

RECEIVED

JAN 13 2012

OCD-ARTESIA
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
OCD-ARTESIA
APPLICATION FOR PERMIT TO DRILL OR REENTER

OCD-ARTESIA

SECRETARY'S POTASH

FORM APPROVED
OMB No 1004-0137
Expires July 31, 20105. Lease Serial No. NM BHL
NMNM 024160 & 067102

6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone8. Lease Name and Well No. [39023]
Parkway 35 Federal Com 4H

2. Name of Operator

9. API Well No.

SM Energy Company

30-015-39839

3a. Address 3300 N. A St. bldg. 7-200 Midland,
TX 797053b. Phone No. (include area code)
(432)688-3125

10. Field and Pool, or Exploratory

Parkway Bone Spring [49622]
Sec 35 - T19S - 29E

4. Location of Well (Report location clearly and in accordance with any State requirements *)

At surface 450 FSL & 330 FWL (SL) Unit M

At proposed prod. zone 660 FSL & 330 FEL (BHL) Unit P

14. Distance in miles and direction from nearest town or post office*

8 miles south of Loco Hills, NM

12. County or Parish

Eddy

13. State

NM

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

330'

16. No. of acres in lease
40017. Spacing Unit dedicated to this well
16018. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft

1500'

19. Proposed Depth
12538' MD 8276' TVD20. BLM/BIA Bond No. on file
NMB00080521. Elevations (Show whether DF, KDB, RT, GL, etc.)
3320' GL22. Approximate date work will start*
1/15/201223. Estimated duration
40 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.

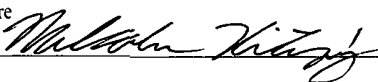
2. A Drilling Plan.

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)

Malcolm Kintzing

Date

10/06/2011

Title

Engineer

Approved by (Signature)

/s/ Tony J. Herrell

Name (Printed/Typed)

/s/ Tony J. Herrell

Date

DEC 28 2011

Title

FOR STATE DIRECTOR

Office

NM STATE OFFICE

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

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

CAPTAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1626 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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 July 16, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-35839	Pool Code 49622	Pool Name Parkway Bone Spring
Property Code 39023	Property Name PARKWAY "35" Federal Com	Well Number 4H
OGRID No. 154903	Operator Name SM ENERGY	Elevation 3320'

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	35	19 S	29 E		450	SOUTH	330	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
P	35	19 S	29 E		660	SOUTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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

SURFACE LOCATION Lot - N 32°36'40.11" Long - W 104°03'11.12" NMSPCE- N 586178.218 E 627628.623 (NAD-83)	PROPOSED BOTTOM HOLE LOCATION Lot - N 32°36'41.78" Long - W 104°02'17.09" NMSPCE- N 586358.666 E 632249.891 (NAD-83)	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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. <i>Malden Kintzberg</i> 8/29/11 Signature Date <i>Malden Kintzberg</i> Printed Name <i>MKintzberg@att.net</i> 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 supervision and that the same is true and correct to the best of my belief. <i>GARY L. JONES</i> Signature & Seal of Professional Surveyor <i>GARY L. JONES</i> Date Surveyed		Certificate No. Gary L. Jones 7977 HASIN SURVEYS 24921

Exhibit A

Drilling program

SM Energy Company
Parkway 35 Federal Com 4H
450 FSL & 330 FWL (SHL)
660 FSL & 330 FEL (BHL)
Sec 35-T19S-R29E
Eddy County, New Mexico

The estimated tops of geologic markers are as follows

Rustler	221'
Top of Salt	390'
Base of Salt	1100'
*Yates	1346'
Capitan	2241'
*Cherry Canyon	3460'
*Brushy Canyon	4141'
*Bone Spring	5766'
*Wolfcamp	9486'

Estimated depths of anticipated fresh water, oil, or gas

Fresh water is expected at 75' and will be protected by setting surface casing at 250' and cementing to surface.

Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as required.

Pressure and control equipment

A 2M diverter system will be installed after running 20" casing.

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested by a third party as per BLM onshore oil and gas order No. 2 as a 3M system prior to drilling out the surface casing shoe. In addition to the rams and annular preventer, additional BOP accessories including a Kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi work pressure will be used.

Proposed casing and cementing program

A. Casing program:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Casing #/foot</u>	<u>Grade</u>	<u>Setting Depth</u>	<u>Collar</u>
26"	20"	94	J55	0-250'	BTC
17.5"	13 3/8" (new)	54.5	J55	0-1500'	STC
12 1/4"	9 5/8" (new)	36	J55	0-3300'	LTC
8 3/4"	7" (new)	26	P110	0-8468'	LTC
6 1/8"	4.5" (new)	11.6	P110	8,250'-12,500'	LTC

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

*Subject to casing availability

SM Energy Company proposes drilling an 8-3/4" vertical pilot hole to 10,000 MD and plug back to KOP. The cement plug details are included below in the Cementing program.

B. Cementing Program:

- I. **Surface conductor pipe:** 190 sx class C light cement 35:65 with salt and LCM additives. Yield of 2.0 cuft/sx. 280 sx Class C cement with 2% CaCl₂. Yield of 1.34 cuft/sx. Cmt circulated to surface w/100% excess.
- II. **Surface casing:** 525 sx 35:65 Class C light cement with salt and LCM additives. Yield at 2.0 cuft/sx. 780 sx class C cement containing 2% CaCl₂. Yield 1.34 cuft/sx. Cmt circulated to surface w/100% excess.
- III. **Intermediate Casing:** 550 sx. 35:65 Class C light cement with salt and LCM additives. Yield at 2.0 cuft/sx. 410 sx class C cement containing 2% CaCl₂. Yield 1.34 cuft/sx. Cmt circulated to surface w/50% excess.
- IV. **Deep intermediate Casing:** 600 sx Class H light cement 35:65 with fluid loss, LCM, & salt additives. Yield at 2.12 cuft/sx. 270 sx class H cement containing fluid loss additives. Yield at 1.18 cuft/sx. Cmt circulated to 2000' w/25% excess.
- V. **Production Casing:** plans are to use a sliding sleeve, frac port and packer system with 4 1/2" liner. No cement required.
- VI. **Pilot Hole Plugs:**
 - i. **Plug 1:** 300 sx Class H Cement, 15.6, 1.18 cuft/sx
 1. **Top of plug** 9,000 ft
 2. **Bottom of plug** 10,000 ft
 - ii. **Plug 2:** 350 sx Class H Cement, 18 ppg, 0.90 cuft/sx
 1. **Top of plug** 7,500 ft
 2. **Bottom of plug** 8,000 ft

See
COA

See
COA

*SM Energy Company reserves the right to change cement designs as hole conditions may warrant.

