	UNORTHODOX				
Form 3160-3 (August 2007)		OCD Arte	sia	FORM OMB N	TS-13-923 APPROVED 10. 1004-0137 July 31, 2010
GH CAVEK		INTERIOR ANAGEMENT		5. Lease Serial No. SHL: NM-990807 6. If Indian, Alloted N/A	BHL: NM-054865
la. Type of work:	DRILL REEN	ITER		7. If Unit or CA Agr	eement, Name and No.
lb. Type of Well:	✓ Oil Well Gas Well Other	Single Zone Multi	iple Zone	8. Lease Name and PARKWAY 35 FE	Well No. DERAL COM 6HC. 39023
2. Name of Opera	Itor SM ENERGY COMPANY	<154903	3>	9. API Well No. 4	41646
3a. Address 3300 MID	D N. A STREET, BLDG. 7-200 LAND, TX 79705	3b. Phone No. (include area code) 432 688-1700	<u> </u>	10. Field and Pool, or PARKWAY; BONE	- / ////
At surface 17	II (Report location clearly and in accordance with 00' FSL & 5' FEL 34-19s-29e od. zone 1980' FSL & 330' FEL 35-19s-29			11. Sec., T. R. M. or F SHL: NESE 34-19 BHL: NESE 35-19	9s-29e NMPM
14. Distance in miles	s and direction from nearest town or post office* NE OF CARLSBAD, NM			12. County or Parish EDDY	13. State NM
15. Distance from particular for the property or lease	roposed* SHL: 5'	16. No. of acres in lease NMNM-024160 = 200 ac. NMNM-054865 = 80 ac. NMNM-90807 = 1120 ac.		ng Unit dedicated to this 5-19s-29e (Bone Sp	
 Distance from pr to nearest well, d applied for, on th 	oposed location [*] SHL: 10' (Osage 34 6H) iriling, completed, BHL: 100' (PDU 707) is lease, ft.	19. Proposed Depth TVD=7352' MD=11862'	20. BLM/. NMB000	BIA Bond No. on file 0805	
21. Elevations (Sho 3,332' UNGRAE	ow whether DF, KDB, RT, GL, etc.)	22 Approximate date work will sta 07/01/2013	urt*	23. Estimated duration	m
 A Drilling Plan. A Surface Use P 	I by a registered surveyor. lan (if the location is on National Forest System led with the appropriate Forest Service Office).	m Lands, the 5. Operator certifi	cation	ns unless covered by an ormation and/or plans as	existing bond on file (see
25. Signature	Relling	BLM. Name (Printed/Typed)			Date
Title	JEVER		5 466-8120		05/22/2013
CONSULTAN Approved by (Signatu		(FAX 50 Name (Printed/Typed)	5 466-968	2)	Date SEP 3 - 2013
Title	FIELD MANAGER	Office C.	ARLSBAC	FIELD OFFICE	
conduct operations th	I does not warrant or certify that the applicant honereon. ral, if any, are attached.	Ids legal or equitable title to those right		•	intitle the applicant to RTWOYEARS
Title 18 U.S.C. Section States any false, fictit	n 1001 and Title 43 U.S.C. Section 1212, make it a ious or fraudulent statements or representations a	crime for any person knowingly and as to any matter within its jurisdiction.	willfully to m	nake to any department of	or agency of the United
(Continued on j	page 2)				ructions on page 2)
CAPITAN CO	ONTROLLED WATER BASIN	Witness S Intermedia	surface ate Casi	& Boty ings	SEP 06 2013
	CHED FOR NS OF APPROVAL	APPROVAL S GENERAL RE AND SPECIAL	QUIR	EMENTS	IMOCD ARTESIA
		ATTACHED		an and a set of the of the	

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X - Ť DISTRICT I Form C-102 1625 N. French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Fax: (575) 393-0720 State of New Mexico Revised August 1, 2011 Energy, Minerals and Natural Resources Department DISTRICT II Submit one copy to appropriate B11 S. First St., Artesia, NM 88210 Phone (575) 748-1283 Far: (575) 748-9720 District Office OIL CONSERVATION DIVISION DISTRICT III 1220 South St. Francis Dr. 1000 Rio Brazos Rd., Aztec, NM 87410 Phone (505) 334-6178 Fax: (505) 334-6170 Santa Fe, New Mexico 87505 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone (505) 476-3460 Fax: (505) 476-3462 □ AMENDED REPORT WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name 646 30-015-49622 PARKWAY: BONE SPRING Property Name Well Number Cod 23 PARKWAY 35 FEDERAL COM 6H 6H Operator Name Elevation OGRID No. 3332 154903 SM ENERGY Surface Location Lot Idn Feet from the North/South line UL or lot No. Feet from the East/West line Section Township Range County 29 E 1700 SOUTH 5 EAST 34 19 S EDDY 1 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 29 E 1980 SOUTH 330 EAST 35 19 S EDDY 1 Consolidation Code Dedicated Acres Joint or Infill Order No. 160С 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 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 PROPOSED BOTTOM HOLE LOCATION SURFACE LOCATION Lat - N 32°36'52.47" Long - W 104°03'14.99" Lat - N 32*36'54.83" Long - W 104*02'17.07" NMSPCE- N 587678.2 E 632248.1 17 5-22-13 NMSPCE- N 587426.77 E 627294.28 Signature Date (NAD-83) (NAD-83) BRIAN WOOD brian@permitswest.com Email Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of 34 35 actual surveys made by me or under my supervison, and that the same is true and 330 correct to the best of my belief. 5 8'0'EG MERICO Date Surve edi 980 1700' sè eal of Sig ur Pro Surveyor ssi nal Communitization agreement DERQuest (N2S2 Sec. 35) will include N2SW4 & NMASE OF MANIA OF ALL O Certificate No. Gary L. Jones 7977

and NESE of NMNM-054885.

