R-111-POTASH **Attachment 2**

13-664 TES 2-26-2014

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SHL:NM-114978 BHL: NM-0532769

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
ROADRUNNER FED COM #3H <40422>

2. Name of Operator STRATA PRODUCTION COMPANY <21712>

9. API Well No.
30-05-42114

3a. Address P.O. DRAWER 1030
ROSWELL, NM 88202-2107

3b. Phone No. *(include area code)*
575-622-1127

10. Field and Pool, or Exploratory
FORTY NINER RIDGE DELAWARE <24300>

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1980 FNL & 750 FEL
At proposed prod. zone 2310 FSL & 520 FEL

11. Sec., T. R. M. or Blk. and Survey or Area
SHL SEC 23-T23S-R30E
BHL SEC 14-T23S-R30E

14. Distance in miles and direction from nearest town or post office*
14 miles east of Loving, NM

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
SHL: 750
BHL: 520

16. No. of acres in lease
NM-114978 960 acres
NM - 0532769 320 acres

17. Spacing Unit dedicated to this well
160 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
SHL: 150'
BHL: 1790

19. Proposed Depth
TVD: 7665'
MD: 11755

20. BLM/BIA Bond No. on file
NM-1538

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
GL - 3253'

22. Approximate date work will start*
02/01/2014

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 Paul Ragsdale
Name *(Printed/Typed)* PAUL RAGSDALE
Date 09/10/2014

Title
OPERATIONS MANAGER

Approved by *(Signature)* /s/George MacDonell
Name *(Printed/Typed)*
FEB 20 2014

Title FIELD MANAGER
Office CARLSBAD FIELD 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

RECEIVED
FEB 25 2014
NMOCD ARTESIA

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (575) 622-1127
FACSIMILE (575) 623-3533

1301 NORTH SYCAMORE AVENUE
ROSWELL, NEW MEXICO 88201
www.stratanm.com

OPERATOR CERTIFICATION
Roadrunner Federal Com #3H

I hereby certify that I, or someone under my direct supervision, has inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Strata Production Company, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

EXECUTED THIS 02 DAY OF August, 2013

BY: Paul Ragsdale
Paul Ragsdale

TITLE: Operations Manager

ADDRESS: Strata Production Company
PO Drawer 1030
Roswell, NM 88202-1030
575-622-1127

Agents not directly employed by the operator must submit a letter from the operator authorizing that agent to act or file this application on their behalf.

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (575) 622-1127
FACSIMILE (575) 623-3533

1301 NORTH SYCAMORE AVENUE
ROSWELL, NEW MEXICO 88201
www.stratanm.com

August 1, 2013

Mr. Dan Morehouse
Mine Engineering Superintendent
Mosaic Potash Carlsbad, Inc
PO Box 71
Carlsbad, NM 88220

Re: Application to Drill in Potash Area
Roadrunner Federal Com #3H
Section 23-23S-30E
Eddy County, NM

Dear Mr. Morehouse,

In accordance with the State of New Mexico Oil Conservation Division Rule R-111-P, enclosed herewith please find the following for your review and further action:

1. Form 3160-3 Application For Permit To Drill
2. Form C-102 Well Location and Acreage Dedication Plat

State of New Mexico Public Land records reflect Mosaic Potash Carlsbad, Inc ("Mosaic") as potash lessee in the area of the captioned lands. Strata Production Company ("Strata"), a New Mexico Corporation, hereby advises you of its intention to drill the subject well at a location of 1980' FNL & 750' FEL of Section 23, T23S-R30E, Eddy County, New Mexico.

We have already met and discussed this location with the Carlsbad Bureau of Land Management. They have no issues with our proposed location and have given us the verbal approval to proceed. Please contact me if you have any questions or require additional information.

Regards,

Mitch Krakauskas
Landman

cc: Bureau of Land Management, Carlsbad, NM

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-42114	24750	FortyNiner Ridge Delaware

Property Code	Property Name	Well Number
~~38771~~ 40422	ROADRUNNER FEDERAL COM	3H

OGRID No.	Operator Name	Elevation
21712	STRATA PRODUCTION CO.	3253'

Surface Location

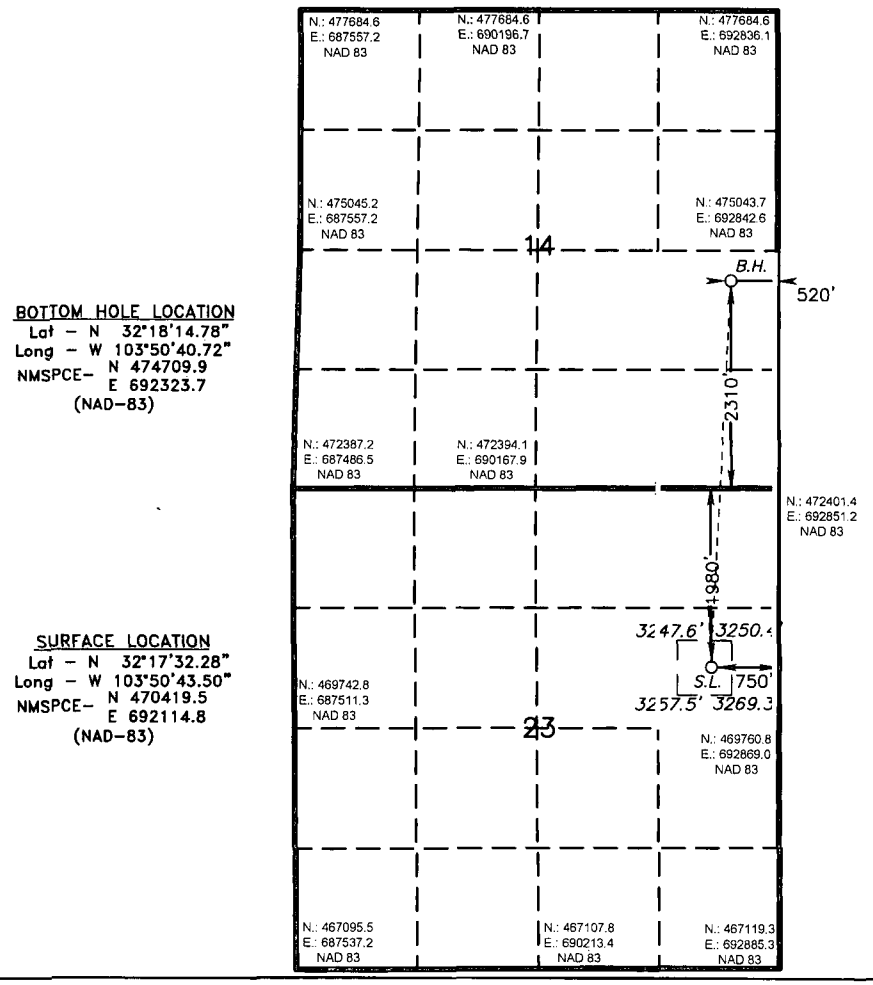
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	23 S	30 E		1980	NORTH	750	EAST	EDDY

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
I	14	23 S	30 E		2310	SOUTH	520	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			11755 2-20

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



BOTTOM HOLE LOCATION
Lat – N 32°18'14.78"
Long – W 103°50'40.72"
NMSPCE– N 474709.9
E 692323.7
(NAD-83)

SURFACE LOCATION
Lat – N 32°17'32.28"
Long – W 103°50'43.50"
NMSPCE– N 470419.5
E 692114.8
(NAD-83)

OPERATOR CERTIFICATION

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.

Paul Ragsdale 08-02-2013
Signature Date

Paul Ragsdale
Printed Name

pragsdale@stratanm.com
Email Address

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

MAY 23, 2013
Date Surveyed

Signature & Seal of Professional Surveyor

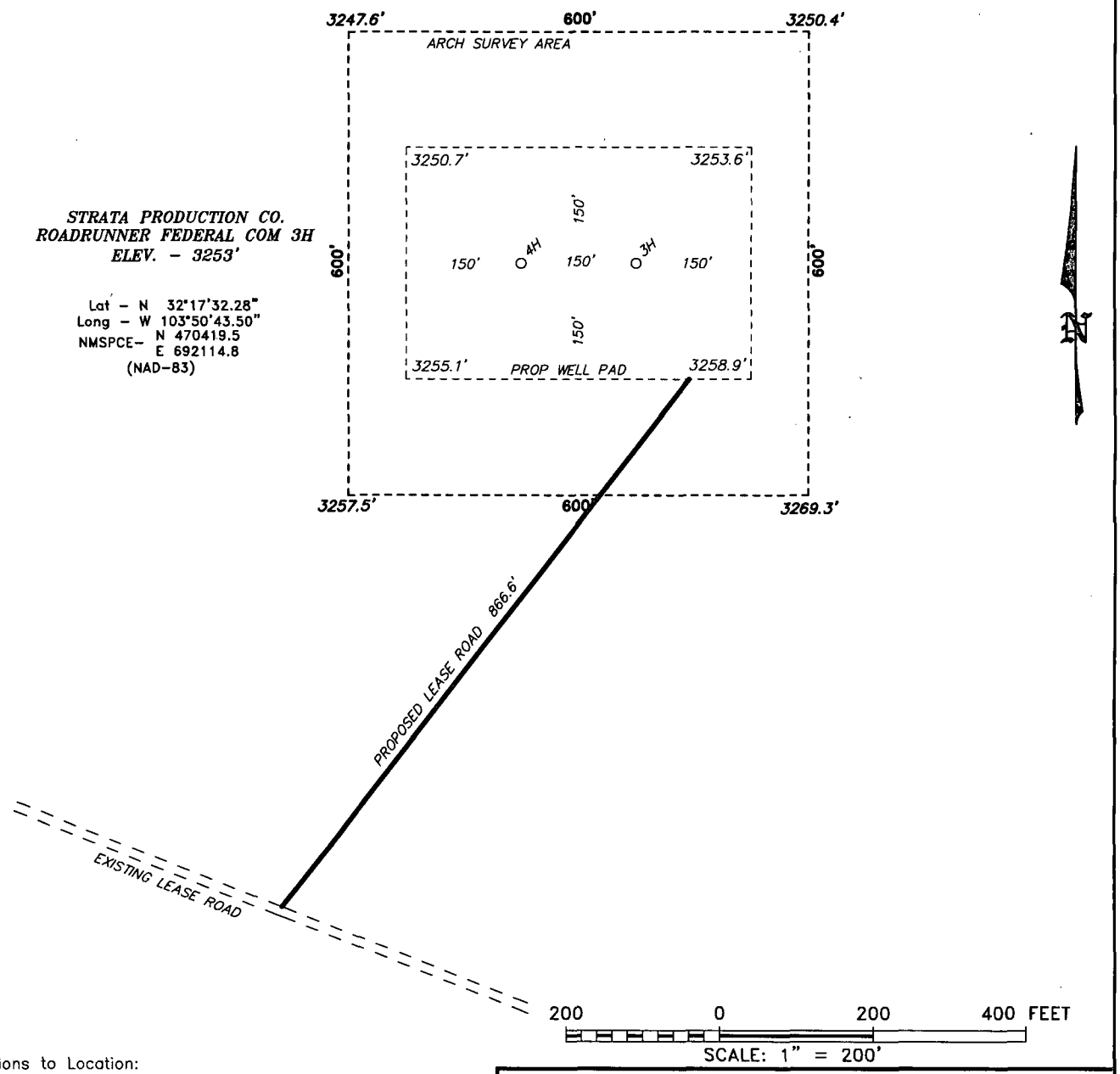
NEW MEXICO 7977 REGISTERED PROFESSIONAL SURVEYOR

No. 28538

Certificate No. GARY L. Jones 7977

BASIN SURVEYS 28538

SECTION 23, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**



STRATA PRODUCTION CO.
ROADRUNNER FEDERAL COM 3H
ELEV. - 3253'

Lat - N 32°17'32.28"
Long - W 103°50'43.50"
NMSPCE- N 470419.5
E 692114.8
(NAD-83)

200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HWY 128 AND MOBLEY, GO SOUTH ON MOBLEY FOR 0.5 MILES TO LEASE ROAD, ON LEASE RAOD GO SOUTHEASTERLY 2.5 MILES TURNING EAST 0.8 MILES TO PROPOSED LEASE ROAD.