Mud Program

<u>Interval</u>	<u>mud type</u>	<u>weight</u>	<u>Viscosity</u>	<u>Fluid loss</u>
0-300' <i>250</i>	Fresh water spud mud	8.6-9.4	32-34	No Control
300'-1500'	Brine	10	28-30	No Control
1500'-3300'	Fresh water	8.4	28-30	No Control
3300'-8468'	Cut bine	8.4-8.6	28-30	No Control
8468'-TD MD	Cut brine w/polymer	8.4-8.6	32-40	No Control

Evaluation Program

- See*
OK
- I. Mud log samples will be taken in 10' intervals after drilling out the surface casing.
 - II. Open hole logs will be run from pilot hole TD to intermediate casing. Open hole logs include a Dual laterolog, compensated neutron-density, Gamma Ray and Caliper.
 - III. Gamma Ray will be used to drill lateral hole.
 - IV. No Drill stem tests or coring is planned at this time
 - V. Additional testing may be initiated based on log evaluation and geological sample shows.

Downhole Conditions

Zones of abnormal pressure:	None anticipated
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	130 degrees F
Maximum bottom hole pressure:	.433 psi/ft gradient

Anticipated Starting Date:

SM Energy Company intends to drill this well early 2012 with approximately 40 days involved in drilling operations and an additional 10 days involved in completion operations on the project.



SM Energy

Eddy County (NAD83)

Parkway "35" #4H

Parkway "35" #4H

Lateral #1

Plan: Plan #1

Standard Planning Report

22 August, 2011



Planning Report

Database: EDM 5000.1 Black Viper
Company: SM Energy
Project: Eddy County (NAD83)
Site: Parkway "35" #4H
Well: Parkway "35" #4H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Site Parkway "35" #4H
TVD Reference: KB @ 3338.00usft (Nabors 474)
MD Reference: KB @ 3338.00usft (Nabors 474)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Parkway "35" #4H

Site Position:		Northing:	586,178.22 usft	Latitude:	32° 36' 40.114 N
From:	Map	Easting:	627,628.63 usft	Longitude:	104° 3' 11.123 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.15°

Well Parkway "35" #4H

Well Position	+N/-S	0.00 usft	Northing:	586,178.22 usft	Latitude:	32° 36' 40.114 N
	+E/-W	0.00 usft	Easting:	627,628.63 usft	Longitude:	104° 3' 11.123 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	3,338.00 usft	Ground Level:	3,320.00 usft

Wellbore Lateral #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/22/2011	7.81	60.46	48,778

Design Plan #1

Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	7,500.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	87.76	

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
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,584.52	0.00	0.00	7,584.52	0.00	0.00	0.00	0.00	0.00	0.00	
8,467.80	88.33	87.76	8,157.24	21.70	555.82	10.00	10.00	0.00	87.76	
12,538.09	88.33	87.76	8,276.00	180.45	4,821.27	0.00	0.00	0.00	0.00	PBHL#1[P"35" #4H]



Planning Report

Database: EDM 5000 1 Black Viper
Company: SM Energy
Project: Eddy County (NAD83)
Site: Parkway "35" #4H
Well: Parkway "35" #4H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Site Parkway "35" #4H
TVD Reference: KB @ 3338 00usft (Nabors 474)
MD Reference: KB @ 3338 00usft (Nabors 474)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,529.99	0.00	0.00	7,529.99	0.00	0.00	0.00	0.00	0.00	0.00
7,559.99	0.00	0.00	7,559.99	0.00	0.00	0.00	0.00	0.00	0.00
7,584.52	0.00	0.00	7,584.52	0.00	0.00	0.00	0.00	0.00	0.00
KOP Build 10.00°/100' :: TFO 87.76									
7,589.98	0.55	87.76	7,589.98	0.00	0.03	0.03	9.99	9.99	0.00
7,619.98	3.55	87.76	7,619.98	0.04	1.10	1.10	10.00	10.00	0.00
7,649.98	6.55	87.76	7,649.98	0.15	3.73	3.74	10.00	10.00	0.00
7,679.98	9.55	87.76	7,679.98	0.31	7.93	7.93	10.00	10.00	0.00
7,709.98	12.55	87.76	7,709.98	0.53	13.67	13.68	10.00	10.00	0.00
7,739.98	15.55	87.76	7,739.98	0.82	20.95	20.96	10.00	10.00	0.00
7,769.98	18.55	87.76	7,769.98	1.16	29.73	29.75	10.00	10.00	0.00
7,799.98	21.55	87.76	7,799.98	1.56	40.01	40.04	10.00	10.00	0.00
7,829.98	24.55	87.76	7,829.98	2.02	51.74	51.78	10.00	10.00	0.00
7,859.98	27.55	87.76	7,859.98	2.53	64.90	64.95	10.00	10.00	0.00
7,889.98	30.55	87.76	7,889.98	3.10	79.45	79.51	10.00	10.00	0.00
7,919.98	33.55	87.76	7,919.98	3.72	95.36	95.43	10.00	10.00	0.00
7,949.98	36.55	87.76	7,949.98	4.40	112.57	112.66	10.00	10.00	0.00
7,974.03	38.95	87.76	7,974.03	4.97	127.28	127.38	10.00	10.00	0.00
2nd Bone Spring									
7,979.98	39.55	87.76	7,979.98	5.12	131.04	131.14	10.00	10.00	0.00
8,009.98	42.55	87.76	8,009.98	5.89	150.73	150.84	10.00	10.00	0.00
8,039.98	45.55	87.76	8,039.98	6.70	171.56	171.70	10.00	10.00	0.00
8,069.98	48.55	87.76	8,069.98	7.56	193.50	193.65	10.00	10.00	0.00
8,099.98	51.55	87.76	8,099.98	8.45	216.48	216.64	10.00	10.00	0.00
8,129.98	54.55	87.76	8,129.98	9.39	240.43	240.61	10.00	10.00	0.00
8,159.98	57.55	87.76	8,159.98	10.36	265.29	265.50	10.00	10.00	0.00
8,189.98	60.55	87.76	8,189.98	11.36	291.00	291.22	10.00	10.00	0.00
8,219.98	63.55	87.76	8,219.98	12.40	317.48	317.72	10.00	10.00	0.00
8,249.98	66.55	87.76	8,249.98	13.46	344.65	344.91	10.00	10.00	0.00
8,279.98	69.55	87.76	8,279.98	14.54	372.45	372.74	10.00	10.00	0.00
8,309.98	72.55	87.76	8,309.98	15.65	400.80	401.11	10.00	10.00	0.00
8,339.98	75.55	87.76	8,339.98	16.78	429.62	429.95	10.00	10.00	0.00
8,369.98	78.55	87.76	8,369.98	17.92	458.83	459.18	10.00	10.00	0.00
8,399.98	81.55	87.76	8,399.98	19.07	488.35	488.72	10.00	10.00	0.00
8,429.98	84.55	87.76	8,429.98	20.23	518.11	518.50	10.00	10.00	0.00
8,459.98	87.55	87.76	8,459.98	21.40	548.01	548.43	10.00	10.00	0.00
8,487.80	88.33	87.76	8,487.80	21.70	555.81	556.24	10.00	10.00	0.00
EOC Hold 88.33° INC :: 87.76° AZI									
8,489.98	88.33	87.76	8,489.98	22.57	577.97	578.41	0.00	0.00	0.00
8,519.98	88.33	87.76	8,519.98	23.74	607.93	608.40	0.00	0.00	0.00
8,549.98	88.33	87.76	8,549.98	24.91	637.90	638.39	0.00	0.00	0.00
8,579.98	88.33	87.76	8,579.98	26.08	667.86	668.37	0.00	0.00	0.00
8,609.98	88.33	87.76	8,609.98	27.25	697.83	698.36	0.00	0.00	0.00
8,639.98	88.33	87.76	8,639.98	28.42	727.79	728.35	0.00	0.00	0.00
8,669.98	88.33	87.76	8,669.98	29.59	757.76	758.33	0.00	0.00	0.00
8,699.98	88.33	87.76	8,699.98	30.76	787.72	788.32	0.00	0.00	0.00
8,729.98	88.33	87.76	8,729.98	31.93	817.68	818.31	0.00	0.00	0.00
8,759.98	88.33	87.76	8,759.98	33.10	847.65	848.30	0.00	0.00	0.00
8,789.98	88.33	87.76	8,789.98	34.27	877.61	878.28	0.00	0.00	0.00
8,819.98	88.33	87.76	8,819.98	35.44	907.58	908.27	0.00	0.00	0.00
8,849.98	88.33	87.76	8,849.98	36.61	937.54	938.26	0.00	0.00	0.00
8,879.98	88.33	87.76	8,879.98	37.78	967.51	968.24	0.00	0.00	0.00