BASIN SURVEYS

28486









DRILLING PLAN PAGE 1

SM Energy Company DRILLIN Parkway 35 Federal Com 6H SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E. BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E. Eddy County, NM

Drilling Program

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1. ESTIMATED TOPS

<u>Name</u> Quaternary	MD-from KB (18') 18'	<u>Subsea</u> +3,332'	<u>Content</u> fresh water
Rustler	114'	+3,236'	saltwater
Top salt	448'	+2,902'	salt
Base salt	1,161'	+2,189'	salt
Yates	1,346'	+2,004'	oil, gas
Capitan	1,738'	+1,612'	brackish water
Queen	2,562'	+788'	oil, gas
Delaware	3,370'	-20'	oil, gas
Brushy Canyon	4,034'	-684	oil, gas
Bone Spring	5,727'	-2,377'	oil, gas
First Bone Spring sand	f 7,103'	-3,753'	oil, gas
Target	7,143'	-3,793'	oil, gas
BHL (TVD = 7,352')	11,862'	-4,003'	oil, gas

2. NOTABLE ZONES

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Closest water well (CP 00739) is 2,932' southeast. Water was reported in that well between 110' and 198'.

3. PRESSURE CONTROL

SM Energy Company requests a variance from Onshore Order 2 to use a diverter system on the 20" surface casing.



SM Energy CompanyDRILLING PLAN PAGE 1Parkway 35 Federal Com 6HSHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.Eddy County, NM

Drilling Program

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Bone Spring	5,,727'	-2,377'	oil, gas
First Bone Spring sand	<i>†</i> ,103'	-3,753'	oil, gas
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3. PRESSURE CONTROL

SM Energy Company requests a variance from Onshore Order 2 to use a diverter system on the 20" surface casing. Diverter and the BOPE will be connected to the closed loop system through the flow line. There will be no buffertank.



DRILLING PAGE 2

 SM Energy Company
 DR

 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

A 13-5/8" 5,000 psi BOPE will be installed on the 13-3/8" casing. Before drilling out the 13-3/8" shoe, the BOPE will be tested by a third party to 2,000 psi as per the requirements of a 2M system stated in Onshore Order 2.

Before drilling out the 9-5/8" casing, the BOPE will be tested by a third party to 3,000 psi as per the requirements of a 3M system stated in Onshore Order 2.

Pressure tests will be conducted before drilling out of the 13-3/8" casing. BOP controls will be installed before drilling out from under the 13-3/8" casing and will remain in use until completion of drilling operations. BOPs will be inspected and operated as required by Onshore Order 2.

A Kelly cock valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor and in the open position when the Kelly is not in use. A third party testing company will test the 13-3/8" BOPE to 3,000 psi and the annular to 1,500 psi before drilling below the 9-5/8" casing shoe. The BOP/BOPE test will include a low-pressure test from 250 psi to 300 psi. The test will be held for a minimum of 10 minutes if the test is done with a test-plug. All BOPs and related equipment will comply with well control requirements in Onshore Order 2 and API RP 53 Section 17.



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SM Energy Company requests a variance to Onshore Order 2 in order to use a 47' x 3" I. D. co-flex hose with 5,000-psi flanges between the BOPE and the choke manifold. The hose will be kept as straight as possible with minimal turns. Safety clamps will not be used since the ends will be flanged. Manufacturer is Midwest Hose & Specialty, Inc. Model details, serial numbers, and the test results are on BOPE Pages 4-6. Operator will test the line when the BOP is tested.



DRILLING PLAN PAGE 3

SM Energy Company Parkway 35 Federal Com 6H SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E. BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E. Eddy County, NM

4. CASING & CEMENT

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-	Hole O. D.	Casing O. D.	Pounds/foot	Grade	Set Interval	, Collar	Age
	26″	20″	94	J-55	0-250 350	BT&C	New
	17.5″	13.375″	48	H-40	0-1200	5' ST&C	New
	17.5″	13.375″	54.5	J-55	1200-1500	ST&C	New
	12.25″	9.625″	36	J-55	0-3300	LT&C	New
	8.75″	7"	26	P-110	0-8000	LT&C	New
	6.125″	4.5″	11.6	P-110	6940-11862	LT&C	New

All casing designed with a minimum of:

Burst = 1.0

Collapse = 1.125

Tensile Strength = 1.8

-	casing	casing depth	sacks	тос	pounds per gallon	cubic feet per sack	total cubic feet	excess	blend
	surface		/ 565	GL	14.8	1.34	757	100%	1
	intermediate	250' 1500'	785	GL	12.5	2.04	1601	65%	2
	memediate	٥٥٥٩م	200	GL	14.8	1.34	268	0.5%	3
	deep		375		12.5	2.11	791		4
	intermediate (Stage 1)	3300'	185	GL	14.8	1.34	248	127%	5
	deep intermediate (Stage 2)	5500	375	GL	12.5	2.11	791	127 70	6
	curve (lead)	8000'	750	1620'	12.5	2.61	1957	110%	7
	curve (tail)	0000	200	1020	15.6	1.19	238	110%	8
	liner	11862'	no cement	N/A	N/A	N/A	N/A	N/A	N/A

Blend 1: Surface casing (20") will be cemented to the surface with >100% excess (565 sacks = 757 cubic feet) Class C + 2% $CaCl_2$ mixed to yield 1.34 cubic feet per sack and 14.8 pounds per gallon. Centralizers will be installed as required by Onshore Order 2.