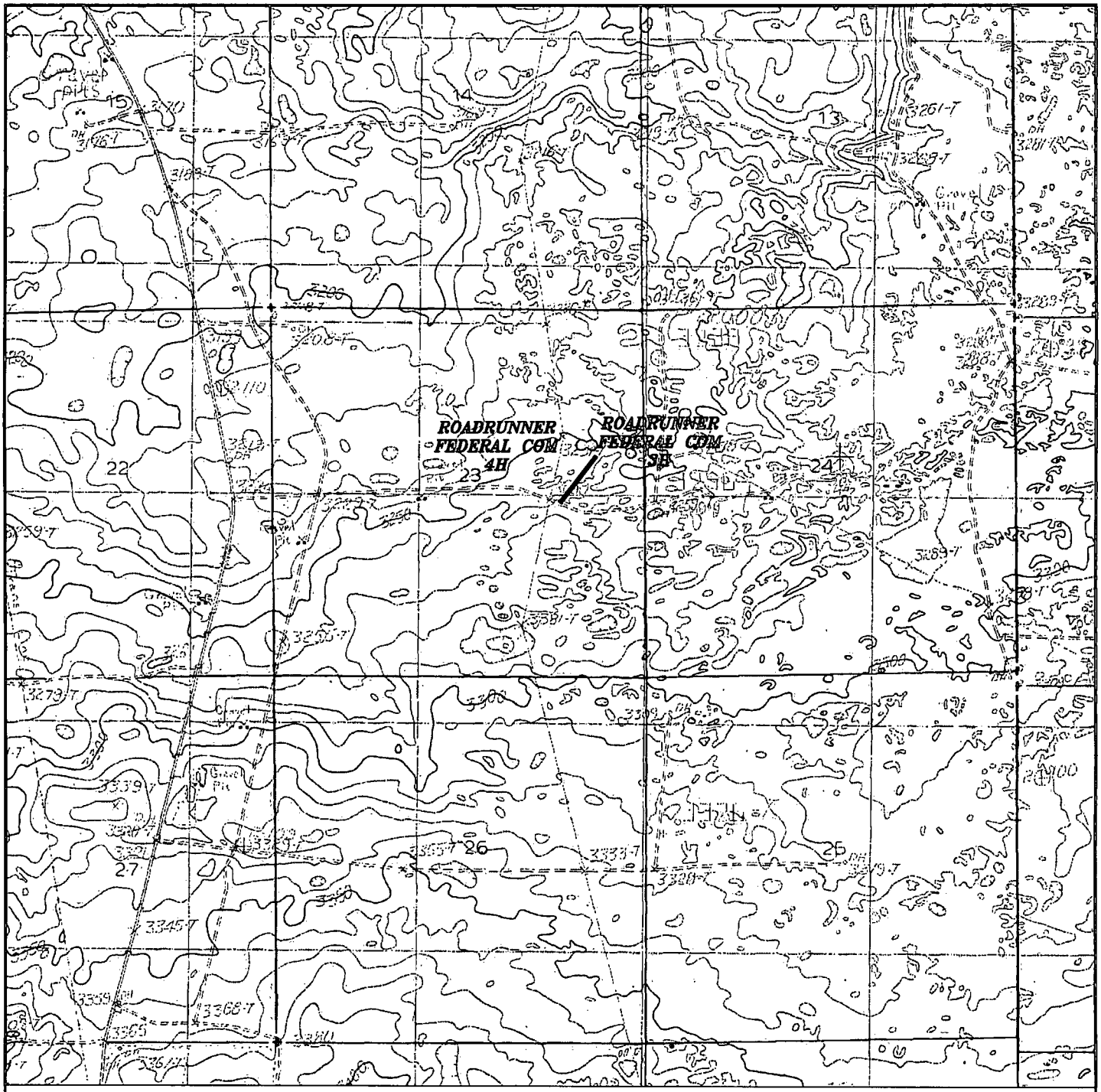
STRATA PRODUCTION CO.

REF: ROADRUNNER FEDERAL COM 3H / WELL PAD TOPO

THE ROADRUNNER FEDERAL COM 3H LOCATED 1980' FROM THE NORTH LINE AND 750' FROM THE EAST LINE OF SECTION 23, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 28538	Drawn By: J. SMALL		
Date: 06-03-2013	Disk: JMS 28538	Survey Date: 05-23-2013	Sheet 1 of 1 Sheets



ROADRUNNER FEDERAL COM 3H
Located 1980' FNL and 750' FEL
Section 23, Township 23 South, Range 30 East, N.M.P.M., Eddy County, New Mexico.

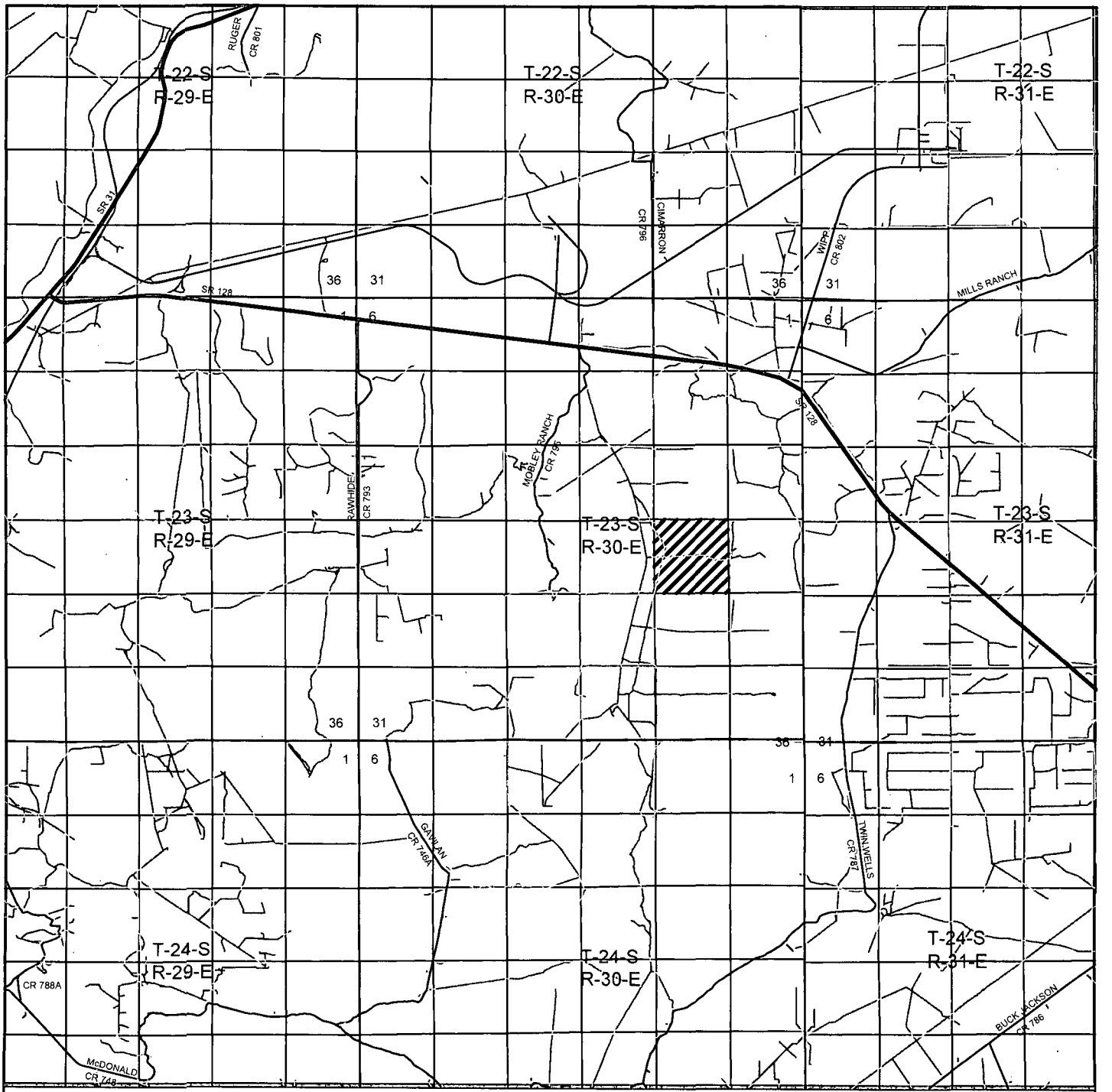
basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 28538
Survey Date: 05-23-2013
Scale: 1" = 2000'
Date: 06-03-2013

N

STRATA PRODUCTION CO.



ROADRUNNER FEDERAL COM 3H
Located 1980' FNL and 750' FEL
Section 23, Township 23 South, Range 30 East, N.M.P.M., Eddy County, New Mexico.

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1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 28538
Survey Date:	05-23-2013
Scale:	1" = 2 Miles
Date:	06-03-2013

N

STRATA PRODUCTION CO.

EXHIBIT "B"

ROADRUNNER FEDERAL COM 3H
Located 1980' FNL and 750' FEL
Section 23, Township 23 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 28538

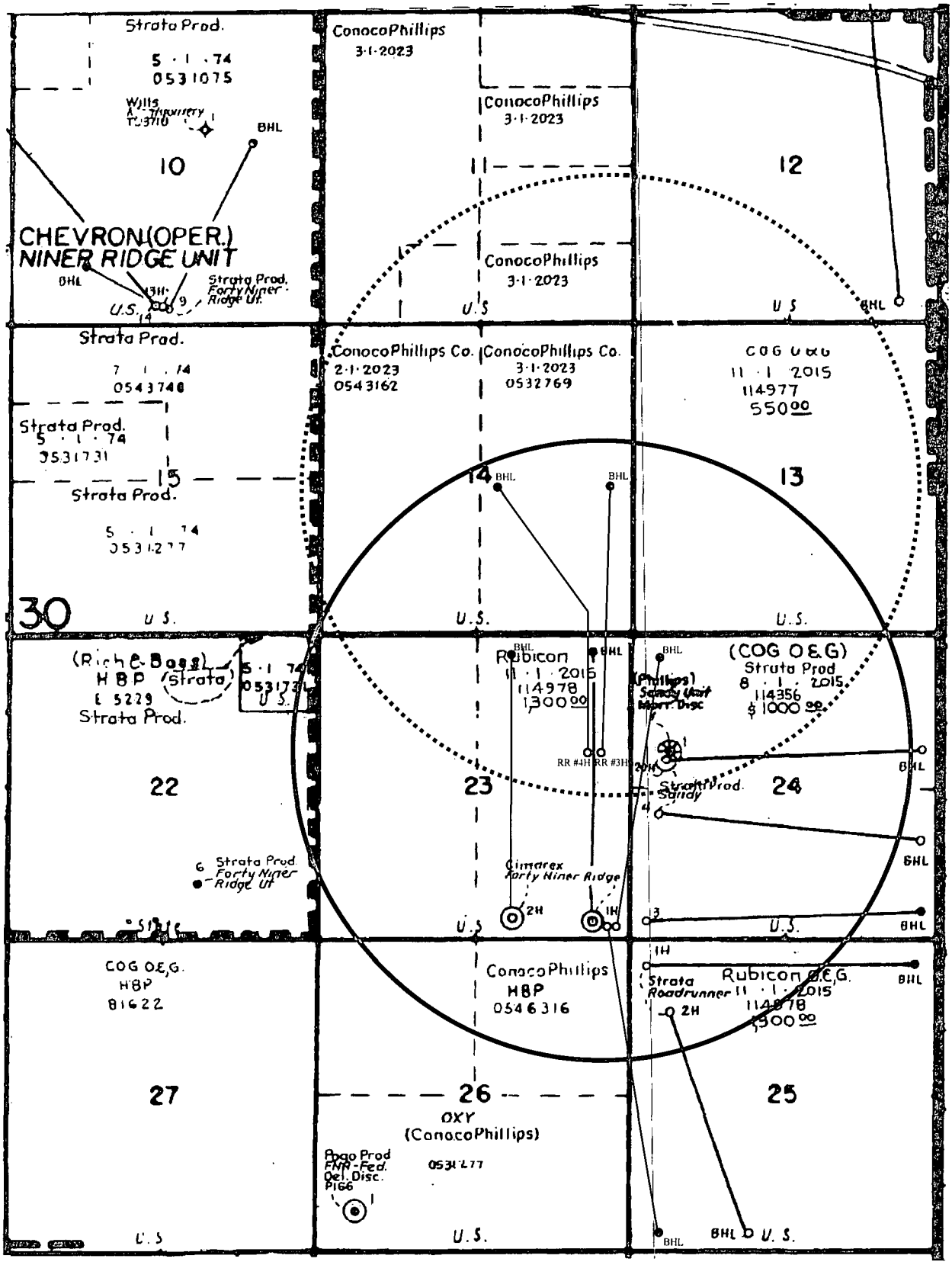
Scale: 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