Planning Report

Database: EDM 5000 1 Black Viper
Company: SM Energy
Project: Eddy County (NAD83)
Site: Parkway "35" #4H
Well: Parkway "35" #4H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Site Parkway "35" #4H
TVD Reference: KB @ 3338.00usft (Nabors 474)
MD Reference: KB @ 3338.00usft (Nabors 474)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,909.98	88.33	87.76	8,170.14	38.95	997.47	998.23	0.00	0.00	0.00
8,939.98	88.33	87.76	8,171.01	40.12	1,027.44	1,028.22	0.00	0.00	0.00
8,969.98	88.33	87.76	8,171.89	41.29	1,057.40	1,058.21	0.00	0.00	0.00
8,999.98	88.33	87.76	8,172.77	42.46	1,087.36	1,088.19	0.00	0.00	0.00
9,029.98	88.33	87.76	8,173.64	43.63	1,117.33	1,118.18	0.00	0.00	0.00
9,059.98	88.33	87.76	8,174.52	44.80	1,147.29	1,148.17	0.00	0.00	0.00
9,089.98	88.33	87.76	8,175.39	45.97	1,177.26	1,178.15	0.00	0.00	0.00
9,119.98	88.33	87.76	8,176.27	47.14	1,207.22	1,208.14	0.00	0.00	0.00
9,149.98	88.33	87.76	8,177.14	48.31	1,237.19	1,238.13	0.00	0.00	0.00
9,179.98	88.33	87.76	8,178.02	49.48	1,267.15	1,268.12	0.00	0.00	0.00
9,209.98	88.33	87.76	8,178.89	50.65	1,297.11	1,298.10	0.00	0.00	0.00
9,239.98	88.33	87.76	8,179.77	51.82	1,327.08	1,328.09	0.00	0.00	0.00
9,269.98	88.33	87.76	8,180.64	52.99	1,357.04	1,358.08	0.00	0.00	0.00
9,299.98	88.33	87.76	8,181.52	54.16	1,387.01	1,388.06	0.00	0.00	0.00
9,329.98	88.33	87.76	8,182.39	55.33	1,416.97	1,418.05	0.00	0.00	0.00
9,359.98	88.33	87.76	8,183.27	56.50	1,446.94	1,448.04	0.00	0.00	0.00
9,389.98	88.33	87.76	8,184.14	57.67	1,476.90	1,478.03	0.00	0.00	0.00
9,419.98	88.33	87.76	8,185.02	58.84	1,506.86	1,508.01	0.00	0.00	0.00
9,449.98	88.33	87.76	8,185.90	60.01	1,536.83	1,538.00	0.00	0.00	0.00
9,479.98	88.33	87.76	8,186.77	61.18	1,566.79	1,567.99	0.00	0.00	0.00
9,509.98	88.33	87.76	8,187.65	62.35	1,596.76	1,597.97	0.00	0.00	0.00
9,539.98	88.33	87.76	8,188.52	63.52	1,626.72	1,627.96	0.00	0.00	0.00
9,569.98	88.33	87.76	8,189.40	64.69	1,656.69	1,657.95	0.00	0.00	0.00
9,599.98	88.33	87.76	8,190.27	65.86	1,686.65	1,687.94	0.00	0.00	0.00
9,629.98	88.33	87.76	8,191.15	67.03	1,716.61	1,717.92	0.00	0.00	0.00
9,659.98	88.33	87.76	8,192.02	68.20	1,746.58	1,747.91	0.00	0.00	0.00
9,689.98	88.33	87.76	8,192.90	69.37	1,776.54	1,777.90	0.00	0.00	0.00
9,719.98	88.33	87.76	8,193.77	70.54	1,806.51	1,807.88	0.00	0.00	0.00
9,749.98	88.33	87.76	8,194.65	71.71	1,836.47	1,837.87	0.00	0.00	0.00
9,779.98	88.33	87.76	8,195.52	72.88	1,866.44	1,867.86	0.00	0.00	0.00
9,809.98	88.33	87.76	8,196.40	74.05	1,896.40	1,897.85	0.00	0.00	0.00
9,839.98	88.33	87.76	8,197.27	75.22	1,926.37	1,927.83	0.00	0.00	0.00
9,869.98	88.33	87.76	8,198.15	76.39	1,956.33	1,957.82	0.00	0.00	0.00
9,899.98	88.33	87.76	8,199.03	77.56	1,986.29	1,987.81	0.00	0.00	0.00
9,929.98	88.33	87.76	8,199.90	78.73	2,016.26	2,017.79	0.00	0.00	0.00
9,959.98	88.33	87.76	8,200.78	79.90	2,046.22	2,047.78	0.00	0.00	0.00
9,989.98	88.33	87.76	8,201.65	81.07	2,076.19	2,077.77	0.00	0.00	0.00
10,019.98	88.33	87.76	8,202.53	82.24	2,106.15	2,107.76	0.00	0.00	0.00
10,049.98	88.33	87.76	8,203.40	83.41	2,136.12	2,137.74	0.00	0.00	0.00
10,079.98	88.33	87.76	8,204.28	84.58	2,166.08	2,167.73	0.00	0.00	0.00
10,109.98	88.33	87.76	8,205.15	85.75	2,196.04	2,197.72	0.00	0.00	0.00
10,139.98	88.33	87.76	8,206.03	86.92	2,226.01	2,227.70	0.00	0.00	0.00
10,169.98	88.33	87.76	8,206.90	88.09	2,255.97	2,257.69	0.00	0.00	0.00
10,199.98	88.33	87.76	8,207.78	89.26	2,285.94	2,287.68	0.00	0.00	0.00
10,229.98	88.33	87.76	8,208.65	90.43	2,315.90	2,317.67	0.00	0.00	0.00
10,259.98	88.33	87.76	8,209.53	91.60	2,345.87	2,347.65	0.00	0.00	0.00
10,289.98	88.33	87.76	8,210.40	92.77	2,375.83	2,377.64	0.00	0.00	0.00
10,319.98	88.33	87.76	8,211.28	93.94	2,405.79	2,407.63	0.00	0.00	0.00
10,349.98	88.33	87.76	8,212.16	95.11	2,435.76	2,437.62	0.00	0.00	0.00
10,379.98	88.33	87.76	8,213.03	96.28	2,465.72	2,467.60	0.00	0.00	0.00
10,409.98	88.33	87.76	8,213.91	97.45	2,495.69	2,497.59	0.00	0.00	0.00
10,439.98	88.33	87.76	8,214.78	98.62	2,525.65	2,527.58	0.00	0.00	0.00
10,469.98	88.33	87.76	8,215.66	99.79	2,555.62	2,557.56	0.00	0.00	0.00
10,499.98	88.33	87.76	8,216.53	100.96	2,585.58	2,587.55	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Black Viper
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Project: Eddy County (NAD83)
Site: Parkway "35" #4H