DRILLING PAGE 4

 SM Energy Company
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 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

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Intermediate casing will be cemented to the surface with >65% excess (1,869 cubic feet). Blend 2: Lead with 785 sacks (1,601 cubic feet) 35:65 Class C with salt and LCM additives mixed to yield 2.04 cubic feet per sack and 12.5 pounds per gallon. Blend 3: Tail with 200 sacks (268 cubic feet) Class C with 2% CaCl₂ mixed to yield 1.34 cubic feet per sack and 14.8 pounds per gallon.

The deep intermediate casing will be cemented to the surface with 127% excess (1,830 cubic feet). Cement will be pumped in 2 stages using an ECP stage collar. It will be placed in the deepest competent formation, but not within 100' of the previous casing shoe. Position will be determined by a caliper survey or a rate of penetration log. Current collar estimate setting depth is \approx 1,700'.

Blend 4: Stage 1 lead slurry will consist of 375 sacks (791 cubic feet) 35:65 poz fly ash Class C +5% bwow NaCl +1/4 pound per sack cello flake + 10% bwoc bentonite II + 151.7% fresh water mixed to yield 2.11 cubic feet per sack and 12.5 pounds per gallon. Blend 5: Tail with 185 sacks (248 cubic feet) Class C + 0.005 pounds per sack static free + 1% bwoc CaCl₂ mixed to yield 1.34 cubic feet per sack and 14.8 pounds per gallon.

Blend 6: Second stage slurry will consist of 375 sacks (791 cubic feet) 35:65 poz fly ash Class C +5% bwow NaCl +1/4 pound per sack cello flake + 10% bwoc bentonite II + 151.7% fresh water mixed to yield 2.11 cubic feet per sack and 12.5 pounds per gallon.

If packer placement changes, then the cement volumes will be adjusted proportionately as determined by the annulus volume above the packer. Cement will meet the 500-psi requirement before casing test and drill out.

Curve casing will be cemented to 1,620' (enough to cover the Capitan reef top at 1,738') with >110% excess (2,195 cubic feet). Blend 7: Lead with 750 sacks (1,957 cubic feet) Class C mixed to yield 2.61 cubic feet sack and 12.5 pounds per gallon. Blend 8: Tail with 200 sacks (238 cubic feet) Class H with 1% NaCl mixed to yield 1.19 cubic feet per sack and 15.6 pounds per gallon.



DRILLING PLAN PAGE 5

SM Energy Company Parkway 35 Federal Com 6H SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E. BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E. Eddy County, NM

Production casing will include a sliding sleeve, frac port, and packer system with the 4-1/2" liner. No cement is planned.

5. MUD PROGRAM

An electronic/mechanical mud monitor with a minimum pit volume totalizer, stroke counter, and flow sensor will be used. Circulation could be lost in every hole section. Lost circulation material (e.g., cedar bark) will be on location.

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Interval	Туре	Weight	Viscosity	Fluid Loss
Interval 0 - 250	<pre>/ fresh water spud mud</pre>	8.6 - 9.4	32-34	no control
250 - 1500	s200/ brine	10	28-30	no control
1500 - 3550	fresh water	8.4	28-30	no control
3550 - 7143	cut brine	8.4 - 8.6	28-30	no control
7143 - TD	cut brine with polymer	8.4 - 8.6	32-40	no control

SM Energy will use an air unit in the Capitan Reef to assist in circulation if large losses occur. Estimated mud weight is 6 pounds per gallon. If a well control situation is encountered, then the emergency shut offs on the air units will used and the rig pumps will be used to regain the 8.4 pounds per gallon mud weight.

A mud monitoring system will be in place to record slow pump rate, pit gain or loss, mud weight, viscosity, gel strength, filtration, and pH.

6. CORES, TESTS, & LOGS

No drill stem test is planned. Compensated neutron – GR CCL logs will be run in the vertical cased hole from KOP to surface. Mud log samples will be collected after drilling out from the 9-5/8" shoe. Samples will be collected every 20' until the Bone Spring and every 10' through the Bone Spring.



DRILLING PAGE 6

 SM Energy Company
 DR

 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is 3,183 psi.

No H_2S is expected during the drilling phase. Nevertheless, H_2S monitoring equipment will be on the rig floor and air packs will be available before drilling out of the surface casing. The mud logger will be warned to use a gas trap to detect H_2S . If any H_2S is detected, then the mud weight will be increased and H_2S inhibitors will be added to control the gas. An H_2S drilling operations contingency plan is attached.

Lost circulation is expected in the Capitan reef.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take 3 months to drill and complete the well.