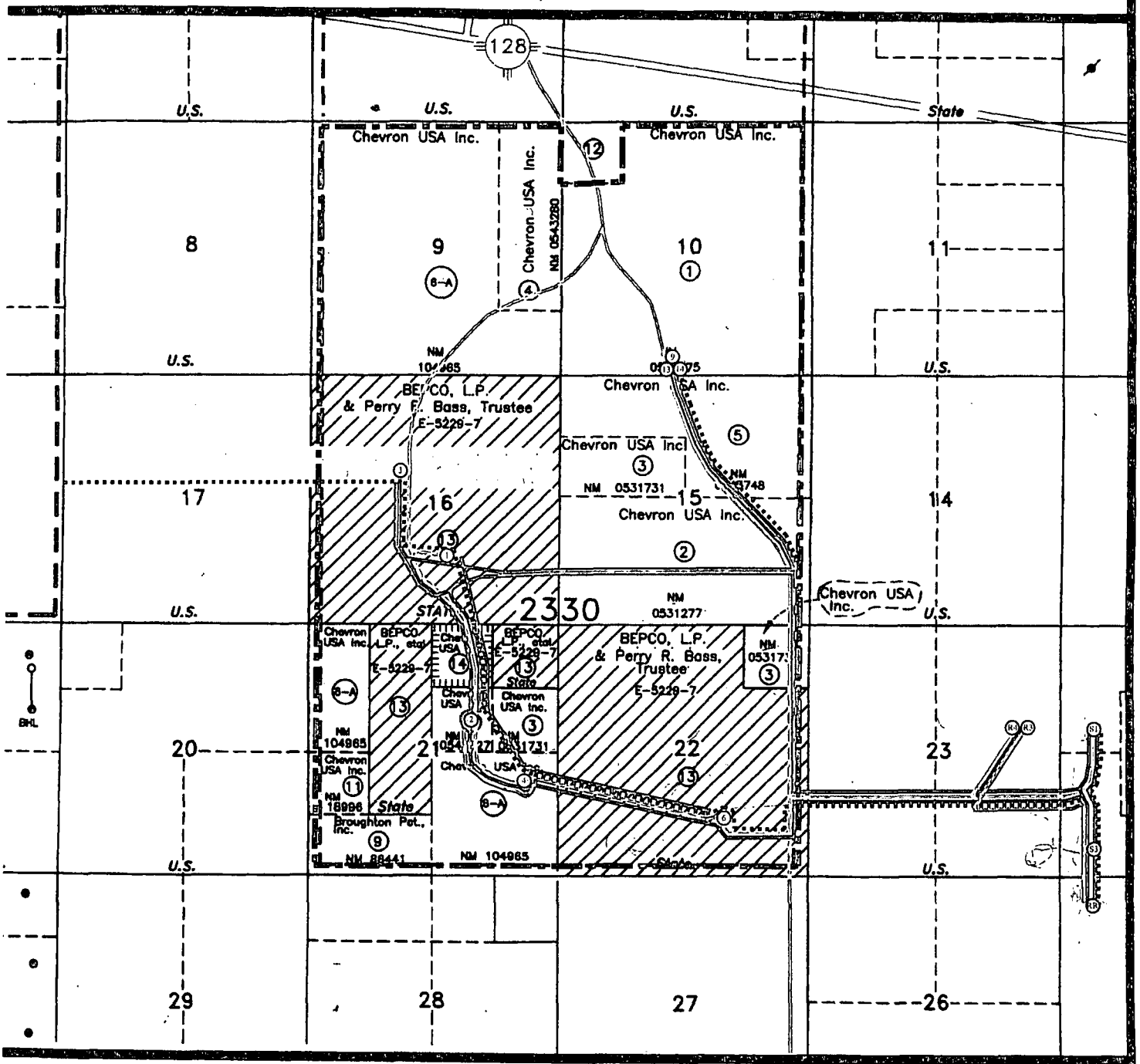
STRATA PRODUCTION CO.

EXHIBIT "C"
ONE MILE RADIUS MAP
ROADRUNNER FEDERAL COM #3H
1980' FNL & 750' FEL
SEC. 23 T23S-R30E
EDDY COUNTY, NEW MEXICO



FORTY–NINER RIDGE UNIT AREA
DELAWARE PARTICIPATING AREA
T–23–S, R–30–E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Attachment 1



= FEDERAL LAND

= STATE LAND

= PATENTED LAND

= PARTICIPATING AREA FOR THE DELAWARE FORMATION

ROADS

GAS FLOW LINE

PRODUCED WATER FLOW LINE

FLOW LINE

~~POWER LINE~~ 09-30-2013

WELL LOCATION

ATTACHMENT TO EXHIBIT "C"

STATUS OF WELLS WITHIN ONE MILE RADIUS

ROADRUNNER FEDERAL COM #3H
1980' FNL & 750' FEL
SEC. 23 T23S-R30E
EDDY COUNTY, NEW MEXICO

Operator	Well	Location	Status/Formation
Cimarex Energy	Fortyniner Ridge 23 #1H	Sec 23, T23S-R30E 330' FSL & 600' FEL	Producing/Bone Spring
Cimarex Energy	Fortyniner Ridge 23 #2H	Sec 23, T23S-R30E 390' FSL & 1980' FEL	Producing/Bone Spring
Cimarex Energy	Fortyniner Ridge 25 #1H	Sec 23, T23S-R30E 255' FSL & 250' FEL	Producing/Bone Spring
Cimarex Energy	Sandy Federal #20H	Sec 23, T23S-R30E 285' FSL & 250' FEL	Drilling/Bone Spring
Strata Production Co.	Sandy Federal #1	Sec 24, T23S-R30E 1980' FNL & 660' FWL	Producing/Delaware
Strata Production Co.	Sandy Federal #2	Sec 24, T23S-R30E 1979' FNL & 585' FWL	Proposed/Delaware
Strata Production Co.	Sandy Federal #3	Sec 24, T23S-R30E 330' FSL & 330' FWL	Proposed/Delaware
Strata Production Co.	Roadrunner Fed #1	Sec 25, T23S-R30E 460' FNL & 330' FWL	Producing/Delaware
Strata Production Co.	Roadrunner Fed #2	Sec 24, T23S-R30E 1220' FNL & 660' FWL	Proposed/Delaware

Attachment 4

REVISED PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
ROADRUNNER FEDERAL COM #3H
1980' FNL & 750' FEL
SECTION 23-23S-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:

	TVD	MD
Rustler	150'	150'
Top of Salt	470'	470'
Base of Salt	3659'	3659'
Delaware	3868'	3868'
KOP - curve	7187'	7187'
EOC	7665'	7937'
TD	7665'	11755'
Bone Spring	7738'	

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

Surface	150'	Fresh Water
Delaware	3900' - 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 ~450' and circulating cement back to surface. Potash will be protected by setting 9 5/8" casing at ~~3900~~ 3800' and circulating cement back to surface. A 8 3/4" hole will be drilled from the 9 5/8" casing shoe to the kick off point at 7187' and then curved to a target depth of 7665' in the Lower Brushy Canyon. The well will be drilled horizontally until TD is reached. A production string of 5 ½" casing will be run to TD and cemented back to surface.

4. Casing Program:

See COA

Hole Size	Depth	OD Csg	Weight,Grade,Collars,New/Used
17 1/2"	450'	13 3/8"	48#, H-40, STC, New
12 1/4"	3800' ~~3900'~~	9 5/8"	40#, J-55, STC, New
8 3/4"	11755'	5 1/2"	20#, HCP-110, LTC/BTC, New

On the 5 1/2" casing BTC will be run through the curve from 7100' - 8000'. 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 ~450' and cemented with 450 sacks Class C with 2% CaCl2, 14.8 lb/gal, 1.34 cu.ft. yield, 6.34 gal/sk H2O. Calculated with 100% excess. Cement in sufficient quantity to circulate to surface will be utilized.

Intermediate Casing: 9 5/8" casing will be set at ~~3900'~~ 3800' and cemented with 1100 sacks EconoCem HLC Cement with 5% Salt, 5 lb/bbl Kol-Seal plus 0.3% HR-800,12.9 lb/gal, 1.88 cu.ft yield, 10.58 gal/sk H2O. 250 sacks tail of Class C Cement 14.8 lb/gal, 1.33 yield, 6.32 gal/sk H2P. Calculated with 100% excess. Cement in sufficient quantity to circulate to surface will be utilized.

Production Casing:
It is proposed that 5 1/2" casing will be run from the surface to the total depth of the well at 11775'and cemented with 1200 sx of (35:65) Poz (Fly Ash):Class H Cement + 4% bwoc Bentonite + 5% bwoc MPA-5 + 0.2% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride + 5 lbs/sack LCM-1 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 0.125 lbs/sack Cello Flake + 106.5% Fresh Water. 12.5 density, 2.19 yield, 11.1 gal/sk H2O. 1000 sacks tail 50/50 Poz/Class H Cement + 0.3% bwoc FL-52 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 46.2% Fresh Water. 15.6 density, 1.21 yield, 5.21 gal/sk H2O. Calculated with 50% excess in the open hole and 10% excess in the cased annulus. Cement volumes are sufficient to circulate cement to the surface but will be recalculated using a fluid caliper.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit "A" will consist of a two ram type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). All 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. The 13 5/8" ~~,5M~~ 3M, BOP's will be nippled 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 3000 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). Low pressure tests at 250 psi will be conducted prior to the high pressure test.

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: 0-450' - fresh water with native mud sweeps. 8.4-8.9 lb/gal, LCM as needed
450'-~~3900'~~ 3800' brine water 10.0 lb/gal with LCM and gel sweeps
~~3900'~~ 3800'-7200' Cut brine 8.9-9.2 lb/gal with LCM and gel sweeps
7200'-11755' Cut brine 8.9-9.2 lb/gal with sliders and gel sweeps
Sufficient mud materials to maintain weight, viscosity and combat lost circulation will be kept on location.
Mud Monitoring Equipment shall include equipment to monitor the circulation system which shall include but not be limited to daily records of pump speeds, visual mud monitoring equipment to detect volume changes such as pit volumes, electronic/mechanical monitoring equipment for pit volume totalizers, stroke counters and flow sensors. Daily mud tests to determine, as applicable, density, viscosity, gel strength, filtration and pH shall be conducted. Gas detecting equipment will be utilized below the intermediate casing. Gas flare lines and mud-gas separators will be utilized as necessary.

See COA

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.

See COA

C. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 4 ½" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. Testing, Logging and Coring Program:

Two man mudlogging unit from 9 5/8" intermediate casing to TD and DLL-MSFL, CNL-Density, Gamma Ray, Caliper.

Mudlogging unit will be employed from approximately 3900' 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 blowout preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

See COA

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 February 1, 2014. Once commenced, the drilling operation should be finished in approximately 30 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.

11. Proposed Completion and Fracturing Operations

Once the well has been drilled and casing is cemented, the well will be completed using the "plug and perf" method where perforations will be placed at defined intervals and each interval will be fracture stimulated. It is anticipated that this well will have 8 intervals and each interval will be fractured with 5000 bbls of gelled fresh water carrying 200,000 lbs of 16-30 resin coated sand.
Prior to the frac job, a Cement Bond Log/ Gamma Ray may be run to determine cement competency.
Flowback of the frac water will either be treated and reused or will be sent to deep underground injection.

Weatherford®

Drilling Services

Proposal

STRATA PRODUCTION COMPANY

ROADRUNNER FEDERAL COM #3H

EDDY CO, NM

WELL FILE: **PLAN 1**

JULY 26, 2013

Weatherford International, Ltd.
P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
+1.432.561.8895 Fax
www.weatherford.com

Strata Production Company

Roadrunner Federal Com #3H
Eddy Co., NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	2.79	0.00	0.00	0.00	0.00	0.00	0.00	
2	7187.54	0.00	2.79	7187.54	0.00	0.00	0.00	0.00	0.00	
3	7937.54	90.00	2.79	7665.00	476.90	23.22	12.00	2.79	477.46	
4	11755.55	90.00	2.79	7665.00	4290.40	208.90	0.00	0.00	4295.48	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Roadrunner Federal Com #3H	0.00	0.00	470419.50	692114.80	32°17'32.321N	103°50'43.400W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	7665.00	4290.40	208.90	474709.90	692323.70	Point

KB ELEV: 3268
GL ELEV: 3253

SITE DETAILS

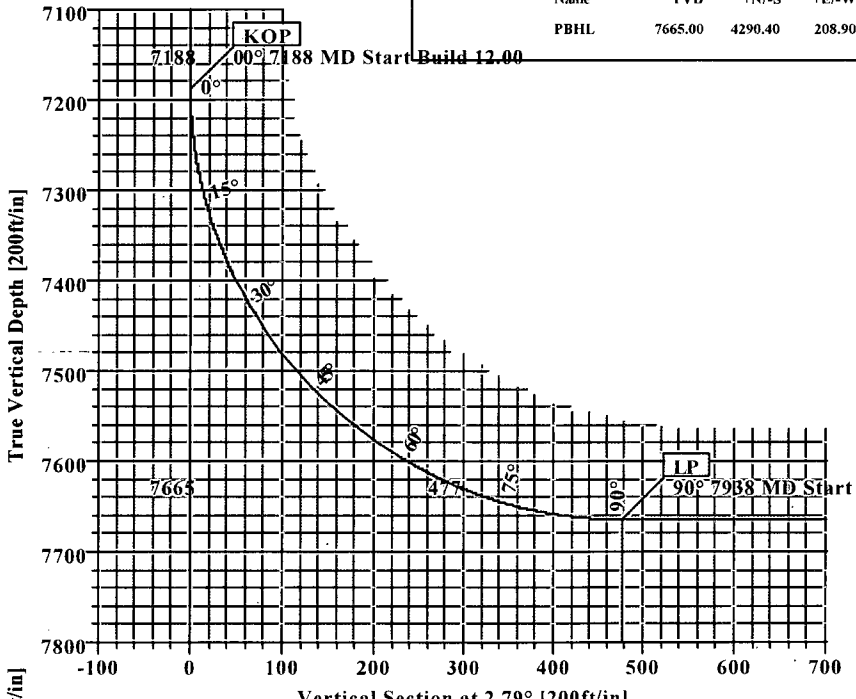
Roadrunner Federal Com #3H

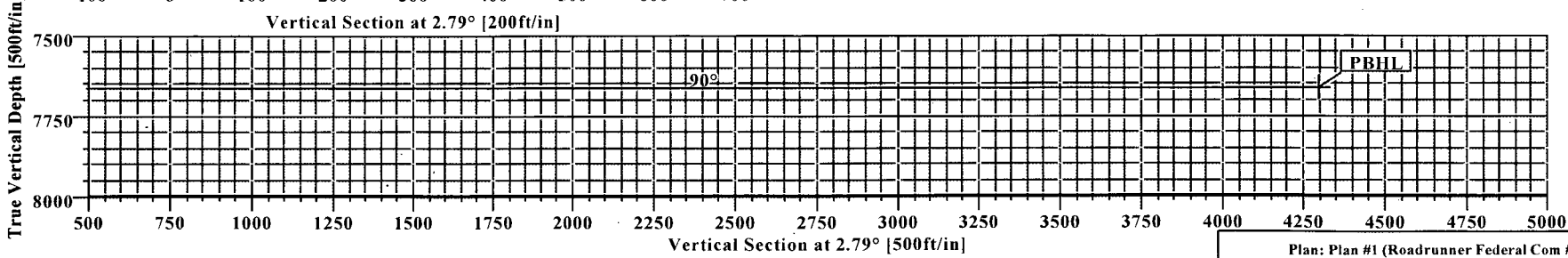
Site Centre Northing: 470419.50
Easting: 692114.80

