13-176

Form 3160-3
(March 2012)

OCD Artesia
RECEIVED
MAR 25 2013
NMOCD ARTESIA

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

TQS 3/26/2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. LC068282-B

6. If Indian, Allotee or Tribe Name N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No. N/A

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

8. Lease Name and Well No. Golden Spur 25 FBS # 3H <39778>

2. Name of Operator ConocoPhillips Company <217817>

9. API Well No. 30-015-41230

3a. Address P.O. Box 51810, Midland, Tx 79710

3b. Phone No. (include area code) 432-688-6943

10. Field and Pool, or Exploratory WC-015 G-05 S263125N; Wolfcamp, ~~Red Hills~~ B.S

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 465 FSL & 530 FWL (SWSW) of 25-26S-31E
At proposed prod. zone 330 FNL & 380 FWL (NWNW) of 25-26S-31E

11. Sec., T. R. M. or Blk. and Survey or Area Section 25-26S-31E <98009>

14. Distance in miles and direction from nearest town or post office* ~ 2 miles north/west of State Line

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) 465'

16. No. of acres in lease ~~640 acres~~ 960.8

17. Spacing Unit dedicated to this well 160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. ~~2000~~ 1200'

19. Proposed Depth 13976 MD/9518 TVD

20. BLM/BIA Bond No. on file ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3144

22. Approximate date work will start* 01/01/2013

23. Estimated duration 30 days

24. Attachments

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

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

25. Signature

Name (Printed/Typed) Donna Williams

Date 10/30/2012

Title Sr. Regulatory Advisor

Approved by (Signature) /s/ Don Peterson

Name (Printed/Typed)

Date MAR 21 2013

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

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

WC-015 G-05 S263125N

API Number	Pool Code	Pool Name
30-015-41230	98009	~~Red Hills;~~ Bone Spring

Property Code	Property Name	Well Number
39778	GOLDEN SPUR 25 FBS	3H

OGRID No.	Operator Name	Elevation
217817	CONOCO PHILLIPS	3144'

Surface Location

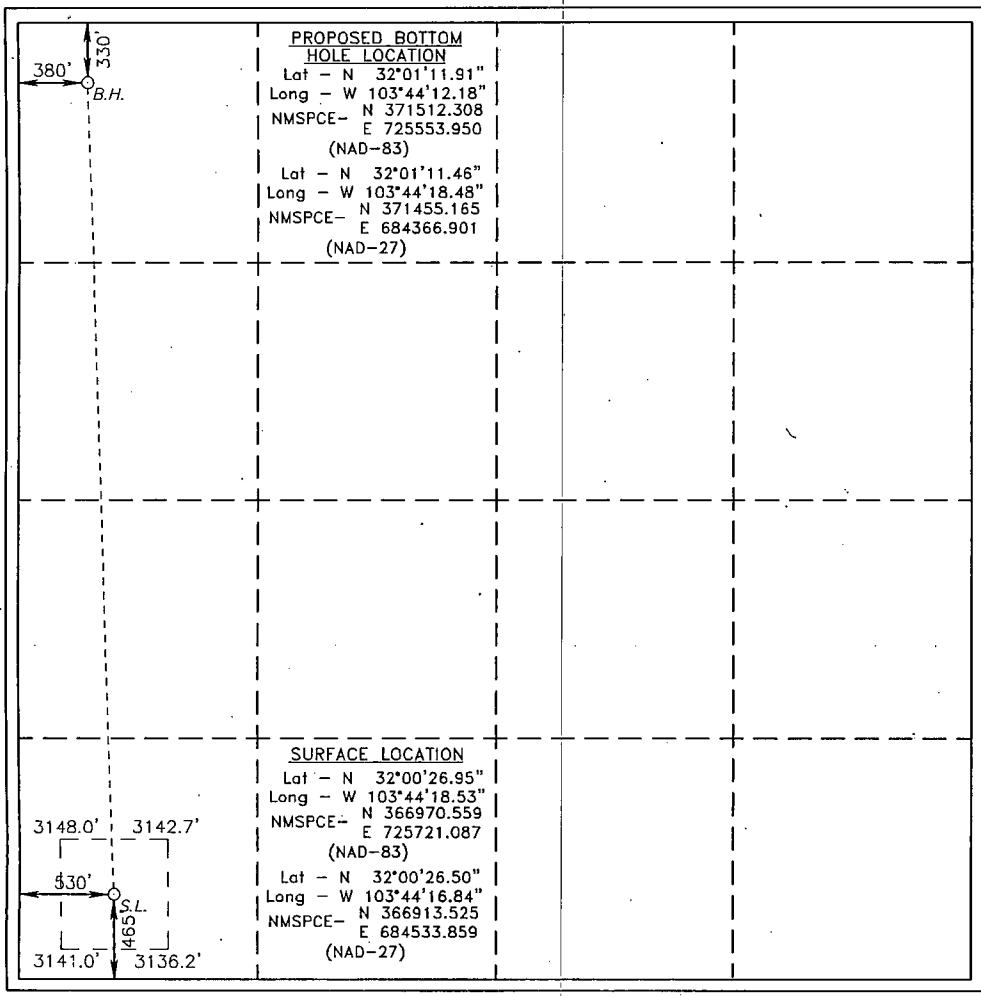
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	25	26 S	31 E		465	SOUTH	530	WEST	EDDY

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
D	25	26 S	31 E		330	NORTH	380	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



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.

10/30/12
Signature Date

Donna Williams
Printed Name

Donna.J.Williams@conocophillips.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.

OCTOBER 11, 2012
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES 7977 NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 27289

Operator Certification

CONOCOPHILLIPS COMPANY

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed 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 the company I represent, am responsible for the operations conducted under this application with bond coverage provided by Nationwide Bond ES0085. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Date: 10/30/12

Donna Williams
Sr. Regulatory Advisor

Golden Spur 25 3H FBS

GR estimate 3,140

Notes: A pilot hole will not be drilled. This horizontal well will be drilled from N to S into the Avalon A Shale Zone. The well will be drilled relatively flat to slightly toe up with a ~ 4,500' long lateral.

Surface Location	Sec 25	26S	32E	Lea Co. NM, Surface Location: 180' FNL & 640' FWL
Golden Spur 25 1H FBS BHL	Sec 25	26S	32E	Lea Co. NM, Terminus Location: 330' FSL & 380' FWL

Formation Name	Formation Top (TVD)	Subsea Depth	Gross Thickness	Gross Thickness	Gross Thickness	Comments
Quaternary	Surface					
Rustler	730	2,410				
Salado	1,071	2,069				
Castile	2,690	450				
Delaware Top	4,123	-983				
Olds	4,226	-1,086				
Cherry Canyon	5,043	-1,903				
Brushy Canyon	6,904	-3,764				
Bone Spring Top	7,925	-4,785				
Bone Spring 1st Carbonate Top	8,200	-5,060				
Avalon A Shale Top	8,510	-5,370				
Avalon B	8,740	-5,600				
KOP (est)	**8,802**	**-5,662**				
Avalon C Shale Top	8,835	-5,695				
Avalon D	9,130	-5,990				
1st Bone Spring Sand	9,075	-5,935	305	Top of Target to Potential Water Zone		
1st Bone Spring Shale Top	9,380	-6,240			115	
LANDING: FBS Shale Horizontal Upper Target Limit	9,495	-6,355				
LANDING: FBS Shale Horizontal Target Center	**9,518**	**-6,378**	45			Not a formation top.
LANDING: FBS Shale Horizontal Lower Target Limit	9,540	-6,400				Not a formation top.
TERMINUS: FBS Shale Horizontal Upper Target Limit	9,495	-6,355		190		Not a formation top.
TERMINUS: FBS Shale Horizontal Target Center	**9,518**	**-6,378**	45			Not a formation top.
TERMINUS: FBS Shale Horizontal Lower Target Limit	9,540	-6,400				Not a formation top.
1st Bone Spring Shale Base (Should not penetrate)	9,570	-6,430				Not a formation top.

Proposed total MD of well TBD'.

OPERATORS NAME:	**ConocoPhillips Company**
LEASE NAME AND WELL NO.:	**Golden Spur 25 FBS # 3H**
SURFACE LOCATION:	**465 FSL & 530 FWL (SWSW) of 25-26S-31E**
BHL:	**330 FNL & 380 FWL (NWNW) of 25-26S-31E**
FIELD NAME:	**Red Hills**
POOL NAME:	**Bone Spring**
COUNTY:	**Eddy County, New Mexico**
	Federal Lease No: LC068282-B

The following information is to supplement the Application for Permit to Drill.

DRILLING PLAN

1. Name and estimated tops of all geologic groups, formations, members, or zones.

Quaternary	Surface -730	Water
Rustler & Salado	759-1100/1100-4123	Salt
Delaware Top	4123 TVD	water
Bone Spring	7925TVD	Oil/gas/water
Bone Spring 1st carbonate top	8200 TVD	Oil/gas/water
Avalon A Shale Top	8510 TVD	Oil/Gas/water
Avalon B	8740' TVD	Oil/gas/water
KOP	8802 TVD	
Avalon C Shale Top	8835 TVD	Oil/gas/water
Avalon D	9130 TVD	
1st Bone Spring Sand	9075 TVD	Oil/gas/water
1st Bone Spring Shale Top	9380 TVD	Oil/gas/water
1st Bone Spring Shale Base	9570 TVD	

2. Estimated depths and thickness of formations, members or zones potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals that the operator expects to encounter, and the operator's plans for protecting such resources.

Quanternary	Surface (water)
Rustler	4123 TVD (Salt)

All of the water bearing and salt formations identified above will be protected by the intermediate setting of the 9-5/8" casing and circulating of cement to surface

Bone Spring	9518 TVD-13976 MD (gas & gas/oil)

The geologic tops identified above from the Bone Spring/Avalon are part of the target formation.

3. The operator's minimum specifications for blowout prevention equipment and diverter systems to be used, including size, pressure rating, configuration, and the testing procedure and frequency.

A 5000# system will be installed, used, maintained, and tested accordingly. After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. BOP will comply with all provisions of Onshore Order 2 as specified. **See Attached BOPe Schematic.**

NEW Casing ONLY! See COA

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new ~~or acceptably reconditioned~~). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

NEW CASING:

Surface: 17 1/2" hole, 13 3/8" 54.5# J55 STC csg, set @ ~~759~~ 1040'. Drill out with 12 ¼" bit and perform shoe test to 11.0 ppg MWE. See COA
Burst: 4.39/Collapse: 1.88/Tension: 5.98/9.13
Intermediate 1: 12 1/4" hole, 9 5/8" 40# L80 BTC csg, set @ ~~4550~~ 4540' OK
Burst: 2.43/Collapse: 1.4/Tension: 5.45/6.44 P-110 per Donna Williams See COA
Production Casing: 8 3/4" hole, 5 ½" 17# ~~T-95 TB~~ csg set @ 9018-13976 MD
Burst: 3.25/Collapse: 3.36/Tension: 5.78/6.80

The plan is to set casing and drill open hole in a northern direction to a proposed bottomhole location of 330 FNL & 380 FWL (NWNW) of Section 25-26S-31E.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

a. 13 3/8" csg: Lead w/820 sxs Class C cement + HalCem-C (Yield: 1.33 cft) Tail w/230 sacks Class C cement + 1 lbm/sk EconoCem-HRLTRRC (Yield: 1.85 cft/sk). Circulate to surface. Based on 17 ½" OH with 100% excess

b. 9 5/8" csg: Lead w/1320 sxs 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield: 2.48 cft/sk) Tail w/200 sxs 'H' + HalCem C (Yield: 1.33 cft/sk) Circulate cement to surface. Based on 12 ¼"hole w/200% excess

c. 5 1/2 csg: Lead w/170 sxs 50/50 Class C Poz + 2.5 gal/bbl WG-19 + 1 lbm/sk EconoCem-C (Yield: 2.00 cft/sk) Tail w/312 sxs 'H' + HalCem C (Yield: 1.2 cft/sk) Circulate cement 500' into 9 5/8" casing. Based on 8 ¾" hole w/200% excess

see next page 640 sx yield 2.7 1204 sx yield 1.36

6. The anticipated type and characteristics of the proposed circulating medium or mediums proposed for the drilling of each wellbore section, the quantities and types of mud and weighting material to be maintained, and the monitoring equipment to be used on the circulating system.