Well: Parkway "35" #4H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Site Parkway "35" #4H
TVD Reference: KB @ 3338.00usft (Nabors 474)
MD Reference: KB @ 3338.00usft (Nabors 474)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,529.98	88.33	87.76	8,217.41	102.13	2,615.54	2,617.54	0.00	0.00	0.00
10,559.98	88.33	87.76	8,218.28	103.30	2,645.51	2,647.53	0.00	0.00	0.00
10,589.98	88.33	87.76	8,219.16	104.47	2,675.47	2,677.51	0.00	0.00	0.00
10,619.98	88.33	87.76	8,220.03	105.64	2,705.44	2,707.50	0.00	0.00	0.00
10,649.98	88.33	87.76	8,220.91	106.81	2,735.40	2,737.49	0.00	0.00	0.00
10,679.98	88.33	87.76	8,221.78	107.98	2,765.37	2,767.47	0.00	0.00	0.00
10,709.98	88.33	87.76	8,222.66	109.15	2,795.33	2,797.46	0.00	0.00	0.00
10,739.98	88.33	87.76	8,223.53	110.32	2,825.30	2,827.45	0.00	0.00	0.00
10,769.98	88.33	87.76	8,224.41	111.49	2,855.26	2,857.44	0.00	0.00	0.00
10,799.98	88.33	87.76	8,225.29	112.66	2,885.22	2,887.42	0.00	0.00	0.00
10,829.98	88.33	87.76	8,226.16	113.83	2,915.19	2,917.41	0.00	0.00	0.00
10,859.98	88.33	87.76	8,227.04	115.00	2,945.15	2,947.40	0.00	0.00	0.00
10,889.98	88.33	87.76	8,227.91	116.17	2,975.12	2,977.38	0.00	0.00	0.00
10,919.98	88.33	87.76	8,228.79	117.34	3,005.08	3,007.37	0.00	0.00	0.00
10,949.98	88.33	87.76	8,229.66	118.51	3,035.05	3,037.36	0.00	0.00	0.00
10,979.98	88.33	87.76	8,230.54	119.68	3,065.01	3,067.35	0.00	0.00	0.00
11,009.98	88.33	87.76	8,231.41	120.85	3,094.97	3,097.33	0.00	0.00	0.00
11,039.98	88.33	87.76	8,232.29	122.02	3,124.94	3,127.32	0.00	0.00	0.00
11,069.98	88.33	87.76	8,233.16	123.19	3,154.90	3,157.31	0.00	0.00	0.00
11,099.98	88.33	87.76	8,234.04	124.36	3,184.87	3,187.29	0.00	0.00	0.00
11,129.98	88.33	87.76	8,234.91	125.53	3,214.83	3,217.28	0.00	0.00	0.00
11,159.98	88.33	87.76	8,235.79	126.70	3,244.80	3,247.27	0.00	0.00	0.00
11,189.98	88.33	87.76	8,236.66	127.87	3,274.76	3,277.26	0.00	0.00	0.00
11,219.98	88.33	87.76	8,237.54	129.04	3,304.72	3,307.24	0.00	0.00	0.00
11,249.98	88.33	87.76	8,238.42	130.21	3,334.69	3,337.23	0.00	0.00	0.00
11,279.98	88.33	87.76	8,239.29	131.38	3,364.65	3,367.22	0.00	0.00	0.00
11,309.98	88.33	87.76	8,240.17	132.55	3,394.62	3,397.20	0.00	0.00	0.00
11,339.98	88.33	87.76	8,241.04	133.72	3,424.58	3,427.19	0.00	0.00	0.00
11,369.98	88.33	87.76	8,241.92	134.89	3,454.55	3,457.18	0.00	0.00	0.00
11,399.98	88.33	87.76	8,242.79	136.06	3,484.51	3,487.17	0.00	0.00	0.00
11,429.98	88.33	87.76	8,243.67	137.23	3,514.47	3,517.15	0.00	0.00	0.00
11,459.98	88.33	87.76	8,244.54	138.40	3,544.44	3,547.14	0.00	0.00	0.00
11,489.98	88.33	87.76	8,245.42	139.57	3,574.40	3,577.13	0.00	0.00	0.00
11,519.98	88.33	87.76	8,246.29	140.74	3,604.37	3,607.11	0.00	0.00	0.00
11,549.98	88.33	87.76	8,247.17	141.91	3,634.33	3,637.10	0.00	0.00	0.00
11,579.98	88.33	87.76	8,248.04	143.08	3,664.30	3,667.09	0.00	0.00	0.00
11,609.98	88.33	87.76	8,248.92	144.25	3,694.26	3,697.08	0.00	0.00	0.00
11,639.98	88.33	87.76	8,249.80	145.42	3,724.23	3,727.06	0.00	0.00	0.00
11,669.98	88.33	87.76	8,250.67	146.59	3,754.19	3,757.05	0.00	0.00	0.00
11,699.98	88.33	87.76	8,251.55	147.76	3,784.15	3,787.04	0.00	0.00	0.00
11,729.98	88.33	87.76	8,252.42	148.93	3,814.12	3,817.02	0.00	0.00	0.00
11,759.98	88.33	87.76	8,253.30	150.10	3,844.08	3,847.01	0.00	0.00	0.00
11,789.98	88.33	87.76	8,254.17	151.27	3,874.05	3,877.00	0.00	0.00	0.00
11,819.98	88.33	87.76	8,255.05	152.44	3,904.01	3,906.99	0.00	0.00	0.00
11,849.98	88.33	87.76	8,255.92	153.61	3,933.98	3,936.97	0.00	0.00	0.00
11,879.98	88.33	87.76	8,256.80	154.78	3,963.94	3,966.96	0.00	0.00	0.00
11,909.98	88.33	87.76	8,257.67	155.95	3,993.90	3,996.95	0.00	0.00	0.00
11,939.98	88.33	87.76	8,258.55	157.12	4,023.87	4,026.94	0.00	0.00	0.00
11,969.98	88.33	87.76	8,259.42	158.29	4,053.83	4,056.92	0.00	0.00	0.00
11,999.98	88.33	87.76	8,260.30	159.46	4,083.80	4,086.91	0.00	0.00	0.00
12,029.98	88.33	87.76	8,261.17	160.63	4,113.76	4,116.90	0.00	0.00	0.00
12,059.98	88.33	87.76	8,262.05	161.80	4,143.73	4,146.88	0.00	0.00	0.00
12,089.98	88.33	87.76	8,262.93	162.97	4,173.69	4,176.87	0.00	0.00	0.00
12,119.98	88.33	87.76	8,263.80	164.14	4,203.65	4,206.86	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Black Viper
Company: SM Energy
Project: Eddy County (NAD83)
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Well: Parkway "35" #4H
Wellbore: Lateral #1
Design: Plan #1