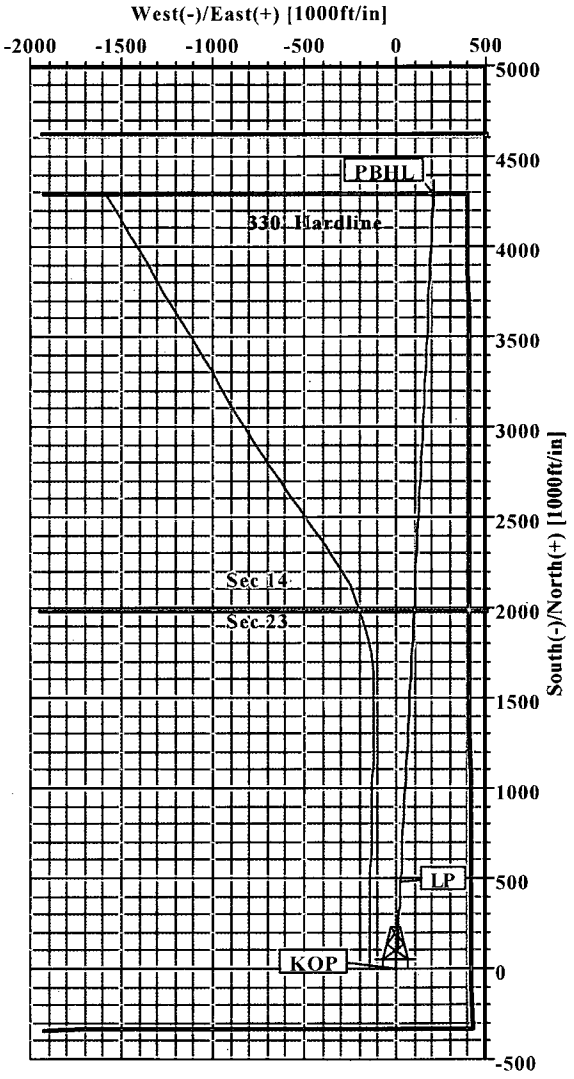
Ground Level: 3253.00
Positional Uncertainty: 0.00
Convergence: 0.26

LEGEND

Roadrunner Federal Com #4H (1)
1
Plan #1







Weatherford

Plan: Plan #1 (Roadrunner Federal Com #3H/1)
Created By: Russell W. Joyner Date: 7/26/2013

Weatherford
Wft Plan Report X Y's.

Weatherford

Company:	Strata Production Company	**Date:** 7/26/2013 **Time:** 08:49:47	**Page:** 1
Field:	Eddy Co, NM (Nad 83)	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H
Site:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0
Well:	Roadrunner Federal Com #3H	**Section (VS) Reference:**	Well (0.00N,0.00E,2.79Azi)
Wellpath: 1		**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Plan:	Plan #1	**Date Composed:**	7/26/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Site: Roadrunner Federal Com #3H

Site Position:		**Northing:**	470419.50 ft	**Latitude:**	32 17 32.321 N		
From:	Map	**Easting:**	692114.80 ft	**Longitude:**	103 50 43.400 W		
Position Uncertainty:	0.00 ft			**North Reference:**	Grid		
Ground Level:	3253.00 ft			**Grid Convergence:**	0.26 deg		

Well: Roadrunner Federal Com #3H **Slot Name:**

Well Position:	+N/-S 0.00 ft	**Northing:**	470419.50 ft	**Latitude:**	32 17 32.321 N		
	+E/-W 0.00 ft	**Easting :**	692114.80 ft	**Longitude:**	103 50 43.400 W		
Position Uncertainty:	0.00 ft						

Wellpath: 1		**Drilled From:**	Surface
		Tie-on Depth:	0.00 ft
Current Datum:	SITE **Height** 3268.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	5/15/2014	**Declination:**	7.36 deg
Field Strength:	48361 nT	**Mag Dip Angle:**	60.13 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	2.79

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7187.54	0.00	2.79	7187.54	0.00	0.00	0.00	0.00	0.00	0.00	
7937.54	90.00	2.79	7665.00	476.90	23.22	12.00	12.00	0.00	2.79	
11755.55	90.00	2.79	7665.00	4290.40	208.90	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
7100.00	0.00	2.79	7100.00	0.00	0.00	0.00	0.00	470419.50	692114.80	
7187.54	0.00	2.79	7187.54	0.00	0.00	0.00	0.00	470419.50	692114.80	KOP
7200.00	1.50	2.79	7200.00	0.16	0.01	0.16	12.00	470419.66	692114.81	
7300.00	13.50	2.79	7298.96	13.17	0.64	13.18	12.00	470432.67	692115.44	
7400.00	25.50	2.79	7393.06	46.44	2.26	46.50	12.00	470465.94	692117.06	
7500.00	37.50	2.79	7478.17	98.53	4.80	98.65	12.00	470518.03	692119.60	
7600.00	49.50	2.79	7550.58	167.15	8.14	167.35	12.00	470586.65	692122.94	
7700.00	61.50	2.79	7607.12	249.31	12.14	249.61	12.00	470668.81	692126.94	
7800.00	73.50	2.79	7645.33	341.42	16.62	341.82	12.00	470760.92	692131.42	
7900.00	85.50	2.79	7663.53	439.45	21.40	439.97	12.00	470858.95	692136.20	
7937.54	90.00	2.79	7665.00	476.90	23.22	477.46	12.00	470896.40	692138.02	LP
8000.00	90.00	2.79	7665.00	539.29	26.26	539.93	0.00	470958.79	692141.06	
8100.00	90.00	2.79	7665.00	639.17	31.12	639.93	0.00	471058.67	692145.92	
8200.00	90.00	2.79	7665.00	739.05	35.98	739.93	0.00	471158.55	692150.78	
8300.00	90.00	2.79	7665.00	838.94	40.85	839.93	0.00	471258.44	692155.65	
8400.00	90.00	2.79	7665.00	938.82	45.71	939.93	0.00	471358.32	692160.51	
8500.00	90.00	2.79	7665.00	1038.70	50.57	1039.93	0.00	471458.20	692165.37	
8600.00	90.00	2.79	7665.00	1138.58	55.44	1139.93	0.00	471558.08	692170.24	
8700.00	90.00	2.79	7665.00	1238.46	60.30	1239.93	0.00	471657.96	692175.10	
8800.00	90.00	2.79	7665.00	1338.34	65.16	1339.93	0.00	471757.84	692179.96	
8900.00	90.00	2.79	7665.00	1438.23	70.03	1439.93	0.00	471857.73	692184.83	
9000.00	90.00	2.79	7665.00	1538.11	74.89	1539.93	0.00	471957.61	692189.69	
9100.00	90.00	2.79	7665.00	1637.99	79.75	1639.93	0.00	472057.49	692194.55	

Weatherford
Wft Plan Report X Y's.

Weatherford

Company:	Strata Production Company	**Date:** 7/26/2013 **Time:** 08:49:47	**Page:** 2
Field:	Eddy Co, NM (Nad 83)	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H
Site:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0
Well:	Roadrunner Federal Com #3H	**Section (VS) Reference:**	Well (0.00N,0.00E,2.79Azi)
Wellpath: 1		**Survey Calculation Method:**	Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
9200.00	90.00	2.79	7665.00	1737.87	84.62	1739.93	0.00	472157.37	692199.42	
9300.00	90.00	2.79	7665.00	1837.75	89.48	1839.93	0.00	472257.25	692204.28	
9400.00	90.00	2.79	7665.00	1937.63	94.34	1939.93	0.00	472357.13	692209.14	
9500.00	90.00	2.79	7665.00	2037.52	99.21	2039.93	0.00	472457.02	692214.01	
9600.00	90.00	2.79	7665.00	2137.40	104.07	2139.93	0.00	472556.90	692218.87	
9700.00	90.00	2.79	7665.00	2237.28	108.93	2239.93	0.00	472656.78	692223.73	
9800.00	90.00	2.79	7665.00	2337.16	113.80	2339.93	0.00	472756.66	692228.60	
9900.00	90.00	2.79	7665.00	2437.04	118.66	2439.93	0.00	472856.54	692233.46	
10000.00	90.00	2.79	7665.00	2536.92	123.52	2539.93	0.00	472956.42	692238.32	
10100.00	90.00	2.79	7665.00	2636.81	128.39	2639.93	0.00	473056.31	692243.19	
10200.00	90.00	2.79	7665.00	2736.69	133.25	2739.93	0.00	473156.19	692248.05	
10300.00	90.00	2.79	7665.00	2836.57	138.11	2839.93	0.00	473256.07	692252.91	
10400.00	90.00	2.79	7665.00	2936.45	142.98	2939.93	0.00	473355.95	692257.78	
10500.00	90.00	2.79	7665.00	3036.33	147.84	3039.93	0.00	473455.83	692262.64	
10600.00	90.00	2.79	7665.00	3136.21	152.70	3139.93	0.00	473555.71	692267.50	
10700.00	90.00	2.79	7665.00	3236.10	157.57	3239.93	0.00	473655.60	692272.37	
10800.00	90.00	2.79	7665.00	3335.98	162.43	3339.93	0.00	473755.48	692277.23	
10900.00	90.00	2.79	7665.00	3435.86	167.29	3439.93	0.00	473855.36	692282.09	
11000.00	90.00	2.79	7665.00	3535.74	172.16	3539.93	0.00	473955.24	692286.96	
11100.00	90.00	2.79	7665.00	3635.62	177.02	3639.93	0.00	474055.12	692291.82	
11200.00	90.00	2.79	7665.00	3735.50	181.88	3739.93	0.00	474155.00	692296.68	
11300.00	90.00	2.79	7665.00	3835.39	186.75	3839.93	0.00	474254.89	692301.55	
11400.00	90.00	2.79	7665.00	3935.27	191.61	3939.93	0.00	474354.77	692306.41	
11500.00	90.00	2.79	7665.00	4035.15	196.47	4039.93	0.00	474454.65	692311.27	
11600.00	90.00	2.79	7665.00	4135.03	201.34	4139.93	0.00	474554.53	692316.14	
11700.00	90.00	2.79	7665.00	4234.91	206.20	4239.93	0.00	474654.41	692321.00	
11755.55	90.00	2.79	7665.00	4290.40	208.90	4295.48	0.00	474709.90	692323.70	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec	<--- Longitude ---> Deg Min Sec
PBHL			7665.00	4290.40	208.90	474709.90	692323.70	32 18 14.768 N	103 50 40.738 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
7187.54	7187.54	KOP
7937.54	7665.00	LP
11755.55	7665.00	PBHL

Weatherford
Anticollision Report

Weatherford

Company:	Strata Production Company	**Date:** 7/26/2013	**Time:** 08:56:09	**Page:**	1
Field:	Eddy Co, NM (Nad 83)				
Reference Site:	Roadrunner Federal Com #3H	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H		
Reference Well:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0		
Reference Wellpath:				**Db:**	Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria		**Reference:**	Plan: Plan #1
Interpolation Method:	MD + Stations **Interval:** 100.00 ft	**Error Model:**	ISCWSA Ellipse
Depth Range:	0.00 to 13456.76 ft	**Scan Method:**	Closest Approach 3D
Maximum Radius:	10000.00 ft	**Error Surface:**	Ellipse

Plan:	Plan #1	**Date Composed:**	7/26/2013
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Summary

<---------- Offset Wellpath ----------> Site	Well	Wellpath	Reference MD ft	Offset MD ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
Roadrunner Federal C	Roadrunner Federal C	V0 Plan: Plan #1 V1	9000.00	8996.39	198.72	134.07	3.07	