Mud Program:

0-784 1040	Aquagel-Spud Mud	9.3#	Vis: 32-36	WL: NC
784-4550 OK	Brine	10.5#	Vis: 28-30	WL: 5-8
4550-13976	Cut Brine	9.3-9.5#	Vis: 28-36	WL: 5-8

See COA

Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None
b. Core: Run : None
c. Mud Logging: Two-Man – 759'-TD' Vertical and Horizontal Sections

Logs to be run: GR KOP-TD

8. List the expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of the BLM.

The expected pressure gradient is 0.433 psi/ft or 8.3 ppg equivalent
.The average anticipated bottom hole pressure ranges on average 4360 psi.
No hydrogen sulfide is expected.

Any other facets of the proposed operation which the operator wishes to be considered in reviewing the application.
Anticipated start date of January 1, 2013. Construction of well pad and road will begin as soon as all agency approvals are obtained.

9. Address the proposed directional design, plan view, and vertical section in true vertical and measured depth for directional, horizontal, or coil tubing operations.

The proposed directional/horizontal documents are attached.

Production Casing (Lead)		Production Casing (Tail)	
Intermediate Casing O.D. (In.)	5.500	Intermediate Casing O.D. (In.)	5.500
Intermediate Casing ID (In)	4.892	Intermediate Casing ID (In)	4.382
Hole O.D. (In)	8.75	Hole O.D. (In)	8.75
Excess (%)	135%	Excess (%)	135%
cap 5-1/2" - 8-3/4" bls/ft	0.0450	cap 5-1/2" - 8-3/4" bls/ft	0.0450
cap 5-1/2 - 9-5/8" bls/ft	0.0408	cap 7" - 9-5/8" bls/ft	
Calculated fill (500 into 9-5/8")	5,126	Calculated fill	4,800
Yield Lead (Cu. Ft./Sx.)	2.7	Yield Lead (Cu. Ft./Sx.)	1.36
Calculated Total Lead (Cu. Ft.)	1,748	Calculated Total Tail (Cu. Ft.)	1,637
Calc. Lead Volume (Sx)	640		
		Required Tail Volume (Sx)	1,204

per Donna Williams
03/18/2013

DRILLING PLAN

PROSPECT/FIELD	FBS				COUNTY/STATE		Eddy County, NM
OWNERS	BURLINGTON RESOURCES			LEASE			
WELL NO.	Golden Spur FBS 25-3H		FNL	FSL	FEL	FWL	
LOCATION		Surface Location:		465		530	
		Bottom Hole Location:	330			380	
EST. T.D.	Leg #1 13,976' MD				GROUND ELEV.		3,140' (est)
						RKB	3205

PROGNOSIS: Based on 3,140' KB(est)

MARKER	S.S. DEPTH	TVD
Quaternary		Surface
Rustler	2,446	759
Salado	-1,100	1,100
Delaware Top	-947	4,152
Ford Shale	-1,023	4,228
Chery Canyon	-5,072	5,072
Bone Spring	-4,749	7,954
Bone Spring 1st Carbonate Top	-5,024	8,229
Bone Spring 1st Carbonate Base	-5,334	8,539
KOP		8,811
Avalon A Shale Top	-5,334	8,539
Avalon A Shale Base	-5,564	8,769
Avalon B Zone Top	-5,564	8,769
Avalon B Zone Base	-5,659	8,864
Avalon C Shale Top	-5,659	8,864
Avalon C Shale Base	-6,204	9,409
FBS Shale Horizontal Target	-6,313	9,518

LOGS:

Type	Interval
Open Hole	
GR	KOP-TD

DEVIATION:

Surf:	3° max, svy every 500'
Int1/2:	3° max, svy every 90'
Prod:	90° svy every 30'

DST'S:

CORES: No core.

SAMPLES:

Mudlogging:	Start	End	
Two-Man:		759' TD	Vertical and Horizontal sections

BOP: COP Category 3 Well Control Requirements

HP486 BOPE: (With Rotating Head)
- 13-5/8"-5Mpsi Annular (Hydril GK)
- 13-5/8"-10Mpsi Blind Ram (Cameron U)
- 13-5/8"-10Mpsi Cross / Choke & Kill Lines
- 13-5/8"-10M psi Pipe Ram (Cameron U)
- 13-5/8"-5Mpsi Spacer Spool

Dip Rate: (See inclination prediction)

Max. Anticipated BHP: 0.55 psi/ft

Surface Formation:

MUD:

	Interval	Type	Max. MW	Vis	WL	Remarks
Surface:	0'-784'	Aquagel - Spud Mud	9.3	32-36	NC	
Intermediate 1:	784'-4550'	Brine	10.5	28-30	5-8	
Production:	4550'-13362'	Cut Brine	9.3 - 9.5	30-40	<=5	

CASING:

	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54.5	17-1/2	759'	To Surface	18hrs	Surface
Intermediate 1:	9-5/8"	40	12-1/4"	4,550'	To Surface	18hrs	
Production Lat #1:	5-1/2"	17	8-3/4"	13,976'	500' into intermediate	18hrs	Long String

DIRECTIONAL PLAN

	MD	TVD			AZ
Surface:	N/A	N/A	465 S		0
Vertical KOP:	8,811'	8,801'			213.0
End Build/7"Casing (90° curve):	9,936'	9,518'		530 W	213.0
Tangent:	N/A	N/A			0.0
Turn:	N/A	N/A			0.0
TD:	13,976'	9,518'	330 N		0.0
				380 W	

Directional Company: DDC
Vertical Build Rate: 8.0 °/100'
Tan Leg Turn Rate: 0.0 °/100'

Comments:
INC ONLY Surveys will be taken at 90' interval below surface casing while drilling with PDC / Scout Vertical Seeking Tool/ INC ONLY Tool

Golden Spur FBS 25-3H

Surface Location:		Bottom Hole Location	
465 S	530 W	330 N	380 W

SAP Network:	TBA
Inv. Handler ID:	TBA
Drilling:	TBA
Completion/Facility:	$0
Total:	

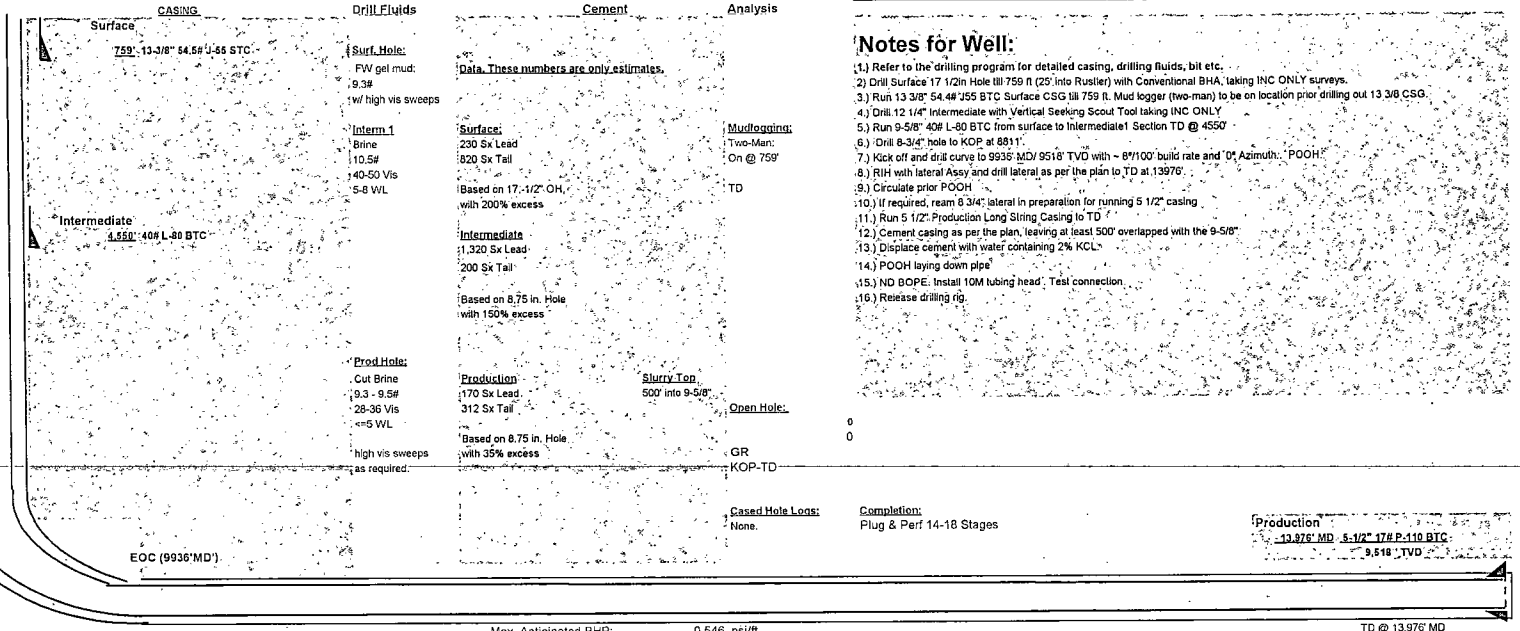
Permit:	
NDIC #:	TBA
API #:	TBA
Fed #:	TBA
AFE#:	TBA

Directional:

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Vertical KOP:	8811	8801	0	0	0	213
End Build/ 7"Casing (90° curve):	9,936'	9,518'	0		0	213.0
Tangent:	N/A	N/A	0	0	0	0.0
Turn:	N/A	N/A	0	0	0	0.0
TD:	13,976'	9,518'	330 N	380 W	0	0.0

Formation	TVD
Quaternary	Surface
Rustler	-1,100
Delaware Top	-947
Bone Spring	-1023
Bone Spring 1st Carbonate Top	-4749
Bone Spring 1st Carbonate Base	-5024
KOP (est)	-5334
Avalon A Shale Top	-5,334
Avalon A Shale Base	-5,564
Avalon B Zone Top	-5,564
Avalon B Zone Base	-5,659
Avalon C Shale Top	-5,659
Avalon C Shale Base (Should not penetrate)	-6,204

KOP (8°/100') 8811



Completion:
Plug & Perf 14-18 Stages

Production
13,976' MD 5-1/2" 17# P-110 BTC
9,518' TVD

Max. Anticipated BHP: 0.546 psi/ft

TD @ 13,976' MD
9,518' TVD

Notes for Well:

1.) Refer to the drilling program for detailed casing, drilling fluids, bit etc.
2.) Drill Surface 17 1/2in Hole till 759 ft (25' into Rustler) with Conventional BHA, taking INC ONLY surveys.
3.) Run 13 3/8" 54.4# J55 BTC Surface CSG till 759 ft. Mud logger (two-man) to be on location prior drilling out 13 3/8 CSG.
4.) Drill 12 1/4" Intermediate with Vertical Seeking Scout Tool taking INC ONLY
5.) Run 9-5/8" 40# L-80 BTC from surface to Intermediate1 Section TD @ 4550'
6.) Drill 8-3/4" hole to KOP at 8811'.
7.) Kick off and drill curve to 9936' MD/ 9518' TVD with ~ 8°/100' build rate and 0° Azimuth. POOH
8.) RIH with lateral Assy and drill lateral as per the plan to TD at 13976'.
9.) Circulate prior POOH
10.) If required, ream 8 3/4" lateral in preparation for running 5 1/2" casing
11.) Run 5 1/2" Production Long String Casing to TD
12.) Cement casing as per the plan, leaving at least 500' overlapped with the 9-5/8"
13.) Displace cement with water containing 2% KCL.
14.) POOH laying down pipe
15.) ND BOPE. Install 10M tubing head. Test connection
16.) Release drilling rig.

