

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

RECEIVED

JAN 30 2012

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

NM-61582 67102

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement Name and No.

NM NM 85491X  
PARKWAY DELAWARE UNIT

8. Lease Name and Well No.

PARKWAY-DELAWARE UNIT #521

9. API Well No.

30-015-39880

10. Field and Pool or Exploratory

PARKWAY-DELAWARE [49625]

11. Sec., T. R. M. or Blk. and Survey or Area

SECTION 35 T19S-R29E

12. County or Parish

EDDY CO.

13. State

NM

1a. Type of work: ☒ DRILL☐ REENTER1b. Type of Well: ☐ Oil Well ☐ Gas Well ☒ INJECTION☐ Single Zone ☐ Multiple Zone2. Name of Operator  
SM ENERGY COMPANY3a. Address 3300 NORTH "A" STREET  
BUILDING 7 SUITE 200 MIDLAND, TEX 797053b. Phone No. (include area code)  
432-688-1700

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

At surface 1420' FNL &amp; 1330' FWL SECTION 35 T19S-R29E

At proposed prod. zone

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

Approximately 20 miles Southeast of Carlsbad, New Mexico

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

1330'

16. No. of acres in lease

920 160

17. Spacing Unit dedicated to this well

40

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

600'

19. Proposed Depth

4500'

20. BLM/BIA Bond No. on file

MT-1022

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3311' GL22. Approximate date work will start\*  
WHEN APPROVED23. Estimated duration  
20 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

Joe T. Janica

Name (Printed/Typed)

Joe T. Janica

Date

11/09/11

Title Permit Eng.

Approved by (Signature)

S/ Douglas T. Binger

Name (Printed/Typed)

Office

NM STATE OFFICE

Date

JAN 18 2012

Title STATE DIRECTOR

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)

CAPTAIN CONTROLLED WATER BASIN

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

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

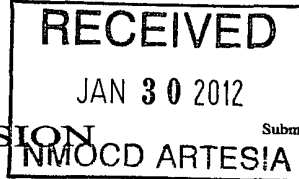
DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III  
1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV  
11420 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
11420 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505



Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

APF Number <b>30-015-39880</b>	Pool Code 49625	Pool Name PARKWAY-DELAWARE
Property Code 19265	Property Name PARKWAY DELAWARE UNIT	Well Number 521
OGRID No. 154903	Operator Name SM ENERGY	Elevation 3311'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	35	19-S	29-E		1420	NORTH	1330	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
Dedicated Acres 40	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

	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>SURFACE LOCATION Y=589516.7 N X=587447.3 E LAT.=32.620364' N LONG.=104.049312' W</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Joe T. Janica</i> Signature Date Joe T. Janica 10/18/11 Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>FEBRUARY 11, 2011</p> <p>Date Surveyed Signature of Professional Surveyor Professional Surveyor RONALD J. EDISON 2/7/2011 1110362</p> <p>Certificate No. GARY, G. EDISON 12641 RONALD J. EDISON 3239</p>
EXHIBIT "A"		

# APPLICATION TO DRILL

SM ENERGY COMPANY  
 PARKWAY DELAWARE UNIT #521  
 UNIT "F" SECTION 35  
 T19S-R29E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provided.

1. LOCATION: 1330' FWL & 1420' FNL SECTION 35 T19S & R29E EDDY CO. NM
2. ELEVATION ABOVE SEA LEVEL: 3311' GL
3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits;
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from the hole.
5. PROPOSED DRILLING DEPTH: 4500'

## 6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	350'	Capitan	1653'
Top of Salt	528'	Queen	2563'
Base of Salt	1113'	Delaware	3668'
Yates	1448'	Delaware "A"	3934'

## 7. POSSIBLE MINERAL BEARING FORMATIONS:

Yates	Gas	Queen	Oil, Gas, Water
Capitan	Water	Delaware	Oil, Gas, Water
Possible Fresh Water 100±'			

## 8. CASING PROGRAM:

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
24"	0- <del>375'</del> 200'	20"	94#	8-R	ST&C	H-40	New
17½"	0-1200'	13 3/8"	48#	8-R	ST&C	H-40	New
	1200-1500'	13 3/8"	54.5#	8-R	ST&C	J-55	New
11"	0-3200'	8 5/8"	24#	8-R	ST&C	HCK-55	New
7 7/8"	0-4500'	5½"	15.5#	8-R	ST&C	J-55	New

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5  
 Joint Strength 8-Round 1.8  
 Buttress 1.6

## APPLICATION TO DRILL

SM ENERGY COMPANY  
 PARKWAY DELAWARE UNIT #521  
 UNIT "F" SECTION 35  
 T19S-R29E EDDY CO. NM

9. CASING SETTING DEPTHS AND CEMENTING:

20" Surface Run and set 375' of 20" 94# H-40 ST&C casing. Cement with 333 Sx. of 35/65 Class "C" POZ cement + 6% Bentonite, + 0.25# Celloflakes/Sx. Yield 1.83, tail in with 300 Sx. Class "C" cement + 2% Salt, Yield 1.32 Circulate cement. 100% Excess

13 3/8" 1st Intermediate Run and set 1500' of 13 3/8" casing as follows: 300' of 13 3/8" 54.5# J-55 ST&C, 1200' of 13 3/8" 48# H-40 ST&C Cement with 802 Sx. of 35/65 Class "C" POZ cement + 6% Gel, + 2% Salt, + 0.25# Celloflakes/Sx. Yield 1.83, tail in with 250 Sx. of Class "C" cement + 2% Salt, Yield 1.32, circulate cement to surface. 50% Excess

8 5/8" 2nd Intermediate Run and set 3200' of 8 5/8" 24# HCK-55 ST&C casing. Cement with 694 Sx. of 35/65 Class "C" POZ cement + 2% Salt, + 6% Gel, + 0.25# Celloflakes/Sx. Yield 1.83, tail in with 200 Sx. of Class "C" cement + 2% Salt, Yield 1.32, circulate cement to surface. 35% Excess

5 1/2" Production Run and set 4500' of 5 1/2" 15.5# J-55 ST&C casing. Cement with 255 Sx. of Class "C" cement + 2% Salt, Yield 1.32 estimate top of cement 3000' from surface.

10. PRESSURE CONTROL EQUIPMENT:

*25% excess from earlier submission See COA*

Exhibit "E" shows a 2000 PSI working pressure B.O.P. with an annular bag type preventor with 2" inlets and 2" outlets to the choke manifold. This B.O.P. will have a 20" bore and will be nipped up on the 20" surface casing. The B.O.P. will be tested to pressures acceptable to the BLM. Exhibit "E-1" shows a 2-3000 PSI choke manifold with two adjustable chokes and a 3" blow down line to pit. No abnormal pressures or temperatures are expected while drilling this well. Other wells drilled in this section have not encountered any problems while drilling. After 13 3/8" intermediate casing is set a 2000 PSI B.O.P. will be nipped up on the 13 3/8" casing. B.O.P. will be a 13 5/8" X 11 3/8" 13 3/8"

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
0-375' <i>200</i>	8.6-8.8	29-34	NC	Fresh water spud mud use paper to control seepage.
375-1500'	10.0-10.2	29-34	NC	Brine water add paper to control seepage.
1500-4500'	8.6-8.8	29-34	NC	Fresh water base fluid add paper to control seepage and high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run logs and casing the mud system may have to be altered to meet these needs.

- 13A. If H<sub>2</sub>S is encountered in concentrations of less than 10 PPM, fans will be placed in work areas to prevent the accumulations of hazardous amounts of poisonous gas. If higher concentrations of H<sub>2</sub>S are detected the well will be shut in and a rotating head , Mud/Gas separator ; and flare line with igniter will be installed.
- 13B. If the concentration of H<sub>2</sub>S meets the requirement of Onshore Order # 6 a Mud/Gas separator and other necessary equipment will be rented and installed.

APPLICATION TO DRILL

SM ENERGY COMPANY  
PARKWAY DELAWARE UNIT #521  
UNIT "F" SECTION 35  
T19S-R29E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

*See COA*

- A. Open hole logs: Run Gamma Ray, CNL, Density, Laterolog, Caliper from TD back to \* 5/8" casing shoe. Run CNL, Gamma Ray from TD back to surface.
- B. Rig up mud logger on hole at 1400' and keep on hole to TD.
- C. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected during the drilling of this well. There is no known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Oil & Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of the equipment being used to drill this well. Estimated BHP 1800± PSI, and Estimated BHT 135°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a drilling rig is available. Move in operations and drilling is expected to take 20 days. In order to complete this well for injection it will take approximately 20 days and additional 20 days to construct surface facilities and lay injection lines.

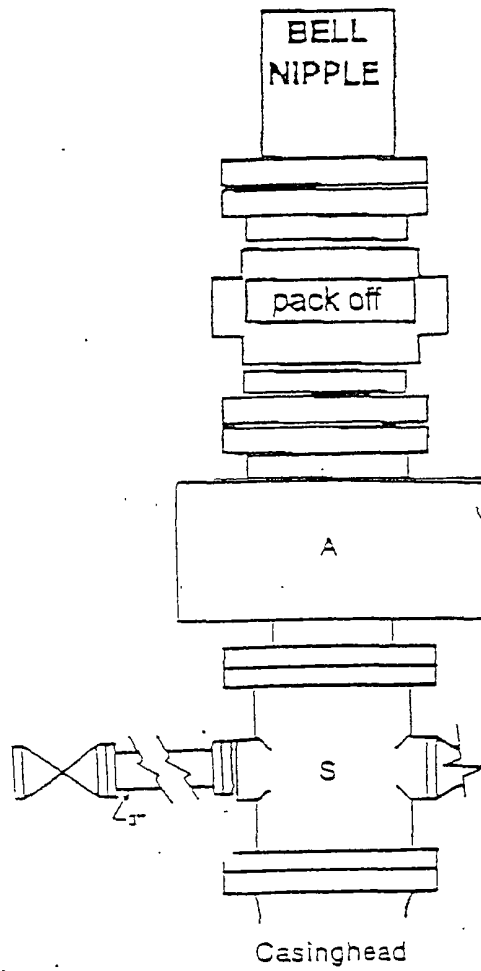
15. OTHER FACETS OF THE OPERATION:

After casing is run and cemented cased hole logs Gamma Ray, Neutron, collar logs will be run over the injection intervals in order to determine where the casing will be perforated.

1. *Phragmites australis* (Cav.) Trin. ex Steud.

1. *Phragmites australis* (Cav.) Trin. ex Steud.