Local Co-ordinate Reference: Site Parkway "35" #4H
TVD Reference: KB @ 3338.00usft (Nabors 474)
MD Reference: KB @ 3338.00usft (Nabors 474)
North Reference: Grd
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,149.98	88.33	87.76	8,264.68	165.31	4,233.62	4,236.85	0.00	0.00	0.00
12,179.98	88.33	87.76	8,265.55	166.48	4,263.58	4,266.83	0.00	0.00	0.00
12,209.98	88.33	87.76	8,266.43	167.65	4,293.55	4,296.82	0.00	0.00	0.00
12,239.98	88.33	87.76	8,267.30	168.82	4,323.51	4,326.81	0.00	0.00	0.00
12,269.98	88.33	87.76	8,268.18	169.99	4,353.48	4,356.79	0.00	0.00	0.00
12,299.98	88.33	87.76	8,269.05	171.16	4,383.44	4,386.78	0.00	0.00	0.00
12,329.98	88.33	87.76	8,269.93	172.33	4,413.40	4,416.77	0.00	0.00	0.00
12,359.98	88.33	87.76	8,270.80	173.50	4,443.37	4,446.76	0.00	0.00	0.00
12,389.98	88.33	87.76	8,271.68	174.67	4,473.33	4,476.74	0.00	0.00	0.00
12,419.98	88.33	87.76	8,272.55	175.84	4,503.30	4,506.73	0.00	0.00	0.00
12,449.98	88.33	87.76	8,273.43	177.01	4,533.26	4,536.72	0.00	0.00	0.00
12,479.98	88.33	87.76	8,274.30	178.18	4,563.23	4,566.70	0.00	0.00	0.00
12,509.98	88.33	87.76	8,275.18	179.35	4,593.19	4,596.69	0.00	0.00	0.00
12,538.09	88.33	87.76	8,276.00	180.45	4,621.27	4,624.79	0.00	0.00	0.00

PBHL#1[P"35" #4H]

Wellbore Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL#1[P"35" #4H]	0.00	0.00	8,276.00	180.45	4,621.27	586,358.67	632,249.90	32° 36' 41.775 N	104° 2' 17.088 W
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,974.03	7,944.71	2nd Bone Spring		-1.67	267.76

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,584.52	7,584.52	0.00	0.00	KOP Build 10.00°/100' ∴ TFO 87.76°
8,467.80	8,157.24	0.00	0.00	EOC Hold 88.33° INC ∴ 87.76° AZI
12,538.09	8,276.00	21.70	555.82	586358.67 N ∴ 632249.90 E



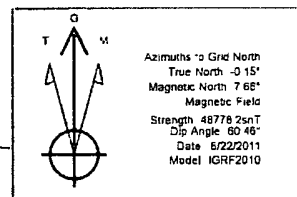
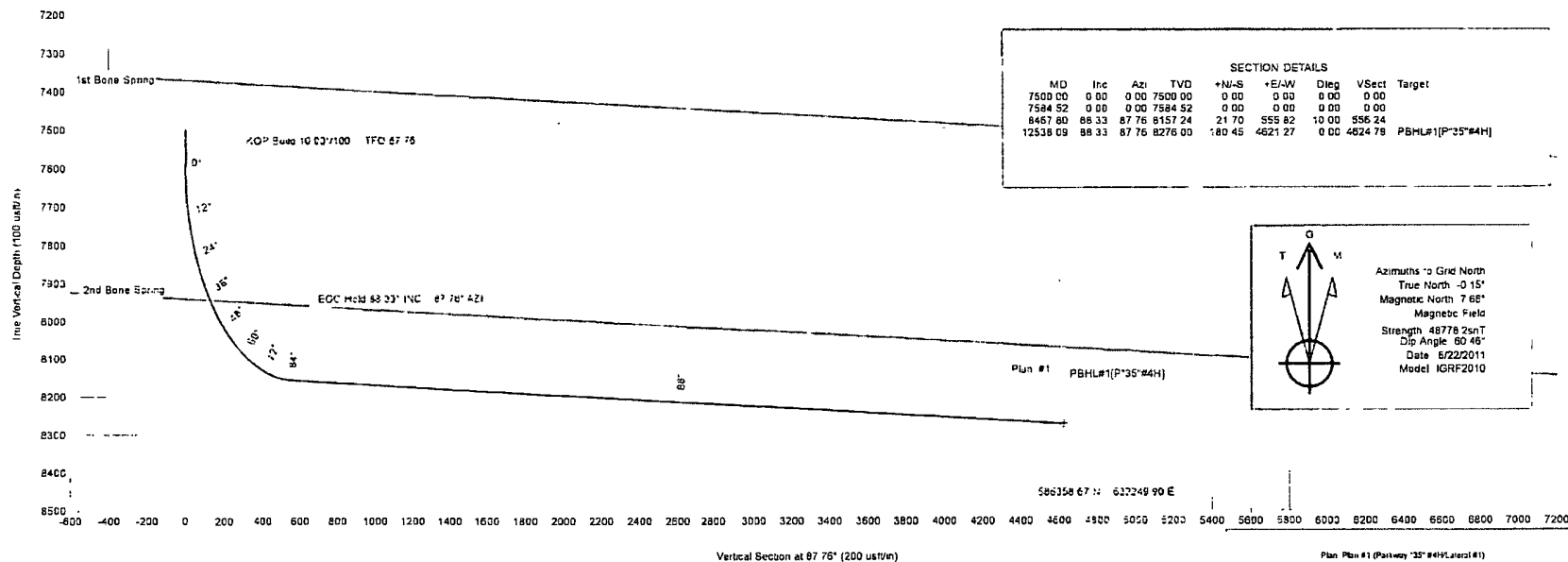
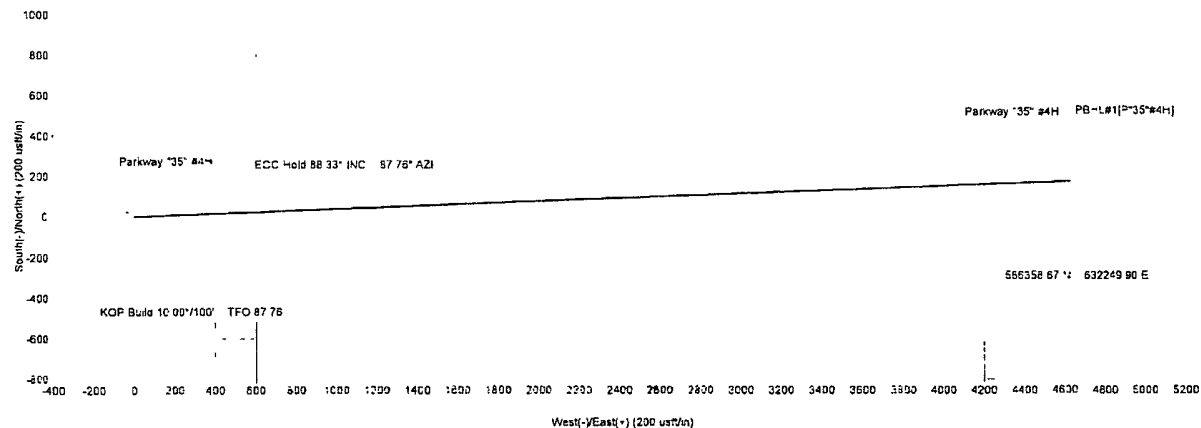
Parkway "35" #4H
Eddy County (NAD83)
Lateral #1
450.00 FSL
330.00 FWL