0
0

David Sills
Geologist
Date

Salvatore Amico
Drilling Engineer
Date

FBS
BURLINGTON RESOURCES
Golden Spur FBS 25-3H

0

Surface Casing:	
Surface Casing Depth (Ft)	820
Surface Casing O.D. (In.)	13.375
Surface Casing ID (In)	12.715
Hole O.D. (In)	17.5
Excess (%)	200%
Volume Tail (Sx)	230
Yield Tail (Cu. Ft./Sx)	1.84
Yield Lead (Cu. Ft./Sx)	1.33
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	35.3
Tail feet of cement	300
Calculated Total Volume (Cu. Ft.)	1,536
Calc. Tail Volume (Cu. Ft.)	417
Calc. Lead Volume (Cu. Ft.)	1,084
Calc. Lead Volume (Sx)	820

Intermediate1 Casing (Lead):	
Intermediate Casing O.D. (In.)	9.625
Intermediate Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	4,050'
Yield Lead (Cu. Ft./Sx)	2.42
Calculated Total Lead (Cu. Ft.)	3,171
Calc. Lead Volume (Sx)	1320

Intermediate1 Casing (Tail):	
Intermediate Casing O.D. (In.)	9-5/8"
Production Casing ID (In)	8.835
Hole O.D. (In)	12.25
Excess (%)	150%
cap 12-1/4 - 9-5/8"	0.0558
Calculated fill:	500'
Yield Tail (Cu. Ft./Sx)	1.32
Shoe Joint (Ft)	40
Shoe Volume (Cu. Ft)	17.0
Calc. Tail Volume (Cu. Ft.)	252
Required Tail Volume (Sx)	200

3850

Production Casing (Lead):	
Intermediate Casing O.D. (In.)	5.500
Intermediate Casing ID (In)	4.892
Hole O.D. (In)	8.75
Excess (%)	35%
cap 5-1/2" - 8-3/4" bls/ft	0.0450
cap 5-1/2 - 9-5/8" bls/ft	0.0408
Calculated fill: (500' into 9-5/8")	5,126'
Yield Lead (Cu. Ft./Sx)	2.7
Calculated Total Lead (Cu. Ft.)	453
Calc. Lead Volume (Sx)	170

Production Casing (Tail):	
Intermediate Casing O.D. (In.)	5.500
Intermediate Casing ID (In)	4.982
Hole O.D. (In)	8.75
Excess (%)	35%
cap 5-1/2" - 8-3/4" bls/ft	0.0450
cap 7 - 9-5/8" bls/ft	
Calculated fill:	4,800'
Yield Lead (Cu. Ft./Sx)	1.36
Calculated Total Tail (Cu. Ft.)	424
Required Tail Volume (Sx)	312

Golden Spur FBS 25-3H Casing Depth Justification

- Golden Spur Federal 1Y: API: 30-01539235 - Drilled Jan 2,012
  - –Encountered major issues while drilling 12-1/4" hole section due to the losses, pumped cement to heal the losses
  - –After setting 9-5/8" casing @ 4,046' could not pass deeper.
  - –Lost circulation was encountered from 4046 to 4585' MD. Pumped 2 cement plugs to heal losses.

- Oil wells have been produced in the area creating the chance of facing up lost circulation problems.

- Avalon SWD #1D well : API 30-015-40733
  - –Injection Well
  - –7" Casing set @ 4300'
- HANSON FEDERAL BATTERY 1: API:30-015-05869 - Drilled Sept 1954
  - – Produced Oil Well
  - – 5-1/2" csg @ 4140'
- Eddy State "AG" #2: API: 30-015-05898 – Drilled May 1955
  - – Produced Oil Well
  - – 5-1/2" csg @ 4020'

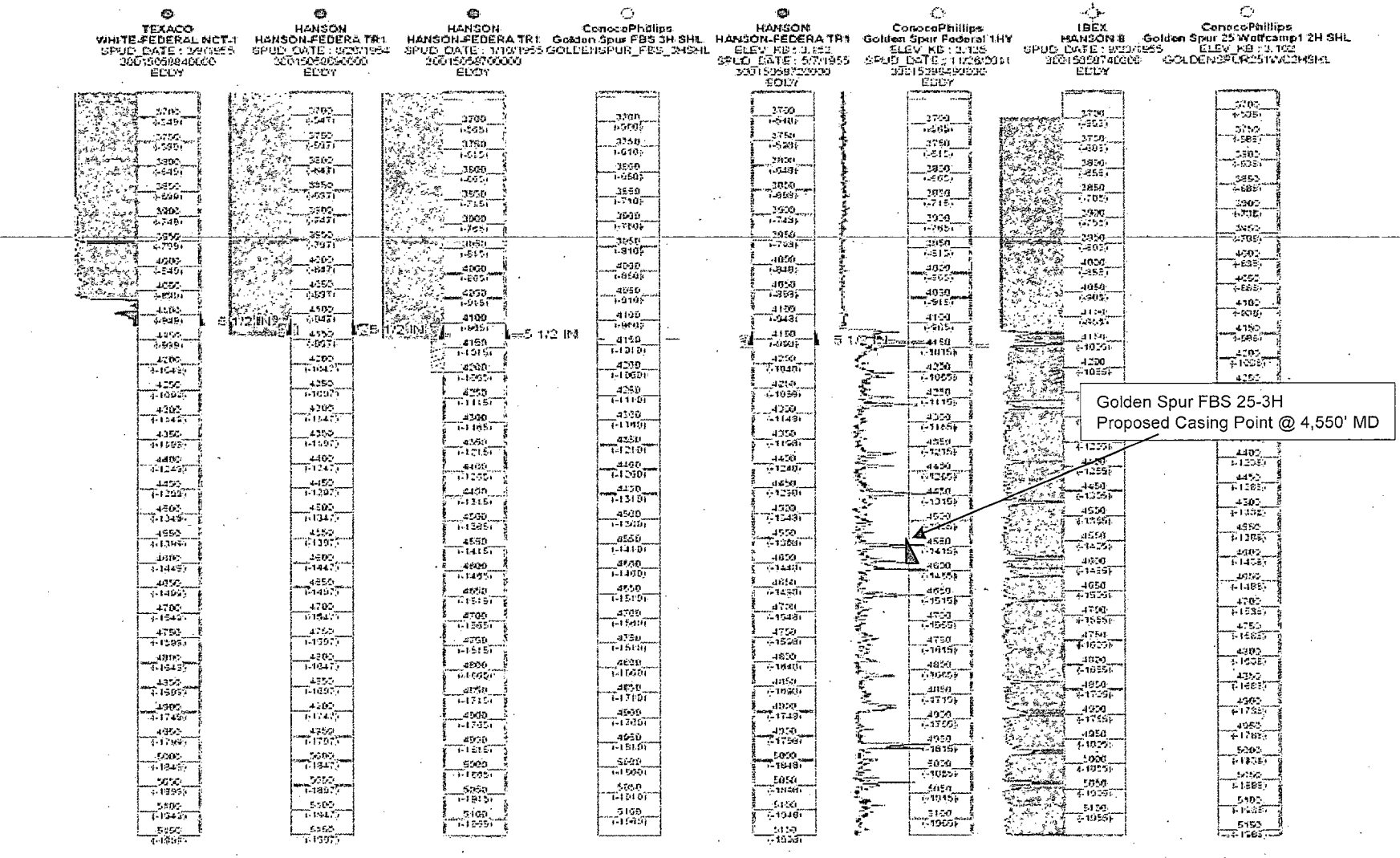
NOTE: source from Drillinginfo.com

Golden Spur FBS 25-3H Casing Depth Justification

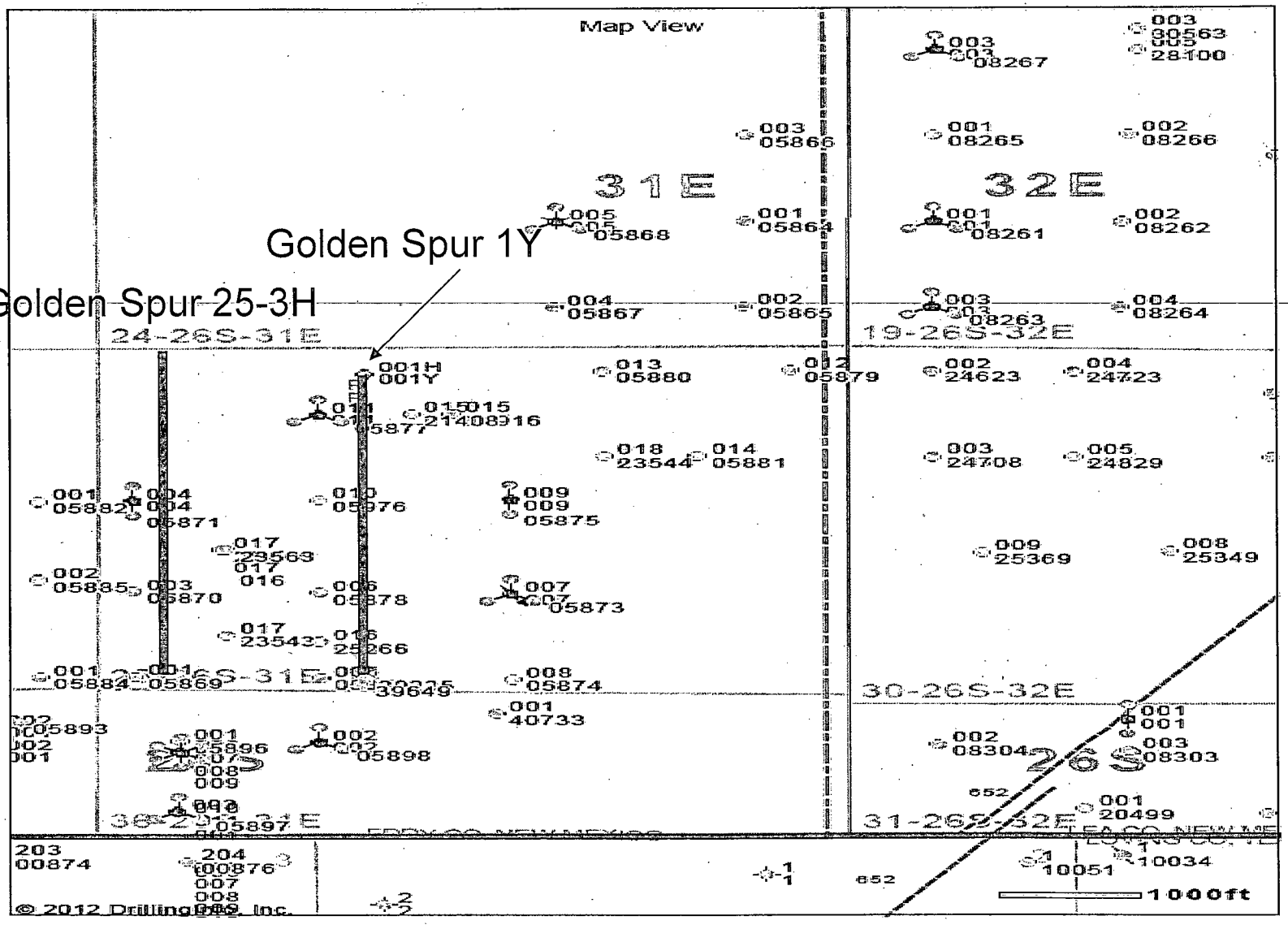
Reasons for setting 9-5/8" casing deeper:

1. Due to expected losses seen on Golden Spur #1H after 4,100' MD located less than 1 mile away.
2. Depletion in the area due to amount of shallows well drilled
3. Better shale section to set casing @ 4,550' MD. See slide #3
4. Cover lost circulation zone with casing and avoid the issue in the next 8-3/4" section