Site: Roadrunner Federal Com #4H
Well: Roadrunner Federal Com #4H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
0.00	0.00	2.00	2.00	0.00	0.00	270.04	0.10	-150.10	150.10	150.10	78565.38	
100.00	100.00	102.00	102.00	0.10	0.10	270.04	0.10	-150.10	150.10	149.90	767.59	
200.00	200.00	202.00	202.00	0.32	0.32	270.04	0.10	-150.10	150.10	149.45	232.68	
300.00	300.00	302.00	302.00	0.55	0.55	270.04	0.10	-150.10	150.10	149.01	137.13	
400.00	400.00	402.00	402.00	0.77	0.77	270.04	0.10	-150.10	150.10	148.56	97.21	
500.00	500.00	502.00	502.00	0.99	1.00	270.04	0.10	-150.10	150.10	148.11	75.29	
600.00	600.00	602.00	602.00	1.22	1.22	270.04	0.10	-150.10	150.10	147.66	61.44	
700.00	700.00	702.00	702.00	1.44	1.45	270.04	0.10	-150.10	150.10	147.21	51.89	
800.00	800.00	802.00	802.00	1.67	1.67	270.04	0.10	-150.10	150.10	146.76	44.91	
900.00	900.00	902.00	902.00	1.89	1.90	270.04	0.10	-150.10	150.10	146.31	39.59	
1000.00	1000.00	1002.00	1002.00	2.12	2.12	270.04	0.10	-150.10	150.10	145.86	35.39	
1100.00	1100.00	1102.00	1102.00	2.34	2.35	270.04	0.10	-150.10	150.10	145.41	32.00	
1200.00	1200.00	1202.00	1202.00	2.57	2.57	270.04	0.10	-150.10	150.10	144.96	29.20	
1300.00	1300.00	1302.00	1302.00	2.79	2.80	270.04	0.10	-150.10	150.10	144.51	26.85	
1400.00	1400.00	1402.00	1402.00	3.02	3.02	270.04	0.10	-150.10	150.10	144.06	24.85	
1500.00	1500.00	1502.00	1502.00	3.24	3.25	270.04	0.10	-150.10	150.10	143.61	23.13	
1600.00	1600.00	1602.00	1602.00	3.47	3.47	270.04	0.10	-150.10	150.10	143.16	21.63	
1700.00	1700.00	1702.00	1702.00	3.69	3.70	270.04	0.10	-150.10	150.10	142.71	20.32	
1800.00	1800.00	1802.00	1802.00	3.92	3.92	270.04	0.10	-150.10	150.10	142.26	19.15	
1900.00	1900.00	1902.00	1902.00	4.14	4.15	270.04	0.10	-150.10	150.10	141.81	18.11	
2000.00	2000.00	2002.00	2002.00	4.37	4.37	270.04	0.10	-150.10	150.10	141.36	17.18	
2100.00	2100.00	2102.00	2102.00	4.59	4.60	270.04	0.10	-150.10	150.10	140.91	16.34	
2200.00	2200.00	2202.00	2202.00	4.82	4.82	270.04	0.10	-150.10	150.10	140.46	15.58	
2300.00	2300.00	2302.00	2302.00	5.04	5.04	270.04	0.10	-150.10	150.10	140.01	14.88	
2400.00	2400.00	2402.00	2402.00	5.27	5.27	270.04	0.10	-150.10	150.10	139.57	14.25	
2500.00	2500.00	2502.00	2502.00	5.49	5.49	270.04	0.10	-150.10	150.10	139.12	13.66	
2600.00	2600.00	2602.00	2602.00	5.71	5.72	270.04	0.10	-150.10	150.10	138.67	13.13	
2700.00	2700.00	2702.00	2702.00	5.94	5.94	270.04	0.10	-150.10	150.10	138.22	12.63	
2800.00	2800.00	2802.00	2802.00	6.16	6.17	270.04	0.10	-150.10	150.10	137.77	12.17	
										137.32	11.74	

Weatherford
Anticollision Report

Weatherford

Company:	Strata Production Company	**Date:** 7/26/2013	**Time:** 08:56:09	**Page:**	2
Field:	Eddy Co, NM (Nad 83)				
Reference Site:	Roadrunner Federal Com #3H	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H		
Reference Well:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0		
Reference Wellpath:				**Db:**	Sybase

Site: Roadrunner Federal Com #4H
Well: Roadrunner Federal Com #4H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
3600.00	3600.00	3602.00	3602.00	7.96	7.97	270.04	0.10	-150.10	150.10	134.17	9.42	
3700.00	3700.00	3702.00	3702.00	8.19	8.19	270.04	0.10	-150.10	150.10	133.72	9.16	
3800.00	3800.00	3802.00	3802.00	8.41	8.42	270.04	0.10	-150.10	150.10	133.27	8.92	
3900.00	3900.00	3902.00	3902.00	8.64	8.64	270.04	0.10	-150.10	150.10	132.82	8.69	
4000.00	4000.00	4002.00	4002.00	8.86	8.87	270.04	0.10	-150.10	150.10	132.37	8.47	
4100.00	4100.00	4102.00	4102.00	9.09	9.09	270.04	0.10	-150.10	150.10	131.92	8.26	
4200.00	4200.00	4202.00	4202.00	9.31	9.32	270.04	0.10	-150.10	150.10	131.47	8.06	
4300.00	4300.00	4302.00	4302.00	9.54	9.54	270.04	0.10	-150.10	150.10	131.02	7.87	
4400.00	4400.00	4402.00	4402.00	9.76	9.76	270.04	0.10	-150.10	150.10	130.57	7.69	
4500.00	4500.00	4502.00	4502.00	9.99	9.99	270.04	0.10	-150.10	150.10	130.13	7.51	
4600.00	4600.00	4602.00	4602.00	10.21	10.21	270.04	0.10	-150.10	150.10	129.68	7.35	
4700.00	4700.00	4702.00	4702.00	10.43	10.44	270.04	0.10	-150.10	150.10	129.23	7.19	
4800.00	4800.00	4802.00	4802.00	10.66	10.66	270.04	0.10	-150.10	150.10	128.78	7.04	
4900.00	4900.00	4902.00	4902.00	10.88	10.89	270.04	0.10	-150.10	150.10	128.33	6.89	
5000.00	5000.00	5002.00	5002.00	11.11	11.11	270.04	0.10	-150.10	150.10	127.88	6.75	
5100.00	5100.00	5102.00	5102.00	11.33	11.34	270.04	0.10	-150.10	150.10	127.43	6.62	
5200.00	5200.00	5202.00	5202.00	11.56	11.56	270.04	0.10	-150.10	150.10	126.98	6.49	
5300.00	5300.00	5302.00	5302.00	11.78	11.79	270.04	0.10	-150.10	150.10	126.53	6.37	
5400.00	5400.00	5402.00	5402.00	12.01	12.01	270.04	0.10	-150.10	150.10	126.08	6.25	
5500.00	5500.00	5502.00	5502.00	12.23	12.24	270.04	0.10	-150.10	150.10	125.63	6.13	
5600.00	5600.00	5602.00	5602.00	12.46	12.46	270.04	0.10	-150.10	150.10	125.18	6.02	
5700.00	5700.00	5702.00	5702.00	12.68	12.69	270.04	0.10	-150.10	150.10	124.73	5.92	
5800.00	5800.00	5802.00	5802.00	12.91	12.91	270.04	0.10	-150.10	150.10	124.28	5.81	
5900.00	5900.00	5902.00	5902.00	13.13	13.14	270.04	0.10	-150.10	150.10	123.83	5.71	
6000.00	6000.00	6002.00	6002.00	13.36	13.36	270.04	0.10	-150.10	150.10	123.38	5.62	
6100.00	6100.00	6102.00	6102.00	13.58	13.59	270.04	0.10	-150.10	150.10	122.93	5.52	
6200.00	6200.00	6202.00	6202.00	13.81	13.81	270.04	0.10	-150.10	150.10	122.48	5.44	
6300.00	6300.00	6302.00	6302.00	14.03	14.04	270.04	0.10	-150.10	150.10	122.03	5.35	
6400.00	6400.00	6402.00	6402.00	14.26	14.26	270.04	0.10	-150.10	150.10	121.58	5.26	
6500.00	6500.00	6502.00	6502.00	14.48	14.49	270.04	0.10	-150.10	150.10	121.13	5.18	
6600.00	6600.00	6602.00	6602.00	14.71	14.71	270.04	0.10	-150.10	150.10	120.68	5.10	
6700.00	6700.00	6702.00	6702.00	14.93	14.93	270.04	0.10	-150.10	150.10	120.24	5.03	
6800.00	6800.00	6802.00	6802.00	15.15	15.16	270.04	0.10	-150.10	150.10	119.79	4.95	
6900.00	6900.00	6902.00	6902.00	15.38	15.38	270.04	0.10	-150.10	150.10	119.34	4.88	
7000.00	7000.00	7002.00	7002.00	15.60	15.61	270.04	0.10	-150.10	150.10	118.89	4.81	
7100.00	7100.00	7102.00	7102.00	15.83	15.83	270.04	0.10	-150.10	150.10	118.44	4.74	
7187.54	7187.54	7189.55	7189.55	16.03	16.03	270.04	0.10	-150.10	150.10	118.04	4.68	
7200.00	7200.00	7202.08	7202.07	16.05	16.06	267.27	0.32	-150.10	150.10	117.99	4.67	
7225.00	7224.96	7227.20	7227.16	16.11	16.11	267.32	1.75	-150.07	150.14	117.92	4.66	
7250.00	7249.82	7252.32	7252.12	16.16	16.17	267.38	4.49	-150.02	150.22	117.89	4.65	
7275.00	7274.51	7277.44	7276.91	16.22	16.22	267.44	8.54	-149.95	150.34	117.90	4.63	
7300.00	7298.96	7302.54	7301.43	16.27	16.28	267.51	13.88	-149.86	150.50	117.96	4.62	
7325.00	7323.11	7327.64	7325.64	16.32	16.33	267.59	20.50	-149.74	150.70	118.05	4.62	
7350.00	7346.88	7352.73	7349.46	16.38	16.38	267.67	28.39	-149.61	150.94	118.18	4.61	
7375.00	7370.22	7377.81	7372.82	16.43	16.44	267.76	37.51	-149.45	151.22	118.35	4.60	
7400.00	7393.06	7402.89	7395.66	16.49	16.49	267.86	47.84	-149.27	151.54	118.56	4.60	
7425.00	7415.33	7427.95	7417.92	16.54	16.55	267.97	59.35	-149.07	151.89	118.80	4.59	
7450.00	7436.98	7453.01	7439.54	16.60	16.61	268.07	72.01	-148.84	152.28	119.07	4.59	
7475.00	7457.95	7478.06	7460.46	16.66	16.67	268.19	85.78	-148.60	152.70	119.37	4.58	
7500.00	7478.17	7503.10	7480.62	16.72	16.73	268.31	100.62	-148.35	153.16	119.70	4.58	
7525.00	7497.60	7528.13	7499.97	16.79	16.80	268.43	116.49	-148.07	153.65	120.06	4.57	

Weatherford
Anticollision Report

Company:	Strata Production Company	**Date:** 7/26/2013	**Time:** 08:56:09	**Page:**	3
Field:	Eddy Co, NM (Nad 83)				
Reference Site:	Roadrunner Federal Com #3H	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H		
Reference Well:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0		
Reference Wellpath:				**Db:**	Sybase