This will be a first Bone Spring completion.



DRILLING PAGE 6

 SM Energy Company
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 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

 $\rm H_2S$ inhibitors will be added to control the gas. An $\rm H_2S$ drilling operations contingency plan is attached.

Lost circulation is expected in the Capitan reef.

8. OTHER INFORMATION

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The anticipated spud date is upon approval. It is expected it will take 3 months to drill and complete the well.

This will be a first Bone Spring completion.

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SM ENERGY COMPANY

PARKWAY 35 WELL #6H SECTION 34 & 35, T-19-S, R-29-E EDDY COUNTY, NEW MEXICO (05/09/13)





VERTICAL PROJECTION

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0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 45 VFRTICAL SECTION SM ENERGY COMPANY



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PARKWAY 35 WELL #6H SECTIONS 34 & 35, T-19-S, R-29-E EDDY COUNTY, NEW MEXICO

		RKB = 3349	Obj.=	st. (GL = 3	331') N	87.09	Е			<u>SHL:</u> X: 627, NAD 83	·		
Туре	 #	SI MD	JRVEY ANG	Azimuth	-	DIR		CL	TVD	(+)North <u>(-</u>)South	(+)East <u>(-)West</u>	Vertical <u>Section</u>	Dogleg /100'
9-5/8" CASING	TI-IN	3550.00	0.00	87.09	Ν	87.09	Е		3550.00	0.00	0.00	0.00	TI-IN
KOP	1	6569.69	0.00	87.09	Ν	87.09	Е	3020	6569.69	0.00	0.00	0.00	0.00
	2	6601.69	3.20	87.09	Ν	87.09	Е	32	6601.67	0.05	0.89	0.89	10.00
	3	6633.69	6.40	87.09	Ν	87.09	Ę	32	6633.56	0.18	3.57	3.57	10.00
	4	6665.69	9.60	87.09	Ν	87.09	Е	32	6665.24	0.41	8.01	8.02	10.00
	5	6697.69	12.80	87.09	Ν	87.09	E	32	6696.63	0.72	14.22	14.24	10.00
	6	6729.69	16.00	87.09	Ν	87.09	Е	32	6727.62	1.13	22.17	22.20	10.00
	7	6761.69	19.20	87.09	Ν	87.09	Е	32	6758.12	1.62	31.83	31.87	10.00
	8	6793.69	22.40	87.09	Ν	87.09	Ε	32	6788.03	2.19	43.18	43.23	10.00
	9	6825.69	25.60	87.09	Ν	87.09	E	32	6817.26	2.85	56.17	56.25	10.00
	10	6857.69	28.80	87.09	Ν	87.09	ε	32	6845.71	3.59	70.78	70.87	10.00
	11	6889.69	32.00	87.09	Ν	87.09	Ε	32	6873.31	4.41	86.95	87.06	10.00
	12	6921.69	35.20	87.09	Ν	87.09	E	32	6899.96	5.31	104.63	104.77	10.00
	13	6953.69	38.40	87.09	Ν	87.09	Ε	32	6925.58	6.28	123.78	123.93	10.00
	14	6985.69	41.60	87.09	Ν	87.09	Е	32	6950.09	7.32	144.32	144.50	10.00
	15	7017.69	44.80	87.09	Ν	87.09	Ε	32	6973.42	8.43	166.19	166.40	10.00
	16	7049.69	48.00	87.09	Ν	87.09	Е	32	6995.48	9.61 ,	189.33	189.57	10.00
	17	7081.69	51.20	87.09	N	87.09	Е	32	7016.22	10.84	213.67	213.94	10.00
	18	7113.69	54.40	87.09	Ν	87.09	E	32	7035.56	12.14	239.12	239.43	10.00
	19	7145.69	57.60	87.09	Ν	87.09	Е	32	7053.45	13.48	265.61	265.95	10.00
	20	7177.69	60.80	87.09	Ν	87.09	Е	32	7069.84	14.87	293.06	293.43	10.00
	21	7209.69	64.00	87.09	Ν	87.09	E	32	7084.66	16.31	321.38	321.79	10.00
	22	7241.69	67.20	87.09	Ν	87.09	Е	32	7097.88	17.79	350.48	350.93	10.00
	23	7273.69	70.40	87.09	Ν	87.09	Е	32	7109.45	19.30	380.27	380.76	10.00
	24	7305.69	73.60	87.09	Ν	87.09	Е	32	7119.34	20.84	410.66	411.19	10.00
	25	7337.69	76.80	87.09	Ν	87.09	Е	32	7127.51	22.41	441.55	442.12	10.00
	26	7369.69	80.00	87.09	Ν	87.09	Е	32	7133.94	24.00	472.86	473.46	10.00
	27	7401.69	83.20	87.09	Ν	8 7.09	E	32	7138.62	25.60	504.47	505.12	10.00
	28	7433.69	86.40	87.09	N	87.09	Е	32	7141.52	27.22	536.29	536.98	10.00
LANDING	29	7442.45	87.28	87.09	Ν	87.09	Е	9	7142.0000	27.66	545.03	545.73	10.00
	30	7474.45	87.28	87.09	N	87.09	E	32	7143.52	29.28	576.95	577.69	0.00
	31	7974.45	87.28	87.09	Ν	87.09	Е	500	7167.28	54.60	1075.74	1077.13	0.00
	32	8474.45	87.28	87.09	Ν	87.09	E	500	7191.04	79.92	1574.54	1576.56	0.00
	33	8974.45	87.28	87.09	Ν	87.09	Е	500	7214.80	105.23	2073.33	2076.00	0.00
	34	9474.45	87.28	87.09	Ν	87.09	Е	500	7238.55	130.55	2572.12	2575.43	0.00
	35	9974.45	87.28	87.09	Ν	87.09	Е	500	7262.31	155.86	3070.92	3074.87	0.00
	36	10474.45	87.28	87.09	Ν	87.09	Е	500	7286.07	181.18	3569.71	3574.30	0.00
	37	10974.45	87.28	87.09	Ν	87.09	Е	500	7309.83	206.50	4068.50	4073.74	0.00
	38	11474.45	87.28	87.09	Ν	87.09	Е	500	7333.59	231.81	4567.29	4573.17	0.00
BHL	39	11861.91	87.28	87.09	Ν	87.09	E	387	7352.00	251.43	4953.82	4960.20	0.00
LATERAL		4419.46								251.43	4953.82	4960.20	