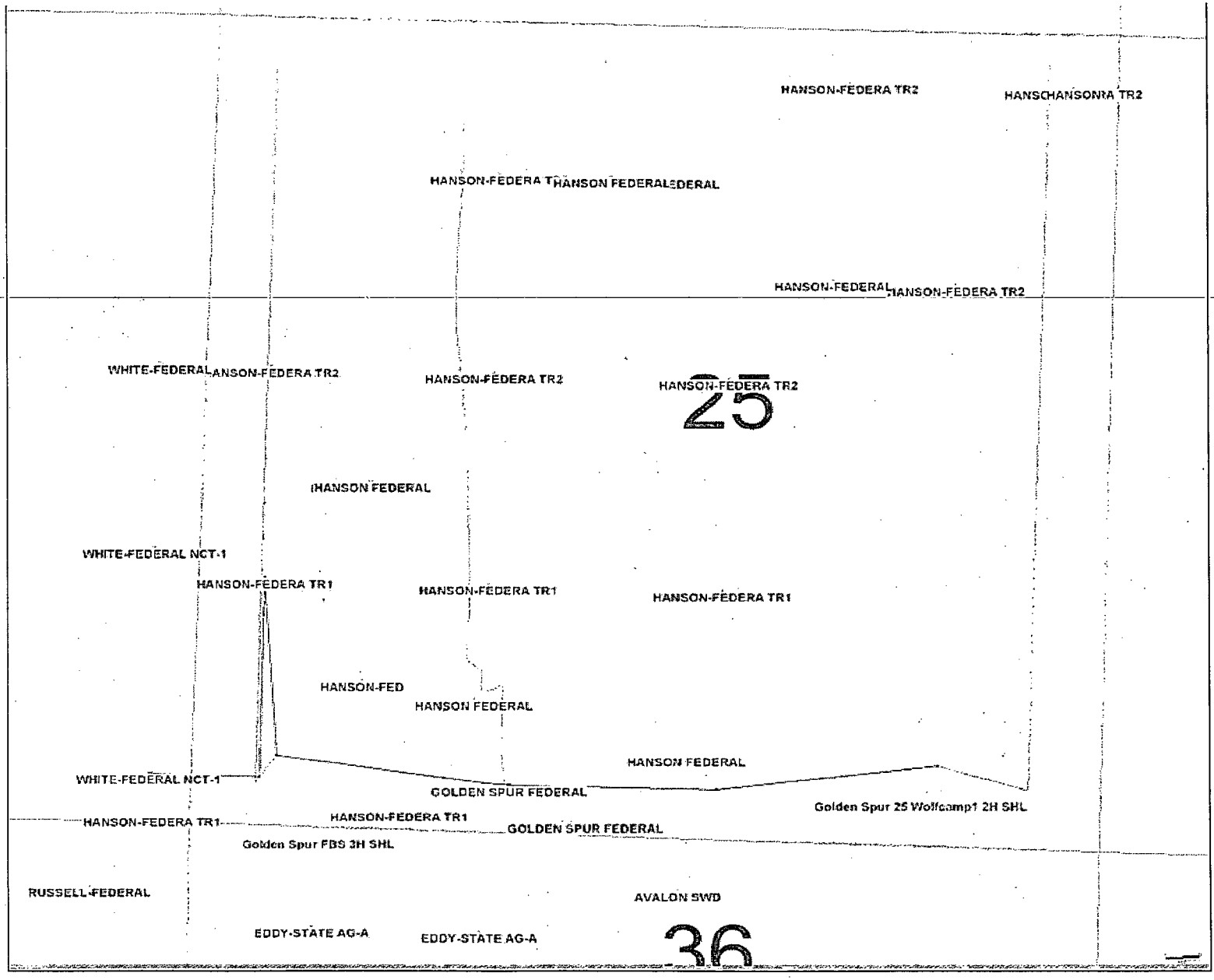
Golden Spur FBS 25-3H Cross Section



Golden Spur FBS 25-3H Off Set wells



Golden Spur FBS 25-3H Off Set wells



ConocoPhillips

Conoco Phillips

Lea County, New Mexico
Golden Spur Unit
Golden Spur Federal FBS 25 3H

Wellbore #1

Plan: Design #3

DDC Well Planning Report

10 October, 2012

DDC
The DIRECTIONAL DRILLING COMPANY

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3140.0usft
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Project Lea County, New Mexico

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

Site Golden Spur Unit

Site Position:		**Northing:**	366,933.53 usft	**Latitude:**	32° 0' 26.705 N
From:	Map	**Easting:**	684,474.76 usft	**Longitude:**	103° 44' 17.520 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.32 °

Well Golden Spur Federal FBS 25 3H

Well Position	**+N/-S**	0.0 usft	**Northing:**	366,933.53 usft	**Latitude:**	32° 0' 26.705 N
	+E/-W	0.0 usft	**Easting:**	684,474.76 usft	**Longitude:**	103° 44' 17.520 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,140.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/9/2012	7.49	59.92	48,338

Design Design #3

Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.47

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,810.0	0.00	0.00	5,810.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,059.8	5.00	213.26	6,059.5	-9.1	-6.0	2.00	2.00	0.00	213.26	
8,361.3	5.00	213.26	8,352.3	-176.7	-115.9	0.00	0.00	0.00	0.00	
8,611.2	0.00	0.00	8,601.8	-185.8	-121.9	2.00	-2.00	0.00	180.00	VP Golden Spur Fe
8,811.2	0.00	0.00	8,801.8	-185.8	-121.9	0.00	0.00	0.00	0.00	
9,936.2	90.00	0.00	9,518.0	530.4	-121.9	8.00	8.00	0.00	0.00	
13,976.0	90.00	0.00	9,518.0	4,570.2	-121.9	0.00	0.00	0.00	0.00	PBHL Golden Spur

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3140.0usft
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
730.0	0.00	0.00	730.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado									
1,071.0	0.00	0.00	1,071.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Castile									
2,690.0	0.00	0.00	2,690.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware Top									
4,123.0	0.00	0.00	4,123.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Olds									
4,226.0	0.00	0.00	4,226.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3140.0usft
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Cherry Canyon									
5,043.0	0.00	0.00	5,043.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 2°/100'									
5,810.0	0.00	0.00	5,810.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	1.80	213.26	5,900.0	-1.2	-0.8	-1.2	2.00	2.00	0.00
6,000.0	3.80	213.26	5,999.9	-5.3	-3.5	-5.2	2.00	2.00	0.00
EOB @ 5° Inc / 213.26° Azm									
6,059.8	5.00	213.26	6,059.5	-9.1	-6.0	-8.9	2.00	2.00	0.00
6,100.0	5.00	213.26	6,099.5	-12.0	-7.9	-11.8	0.00	0.00	0.00
6,200.0	5.00	213.26	6,199.2	-19.3	-12.7	-19.0	0.00	0.00	0.00
6,300.0	5.00	213.26	6,298.8	-26.6	-17.4	-26.1	0.00	0.00	0.00
6,400.0	5.00	213.26	6,398.4	-33.9	-22.2	-33.3	0.00	0.00	0.00
6,500.0	5.00	213.26	6,498.0	-41.2	-27.0	-40.4	0.00	0.00	0.00
6,600.0	5.00	213.26	6,597.6	-48.4	-31.8	-47.6	0.00	0.00	0.00
6,700.0	5.00	213.26	6,697.3	-55.7	-36.5	-54.7	0.00	0.00	0.00
6,800.0	5.00	213.26	6,796.9	-63.0	-41.3	-61.9	0.00	0.00	0.00
6,900.0	5.00	213.26	6,896.5	-70.3	-46.1	-69.0	0.00	0.00	0.00
Brushy Canyon									
6,907.5	5.00	213.26	6,904.0	-70.8	-46.5	-69.6	0.00	0.00	0.00
7,000.0	5.00	213.26	6,996.1	-77.6	-50.9	-76.2	0.00	0.00	0.00
7,100.0	5.00	213.26	7,095.7	-84.9	-55.7	-83.3	0.00	0.00	0.00
7,200.0	5.00	213.26	7,195.4	-92.1	-60.4	-90.5	0.00	0.00	0.00
7,300.0	5.00	213.26	7,295.0	-99.4	-65.2	-97.7	0.00	0.00	0.00
7,400.0	5.00	213.26	7,394.6	-106.7	-70.0	-104.8	0.00	0.00	0.00
7,500.0	5.00	213.26	7,494.2	-114.0	-74.8	-112.0	0.00	0.00	0.00
7,600.0	5.00	213.26	7,593.8	-121.3	-79.5	-119.1	0.00	0.00	0.00
7,700.0	5.00	213.26	7,693.5	-128.6	-84.3	-126.3	0.00	0.00	0.00
7,800.0	5.00	213.26	7,793.1	-135.8	-89.1	-133.4	0.00	0.00	0.00
7,900.0	5.00	213.26	7,892.7	-143.1	-93.9	-140.6	0.00	0.00	0.00
Bone Spring Top									
7,932.4	5.00	213.26	7,925.0	-145.5	-95.4	-142.9	0.00	0.00	0.00
8,000.0	5.00	213.26	7,992.3	-150.4	-98.6	-147.7	0.00	0.00	0.00
8,100.0	5.00	213.26	8,091.9	-157.7	-103.4	-154.9	0.00	0.00	0.00
8,200.0	5.00	213.26	8,191.6	-165.0	-108.2	-162.0	0.00	0.00	0.00
Bone Spring 1st Top									
8,208.5	5.00	213.26	8,200.0	-165.6	-108.6	-162.6	0.00	0.00	0.00
8,300.0	5.00	213.26	8,291.2	-172.3	-113.0	-169.2	0.00	0.00	0.00
Drop 2°/100'									

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
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Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,361.3	5.00	213.26	8,352.3	-176.7	-115.9	-173.6	0.00	0.00	0.00
8,400.0	4.22	213.26	8,390.8	-179.3	-117.6	-176.1	2.00	-2.00	0.00
8,500.0	2.22	213.26	8,490.6	-184.0	-120.7	-180.7	2.00	-2.00	0.00
Avalon A Top									
8,519.4	1.84	213.26	8,510.0	-184.6	-121.1	-181.3	2.00	-2.00	0.00
8,600.0	0.22	213.26	8,590.6	-185.8	-121.9	-182.5	2.00	-2.00	0.00
EOD @ Vertical									
8,611.2	0.00	0.00	8,601.8	-185.8	-121.9	-182.5	2.00	-2.00	0.00
8,700.0	0.00	0.00	8,690.6	-185.8	-121.9	-182.5	0.00	0.00	0.00
Avalon B									
8,749.4	0.00	0.00	8,740.0	-185.8	-121.9	-182.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,790.6	-185.8	-121.9	-182.5	0.00	0.00	0.00
Build 8°/100'									
8,811.2	0.00	0.00	8,801.8	-185.8	-121.9	-182.5	0.00	0.00	0.00
Avalon C Top									
8,844.4	2.66	0.00	8,835.0	-185.1	-121.9	-181.7	8.01	8.01	0.00
8,900.0	7.11	0.00	8,890.4	-180.3	-121.9	-177.0	8.00	8.00	0.00
9,000.0	15.11	0.00	8,988.4	-161.1	-121.9	-157.8	8.00	8.00	0.00
1st Bone Spring Sand									
9,091.5	22.42	0.00	9,075.0	-131.7	-121.9	-128.4	8.00	8.00	0.00
9,100.0	23.11	0.00	9,082.9	-128.4	-121.9	-125.1	8.00	8.00	0.00
Avalon D									
9,152.1	27.27	0.00	9,130.0	-106.2	-121.9	-102.9	8.00	8.00	0.00
9,200.0	31.11	0.00	9,171.8	-82.9	-121.9	-79.6	8.00	8.00	0.00
9,300.0	39.11	0.00	9,253.5	-25.4	-121.9	-22.1	8.00	8.00	0.00
9,400.0	47.11	0.00	9,326.5	42.9	-121.9	46.1	8.00	8.00	0.00
1st Bone Spring Top									
9,484.1	53.83	0.00	9,380.0	107.7	-121.9	110.9	8.00	8.00	0.00
9,500.0	55.11	0.00	9,389.2	120.7	-121.9	123.9	8.00	8.00	0.00
9,600.0	63.11	0.00	9,440.5	206.4	-121.9	209.6	8.00	8.00	0.00
9,700.0	71.11	0.00	9,479.4	298.4	-121.9	301.6	8.00	8.00	0.00
9,800.0	79.11	0.00	9,505.1	395.0	-121.9	398.1	8.00	8.00	0.00
9,900.0	87.11	0.00	9,517.1	494.2	-121.9	497.3	8.00	8.00	0.00
EOB @ 90° Inc / 0° Azm / 9518' TVD									
9,936.2	90.00	0.00	9,518.0	530.4	-121.9	533.4	8.00	8.00	0.00
10,000.0	90.00	0.00	9,518.0	594.2	-121.9	597.2	0.00	0.00	0.00
10,100.0	90.00	0.00	9,518.0	694.2	-121.9	697.2	0.00	0.00	0.00
10,200.0	90.00	0.00	9,518.0	794.2	-121.9	797.2	0.00	0.00	0.00
10,300.0	90.00	0.00	9,518.0	894.2	-121.9	897.1	0.00	0.00	0.00
10,400.0	90.00	0.00	9,518.0	994.2	-121.9	997.1	0.00	0.00	0.00
10,500.0	90.00	0.00	9,518.0	1,094.2	-121.9	1,097.0	0.00	0.00	0.00
10,600.0	90.00	0.00	9,518.0	1,194.2	-121.9	1,197.0	0.00	0.00	0.00
10,700.0	90.00	0.00	9,518.0	1,294.2	-121.9	1,297.0	0.00	0.00	0.00
10,800.0	90.00	0.00	9,518.0	1,394.2	-121.9	1,396.9	0.00	0.00	0.00
10,900.0	90.00	0.00	9,518.0	1,494.2	-121.9	1,496.9	0.00	0.00	0.00
11,000.0	90.00	0.00	9,518.0	1,594.2	-121.9	1,596.9	0.00	0.00	0.00
11,100.0	90.00	0.00	9,518.0	1,694.2	-121.9	1,696.8	0.00	0.00	0.00
11,200.0	90.00	0.00	9,518.0	1,794.2	-121.9	1,796.8	0.00	0.00	0.00
11,300.0	90.00	0.00	9,518.0	1,894.2	-121.9	1,896.8	0.00	0.00	0.00
11,400.0	90.00	0.00	9,518.0	1,994.2	-121.9	1,996.7	0.00	0.00	0.00
11,500.0	90.00	0.00	9,518.0	2,094.2	-121.9	2,096.7	0.00	0.00	0.00
11,600.0	90.00	0.00	9,518.0	2,194.2	-121.9	2,196.7	0.00	0.00	0.00
11,700.0	90.00	0.00	9,518.0	2,294.2	-121.9	2,296.6	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3140.0usft
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,800.0	90.00	0.00	9,518.0	2,394.2	-121.9	2,396.6	0.00	0.00	0.00
11,900.0	90.00	0.00	9,518.0	2,494.2	-121.9	2,496.6	0.00	0.00	0.00
12,000.0	90.00	0.00	9,518.0	2,594.2	-121.9	2,596.5	0.00	0.00	0.00
12,100.0	90.00	0.00	9,518.0	2,694.2	-121.9	2,696.5	0.00	0.00	0.00
12,200.0	90.00	0.00	9,518.0	2,794.2	-121.9	2,796.4	0.00	0.00	0.00
12,300.0	90.00	0.00	9,518.0	2,894.2	-121.9	2,896.4	0.00	0.00	0.00
12,400.0	90.00	0.00	9,518.0	2,994.2	-121.9	2,996.4	0.00	0.00	0.00
12,500.0	90.00	0.00	9,518.0	3,094.2	-121.9	3,096.3	0.00	0.00	0.00
12,600.0	90.00	0.00	9,518.0	3,194.2	-121.9	3,196.3	0.00	0.00	0.00
12,700.0	90.00	0.00	9,518.0	3,294.2	-121.9	3,296.3	0.00	0.00	0.00
12,800.0	90.00	0.00	9,518.0	3,394.2	-121.9	3,396.2	0.00	0.00	0.00
12,900.0	90.00	0.00	9,518.0	3,494.2	-121.9	3,496.2	0.00	0.00	0.00
13,000.0	90.00	0.00	9,518.0	3,594.2	-121.9	3,596.2	0.00	0.00	0.00
13,100.0	90.00	0.00	9,518.0	3,694.2	-121.9	3,696.1	0.00	0.00	0.00
13,200.0	90.00	0.00	9,518.0	3,794.2	-121.9	3,796.1	0.00	0.00	0.00
13,300.0	90.00	0.00	9,518.0	3,894.2	-121.9	3,896.1	0.00	0.00	0.00
13,400.0	90.00	0.00	9,518.0	3,994.2	-121.9	3,996.0	0.00	0.00	0.00
13,500.0	90.00	0.00	9,518.0	4,094.2	-121.9	4,096.0	0.00	0.00	0.00
13,600.0	90.00	0.00	9,518.0	4,194.2	-121.9	4,195.9	0.00	0.00	0.00
13,700.0	90.00	0.00	9,518.0	4,294.2	-121.9	4,295.9	0.00	0.00	0.00
13,800.0	90.00	0.00	9,518.0	4,394.2	-121.9	4,395.9	0.00	0.00	0.00
13,900.0	90.00	0.00	9,518.0	4,494.2	-121.9	4,495.8	0.00	0.00	0.00
TD @ 13976' MD / 9518' TVD									
13,976.0	90.00	0.00	9,518.0	4,570.2	-121.9	4,571.8	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PP Golden Spur Fede - plan misses target center by 173.8usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Point	0.00	0.00	0.0	-145.3	-95.3	366,788.23	684,379.47	32° 0' 25.272 N	103° 44' 18.636 W
VP Golden Spur Fede - plan hits target center - Point	0.00	0.00	8,601.8	-185.8	-121.9	366,747.70	684,352.89	32° 0' 24.872 N	103° 44' 18.947 W
PBHL Golden Spur Fe - plan hits target center - Point	0.00	0.00	9,518.0	4,570.2	-121.9	371,503.72	684,352.89	32° 1' 11.939 N	103° 44' 18.643 W