Site: Roadrunner Federal Com #4H
Well: Roadrunner Federal Com #4H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	Offset Location TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
7550.00	7516.17	7553.15	7518.45	16.86	16.87	268.56	133.35	-147.77	154.17	120.43	4.57	
7575.00	7533.85	7578.15	7536.02	16.94	16.95	268.69	151.14	-147.46	154.72	120.82	4.56	
7600.00	7550.58	7603.16	7552.62	17.03	17.04	268.82	169.83	-147.14	155.30	121.23	4.56	
7625.00	7566.31	7628.15	7568.22	17.12	17.13	268.95	189.34	-146.80	155.91	121.66	4.55	
7650.00	7581.01	7653.13	7582.77	17.22	17.23	269.09	209.64	-146.44	156.54	122.09	4.54	
7675.00	7594.62	7678.10	7596.24	17.32	17.34	269.23	230.67	-146.08	157.19	122.53	4.54	
7700.00	7607.12	7703.06	7608.58	17.44	17.45	269.37	252.36	-145.70	157.87	122.98	4.52	
7725.00	7618.47	7728.01	7619.76	17.56	17.58	269.51	274.66	-145.31	158.56	123.43	4.51	
7750.00	7628.64	7752.96	7629.77	17.69	17.71	269.65	297.50	-144.91	159.27	123.88	4.50	
7775.00	7637.60	7777.89	7638.56	17.83	17.85	269.80	320.83	-144.50	160.00	124.32	4.48	
7800.00	7645.33	7802.82	7646.12	17.98	18.00	269.94	344.57	-144.09	160.75	124.77	4.47	
7825.00	7651.80	7827.74	7652.44	18.13	18.16	270.08	368.67	-143.67	161.50	125.21	4.45	
7850.00	7657.00	7852.65	7657.48	18.30	18.33	270.22	393.06	-143.24	162.26	125.64	4.43	
7875.00	7660.91	7877.55	7661.24	18.47	18.50	270.36	417.67	-142.81	163.04	126.06	4.41	
7900.00	7663.53	7902.45	7663.72	18.66	18.68	270.49	442.44	-142.38	163.81	126.47	4.39	
7925.00	7664.84	7927.34	7664.90	18.85	18.87	270.63	467.29	-141.95	164.59	126.88	4.36	
7937.54	7665.00	7939.83	7665.00	18.94	18.97	270.69	479.78	-141.73	164.98	127.07	4.35	
8000.00	7665.00	8002.26	7665.00	19.46	19.49	270.69	542.20	-140.64	166.93	127.98	4.29	
8100.00	7665.00	8102.21	7665.00	20.39	20.43	270.67	642.14	-138.89	170.05	129.24	4.17	
8200.00	7665.00	8202.16	7665.00	21.43	21.48	270.66	742.08	-137.15	173.17	130.26	4.04	
8300.00	7665.00	8302.12	7665.00	22.57	22.63	270.65	842.01	-135.40	176.29	131.09	3.90	
8400.00	7665.00	8402.07	7665.00	23.80	23.86	270.64	941.95	-133.66	179.41	131.75	3.76	
8500.00	7665.00	8502.02	7665.00	25.09	25.17	270.63	1041.88	-131.92	182.53	132.27	3.63	
8600.00	7665.00	8601.97	7665.00	26.45	26.53	270.62	1141.82	-130.17	185.65	132.67	3.50	
8700.00	7665.00	8701.92	7665.00	27.86	27.95	270.61	1241.76	-128.43	188.77	132.96	3.38	
8800.00	7665.00	8801.87	7665.00	29.32	29.41	270.60	1341.69	-126.68	191.89	133.16	3.27	
8900.00	7665.00	8901.82	7665.00	30.81	30.91	270.59	1441.63	-124.94	195.01	133.29	3.16	
9000.00	7665.00	8996.39	7665.00	32.33	32.33	270.58	1536.19	-123.81	198.72	134.07	3.07	
9100.00	7665.00	9083.64	7665.00	33.89	33.50	270.55	1623.35	-127.31	207.59	140.21	3.08	
9200.00	7665.00	9169.63	7665.00	35.47	34.61	270.52	1708.90	-135.95	222.47	152.40	3.17	
9300.00	7665.00	9253.80	7665.00	37.07	35.64	270.48	1791.97	-149.36	243.19	170.49	3.34	
9400.00	7665.00	9335.63	7665.00	38.69	36.58	270.44	1871.86	-167.05	269.55	194.28	3.58	
9500.00	7665.00	9414.72	7665.00	40.32	37.45	270.40	1947.99	-188.45	301.28	223.51	3.87	
9600.00	7665.00	9490.75	7665.00	41.97	38.22	270.37	2019.95	-212.96	338.09	257.91	4.22	
9700.00	7665.00	9563.48	7665.00	43.64	38.89	270.34	2087.48	-239.95	379.69	297.16	4.60	
9800.00	7665.00	9632.78	7665.00	45.31	39.49	270.31	2150.47	-268.82	425.74	340.94	5.02	
9900.00	7665.00	9700.00	7665.00	47.00	40.04	270.28	2210.17	-299.70	475.92	388.89	5.47	
10000.00	7665.00	9760.88	7665.00	48.69	40.47	270.26	2262.94	-330.07	529.92	440.76	5.94	
10100.00	7665.00	9819.75	7665.00	50.40	40.87	270.24	2312.68	-361.53	587.43	496.17	6.44	
10200.00	7665.00	9883.28	7665.00	52.11	41.59	270.22	2365.01	-397.56	648.00	554.30	6.92	
10300.00	7665.00	9962.31	7665.00	53.83	43.11	270.20	2429.75	-442.89	709.27	612.34	7.32	
10400.00	7665.00	10041.34	7665.00	55.55	44.64	270.19	2494.48	-488.22	770.55	670.36	7.69	
10500.00	7665.00	10120.37	7665.00	57.28	46.19	270.17	2559.22	-533.55	831.82	728.35	8.04	
10600.00	7665.00	10199.40	7665.00	59.01	47.76	270.16	2623.96	-578.88	893.09	786.32	8.36	
10700.00	7665.00	10278.43	7665.00	60.75	49.36	270.15	2688.69	-624.20	954.37	844.26	8.67	
10800.00	7665.00	10357.46	7665.00	62.50	50.96	270.14	2753.43	-669.53	1015.64	902.18	8.95	
10900.00	7665.00	10452.36	7665.00	64.24	53.15	270.13	2831.29	-723.80	1076.82	959.43	9.17	
11000.00	7665.00	10607.10	7665.00	66.00	57.29	270.12	2962.61	-805.58	1133.34	1010.06	9.19	
11100.00	7665.00	10690.81	7665.00	67.75	59.00	270.11	3034.82	-847.91	1188.05	1061.29	9.37	
11200.00	7665.00	10774.52	7665.00	69.51	60.73	270.11	3107.04	-890.25	1242.75	1112.52	9.54	
11300.00	7665.00	10858.23	7665.00	71.27	62.46	270.11	3179.26	-932.58	1297.46	1163.73	9.70	

Weatherford
Anticollision Report

Company:	Strata Production Company	**Date:** 7/26/2013	**Time:** 08:56:09	**Page:**	4
Field:	Eddy Co, NM (Nad 83)				
Reference Site:	Roadrunner Federal Com #3H	**Co-ordinate(NE) Reference:**	Well: Roadrunner Federal Com #3H		
Reference Well:	Roadrunner Federal Com #3H	**Vertical (TVD) Reference:**	SITE 3268.0		
Reference Wellpath:				**Db:**	Sybase

Site: Roadrunner Federal Com #4H
Well: Roadrunner Federal Com #4H
Wellpath: 1 V0 Plan: Plan #1 V1 **Inter-Site Error:** 0.00 ft

Reference MD ft	Reference TVD ft	Offset MD ft	Offset TVD ft	Semi-Major Axis Ref ft	Semi-Major Axis Offset ft	TFO-HS deg	Offset Location North ft	Offset Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
11400.00	7665.00	10941.94	7665.00	73.03	64.20	270.10	3251.47	-974.91	1352.16	1214.94	9.85	
11500.00	7665.00	11025.64	7665.00	74.80	65.94	270.10	3323.69	-1017.24	1406.87	1266.13	10.00	
11600.00	7665.00	11109.35	7665.00	76.56	67.69	270.09	3395.91	-1059.58	1461.58	1317.32	10.13	
11700.00	7665.00	11193.06	7665.00	78.34	69.45	270.09	3468.12	-1101.91	1516.28	1368.50	10.26	
11755.55	7665.00	11239.57	7665.00	79.32	70.43	270.09	3508.24	-1125.42	1546.67	1396.93	10.33	

Weatherford Drilling Services

GeoDec v5.03

Report Date:	July 26, 2013
Job Number:	
Customer:	Strata Production Company
Well Name:	Roadrunner Federal Com #3H
API Number:	
Rig Name:	
Location:	Eddy Co, NM
Block:	
Engineer:	RWJ

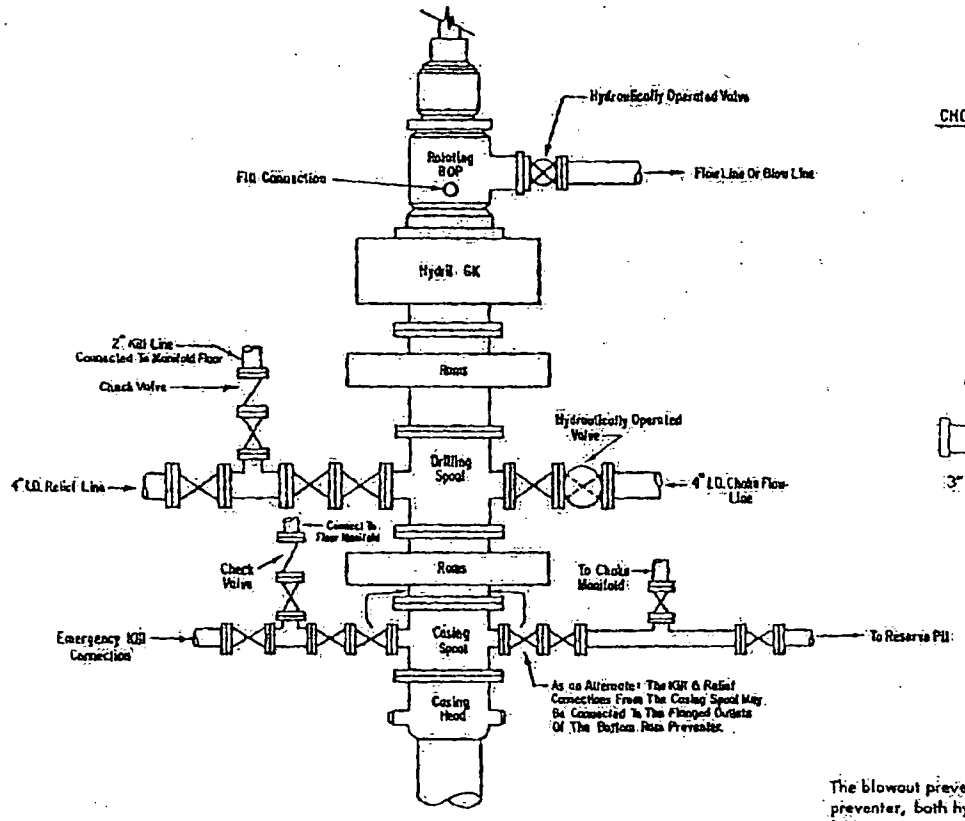
US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 470419.500 USFT	Latitude 32.2917690 DEG
East/West 692114.800 USFT	Longitude -103.7116261 DEG
Grid Convergence: .33°	
Total Correction: +7.09°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.29177° N	32° 17 min 30.369 sec
Longitude =	103.71163° W	103° 42 min 41.854 sec

Magnetic Declination =	7.42°	[True North Offset]	
Local Gravity =	.9988 g	CheckSum =	6561
Local Field Strength =	48352 nT	Magnetic Vector X =	23874 nT
Magnetic Dip =	60.14°	Magnetic Vector Y =	3107 nT
Magnetic Model =	bggm2013	Magnetic Vector Z =	41932 nT
Spud Date =	May 15, 2014	Magnetic Vector H =	24075 nT

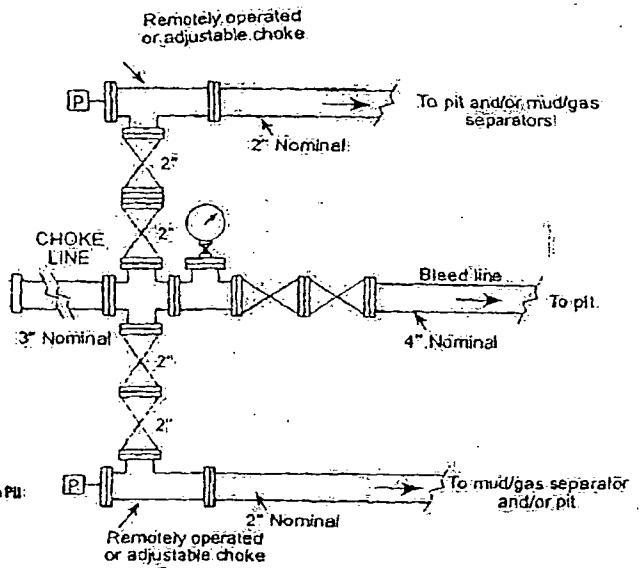
Signed:_____ Date:_____

ATTACHMENT TO EX. A



3000# PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

CHOKE MANIFOLD DETAIL



The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated, a Hydril "GK" preventer, a rotating blowout preventer; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be open-face flanged.

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 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 and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram 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.

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 tho 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 Com #3H
1980' FNL & 750' FEL
Sec. 23, T23S-R30E
Eddy County, NM