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SM ENERGY COMPANY



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PARKWAY 35 WELL #6H SECTIONS 34 & 35, T-19-S, R-29-E EDDY COUNTY, NEW MEXICO

		RKB = 3349	Obj.=	st. (GL = 3	331') N) 87.09	E		<u>s</u>	<u>HL:</u> X: 627,294.2 NAD 83		
Туре	 #	s' <u>MD</u>	URVEY <u>ANG</u>	<u>Azimuth</u>		DIR		CL	TVD	(+)North <u>(-)South</u>	(+)East <u>(-)West</u>	Dogleg <u>/100'</u>
9-5/8" CASING	TI-IN	3550.00	0.00	87.09	Ν	87.09	E		3550.00	587,426.77	627,294.28	TI-IN
KOP	1	6569.69	0.00	87.09	Ν	87.09	E	3020	6569.69	587,426.77	627,294.28	0.00
	2	6601.69	3.20	87.09	Ν	87.09	Е	32	6601.67	587,426.82	627,295.17	10.00
	3	6633.69	6.40	87.09	Ν	87.09	Е	32	6633.56	587,426.95	627,297.85	10.00
	4	6665.69	9.60	87.09	Ν	87.09	Ε	32	6665.24	587,427.18	627,302.29	10.00
	5	6697.69	12.80	87.09	Ν	87.09	Е	32	6696.63	587,427.49	627,308.50	10.00
	6	6729.69	16.00	87.09	Ν	87.09	Е	32	6727.62	587,427.90	627,316.45	10.00
	7	6761.69	19.20	87.09	Ν	87.09	Е	32	6758.12	587,428.39	627,326.11	10.00
	8	6793.69	22.40	87.09	Ν	87.09	Е	32	6788.03	587,428.96	627,337.46	10.00
	9	6825.69	25.60	87.09	Ν	87.09	Е	32	6817.26	587,429.62	627,350.45	10.00
	10	6857.69	28.80	87.09	N	87.09	Е	32	6845.71	587,430.36	627,365.06	10.00
	11	6889.69	32.00	87.09	Ν	87.09	Ε	32	6873.31	587,431.18	627,381.23	10.00
	12	6921.69	35.20	87.09	Ν	87.09	Е	32	6899.96	587,432.08	627,398.91	10.00
	13	6953.69	38.40	87.09	Ν	87.09	E	32	6925.58	587,433.05	627,418.06	10.00
	14	6985.69	41.60	87.09	N	87.09	Е	32	6950.09	587,434.09	627,438.60	10.00
	15	7017.69	44.80	87.09	Ν	87.09	Е	32	6973.42	587,435.20	627,460.47	10.00
	16	7049.69	48.00	87.09	Ν	87.09	Е	32	6995.48	587,436.38	627,483.61	10.00
	17	7081.69	51.20	87.09	Ν	87.09	E	32	7016.22	587,437:61	627,507.95	10.00
	18	7113.69	54.40	87.09	Ν	87.09	Ε	32	7035.56	587,438.91	627,533.40	10.00
	19	7145.69	57.60	87.09	Ν	87.09	Ε	32	7053.45	587,440.25	627,559.89	10.00
	20	7177.69	60.80	87.09	Ν	87.09	Е	32	7069.84	587,441.64	627,587.34	10.00
	21	7209.69	64.00	87.09	Ν	87.09	Ε	32	7084.66	587,443.08	627,615.66	10.00
	22	7241.69	67.20	87.09	Ν	87.09	Е	32	7097.88	587,444.56	627,644.76	10.00
	23	7273.69	70.40	87.09	Ν	87.09	E	32	7109.45	587,446.07	627,674.55	10.00
	24	7305.69	73.60	87.09	Ν	87.09	Е	32	7119.34	587,447.61	627,704.94	10.00
	25	7337.69	76.80	87.09	Ν	87.09	Е	32	7127.51	587,449.18	627,735.83	10.00
	26	7369.69	80.00	87.09	Ν	87.09	Е	32	7133.94	587,450.77	627,767.14	10.00
	27	7401.69	83.20	87.09	Ν	87.09	Ε	32	7138.62	587,452:37	627,798.75	10.00
	28	7433.69	86.40	87.09	Ν	87.09	Е	32	7141.52	587,453.99	627,830.57	10.00
LANDING	29	7442.45	87.28	87.09	N	87.09	Е	9	7142.0000	587,454.43	627,839.31	10.00
	30	7474.45	87.28	87.09	Ν	87.09	Е	32	7143.52	587,456.05	627,871.23	0.00
	31	7974.45	87.28	87.09	Ν	87.09	Е	500	7167.28	587,481.37	628,370.02	0.00
	32	8474.45	87.28	87.09	Ν	87.09	E	500	7191.04	587,506.69	628,868.82	0.00
	33	8974.45	87.28	87.09	Ν	87.09	Ε	500	7214.80	587,532.00	629,367.61	0.00
	34	9474.45	87.28	87.09	Ν	87.09	Ε	500	7238.55	587,557:32	629,866.40	0.00
	35	9974.45	87.28	87.09	Ν	87.09	Ε	500	7262.31	587,582.63	630,365.20	0.00
	36	10474.45	87.28	87.09	Ν	87.09	Е	500	7286.07	587,607.95	630,863.99	0.00
	37	10974.45	87.28	87.09	N	87.09	Е	500	7309.83	587,633.27	631,362.78	0.00
	38	11474.45	87.28	87.09	Ń	87.09	Е	500	7333.59	587,658.58	631,861.57	0.00
BHL	39	11861.91	87.28	87.09	N	87.09	Е	387	7352.00	587,678.20	632,248.10	0.00
LATERAL		4419.46								587,678.20	632,248.10	