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Golden Spur Federal FBS 25 3H
Company:	Conoco Phillips	**TVD Reference:**	WELL @ 3140.0usft
Project:	Lea County, New Mexico	**MD Reference:**	WELL @ 3140.0usft
Site:	Golden Spur Unit	**North Reference:**	Grid
Well:	Golden Spur Federal FBS 25 3H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #3		

Formations

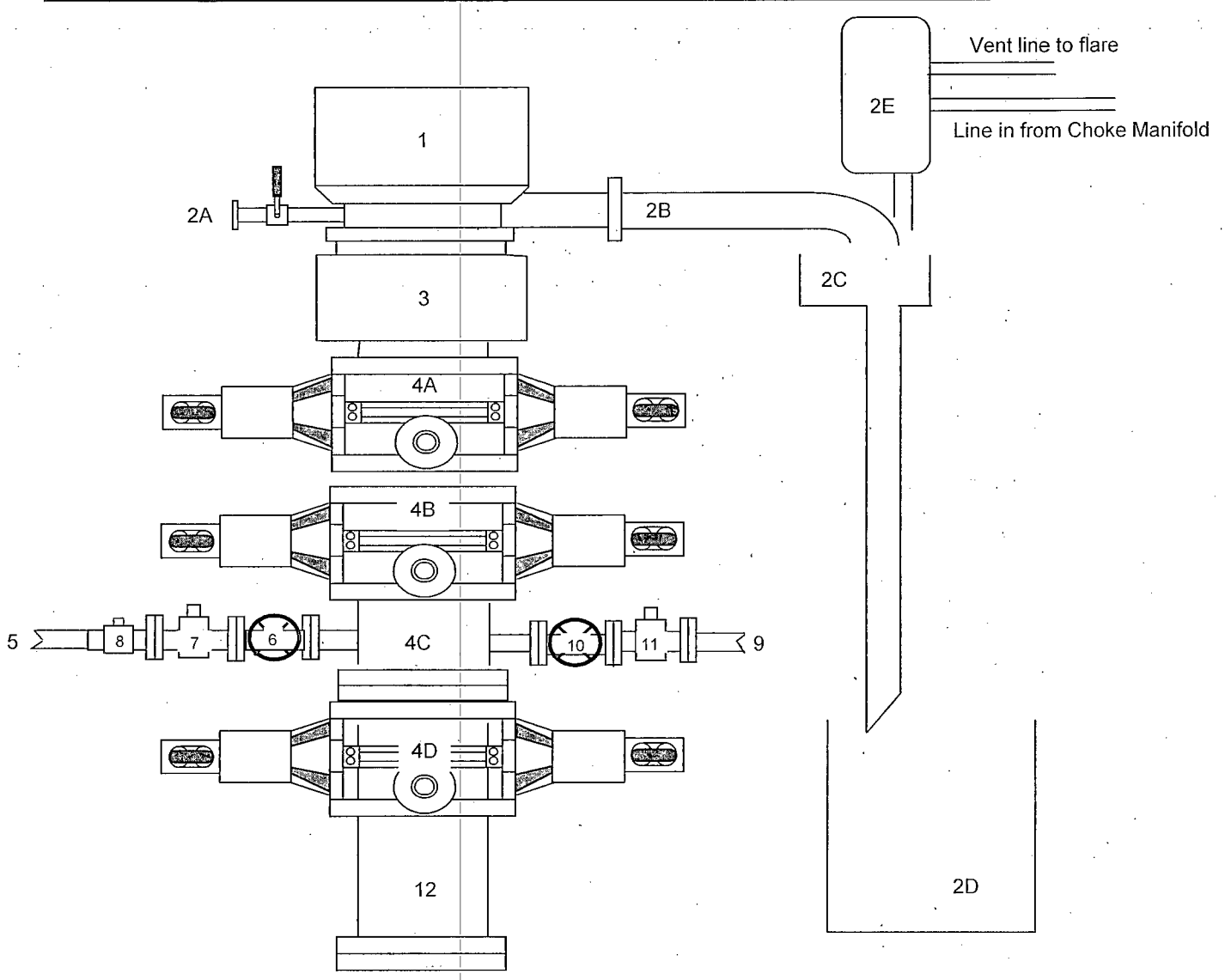
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
730.0	730.0	Rustler		0.00	358.47
1,071.0	1,071.0	Salado		0.00	358.47
2,690.0	2,690.0	Castile		0.00	358.47
4,123.0	4,123.0	Delaware Top		0.00	358.47
4,226.0	4,226.0	Olds		0.00	358.47
5,043.0	5,043.0	Cherry Canyon		0.00	358.47
6,907.5	6,904.0	Brushy Canyon		0.00	358.47
7,932.4	7,925.0	Bone Spring Top		0.00	358.47
8,208.5	8,200.0	Bone Spring 1st Top		0.00	358.47
8,519.4	8,510.0	Avalon A Top		0.00	358.47
8,749.4	8,740.0	Avalon B		0.00	358.47
8,844.4	8,835.0	Avalon C Top		0.00	358.47
9,091.5	9,075.0	1st Bone Spring Sand		0.00	358.47
9,152.1	9,130.0	Avalon D		0.00	358.47
9,484.1	9,380.0	1st Bone Spring Top		0.00	358.47

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,810.0	5,810.0	0.0	0.0	Build 2°/100'
6,059.8	6,059.5	-9.1	-6.0	EOB @ 5° Inc / 213.26° Azm
8,361.3	8,352.3	-176.7	-115.9	Drop 2°/100'
8,611.2	8,601.8	-185.8	-121.9	EOD @ Vertical
8,811.2	8,801.8	-185.8	-121.9	Build 8°/100'
9,936.2	9,518.0	530.4	-121.9	EOB @ 90° Inc / 0° Azm / 9518' TVD
13,976.0	9,518.0	4,570.2	-121.9	TD @ 13976' MD / 9518' TVD

BLOWOUT PREVENTER ARRANGEMENT

5M System per Onshore Oil and Gas Order No. 2 utilizing 10M Rated Equipment

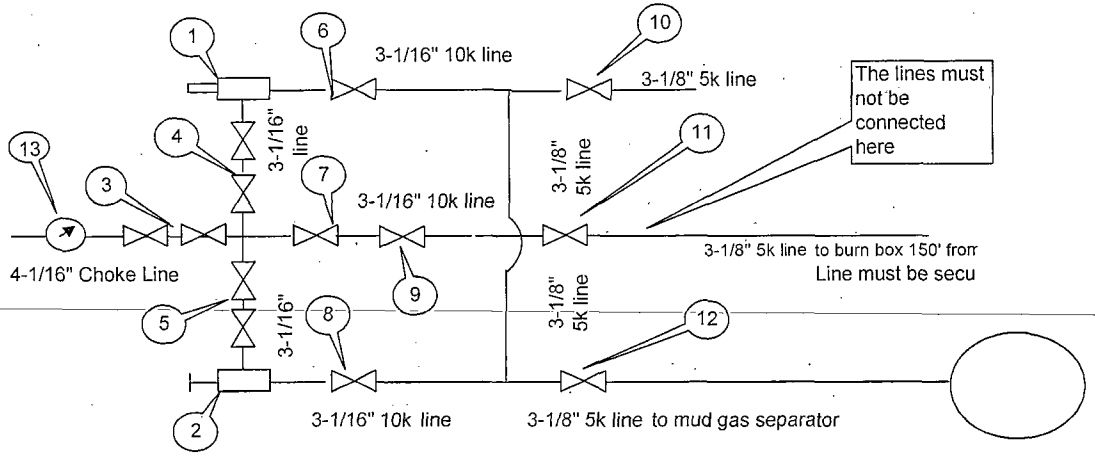


Item	Description
1	Rotating Head, 13-5/8"
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", Hydrill CK5M)
4A	Single Ram (13-3/8", 10M, equipped with pipe Rams)
4B	Single Ram (13-3/8", 10M, equipped with blind Rams)
4C	Drilling Spool (13-3/8" 10M)
4D	Single Ram (13-3/8", 10M, equipped with pipe Rams)
5	Kill Line (2-1/16", 10k psi WP)
6	Kill Line Valve, Inner (Cameron "FLS" 2-1/16"", 10k psi WP)
7	Kill Line Valve, Outer (Cameron "FLS" 2-1/16"", 10k psi WP)
8	Kill Line Check Valve (2-1/16, 10k psi WP)
9	Choke Line (4-1/16", 10k psi WP)
10	Choke Line Valve, Inner (4-1/16", 10k psi WP)
11	Choke Line Valve, Outer, (4-1/6" 100 psi WP HCR)
12	Drilling Spool Adapter (13-3/8", 10M)

Drawn by: Salvatore Amico, Drilling Engineer, ConocoPhillips Company, Oct 26th, 2012

CHOKE MANIFOLD ARRANGEMENT

5M System per Onshore Oil and Gas Order No. 2 utilizing 10M Equipment



All Tees must be targeted

Item	Description
1	Remote Controlled Hydraulic Adjustable Choke, 4-1/16", 10M (Swaco Super hoke)
2	Manual Adjustable Choke, 4-1/16", 10M
3	2 Gate Valves, 4-1/16" 10M
4	Gate Valve, 3-1/16" 10M
5	Gate Valve, 3-1/16" 10M
6	Gate Valve, 3-1/16" 10M
7	Gate Valve, 3-1/16" 10M
8	Gate Valve, 3-1/16" 10M
9	Gate Valve, 3-1/16" 10M
10	Gate Valve, 3-1/8" 5M
11	Gate Valve, 3-1/8" 5M
12	Gate Valve, 3-1/8" 5M
13	Pressure Gauge

We will test each valve to 5000 psi from the upstream side.

Drawn by:
Salvatore Amico
Drilling Engineer, ConocoPhillips Company
Date: Oct 26th-2012

ConocoPhillips Company
Closed Loop System Design, Operating and Maintenance, and Closure Plan

Date: February 21, 2012

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we dispose of or bury any waste on location.

   All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:
   - We propose to use the rigs's steel pits for containing and maintaining the drilling fluids.
   - We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
   - We propose that any excess water that may need to be stored on location will be stored in a fresh water pond.

   The closed loop system components will be inspected daily by each tour and any needed repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and / or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

   Controlled Recovery Inc,
   4507 West Carlsbad Hwy, Hobbs, NM 88240,
   P.O. Box 388 Hobbs, New Mexico 88241
   Toll Free Phone: 877.505.4274, Local Phone Number: 432-638-4076

   The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

   The Permit Number for CRI is R9166

   A photograph showing the type of haul-off bins that will be used is attached.

3. Mud will be transported by vacuum truck and disposed of at Controlled Recovery Inc at the facility described above.

4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:

   - Nabors Well Services Company, 3221 NW County Rd, Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)

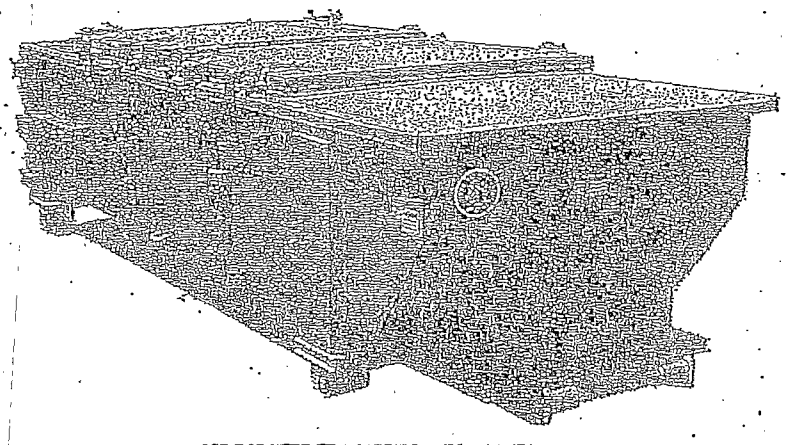
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

Luis Serrano Drilling Engineer
ConocoPhillips Company, 600 North Dairy Ashford, Room #2WL-13016, Houston, TX 77079-1175
Office: 832-486-2346

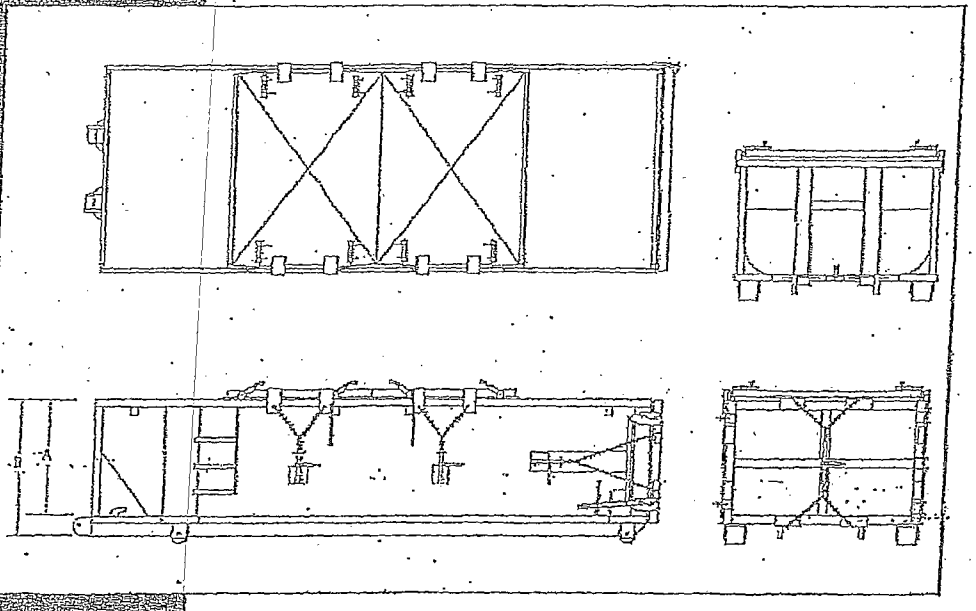
SPECIFICATIONS

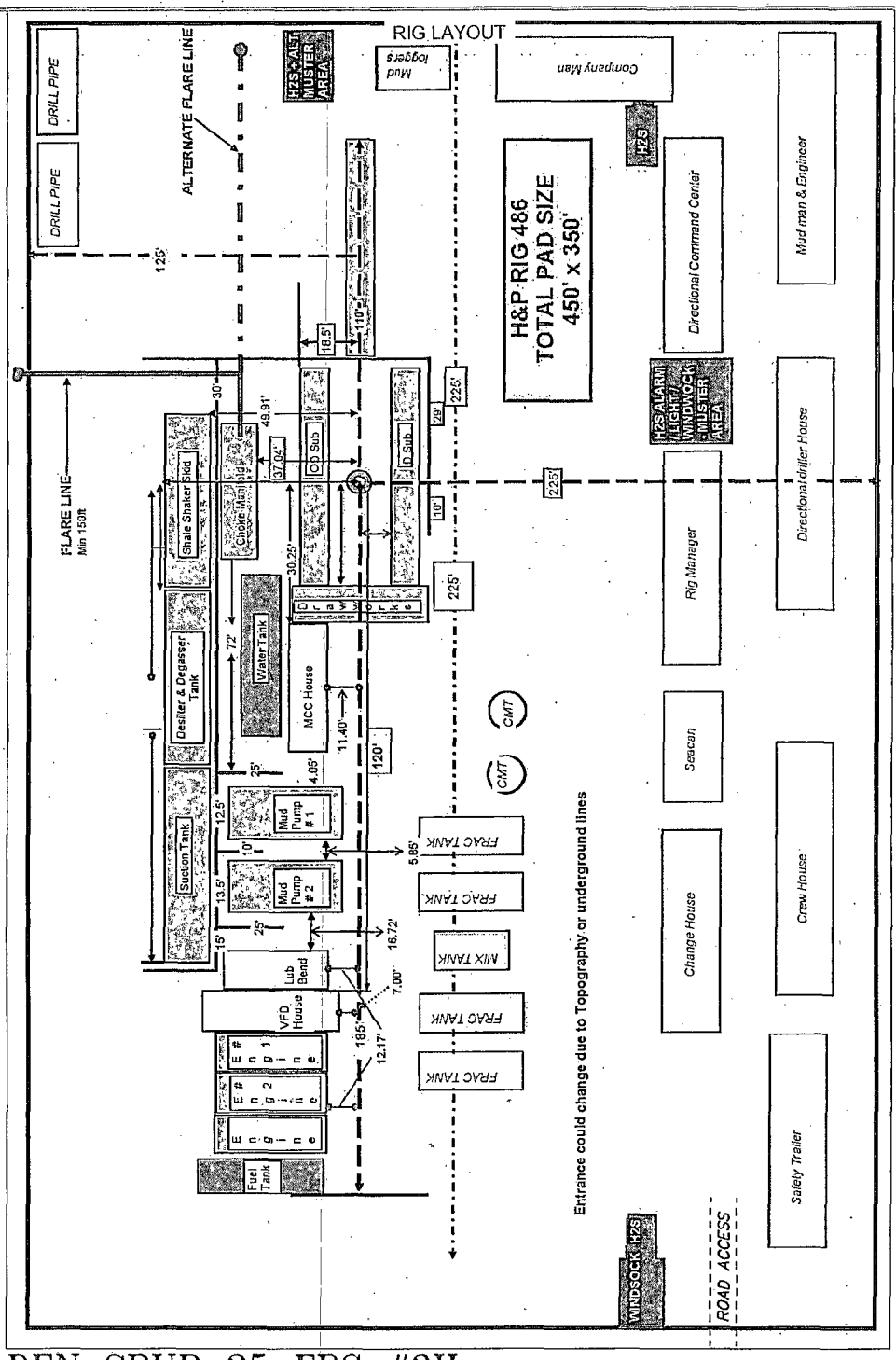
Heavy Duty Split Metal Rolling Lid

FLOOR: 3/16" PL one piece.
CROSS MEMBER: 3"x4.1 channel, 16" on center.
WALLS: 3/16" PL solid welded with tubing top inside liner hooks.
DOOR: 3/16" PL with tubing frame.
FRONT: 3/16" PL slant formed.
PICKUP: Standard cable with 2"x6"x1/4" rails, 4 per set at each crossmember.
WHEELS: 10" DIA x 9" long with grease fittings.
DOOR: RATCH. independent ratchet binders with chains, vertical second latch.
GASKETS: Extruded rubber seal with metal retainers.
WELDS: All welds continuous except substructure crossmembers.
FINISH: Coated inside and out with direct to metal, asphalt inhibiting acrylic enamel color coat.
HYDRO TESTING: Full capacity static test.
DIMENSIONS: 22'-1" long (21'-8" inside), 96" wide (88" inside), see drawing for height.
OPTIONS: Steel grit blast and special paint, Amplirol, Hellend Dino pickup.
ROOF: 3/16" PL roof panels with tubing and channel support frame.
LIDS: (2) 68"x90" metal rolling lids spring loaded, self raising.
ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings.
OPENING: (2) 60"x82" openings with 8" divider centered on container.
LATCH (2) independent ratchet binders with chains per lid.
GASKETS: Extruded rubber seal with metal retainers.



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77





GOLDEN SPUR 25 FBS #3H
Located 465' FSL and 530' FWL
Section 25, Township 26 South, Range 31 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 27289
Survey Date: 10-11-2012
Scale: 1" = NONE
Date: 10-12-2012

ConocoPhillips

ConocoPhillips

HYDROGEN SULFIDE (H_2S) OPERATIONS

Contingency Plan
For
Permian Drilling Operations

ConocoPhillips Company
Mid-Continent Business Unit
Permian Asset Area

I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H_2S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H_2S release. Release of H_2S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.

II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H2S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H_2S could exist under specific weather conditions.

III. PROCEDURES

First Employee on Scene

____ Assess the incident and ensure your own safety.

Note the following:

____ Location of the incident.
____ Nature of the incident.
____ Wind direction and weather conditions.
____ Other assistance that may be needed.

____ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

____ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

____ Secure the site.

____ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

____ Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

____ Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

DETECT the problem
ESTIMATE likely harm without intervention
CHOOSE response objectives
IDENTIFY action options
DO the best option
EVALUATE the progress

____ Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

____ Call your supervisor (refer to Section V: Emergency Call List).

—— Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).

—— Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).

—— Ensure site security.

—— Set barricades and /or warning signs at or beyond the calculated 100 ppm H_2S radius of exposure (ROE). All manned barricades must be equipped with an H_2S monitor and a 2-way radio.

—— Set roadblocks and staging area as determined.

—— Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:

Recording Secretary _____
Public Information Officer _____
Safety/Medical Officer _____
Decontamination Officer _____

—— Have the "Recording Secretary" begin documenting the incident on the "Incident Log" (refer to Section VIII: Forms/Reports).

—— If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.