Well Name Parkway "35" #4H
System US State Plane 1983
Zone New Mexico Eastern Zone
System Datum Mean Sea Level
Northing 586178.22
Easting 627628.62
Ground Level 3320.00
Depth Reference KB @ 3338.00usft (Nadars 474)

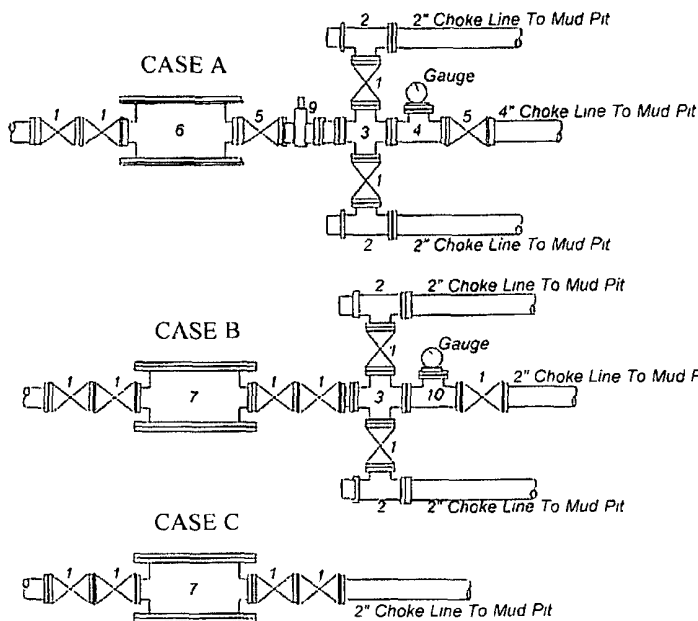
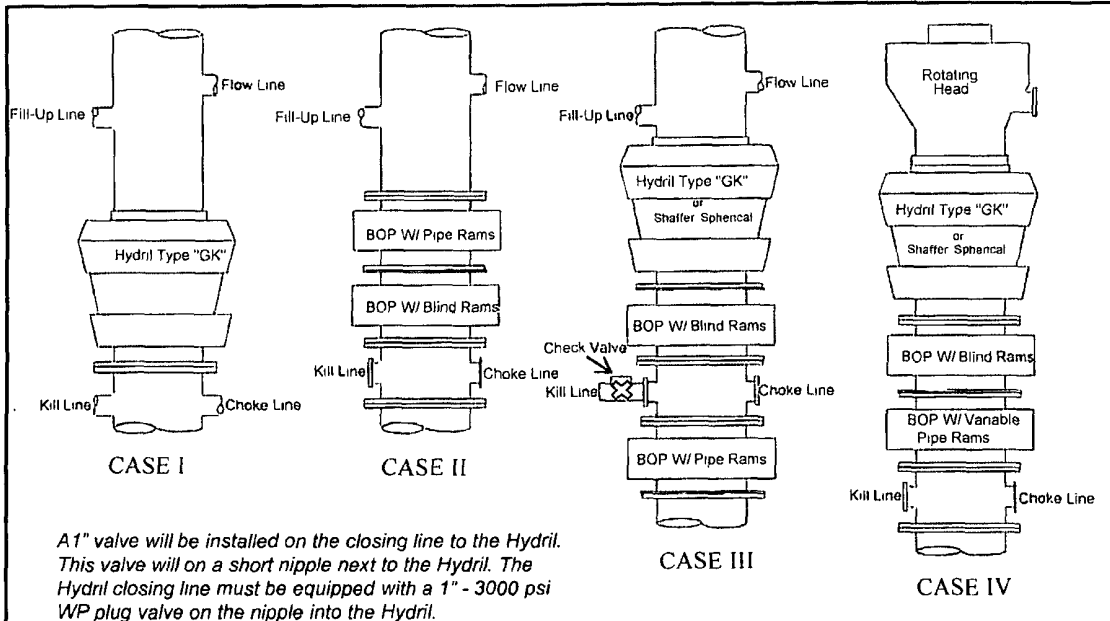
ANNOTATIONS

TVD	MD	Annotation
7584.52	7584.52	KOP Build 10.00"/100' TFO 87.76
8157.24	8467.80	EOC Hold 88.33" INC : 87.76" AZI
8275.00	12538.09	586358.67 N 632249.90 E



SM Energy Company

MINIMUM BLOWOUT PREVENTER REQUIREMENTS



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13-3/8"	II	2000 psi	B
9-5/8"	III	3000 psi	B