PARKWAY 35 #6H PLAN X&Y

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KANICO DIRECTIONAL DRILLING INC

TARGETS

5/19/13

SM ENERGY PARKWAY 35 WELL #6H

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FNL	FSL	FEL	FWL	SHL			DISP		F/SURF	T Diff
				TVD	NRS	ERW	SHL	ANGLE	AZI	AZI
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X-coordinates	Y-coordinates							T Diff	
627,294.28	587,426.77	TVD	NrS	ErW	Disp	Angle	Dir.	AZI	SHL
632,248.10	587,678.20	1.00	251.43 N	4,953.82 E	4,960.20		N 87.094° E		BHL
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Diverter System







Choke Manifold Schematic for Closed Loop System





Flare/Flow line at least 150 ft from WH



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Children W. Charles De

BOPE PAGE 7

Midwest Hose & Specialty, Inc.

INTERNA	L HYDROST/	NTIC TEST F	REPORT	
Customer:	ALICE	······································	Customer P.O 13259	
	HOSE SPECIFI	CATIONS		
Type: Rotary /	Vibrator Hose		~ <u>~</u>	
	d / Api7k		Hose Length:	47 FEET

I.D.	3 INCHES	0.D.	4.49	INCHES
WORKING PRESSURE	TEST PRESSUR	E	BURST PRESSUR	શ્ક
5,000 PS/	5,000	PSI	NA	PSI
·				
	the second s	LINGS		
Part Number	Stem Lot Nun		Ferrule Lot N	
D3.5X64WB		ILOT1	101110	
D3.5X64WB	1011		101110	211
Type of Coupling:		Die Size:		
Swag	e-it		5.12 INCHES	
	PROC	EDURE		
Hore ersen	bly pressure tested with	water at emplant to	mbereture	
	AT TEST PRESSURE	1	URST PRESSURE:	
1.1	1/2 MIN.		N/A	PSI
Hose Assembly Ser	rial Number:	Hose Serial N	lumber:	
1439	13		7818	
Comments:				
Date:	Tested:		Approved:	
2/23/2012	Decili	Anna the	Kim Atu	ma <u>A_</u>



Ship From

Midwest Hose & Specialty, Inc. 3312 S I-35 Service Road Oklahoma City OK 73129 USA

Ship To

Bill To

Midwest Hose & Specialty, Inc - Alice 3754 E Highway 44 Alice TX 78332 USA Midwest Hose & Specialty, Inc - Alice 3754 E Highway 44 Alice TX 70332 USA

Payment Terms	NET 30 DAYS (NET30)
Ship Mathod	CNTRAN
Freight Terms	Prepaid
Customer Ship	ALICE
Cartons	1
Weight	1,718.00
Tracking Nbrs	

Shipping Notes:

Cust phone: (361) 661-1815 Written by: SGELISTA

Customer PO: 00132599

Mark Number:

Packing List #:00143913

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Received By:	
Date Received:	

Print Name:		
Work Phone	#:	

LINE	ITEM / DESCRIPTION	UOM	QUANTITY ORDERED	Quantity Prev Shipped	Quantify BACK CRDERED	Quantify This shirment
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	SO#: 00122006 Shipped by: SMILLER		ł			BOPE
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	estions? Phone: (800) 375-2358	-l	<u>.</u>		1	

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March 23, 2012

CLOSED-LOOP SYSTEM

Design Plan:



Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluid and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

Closure Plan:

During drilling operations, third party service companies will haul-off drill solids and fluids to an approved disposal facility as noted on the C-144 form. At the end of the well, all closed loop equipment will be removed from the location.

SM Energy Company Parkway 35 Federal Com 6H



PERMITS WEST

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 H_2S .
 - 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.
- 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.

SMAENERGY

Company Contact List:

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New Mexico Operations:	Name:	Cellular:	Office:	
Drilling Superintendent	Howard Smith	903-262-0001	432-400-2395	
Asst. Drilling Superintendent	Keith Pagett	806-317-5159	432-400-2395	
Drilling Manager	Jonathan Nix	432-296-8956	432-688-3127	
HSE Manager	David Carrillo	432-664-2095	432-688-3391	
Project Manager	Malcolm Kintzing	432-212-2628	432-688-3125	
Drilling Engineer	Michael Mataalii	432-271-2230	432-688-3392	
Lea County (Hobbs):			Contact Number:	
State Police				
City Police				
Sheriff's Office				
Ambulance	911			
Fire Department575				
Local Emergency Planning Com		575-393-2870		
NMOCD	575-393-6161			
US Bureau of Land Manageme				
Eddy County (Carlsbad)			Contact Number:	
State Police			575-885-3137	
City Police				
Sheriff's Office				
Ambulance911				
Fire Department575-885-21				
Local Emergency Planning Committee575-887-37				

US Bureau of Land Management	575-887-6544
Emergency Services	Contact Numbers:
Boots & Coots IWC	1-800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
Halliburton	575-746-2757
B.J. Services	575-746-3569
Flight for Life Lubbock TX	806-743-9911
Aerocare Lubbock TX	806-747-8923
Med Flight Air Ambulance Albuquerque NM	575-842-4433
Lifeguard Air Med Albuquerque NM	575-272-3115

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H2S PAGE 3

Choke Manifold Schematic for Closed Loop System



H2S PAGE 4

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 SM Energy Company
 SURFAC

 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

Surface Use Plan

1. <u>ROAD DIRECTIONS & DESCRIPTIONS</u> (See MAPS 1 - 4)

From the center of Carlsbad...

Go Northeast 14.3 miles on US 62 to the equivalent of Mile Post 49.4 Then turn left and go North 2.1 mile on paved County Road 238 Bear right and continue North & Northwest 4.1 miles on a dirt road Turn right and go East 0.4 mile on a caliche road Then turn right and go South 63.'3 cross-country to the proposed pad

Roads will be maintained to a standard at least equal to or better than their present condition.

This APD is also doubling as a plan of development for a BLM road and twin well pad right-of-way application totaling 2.47 acres. Application covers 20' x 63.3' (=0.03 acre) new road and 300' x 350' pad (=2.44 acres) in NESE Section 34 and NWSW Section 35, both 19s-29e. Application connects with existing road right-of-way NMNM-073084. SF-299 and APD for Osage 34 Federal 6H were received by BLM March 20, 2013.

2. <u>ROAD TO BE BUILT OR UPGRADED</u> (See MAP 4)

Approximately 63.3' of new road will be built. The new road will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 1%. Maximum cut of fill = 1'. No culvert, cattle guard, or turn out is needed. Padding will be placed across 8 surface poly lines. Upgrading of existing roads will consist of filling potholes with caliche.



 SM Energy Company
 SURFAC

 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

3. EXISTING WELLS

Existing oil, gas, injection, disposal, water, and P & A wells within a mile radius are shown on MAP 3.

4. PROPOSED PRODUCTION FACILITIES (See MAP 4)

Production facilities will be installed on the pad. All will be located in the Section 35 (on lease) side of the pad. Equipment and configuration will be determined after well completion. A Sundry will be submitted for approval before installation. SM will build a \approx 25' long power line from its existing overhead power line north of the pad south to the pad. DCP will lay a gas line and will be responsible for its right-of-way application.

5. <u>WATER SUPPLY</u> (See MAP 2)

SM has an existing frac pond that will be expanded (175' x 200') to the west. A temporary surface water pipeline will be laid east 900' along the south side of the existing road. The line will be 4" poly during drilling and 10" aluminum during completion. Existing supply pipeline and trucks from Carlsbad will be used to fill the expanded pond. Details on the expansion are in the Osage 34 Federal #1 APD that was received by BLM February 19, 2013.

6. CONSTRUCTION MATERIALS & METHODS

NM One Call (1-800-321-ALERT) will be notified before construction starts. The top 6" of soil and brush will be stockpiled south of the pad. A closed loop drilling system will be used. Caliche will be bought and hauled from an existing approved caliche pit. Dirt contractor will be responsible for caliche.



SURFACE PLAN PAGE 3

SM Energy CompanySURFACParkway 35 Federal Com 6HSHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.Eddy County, NM

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to a county landfill. There will be no trash burning. Contents of the mud tanks will be hauled to state approved disposal sites. Human waste will be disposed of in chemical toilets and hauled to an approved dump station.

8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, or mud logger.

9. WELL SITE LAYOUT

See rig layout and MAP 4 for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. <u>RECLAMATION</u>

Interim reclamation will consist of removing the caliche from at least a 50' x 300' strip on the west side of the pad. Depending on the production equipment, more of the pad may be reclaimed. Disturbed areas will be contoured to a natural shape and no steeper than 3:1. Soil and brush will be evenly spread over disturbed areas. Seeded areas will be ripped or harrowed. A BLM approved seed mix will be sown in a BLM approved manner. Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the well is plugged, then the remainder of the pad will be similarly reclaimed. Noxious weeds will be controlled.