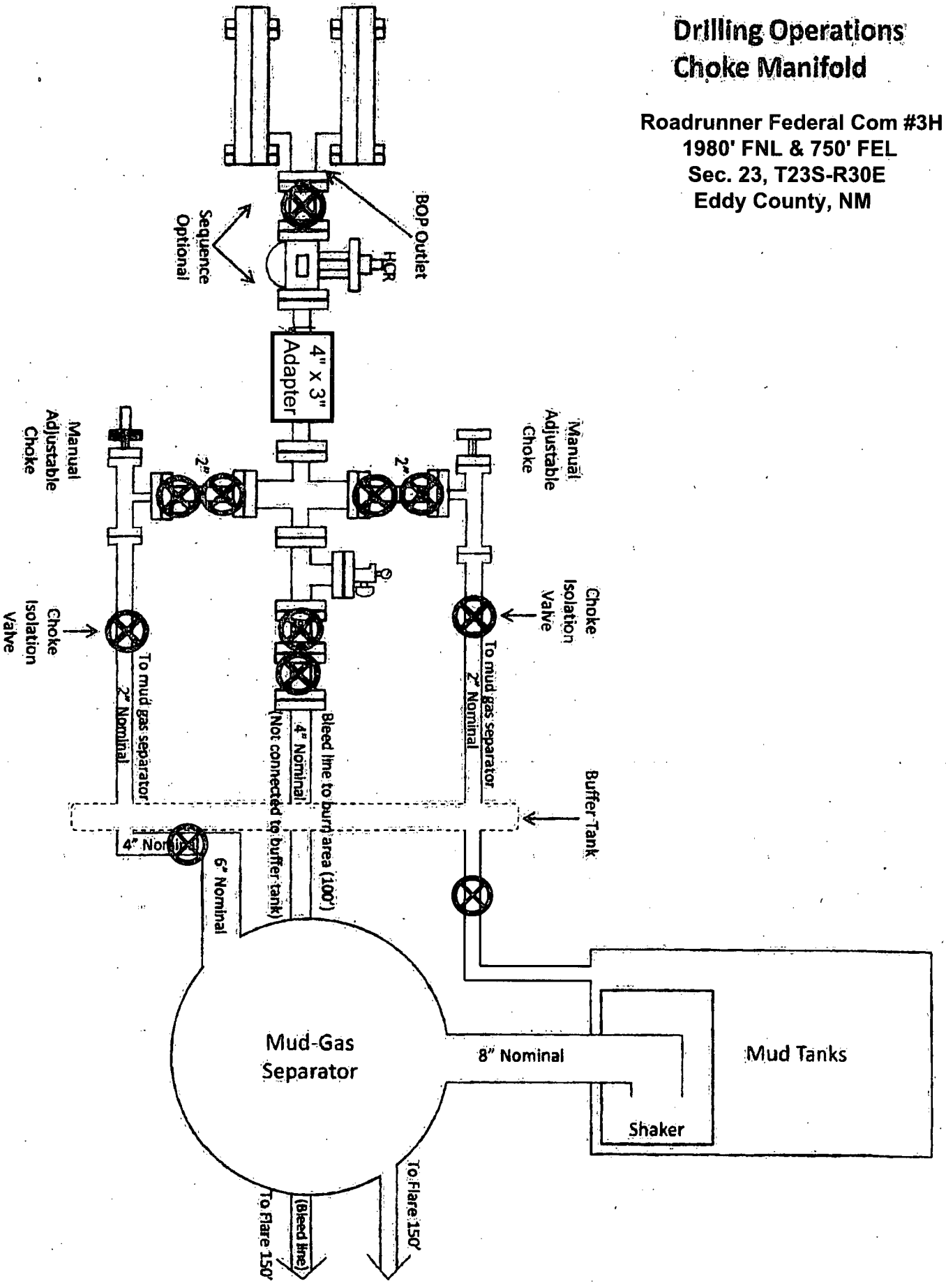
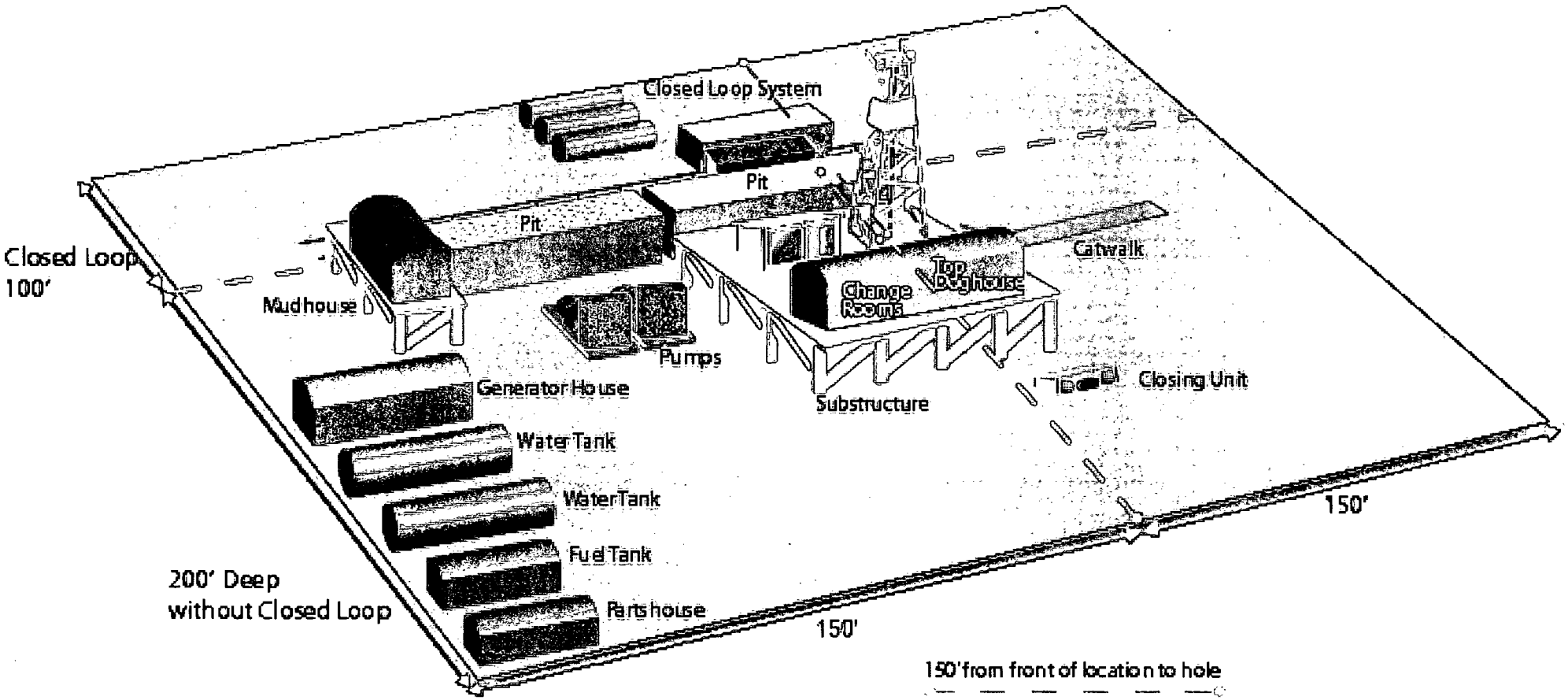


Exhibit "D"
Roadrunner Federal Com #3H
Typical Well Site Layout Plan



Location size without Closed Loop System
200' Deep X 325' Wide

Location size with Closed Loop System
300' Deep X 325' Wide

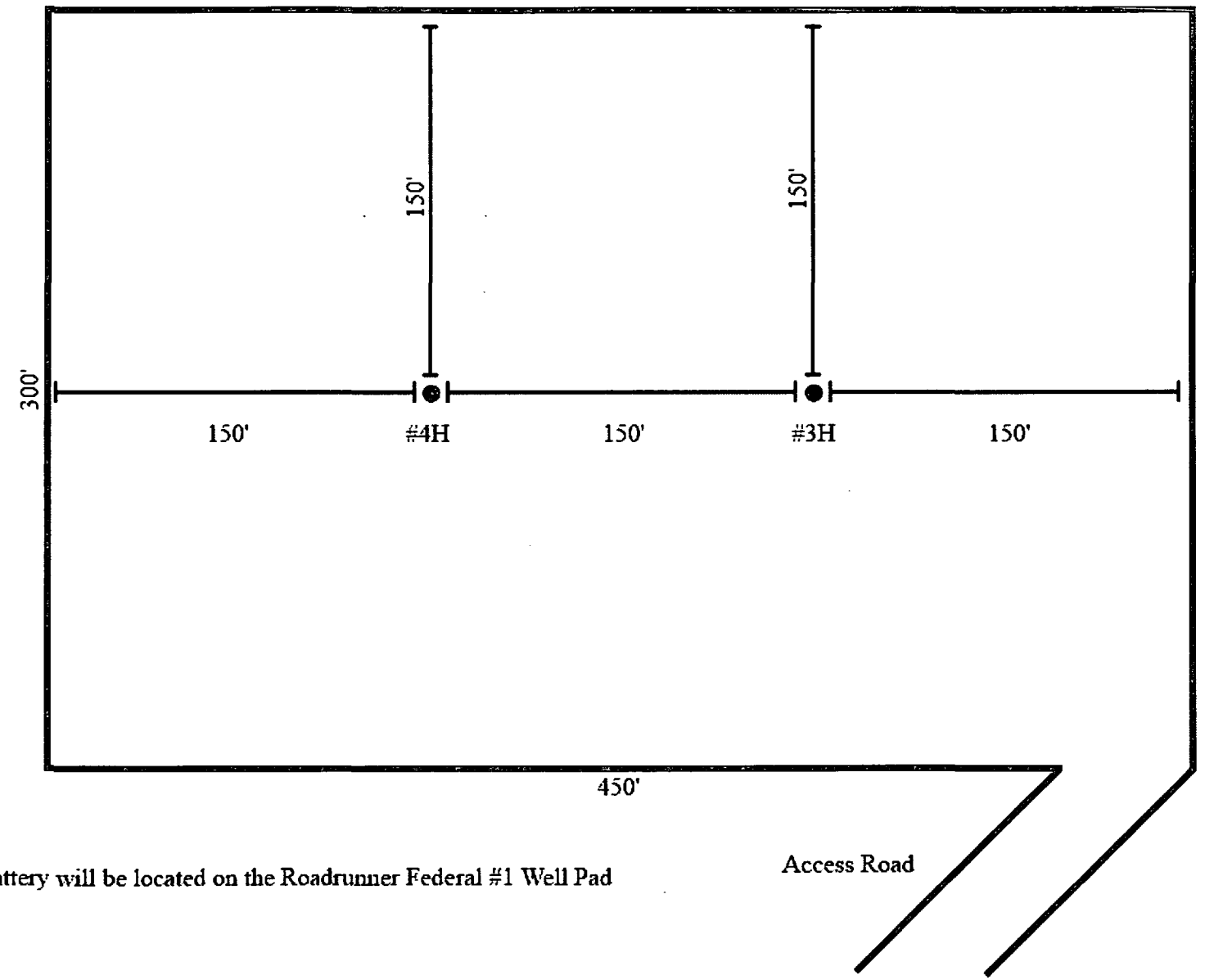
150' from front of location to hole

150' from left of location to hole

50' from hole to back of location (without closed loop)

150' from hole to back of location (with closed loop)

Roadrunner Federal Com #3H
1980' FNL & 750' FEL
Sec. 23, T23S-R30E
Eddy County, NM



* Tank Battery will be located on the Roadrunner Federal #1 Well Pad

Attachment 6

Strata Production Company

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

A. The hazards and characteristics of hydrogen sulfide (H_2S).

B. The proper use and maintenance of personal protective equipment and life support systems.

C. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

A. The effects of H_2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

C. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

A. Well Control Equipment:
All BOP and BOP equipment is shown in the attachments.
Flare line.
Choke manifold with a remotely operated choke as shown in Attachment #5.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H_2S detection and monitoring equipment:

2 - portable H_2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate.

Wind Direction indicators as seen in the H2S Well Site Diagram.

E. Mud Program: The mud program has been designed to minimize the volume of H_2S circulated to the surface

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H_2S service.

G. Communication:

Company vehicles equipped with cellular telephone.

WARNING

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

1. ***BEARDS OR CONTACT LENSES NOT ALLOWED***
2. ***HARD HATS REQUIRED***
3. ***SMOKING IN DESIGNATED AREAS ONLY***
4. ***BE WIND CONSCIOUS AT ALL TIMES***
5. ***CK WITH STRATA FOREMAN AT MAIN OFFICE***

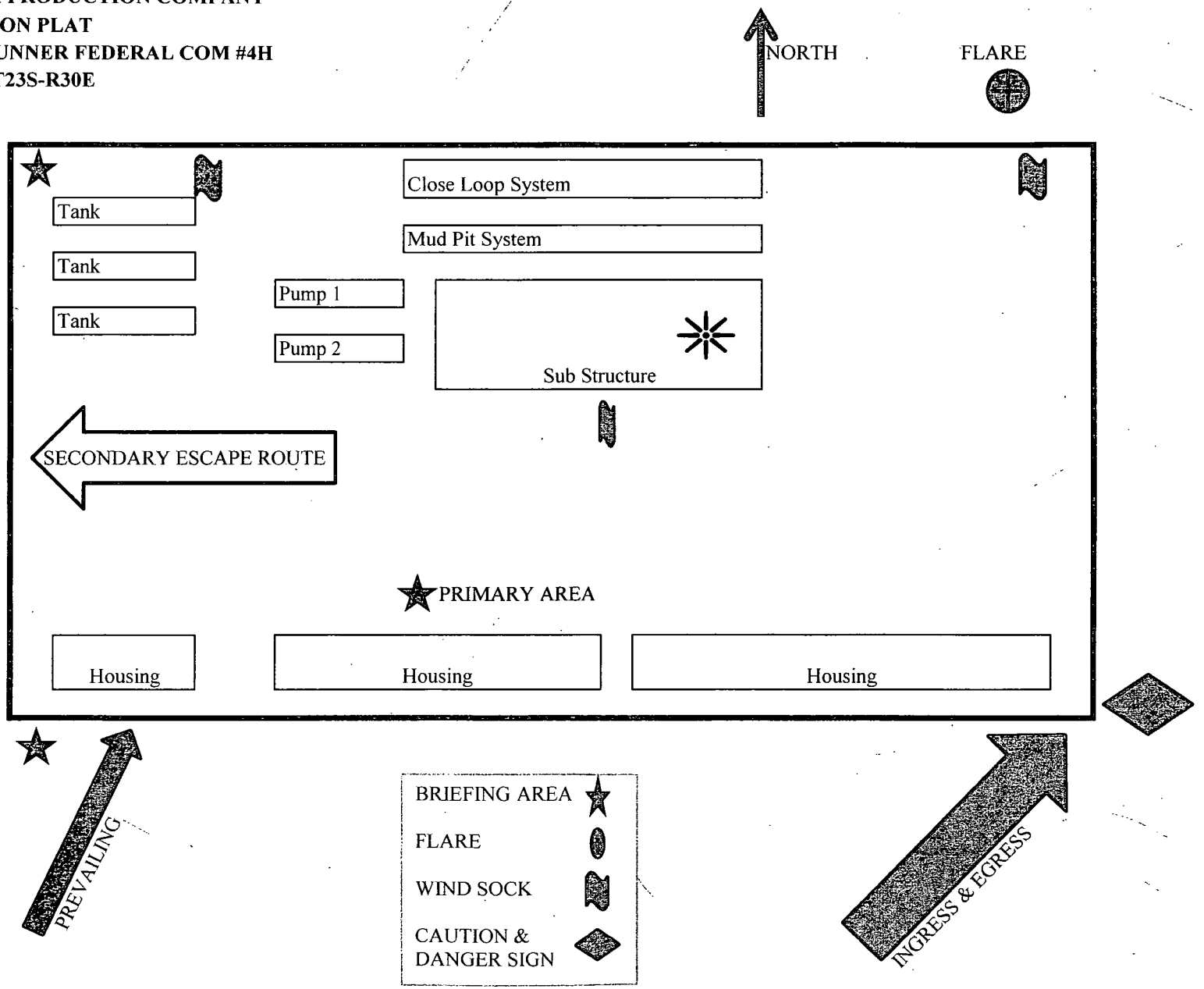
STRATA PRODUCTION COMPANY

575-622-1127 EXT 18
575-626-7909

H2S WELL SITE DIAGRAM
DRILL RIG ORIENTATION

Attachment 6

STRATA PRODUCTION COMPANY
LOCATION PLAT
ROADRUNNER FEDERAL COM #4H
SEC 23-T23S-R30E



STRATA PRODUCTION COMPANY
Emergency Contact List

Strata Personnel:	
Paul Ragsdale, Operations Manager	575-626-7903
Virgil Smith, Production Superintendent	575-626-0528
Sheriff's Departments:	
Eddy County	575-887-1888
Lea County	575-396-3611
New Mexico State Police	575-392-5588
Fire Departments:	
	911
Carlsbad	575-885-3125
Eunice	575-394-2111
Hobbs	575-397-3908
Jal	575-395-2221
Lovington	575-396-2359
Hospitals:	
	911
Carlsbad Medical Emergency	575-887-4100
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
Agent Notification:	
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161
Mosaic Potash - Carlsbad	575-887-2871
Intrepid Potash - Carlsbad	800-451-2888

SURFACE USE PLAN
APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
ROADRUNNER FEDERAL COM #3H
1980' FNL & 750' FEL
SECTION 23-23S-30E
EDDY COUNTY, NEW MEXICO

Submitted with Form 3160-3, Application For Permit to Drill, Deepen, or Plug Back covering the above captioned well. The purpose of the plan is to describe the location, the proposed construction activities and operations plan, the surface disturbance involved, and the rehabilitation of the surface after completion of said well so that an appraisal can be made of the environment affected by the proposed well.