**Rotating head required*

Legend

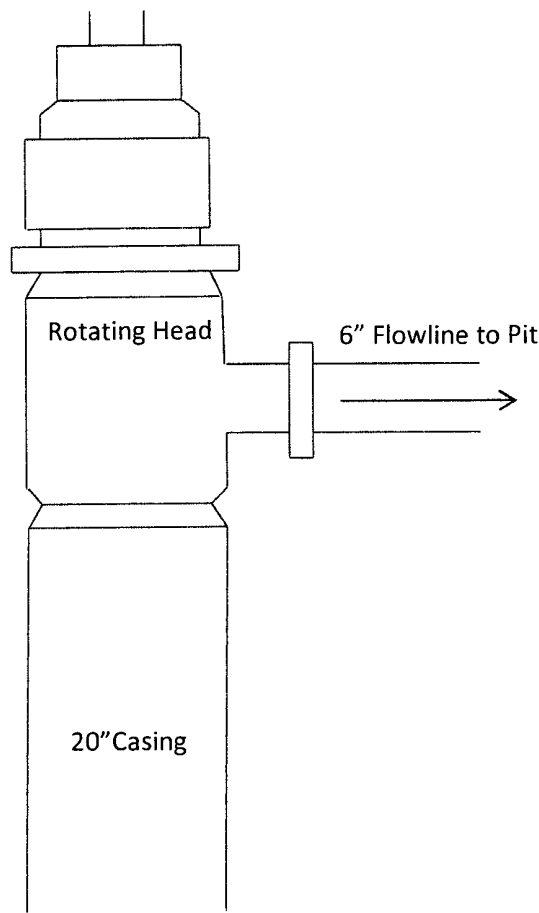
1. 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal
2. 2" flanged adjustable chokes, min. 1" full opening & equipped with hard trim.
3. 4" x 2" flanged steel cross.
4. 4" flanged steel tee.
5. 4" flanged all steel valve (Type as in no. 1).
6. Drilling Spool with 2" x 4" flanged outlet.
7. Drilling Spool with 2" x 2" flanged outlet.
8. 2" x 2" flanged steel cross
9. 4" pressure operated gate valve.
10. 2" flanged steel tee

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

(10-31-98) WTXBOPS.PPT

Diverter System



SM Energy Company
3300 N. A Street, Suite 200
Midland, TX 79705
(432) 688-3125 (Office)
(432) 682-1701 (Fax)

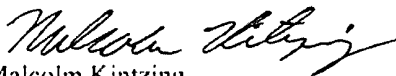
Parkway 35 Federal 4H
450 FSL & 330 FWL (SHL)
660 FSL & 330 FEL (BHL)
Sec 35-T19S-R29E
Eddy County, New Mexico
Rule 118 H2S Exposure

SM Energy Company has evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to the Yates Formation and will continue monitoring the remainder of the well.

See COA

Please contact me if you have any additional questions.

Sincerely,


Malcolm Kintzing
Engineer

Hydrogen Sulfide Drilling Operations Plan

1. Company and Contract personnel admitted on location should be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S.
 - B. Physical Effects and Hazards.
 - C. Proper Use of Safety Equipment and Life Support Systems.
 - D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
 - E. Evacuation Procedure, Routes and First Aid.
 - F. Proper Use of 30 minute Pressure Demand Air Pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S Detectors and Audio Alarm System to be Located at Bell Nipple, End of Blooie Line (mud pit) and on Derrick floor or doghouse.
3. Windsock and/or Wind Streamers
 - A. Windsock at Mud Pit Area Should be High Enough to be Visible.
 - B. Windsock at Briefing Area Should be High Enough to be Visible.
 - C. There Should be a Windsock at Entrance to Location.
4. Condition Flags and Signs
 - A. Warning Sign on Access Road to Location.
 - B. Flags to be Displayed on Sign at Entrance to Location.
 1. Green Flag, Normal Safe Condition.
 2. Yellow Flag, Indicates Potential Pressure and Danger.
 3. Red Flag, Danger H₂S Present in Dangerous Concentration
Only Emergency Personnel Admitted to Location.
5. Well Control Equipment
 - A. See Attached Diagram.
6. Communication
 - A. While Working Under Masks Chalkboards Will be Used for Communication.
 - B. Hand Signals will be Used Where Chalk Board is Inappropriate.
 - C. Two Way Radio or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.
7. Drillstem Testing
 - A. Exhausts will be Watered.
 - B. Flare Line will be Equipped with an Electric Igniter or a propane pilot light in case gas reaches the surface.
 - C. If Location is near any Dwelling a Closed DST will be Performed.
8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.

Emergency Contacts

Eddy County Sheriff's Office 911 or 575-887-7551

Carlsbad Fire Department 911 or 575-885-2111

Columbia Medical Center of Carlsbad 575 or 575-677-3266

SM Energy Company (Midland office)

Phone 432-688-1700

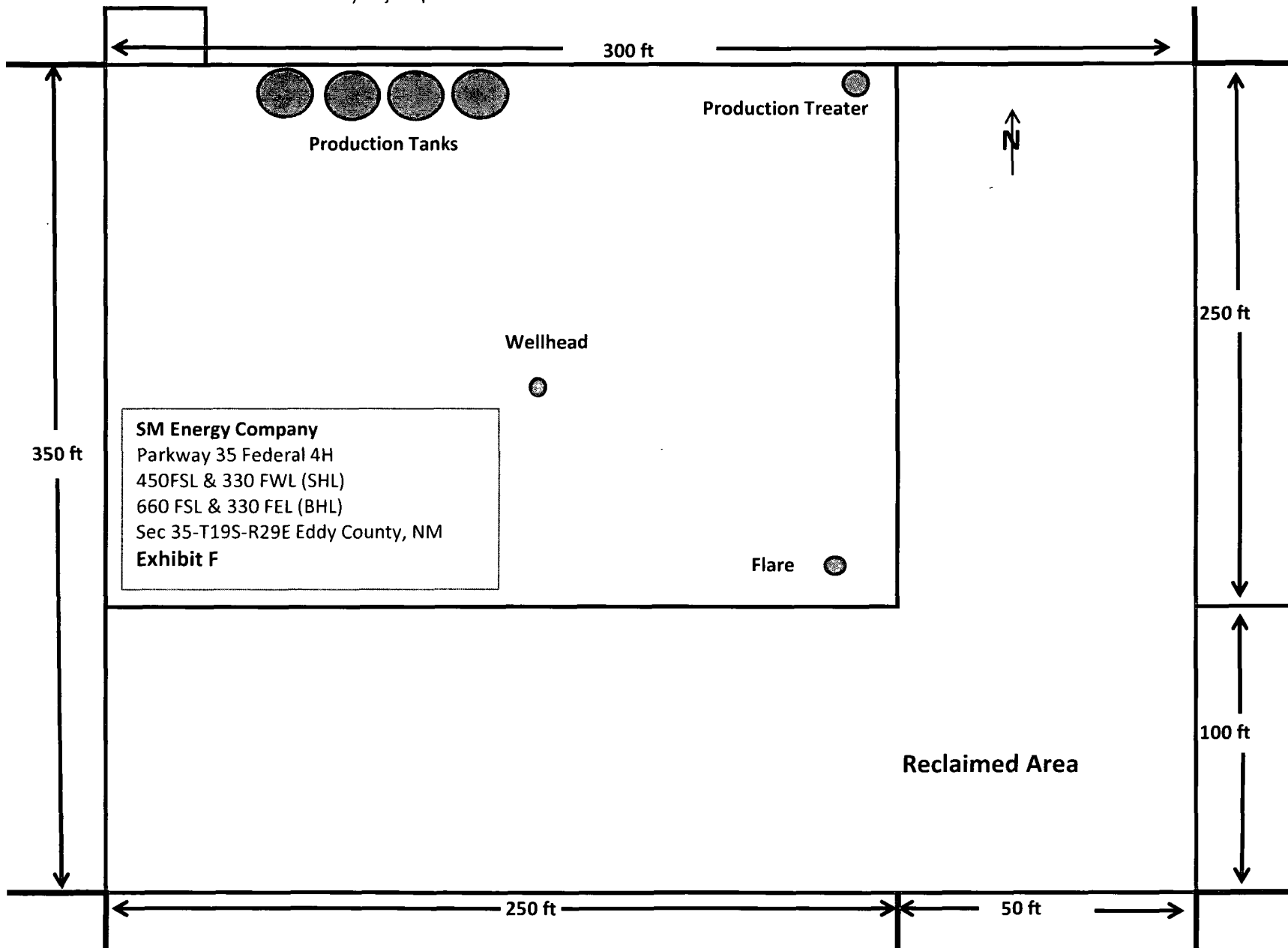
Fax 432-688-1701

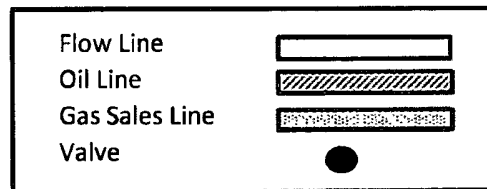
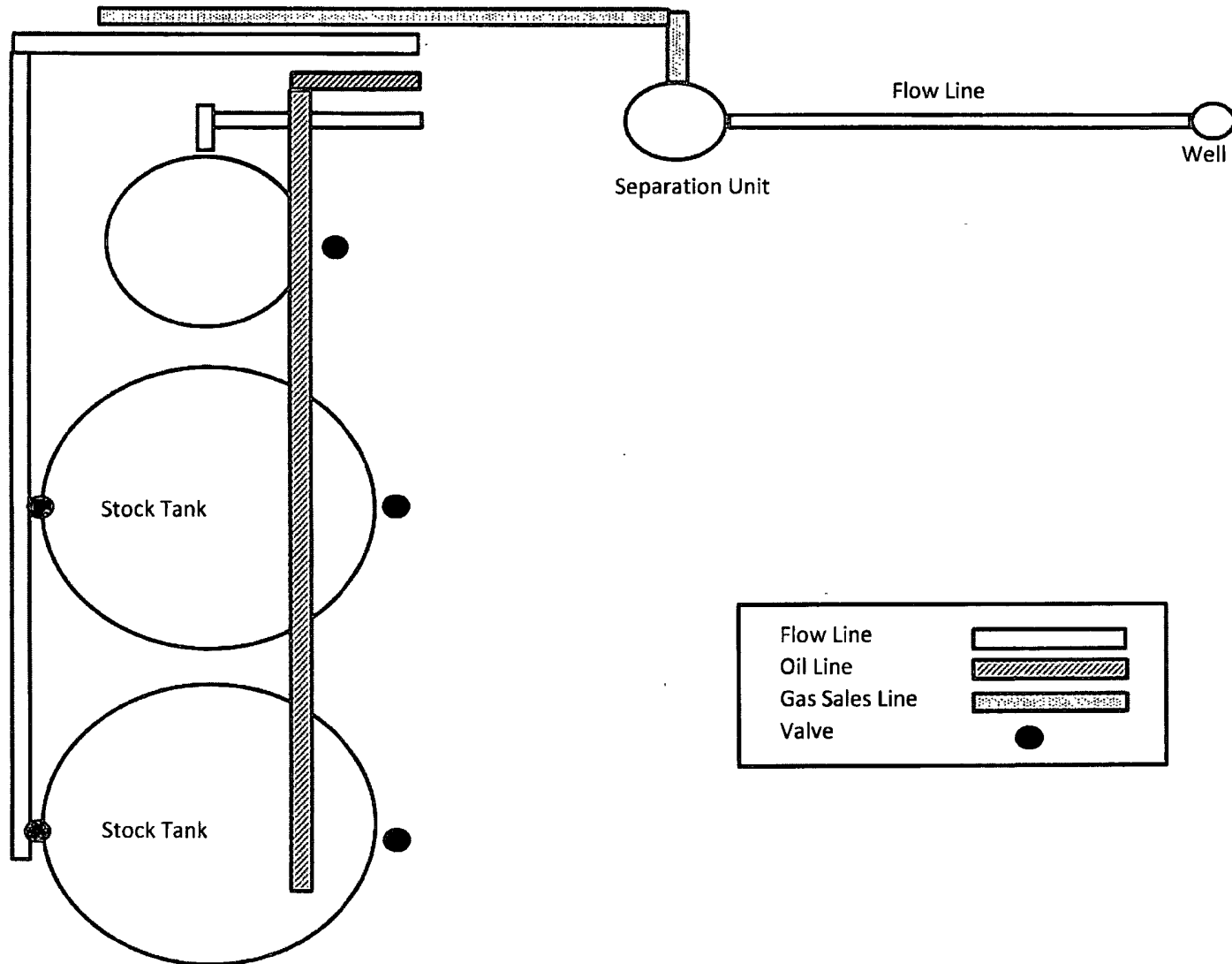
Contract Pumper Jackie Herron 575-746-7601

Field Superintend Bill Hearne 432-230-6054

Operations Manager Mark Bondy 432-557-9049

* may adjust pad to avoid ranchers water line





PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	SM ENERGY COMPANY
LEASE NO.:	NM-67102
WELL NAME & NO.:	PARKWAY 35 FEDERAL #4H
SURFACE HOLE FOOTAGE:	450' FSL & 330' FWL
BOTTOM HOLE FOOTAGE:	660' FSL & 330' FEL
LOCATION:	Section 35, T.19 S., R.29 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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Avoidance of water line/Contact Allottee
 - Cave/Karst
 - Communitization Agreement
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Secretary's Potash
 - High Cave/Karst
 - H2S – Onshore Order 6 Requirements
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☒ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**