SM Energy Company Parkway 35 Federal Com 6H SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E. BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E. Eddy County, NM

11. SURFACE OWNER

All construction will be on BLM.

12. OTHER INFORMATION

An on site inspection was held January 14, 2013 with Legion Brumley (BLM).

SNMAS has inspected the pad, road, pond, and water pipeline. See their reports SNMAS-12NM-4008/4009/4010 (Feb. 6, 2013) and SNMAS-13NM-4018 (Feb. 15, 2013).



SURFACE PLAN PAGE 4

 SM Energy Company
 SURFAC

 Parkway 35 Federal Com 6H
 SHL 1700' FSL & 5' FEL Sec. 34, T. 19 S., R. 29 E.

 BHL 1980' FSL & 330' FEL Sec. 35, T. 19 S., R. 29 E.
 Eddy County, NM

REPRESENTATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this <u>22nd</u> day of <u>May, 2013</u>.

Brian Wood, Consultant Permits West, Inc. 37 Verano Loop, Santa Fe, NM 87508 (505) 466-8120 FAX: (505) 466-9682

Cellular: (505) 699-2276

Field representative will be: Malcolm Kintzing, Reservoir Engineer SM Energy Company 3300 N. A Street, Building 7-200 Midland, TX 79705 Office: (432) 688-1700 FAX: (432) 688-1701



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	SM Energy Company
LEASE NO.:	NMNM-54865
WELL NAME & NO.:	Parkway 35 Federal Com 6H
SURFACE HOLE FOOTAGE:	1700' FSL & 0005' FEL
BOTTOM HOLE FOOTAGE	1980' FSL & 0330' FEL Sec. 35, T. 19 S., R 29 E.
LOCATION:	Section 34, 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 Cave/Karst Communitization Agreement Construction Notification Topsoil Closed Loop System Federal Mineral Material Pits Well Pads Roads **Road Section Diagram** Drilling **Cement Requirements** H2S Requirements High Cave/Karst Capitan Reef Logging Requirements Waste Material and Fluids **Production** (Post Drilling) Well Structures & Facilities Pipelines **Electric Lines Interim Reclamation Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Cave and Karst

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

Cave/Karst Surface Mitigation

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

Construction:

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

No Blasting:

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

Pad Berming:

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

Tank Battery Liners and Berms:

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank.

Leak Detection System:

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

Automatic Shut-off Systems:

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

Cave/Karst Subsurface Mitigation

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

Rotary Drilling with Fresh Water:

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

Directional Drilling:

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

Lost Circulation:

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

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

Abandonment Cementing:

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

Pressure Testing:

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

Drilling:

Communitization Agreement

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

The operator shall 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. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For

examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

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:

400 foot road with 4% road slope: $\underline{400'}_{4\%}$ + 100' = 200' 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

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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

VII. DRILLING

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A. DRILLING OPERATIONS REQUIREMENTS

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

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

Eddy County

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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.
- Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
- 4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

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

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

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

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

High Cave/Karst Capitan Reef Possibility of water flows in the Artesia Group, Salado, Delaware, Capitan Reef, and Bone Spring. Possibility of lost circulation in the Rustler, Delaware, Capitan Reef, and Bone Spring.

- The 20 inch surface casing shall be set at approximately 350 feet (in a competent bed <u>below the Magenta Dolomite</u>, a <u>Member of the Rustler</u>) and cemented to the surface. Excess calculates to 15% - Additional cement may be required.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing, which shall be set at approximately **1625** feet, is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.
- 3. The minimum required fill of cement behind the 9-5/8 inch 2nd intermediate casing, which shall be set at the base of the Capitan Reef, is:

Operator has proposed DV tool at depth of 1700', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool:
- Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
- b. Second stage above DV tool:
- Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan Reef..

Centralizers shall be placed to obtain good cement placement around the 7" casing in the curve, must be type for horizontal service and a minimum of one every other joint.

- 4. The minimum required fill of cement behind the 7 inch production casing is:
 - Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2471'). Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan Reef.

- 5. Cement not required on the 4-1/2" casing. Packer system being used.
- 6. 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. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
- 3. A variance is granted for the use of a diverter on the 20" surface casing.
- Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8" 1st intermediate casing shoe shall be 2000 (2M) psi (Installing a 5M, testing to 2,000 psi).
- Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" 2nd intermediate casing shoe shall be 3000 (3M) psi (Installing a 5M, testing to 3,000 psi).

- 6. 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.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

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

Exclosure Netting (Open-top Tanks)

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

Chemical and Fuel Secondary Containment and Exclosure Screening

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

Open-Vent Exhaust Stack Exclosures

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

Containment Structures

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

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

Painting Requirement

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

B. PIPELINES (temporary water lines)

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 <u>et seq</u>. (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) 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-ofway width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

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

by the Authorized Officer.

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

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

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

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

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

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

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

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

authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

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

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

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the approved application 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 <u>et seq</u>. (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) 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.

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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:

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- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes with native soil from the removed poles.

IX. INTERIM RECLAMATION

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

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

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

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

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

X. FINAL ABANDONMENT & RECLAMATION

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

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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	
-	<u>lb/acre</u>
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 \mathbf{x} percent purity \mathbf{x} percent germination = pounds pure live seed