1. Location and Roads:

A. The well site and elevation plat for the proposed well is attached. It was staked by Basin Surveys of Hobbs, New Mexico.

B. This well is being drilled North of the existing access road to the Roadrunner and Sandy wells and a new road leading to the proposed location will be constructed as shown on Exhibit "B". Upgrading of the existing road will be done prior to drilling where necessary as determined during the on-site inspection.

C. Directions to location: ~14 miles east from Loving, New Mexico and ~3 miles south of State Highway 128. Travel on 128 east to MM7. Turn south on CR-795, Mobley Ranch Rd. Stay left at the Y, go south another 1 ½ miles, turn left and follow caliche road for ~.75 miles to road turning north to location, ~1/4 mile.

D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Location of Existing Wells:

Exhibit "C" shows all existing wells within a one mile radius of the proposed well and a list of these wells is shown on the attachment to Exhibit "C".

3. Location of Existing and/or Proposed Facilities:

Production facilities for this Drilling Island will be located on the RoadRunner Fed #1H in Section 25-T23S-R30E, which is on the same Federal lease as the communitized Roadrunner #3H & #4H therefore no offlease storage or commingling should be required. A flowline will be constructed from the new wells to the existing battery.

4. Location and Type of Water Supply:

The well will be drilled with a combination of brine and fresh water mud systems as outlined in the Hole Prognosis. The water will be purchased from commercial water stations in the area and trucked to the location by transport over the existing access roads shown in Exhibit "B". If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

5. Source of Construction Materials:

All caliche required for extension of the drill pad will be obtained from an approved caliche pit. The pad will be constructed of 6" rolled and compacted caliche.

6. Methods of Handling Water Disposal:

A. If possible,this well will be drilled utilizing reserve pits and without a closed loop system. Fresh water is at a depth greater than 100'. If a closed loop system is utilized,drill cuttings not retained for evaluation purposes will be stored and then hauled to a state approved disposal facility. Drilling fluids will be contained in steel pits, cleaned and reused.

B. Water produced from the well during completion will be stored in steel tanks and disposed of in a state approved facility. After the well is permanently placed on production, produced water will be piped to the Forty Niner Ridge Unit #1 SWD well. Produced oil will be collected in steel tanks until sold.

C. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Garbage and trash produced during drilling or completion operations will be disposed in a separate trash trailer on location. All waste material will be contained to prevent scattering by the wind. All other waste generated by the drilling, completion or testing of this well will be disposed of through the closed loop system. No toxic waste or hazardous chemicals will be produced by the operation.

F. After the rig is moved out and the well is either completed or

abandoned, all waste materials will be cleaned up within 30 days. No adverse materials will be left on the location. Only that part of the pad required for production facilities will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

7. Ancillary Facilities:

No airstrip, campsite or other facility will be built as a result of the operations of the proposed well.

8. Well Site Layout:

A. The drill pad layout is shown in Exhibit "D". Dimensions of the pad and location of major rig components are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Since the pad is almost level no major cuts will be required.

B. Exhibit "D" shows the planned orientation for the rig and associated drilling equipment and closed loop system. No permanent living facilities are planned but a temporary foreman/toolpusher's trailer will also be on location during the drilling operations.

9. Plan for Restoration of the Surface:

A. Upon completion of the proposed operations, if the well is to be abandoned, the original top soil will be returned to the location and it will be leveled and contoured to as nearly the original topography as possible. All trash and garbage will be hauled away in order to leave the location in an aesthetically pleasing condition. The location will be leveled within 120 days after abandonment.

B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.

C. Interim Reclamation: this location is inside the Potash Enclave and the location will be used as a future drilling island for multiple wells. Strata requests that the interim reclamation requirements be waived or extended until the drilling of multiple wells is complete. However, Strata is willing to propose that old wells that are operated by Strata that are outside the Potash Enclave be downsized.

Topsoil removed from the drill site will be used to recontour the unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

10. Surface Ownership:

The wellsite and lease is located entirely on Federal surface.

11. Other Information:

A. The topography around the well site is rolling terrain with vegetation of sagebrush and native grass. The vegetation cover consists of prairie grasses and flowers. Wildlife in the area probably includes those typical of semi-arid desert land.

B. The soils are clayey sand over caliche base.

C. There are no permanent or live waters in the immediate area.

D. There are no residences and other structures in the area.

E. The land in the area is used primarily for grazing purposes.

F. An archaeological study has been conducted for the location and is included in this packet.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Strata Production Company**
LEASE NO.:	**NMNM-0532769**
WELL NAME & NO.:	**Roadrunner Federal Com 3H**
SURFACE HOLE FOOTAGE:	**1980' FNL & 0750' FEL**
BOTTOM HOLE FOOTAGE	**2310' FSL & 0520' FEL Sec. 14, T. 23 S., R 30 E.**
LOCATION:	**Section 23, T. 23 S., R 30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Right-of-Way

A Right-of-Way will be required to access this lease prior to beginning any construction. Also a Right-of-Way will be required prior to laying any flow lines to the Roadrunner Federal 1 Battery.

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. All sides will be bermed.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. In addition, the well sign shall include the surface and bottom hole lease numbers. If the Communitization Agreement number is known, it shall also be on the sign. If not, it shall be placed on the sign when the sign is replaced.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

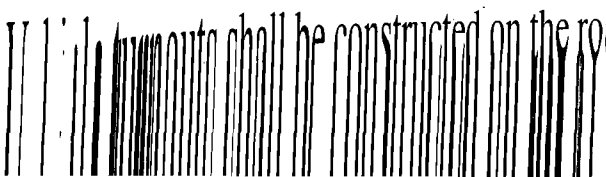
Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

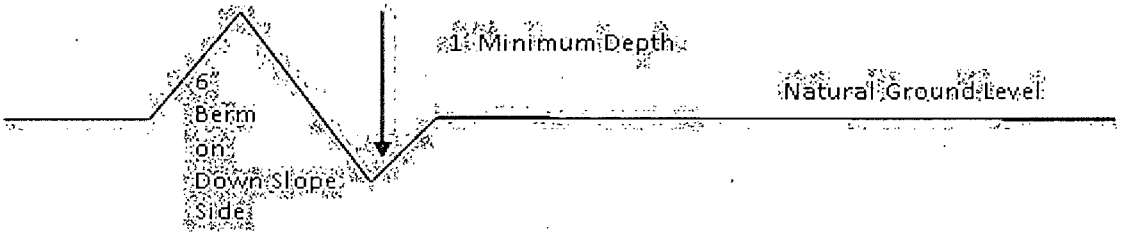
Ditching
Ditching shall be required on both sides of the road.

Turnouts

Turnouts shall be intervisible with

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Culvert Installations
Appropriately sized culverts shall be installed at deep waterway channel flow crossings through the road.

Cattleguards
An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings.

Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

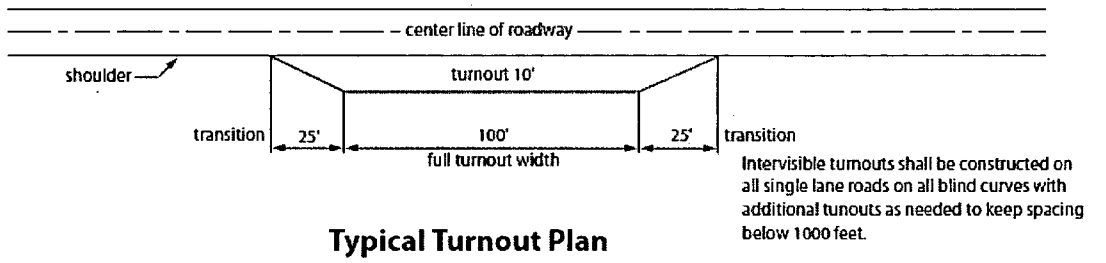
The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

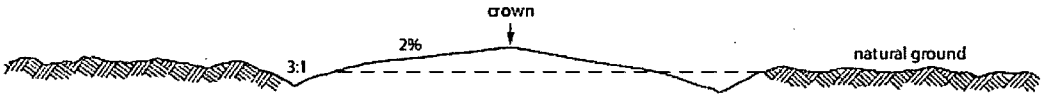
Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

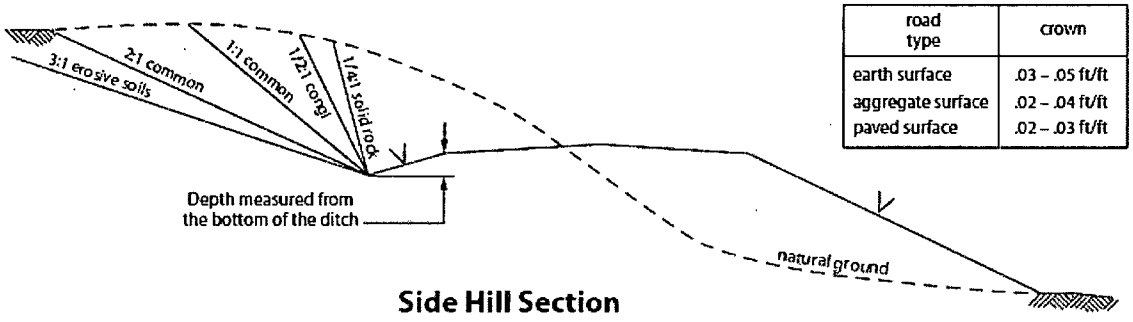


Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional tunouts as needed to keep spacing below 1000 feet.

Typical Turnout Plan

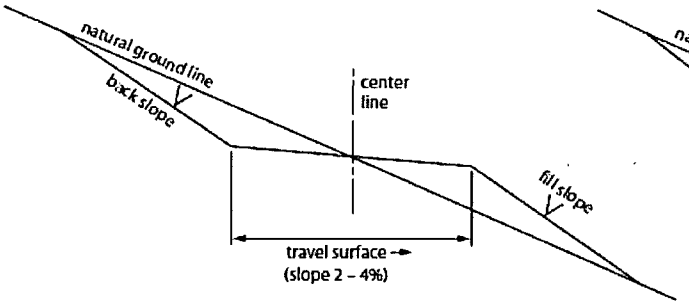


Level Ground Section

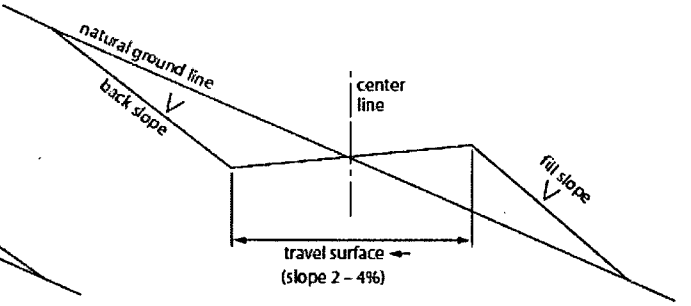


road type	crown
earth surface	.03 – .05 ft/ft
aggregate surface	.02 – .04 ft/ft
paved surface	.02 – .03 ft/ft

Side Hill Section



Typical Outsloped Section



Typical Inslope Section

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P-Potash
High Cave/Karst
Possibility of water flows in the Salado and Delaware.
Possibility of lost circulation in the Rustler and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **450** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at approximately **3800** feet, is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

   a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock with a corresponding chart (i.e. two hour clock-two hour chart, one hour clock-one hour chart).

    d. The results of the test shall be reported to the appropriate BLM office.

    e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the

largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
b. Activities of other parties including, but not limited to:
    (1) Land clearing.
    (2) Earth-disturbing and earth-moving work.
    (3) Blasting.
    (4) Vandalism and sabotage.
c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will

be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

C. ELECTRIC LINES (No electric lines were applied for in the APD)

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed