	0.00	0.00
11,800.0	89.68	89.62	7,793.1	28.0	4,232.3	4,232.4	0.00	0.00	0.00
11,900.0	89.68	89.62	7,793.7	28.7	4,332.3	4,332.4	0.00	0.00	0.00
12,000.0	89.68	89.62	7,794.2	29.3	4,432.3	4,432.4	0.00	0.00	0.00
12,100.0	89.68	89.62	7,794.8	30.0	4,532.3	4,532.4	0.00	0.00	0.00
TD @ 12104' MD / 7795' TVD									
12,103.7	89.68	89.62	7,794.8	30.0	4,536.0	4,536.1	0.00	0.00	0.00

Design Targets

Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Shape										
PBHL Roadrunner Fe		0.00	0.00	7,794.8	30.0	4,536.0	466,594.74	656,605.74	32° 16' 54.368 N	103° 49' 35.731 W
- plan hits target center										
- Point										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,295.0	7,295.0	0.0	0.0	Build 12°/100' @ 7295' MD
8,042.4	7,772.5	3.1	474.8	EOB @ 8042' MD / 89.68° Inc / 89.62° Azm / 7773' TVD
12,103.7	7,794.8	30.0	4,536.0	TD @ 12104' MD / 7795' TVD



Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within _____ minutes. Also, the pumps are to be connected to the precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With _____ must be sufficient to close all the pressure-operated devices simultaneously, within _____ seconds; after closure, the accumulator fluid volume at least _____ percent of the original. (2) When requested, an additional source of _____ are shall be additional pumps operated by separate power and equal in performance capabilities.

hydraulic operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within _____ seconds; after closure, the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least _____ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer or regulator must be provided for operating the Hydrall preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to rom preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stairways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and relief line valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

* To include derrick floor mounted controls.

EXHIBIT "A"

BLOWOUT PREVENTER EQUIPMENT DESCRIPTION

All equipment should be at least 3,000 psi WP or higher unless otherwise specified.

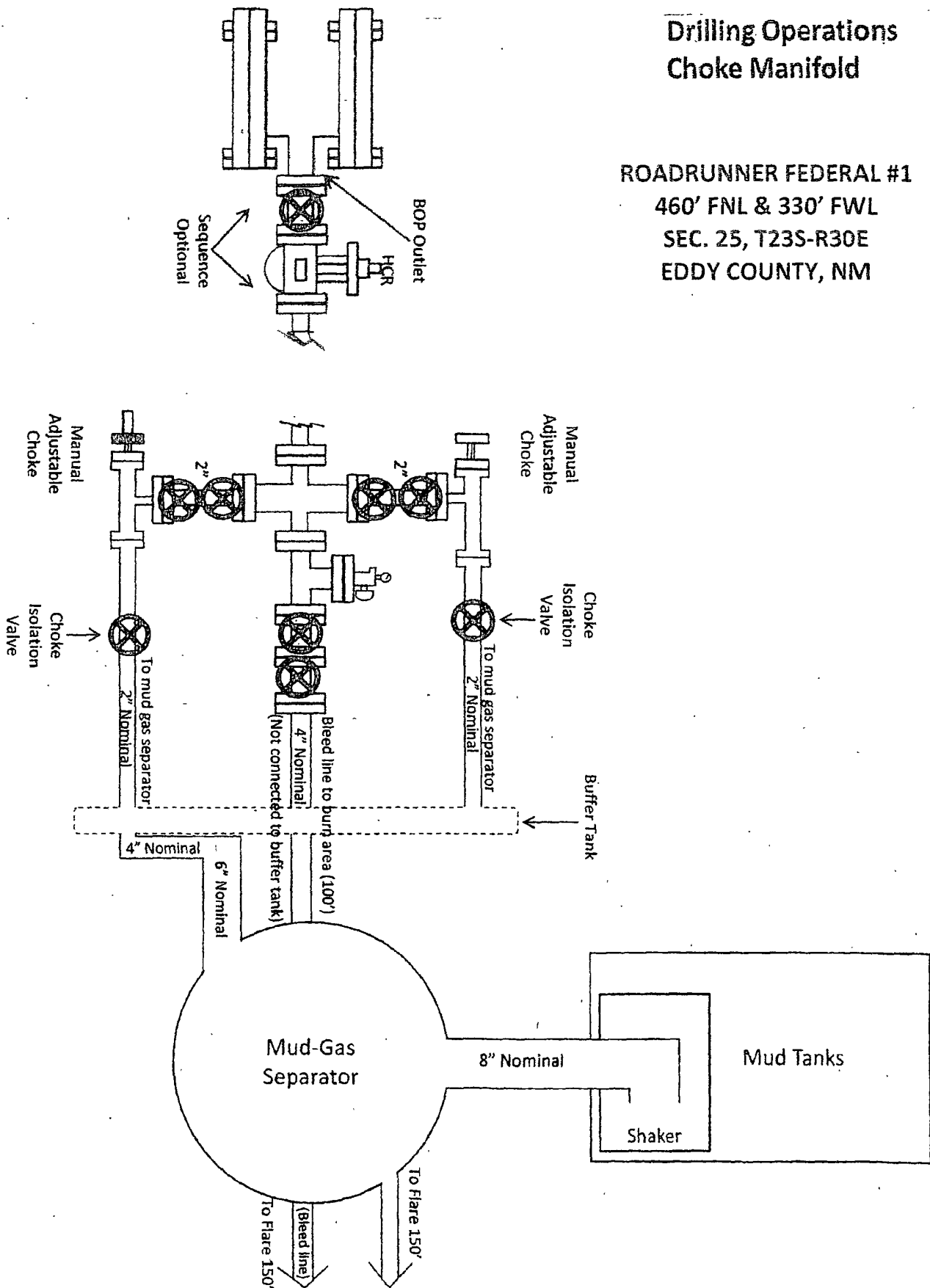
1. Bell nipple
2. Hydril bag type preventer
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 3" and one 2" (minimum) outlet.
5. 2" (minimum) flanged plug or gate valve.
6. 2"x 2"x 2" (minimum) flanged.
7. 3" gate valve.
8. Ram type pressure operated blowout preventer with pipe rams.
9. Flanged type casing head with one side outlet.
10. 2" threaded (or flanged) plug or gate valve. Flanged on 5000# WP, threaded on 3000# WP or less.
11. 3" flanged spacer spool.
12. 3"x 2"x 2"x 2" flanged cross.
13. 2" flanged plug or gate valve.
14. 2" flanged adjustable choke.
15. 2" threaded flange.
16. 2" XXH nipple.
17. 2" forged steel 90° Ell.
18. Cameron (or equal) threaded pressure gauge.
19. Threaded flange.
20. 2" flanged tee.
21. 2" flanged plug or gate valve.
22. 2 1/2" pipe, 300' to pit, anchored.
23. 2 1/2" SE valve.
24. 2 1/2" line to steel pit or separator.

NOTES:

- 1). Items 3, 4 and 8 may be replaced with double ram type preventer with side outlets between the rams.
- 2). The two valves next to the stack on the fill and kill line to be closed unless drill string is being pulled.
- 3). Kill line is for emergency use only. This connection shall not be used for filling.
- 4). Replacement pipe rams and blind rams shall be on location at all times.
- 5). Only type U, LSW and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.
- 6). Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.

Drilling Operations Choke Manifold

ROADRUNNER FEDERAL #1
460' FNL & 330' FWL
SEC. 25, T23S-R30E
EDDY COUNTY, NM



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator STRATA PRODUCTION CO OGRID # 21712
 38711 Well Name & # ROADRUNNER FEDERAL #1H Surface Type (F) (S) (P)
 Location: UL A, Sect 25, Township 23 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd ____/____/____ C101 reviewed ____/____/____

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FE, PROP CODE _____, WELL # _____, SIGNATURE _____

2. Inactive Well list as of: 8/26/31 # wells 53, # Inactive wells 2

a. District Grant APD but see number of inactive wells:

No letter required X, Sent Letter to Operator _____, to Santa Fe _____

3. Additional Bonding as of: 8/26/31

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator _____, To Santa Fe _____

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator _____, To Santa Fe _____

C. C102 YES _____, NO _____, Signature _____

1. Pool FORTY NINE ACRE; DEL, Code 24750

a. Dedicated acreage 160, What Units APCD

b. SUR. Location Standard X; Non-Standard Location _____

c. Well shares acres: Yes _____, No X, # of wells _____ plus this well # _____

2. 2nd. Operator in same acreage, Yes _____, No X

Agreement Letter _____, Disagreement letter _____

3. Intent to Directional Drill Yes X, No _____

a. Dedicated acreage 160, What Units APCD

b. Bottomhole Location Standard _____, Non-Standard Bottomhole _____

4. Downhole Commingle: Yes _____, No X

a. Pool #2 _____, Code _____, Acres _____

Pool #3 _____, Code _____, Acres _____

Pool #4 _____, Code _____, Acres _____

5. POTASH Area Yes _____, No FE

D. Blowout Preventer Yes X, No _____

E. H2S Yes X, No _____

F. C144 Pit Registration Yes _____, No _____, not

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes _____, No X, NSL # _____

2. Non-Standard Proration: Yes _____, No X, NSP # _____

3. Simultaneous Dedication: Yes _____, No X, SD # _____

Number of wells _____ Plus # _____

4. Injection order Yes _____, No X; PMX # _____ or WFX # _____

5. SWD order Yes _____, NO X; SWD # _____

6. DHC from SF _____; DHC-HOB _____; Holding _____

7. OCD Approval Date ____/____/____

API #30-014-- 39361

8. Reviewers _____