—— Perform a Site Characterization and designate the following:

Hot Zone -- Hazardous Area
Warm Zone -- Preparation & Decontamination Area
Cold Zone -- Safe Area

AND

On-Scene Incident Command Post	(Cold Zone)
Public Relations Briefing Area	(Cold Zone)
Staging Area	(Cold Zone)
Triage Area	(Cold Zone)
Decontamination Area	(Warm Zone)

_____ Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

_____ Coordinate the attempt to stop the release of H_2S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used ONLY AS A LAST RESORT. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

_____ Once the emergency is over, return the situation to normal by:

Confirming the absence of H_2S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

_____ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

_____ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

_____ Report completion of the cleanup to the Asset Environmentalist. (Environmentalist will report this to the proper State and/or Federal agencies.)

_____ Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.

- Company employee involved in a vehicle accident while driving a company vehicle.

- Company property that is damaged or lost.

- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.

- Hazardous Material Spill/Release Report Form

- Emergency Drill Report

_____ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

_____ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

Emergency Procedures
Responsibility

In the event of a release of potentially hazardous amounts of H2S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.

2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.

3. Advise each contractor, service company, and all others entering the site that H2S may be encountered and the potential hazards that may exist.

4. Authorize the evacuation of local residents if H2S threatens their safety.

5. Keep the number of persons on location to a minimum during hazardous operations.

6. Direct corrective actions to control the flow of gas.

7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard. This should be used **ONLY AS A LAST RESORT.**

IV. EMERGENCY EQUIPMENT and MAINTENANCE

Emergency Equipment Suppliers

Safety International – Odessa, Tx. 432.580.3770
H_2S monitors
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment
H2S Specialist

Total Safety US Odessa, Tx/ Hobs, NM 432.561.5049 Odessa, Tx.
575.392.2973 Hobbs, NM
H_2S monitors
Breathing air includes cascade systems
Fire fighting equipment
First aid and medical supplies
Safety equipment

Indian Fire & Safety – Hobbs, NM 575.393.3093
H_2S monitors
Breathing air including cascade systems trailer mounted
30 minute air packs
Safety Equipment

Emergency Equipment and Maintenance (continued)

General Information

Materials used for repair should be suitable for use where H_2S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H_2S areas shall have received training on the hazards, characteristics, and properties of H_2S, and on procedures and safety equipment applicable for use in H_2S areas.

H2S Safety Equipment and Monitoring Systems

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:
- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windsocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)
- 1 – located at the rig floor
- 1 – located in the mud mixing room

Note: All alarms (audible and visual) should be set to alarm at 10 ppm.

2 - Briefing areas clearly marked
- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

Note:

1. All SCBA's must be positive pressure type only!!!

2. All SCBA's must either be Scott or Drager brand.

3. All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.

5 – Emergency Escape Paks located at Top Doghouse.
- Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area if safe to re-enter prior to returning to work following any alarm.

V. EMERGENCY CALL LIST:

The following is a priority list of personnel to contact in an emergency situation:

Supervisory Personnel	Office No.	Home	Cellular
R.W. "Cottton" Hair Permian Drilling Supt.	432.368.1302	432.563.9467	432.556.9116
Dennis Paschall Permian Drilling Field Supt.	432.368.1517	432.683.9400	432.238.3150
Tom Samarripa WSER	423.368.1263	432.367.4961	432.556.9113
Ty Maxey Permian Asset Operations Manager	432.368.1100		281.217.8492
Leo Gatson Safety and Environmental Coordinator	432.368.1248		432.631.066
Lynn Dooley Drilling Mngr.	832.486.2567	281.225.8063	281.435.3517

EMERGENCY CALL LIST: State Officials

Regulatory Agencies

New Mexico Oil Conservation Commission Office: 575.393.6161
P. O. Box 1980
Hobbs, New Mexico 88240-1980

Bureau of Land Mngt.
Carlsbad Field Office Office: 575.234.5972
620 E. Greene St. Fax: 575.885.9264
Carlsbad, NM 88220 BLM 24 Hr on call # Lea County: 575-393-3612

EMERGENCY CALL LIST: Local Officials

Refer to the Location Information Sheet
Note: The LIS should include any area residents (i.e. rancher's house, etc)

ConocoPhillips Emergency Call List and Location Information Sheet

ConocoPhillips- 281-293-3600

Drilling Superintendent	Cotton Hair	Office: 432-368-1302 Cell: 432-556-9116
Safety (WSER)	Tom Samarripa	Office: 432-368-1263 Cell: 432-556-9113
Drilling Engineer	Steve Moore	Office: 832-486-2459 Cell: 281-467-7596
Regulatory Contact	Brian Maiorino	Office: 432-688-6913 Cell: 432-210-7097

Emergency Numbers

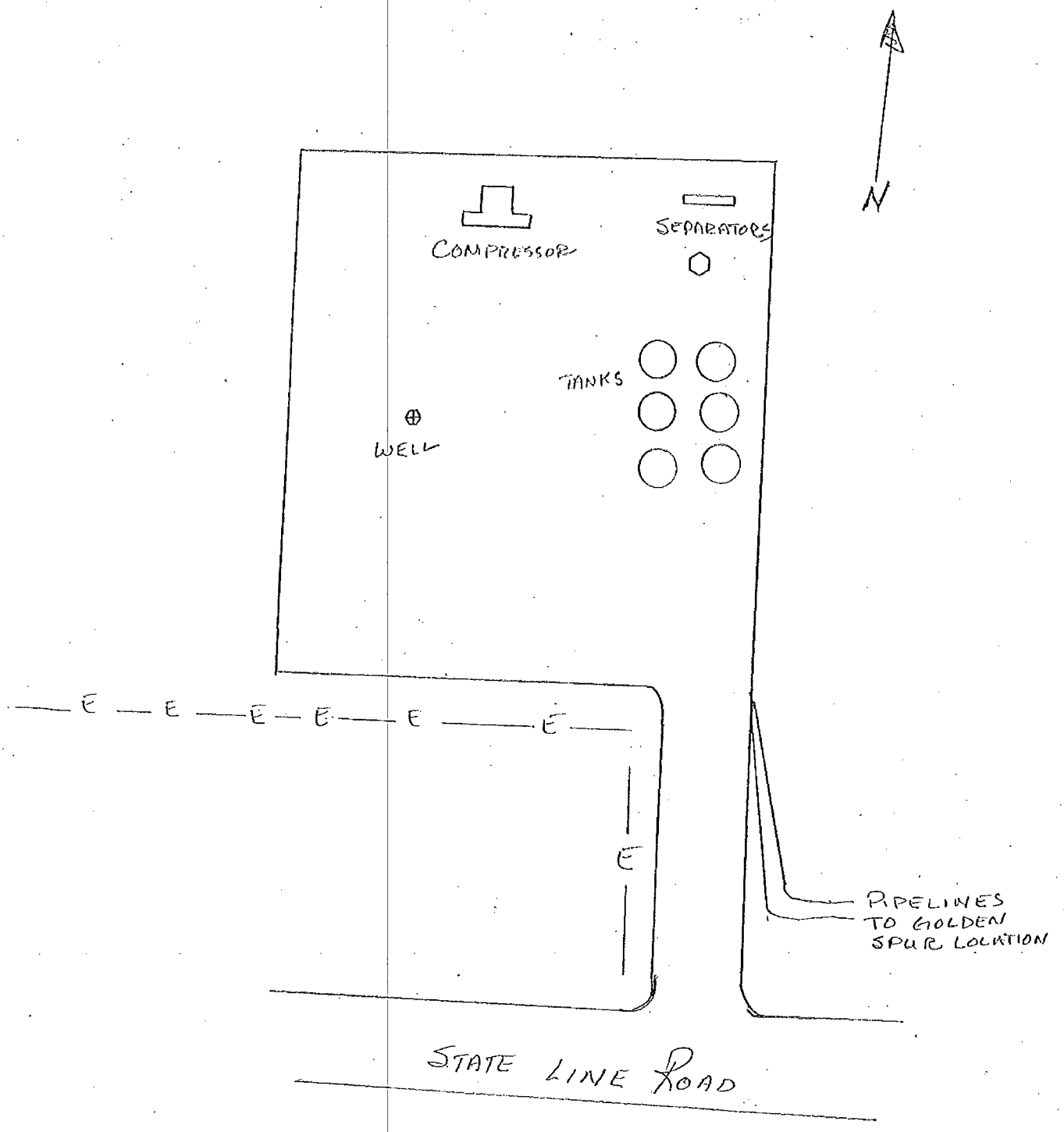
Hospital: Lea Co. Regional Medical Center (Hobbs) 575-492-5000
Ambulance: Hobbs Fire Dept. 575-397-9308
Air Ambulance: Care Star 888-624-3571
Aero Star 800-627-2376
Fire Dept. (Hobbs) 575-397-9308
(Maljamar non-emerg) 575-676-4100
State Police (Artesia) 575-748-9718
(Hobbs) 575-392-5580
Sheriff (Lovington).....575-396-3611
Police (Lovington) 575-396-5166
NMOCD 575-393-6161
(Emerg) 575-370-3186
BLM Switchboard.....575-393-3612
BLM 24 Hr on Call, Lea County.....575-393-3612
New Mexico Emergency Response Comm (Santa Fe) 505-476-9600
New Mexico State Emerg Ops Ctr 505-476-9635
National Emerg Response Center 800-424-8802

Number of Residences within 1 mile of Well: There are no residences within one mile of the well to be drilled.

CONOCO PHILLIPS

GOLDEN SPUR FEDERAL FBS 25-2H

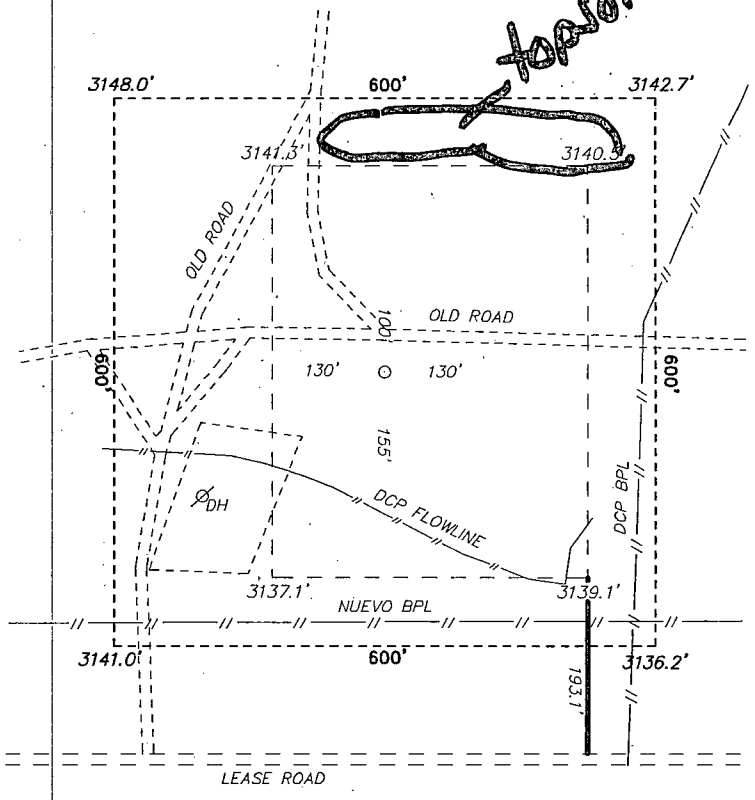
SITE LAYOUT



SECTION 25, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY, WELL PAD VACINITY NEW MEXICO.

topsoil



CONOCO PHILLIPS
GOLDEN SPUR 25 FBS #3H
ELEV. - 3144'

Lat - N 32°00'26.95"
Long - W 103°44'18.53"
NMSPCE- N 366970.559
E 725721.087
(NAD-83)

Lat - N 32°00'26.50"
Long - W 103°44'16.84"
NMSPCE- N 366913.525
E 684533.859
(NAD-27)

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF ORLA AND BATTLE AXE, GO SOUTH ON ORLA FOR 1.8 MILES TO LEASE ROAD, GO WEST ON LEASE ROAD FOR 1.2 MILES TO PROPOSED LEASE ROAD.

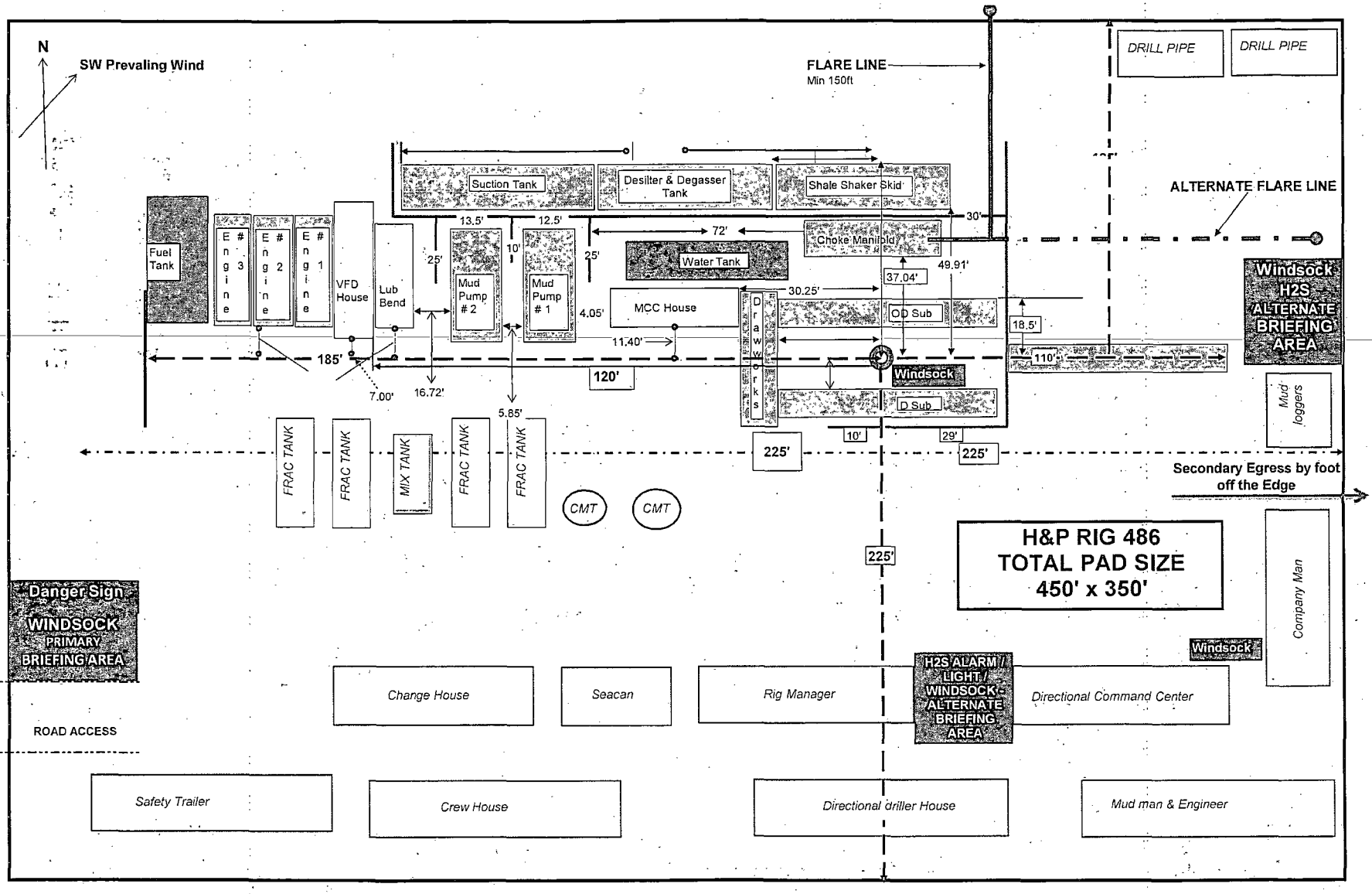
ConocoPhillips

REF: GOLDEN SPUR 25 FBS #3H / WELL PAD VACINITY

THE GOLDEN SPUR 25 FBS #3H LOCATED 465' FROM THE SOUTH LINE AND 530' FROM THE WEST LINE OF SECTION 25, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 27289	Drawn By: J. SMALL		
Date: 10-12-2012	Disk: JMS 27289	Survey Date: 10-11-2012	Sheet 2 of 12 Sheets


N
SW Prevaling Wind
FLARE LINE
Min 150ft
DRILL PIPE
DRILL PIPE
ALTERNATE FLARE LINE
Suction Tank
Desilter & Degasser Tank
Shale Shaker Skid
Choke Manifold
Water Tank
Fuel Tank
Engine #3
Engine #2
Engine #1
VFD House
Lub Bend
Mud Pump # 2
Mud Pump # 1
MCC House
Drawworks
OD Sub
D Sub
Windsock
Windsock H2S ALTERNATE BRIEFING AREA
Mud loggers
FRAC TANK
FRAC TANK
MIX TANK
FRAC TANK
FRAC TANK
CMT
CMT
Secondary Egress by foot off the Edge
H&P RIG 486
TOTAL PAD SIZE
450' x 350'
Company Man
Danger Sign
WINDSOCK
PRIMARY BRIEFING AREA
H2S ALARM / LIGHT / WINDSOCK - ALTERNATE BRIEFING AREA
Change House
Seacan
Rig Manager
Directional Command Center
ROAD ACCESS
Safety Trailer
Crew House
Directional driller House
Mud man & Engineer
13.5'
12.5'
72'
30'
25'
10'
25'
4.05'
30.25'
37.04'
49.91'
18.5'
110'
11.40'
185'
120'
7.00'
16.72'
5.85'
225'
225'
225'
10'
29'

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Conoco Phillips**
LEASE NO.:	**NMLC-068282B**
WELL NAME & NO.:	**Golden Spur 25 FBS 3H**
SURFACE HOLE FOOTAGE:	**0465' FSL & 0530' FWL**
BOTTOM HOLE FOOTAGE	**0330' FNL & 0380' FWL**
LOCATION:	**Section 25, T. 26 S., R 31 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. 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 stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used 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. 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 (20) 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.

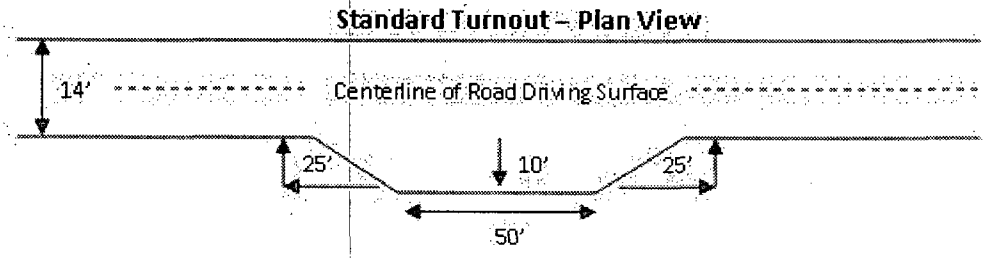
Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

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 the uphill side of the road.

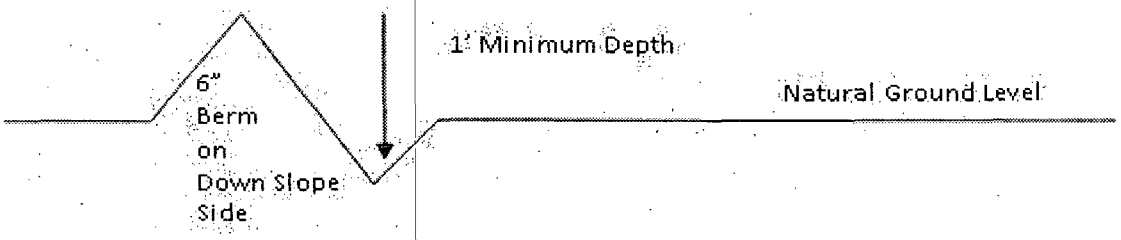
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



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:

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

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

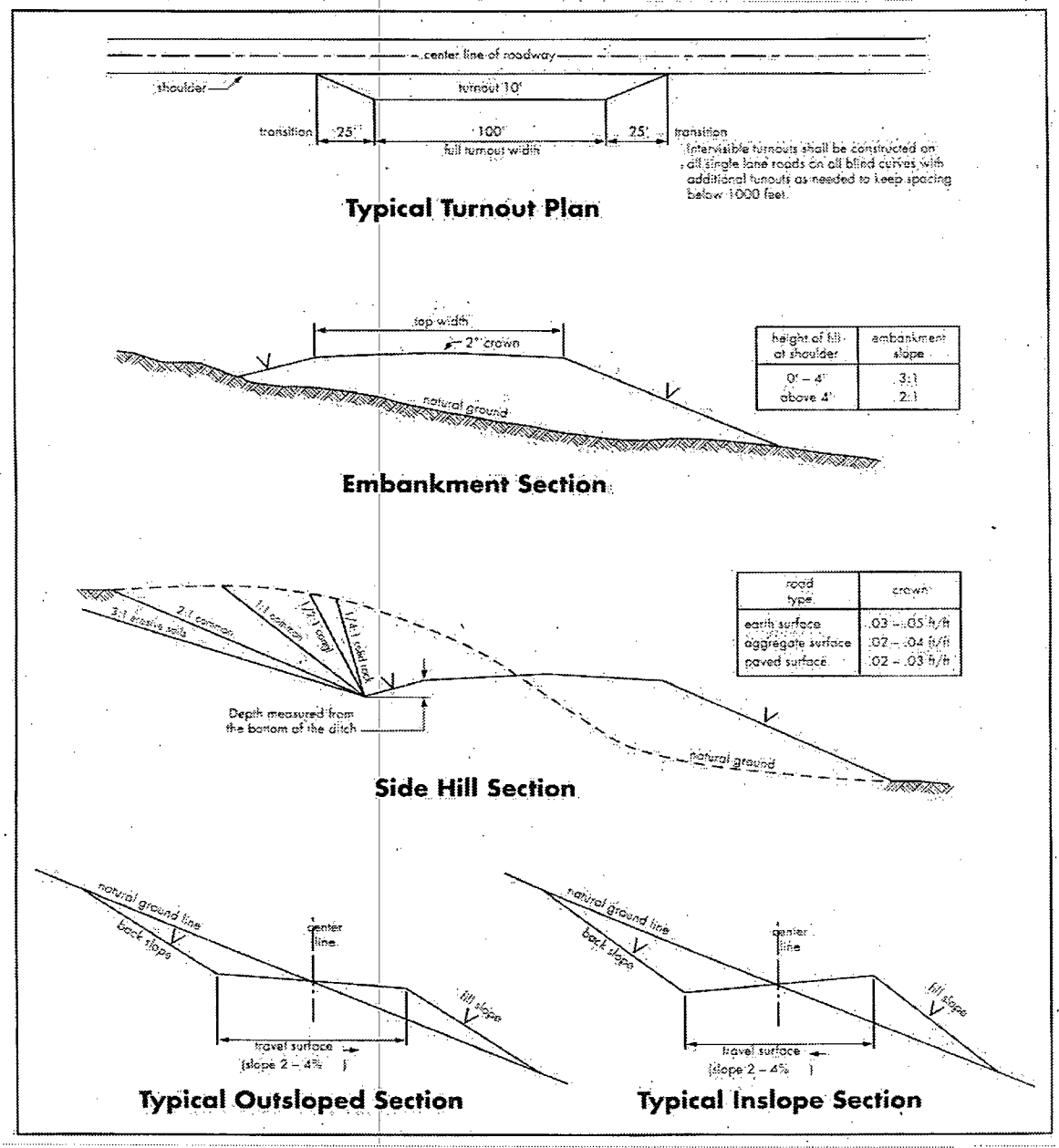
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

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

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please 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. 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.

Possible water and brine flows in the Salado, Castile, Delaware, and Bone Springs Formations.
Possible lost circulation in the Red Beds, Delaware, and Bone Springs Formations.

Before used casing can be installed a sundry must be submitted for approval.

1. The **13-3/8** inch surface casing shall be set at approximately **1040** feet (**in a competent bed <u>below the Magenta Dolomite</u>, a <u>Member of the Rustler</u>**) and cemented to the surface.

    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.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

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 should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

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.

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 **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

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

   a. In a water basin, 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. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   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.

   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.

JAM 032013

VII. 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.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES
STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant 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 **15** feet.

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.

(March 1989)

BURIED PIPELINE STIPULATIONS

A copy of the Grant and attachments, including conditions of approval, 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 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. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil 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 or other

pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of 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 holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **15** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **15** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. 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.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless

otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

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. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

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. All signs and information thereon will be posted in a permanent, conspicuous manner, and 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 before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

15. Any cultural and/or paleontological resources (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 actions to prevent the loss of significant 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 associated roads, 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.

C. ELECTRIC LINES
STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant 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 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Power lines, " Raptor Research Foundation, Inc., 1981. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. 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 actions to prevent the loss of significant 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.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly. Fill in any holes from the poles removed.

VIII. 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 1, for Loamy 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 regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/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
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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