**Casing Safety Factors: Collapse = 1.125, Burst = 1.21, Tension = 1.8**



2000 PSI B.O.P. WITH A 20" BORE  
NIPPLED UP ON 20" SURFACE CASING



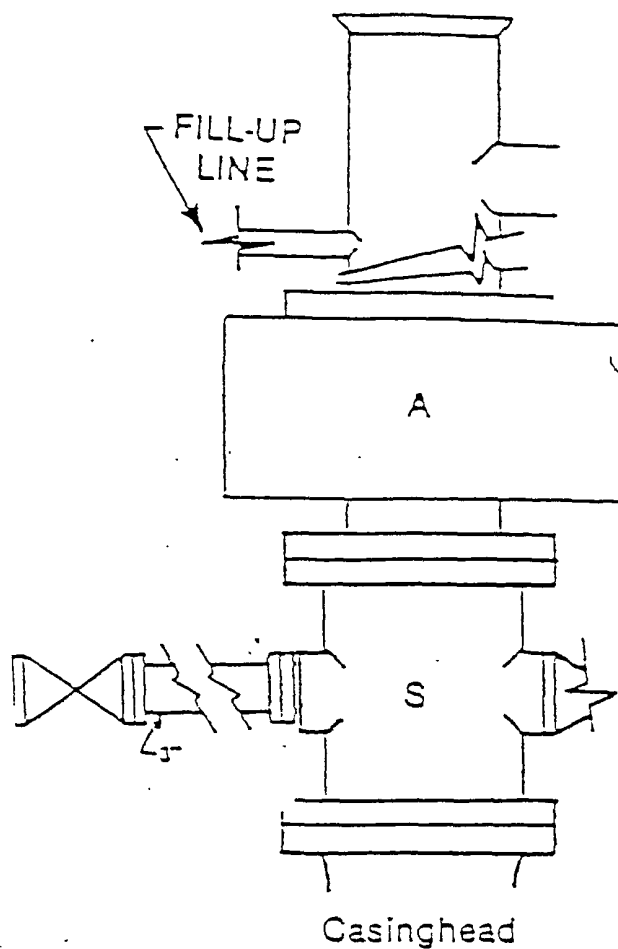


FIGURE K1-1. Recommended IADC Class 2 BOP stack, 2000 psi WP.  
Either SRd (left) or SA (right) arrangement is acceptable and drilling  
spool is optional

EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

SM ENERGY COMPANY  
PARKWAY DELAWARE UNIT #521  
UNIT "F" SECTION 35

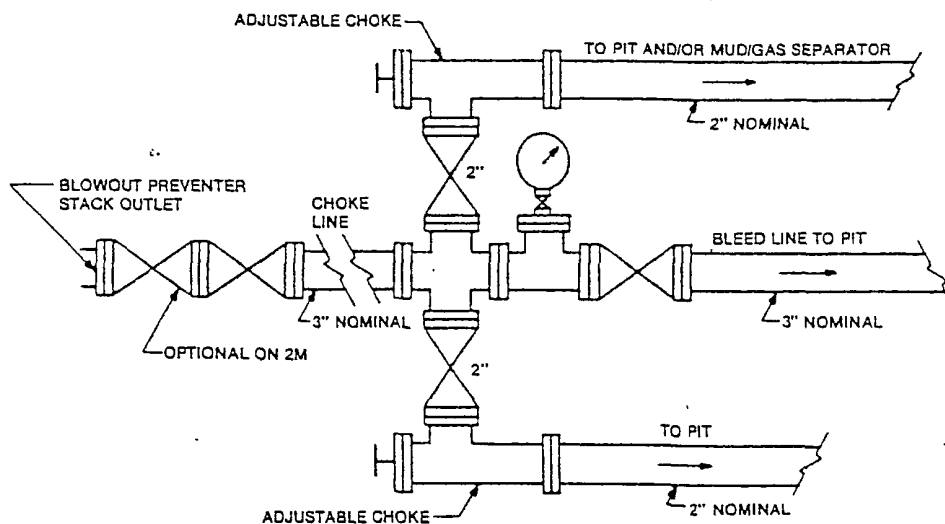


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

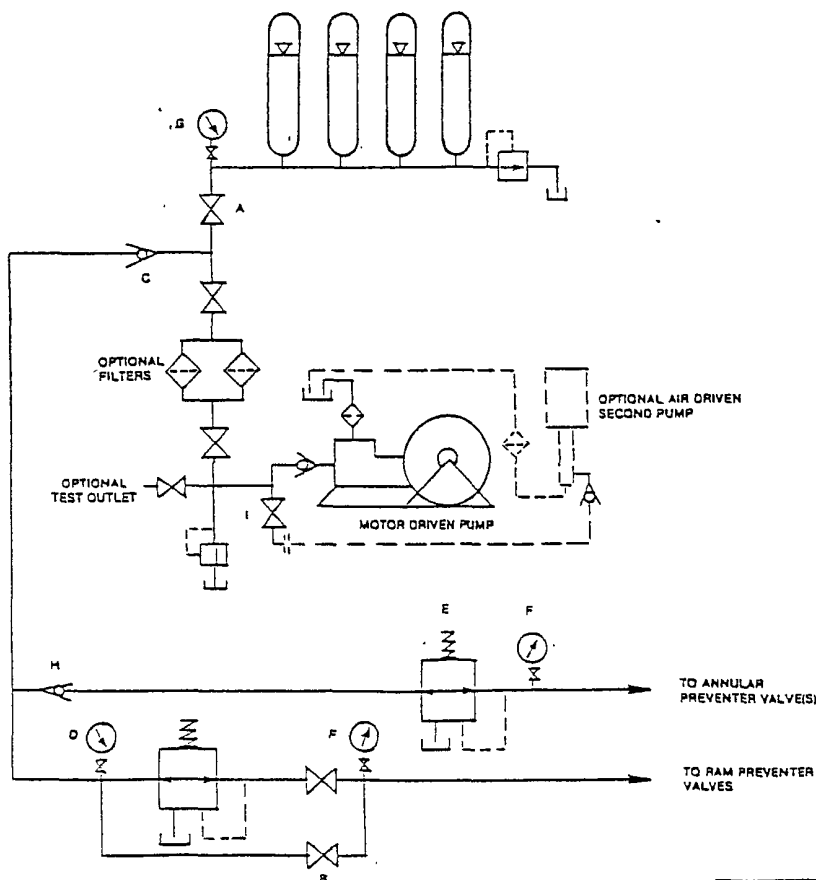
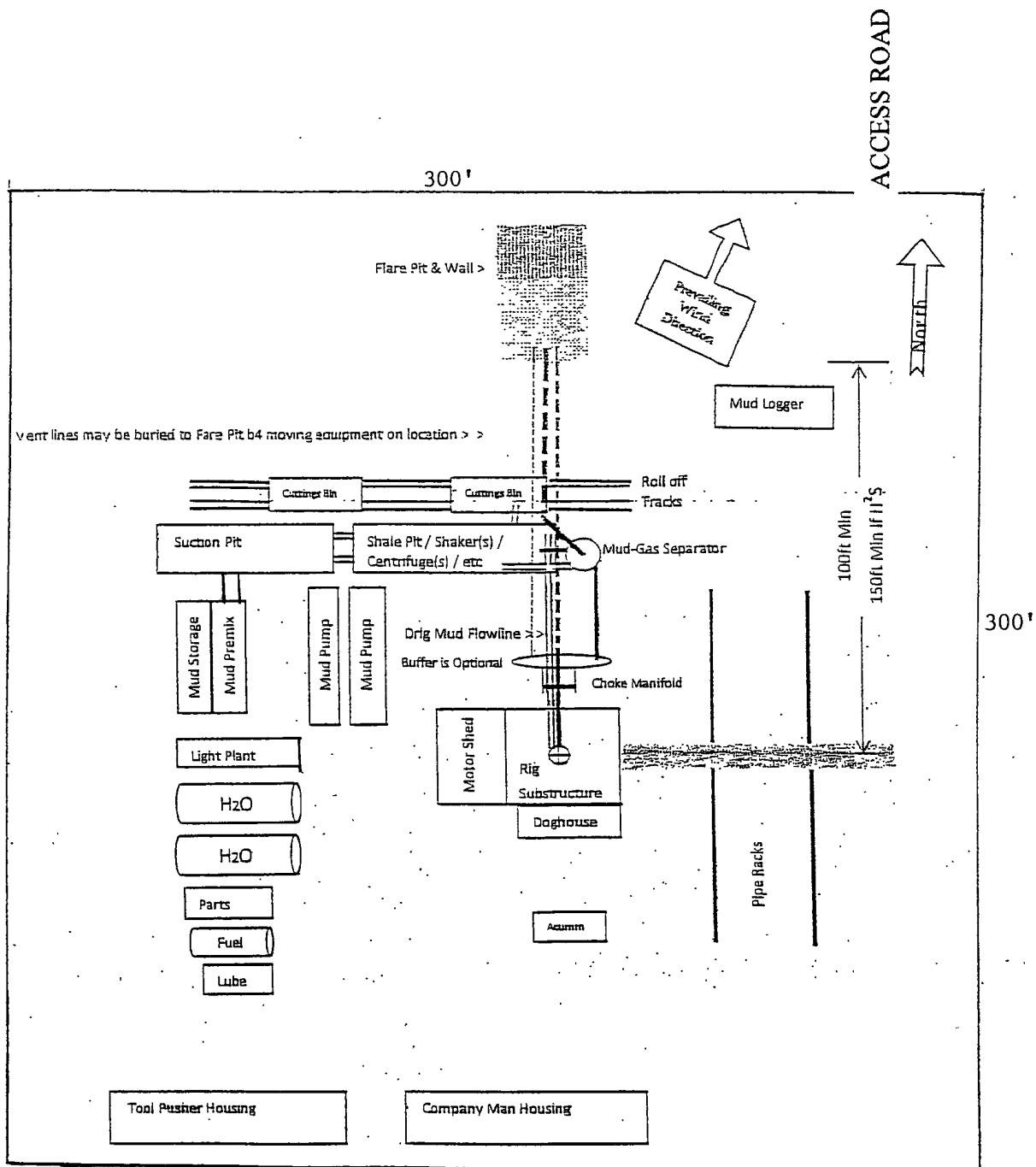


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

SM ENERGY COMPANY  
PARKWAY DELAWARE UNIT #521  
UNIT "F" SECTION 35  
T19S-r29E EDDY CO. NM



Generic Drill Site  
Layout

Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-gas separator location and their connection routing.

EXHIBIT "D"  
RIG LAY OUT PLAT

SM ENERGY COMPANY  
PARKWAY DELAWARE UNIT #521  
UNIT "F" SECTION 35  
T19S-R29E EDDY CO. NM

## SM ENERGY

### HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/workover/FACILITY

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the Nearby area. There are no private residences in the area but a contingency Plan has been orchestrated. SM Energy will have a company representative Available to rig personell throughout drilling or production operations. If Hydrogen Sulfide is detected or suspected monitoring equipment will be Acquired for monitoring and/or testing

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#### GENERAL H2S EMERGENCY ACTIONS:

In the event of an H2S emergency, the following plan will be initiated.

- 1) All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
- 2) If for any reason a person must enter the hazardous area, they must wear a SCBA (Self contained breathing apparatus)
- 3) Always use the "buddy system"
- 4) Isolate the well/problem if possible.
- 5) Account for all personnel
- 6) Display the proper colors warning all unsuspecting personnel of the danger at hand.
- 7) Contact the Company personnel as soon as possible if not at the location.  
(use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and co-ordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

#### EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

- 1) All personnel will don the self-contained breathing apparatus.
- 2) Remove all personnel to the "safe area" (always use the "buddy system")
- 3) Contact company personnel if not on location.
- 4) Set in motion the steps to protect and or remove the general public to an upwind "safe area". Maintain strict security & safety procedures while dealing with the source.
- 5) No entry to any unauthorized personnel.
- 6) Notify the appropriate agencies: City Police-City street(s)  
State Police-State Rd,  
County Sheriff-County Rd.  
(will assist in general public evacuation/safety while maintaining roadblocks)
- 7) Call the NMOCD & or BLM

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take necessary steps to contact the following:

EMERGENCY CALL LIST: (Start and continue until ONE of these people have been reached)

	<u>OFFICE</u>	<u>MOBILE</u>	<u>HOME</u>
Jackie Herron		575-746-7567 575-365-3067	
Bill Hearne		432-230-6054 432-269-3504	
Mark Bondy	432-688-3121	432-557-9049	

EMERGENCY RESPONSE NUMBERS: Lea County, New Mexico

State Police	575-392-5588
Lea County Sheriff	575-396-3611
Emergency Medical Service (Ambulance)	911 or 575-393-2677
State Emergency Response Center (SERC)	575-476-9620
Hobbs Police Department	575-397-9265
Hobbs Fire Department	575-393-2677
Lovington Police Department	575-396-3144
Lovington Fire Department	575-396-2359
Loco Hills Fire Department	575-677-2349
Maljamar Fire Department	575-676-4100
(NMOCD) New Mexico Oil Conservation Division, District I (Lea, Roosevelt, Chaves, Curry)	575-393-6161
District II (Eddy, Chaves)	575-748-1283
American Safety	575-746-1096
Indian Fire & Safety	575-746-4660 or 800-530-8693
Callaway Safety	575-746-2847
BJ Services	575-746-3569

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	SM ENERGY COMPANY
LEASE NO.:	NM-67102
WELL NAME & NO.:	PARKWAY DELAWARE UNIT #521
SURFACE HOLE FOOTAGE:	1420' FNL & 1330' FWL
BOTTOM HOLE FOOTAGE	SAME
LOCATION:	Section 35, T.19 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

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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
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
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  - H2S – Onshore Order 6 Requirements
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  - Waste Material and Fluids
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  - Pipelines
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- ☐ **Interim Reclamation**
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