

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-103  
Revised August 1, 2011

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-32312
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Vanguard Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator 5847 San Felipe St., Ste. 3000, Houston, TX 77057		7. Lease Name or Unit Agreement Name Peregrine State
4. Well Location Unit Letter <u>B</u> : <u>660</u> feet from the <u>North</u> line and <u>2460</u> feet from the <u>East</u> line Section <u>10</u> Township <u>25-S</u> Range <u>28-E</u> NMPM Eddy County <u>NM</u>		8. Well Number <u>1</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL 2971'		9. OGRID Number 281994
		10. Pool name or Wildcat Willow Lake; Delaware, SW (96855)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

1. Notify OCD 24 hrs prior to MIRU to P&A.
2. RIH w/tbg to 5009' (50' inside 3 1/2" liner @ 4959') spot 25 sx's cmt WOC & Tag @ 4009' circ hole w/MLF.
3. Perf @ 3450' sqz 75 sx's @ 3450'-3300' (Top Cherry Canyon) WOC & Tag.
4. Perf @ 2560' sqz 60 sx's @ 2560'-2460' (Bell Canyon) WOC & Tag.
5. Perf @ 615' circ cmt to surf via 5 1/2" & 5 1/2" x 8 5/8" csg ann WOC verify cmt @ surf on all strings.
6. RD P&A equipment, cut off wellhead, install dry hole marker, clean location, move off.

26 - CIBP @ 4500' or TOC whichever is lower - 25sx cmt. WOC+Tag

NM OIL CONSERVATION  
ARTESIA DISTRICT

APR 02 2018

RECEIVED

Spud Date:

Rig Release Date:

\* See Attached COAs must be plugged by 4-3-19  
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

*Jimmy Bagley*

TITLE

Agent

DATE 03/29/18

Type or print name

Jimmy Bagley

E-mail address: sunsetwellservice@yahoo.com

PHONE: 432-561-8600

For State Use Only

APPROVED BY:

*[Signature]*

TITLE

Staff Mgr

DATE 4-3-18

Conditions of Approval (if any):

PEREGRINE STATE #1

GR

2971

660' FNL & 2.460' FEL

KB

CORR

595' FNL & 3.62' FEL

SPUNDED

6/4/2002

B-SEC 10-1235-423E

COMPLETED

7/12/2002

EDDY COUNTY, NEW MEXICO

12/24/2010

WILLOW LAKE, DELAWARE, SW

LA1

32.150053

30-01-5-33312

LONG

-104.0744934

BEFORE P4A

FORMATION TOPS PER C-105

2560

BELL CANYON

3382

CHERRY CANYON 5

5234

CHERRY CANYON 6

5234

TOC @ -5500 BY CALC

5-1/2" LINER HANGER & PKR @ 4.959 MD

4-3/4" LATERAL HOLE

5-1/2" 17# N-40  
CMT W/ 270 SX  
LANDED @ 5.360' MD

PKRS @ 5.379' 5.508' 5.669' 5.830' 6.087' 6.248' 6.410' 6.572'

5-1/2" 9.2# P-110 LINER LANDED @ MD 6.700'  
TVD @ 4.889'  
TMD @ 7.750'

KDZ 05/23/2018

MWD SURVEY DATA				MWD SURVEY DATA				MWD SURVEY DATA			
MD (ft)	Inclination (deg)	Azimuth (deg)		MD (ft)	Inclination (deg)	Azimuth (deg)		MD (ft)	Inclination (deg)	Azimuth (deg)	
100	0.54	180.16		3900	0.93	30.5		5518	91.9	87.3	
200	0.48	174.17		4000	0.85	29.36		5550	91.5	87.7	
300	0.55	222.22		4100	0.71	29.23		5580	91.5	87.2	
400	0.86	252.99		4200	0.81	25.21		5610	91.6	87.2	
500	0.95	253.68		4300	0.83	17.06		5642	89.6	88.4	
600	0.86	361.23		4400	0.82	17.16		5673	87.7	89.3	
700	0.79	260.16		4500	6.5	106.5		5705	87	88.8	
800	0.88	254.35		4608	12.1	95.1		5736	88	87.7	
900	1.32	240.44		4700	18	89.6		5768	87.8	89.5	
1000	1.81	232.53		4800	23.6	86.1		5800	87	88.1	
1100	1.88	226.94		4905	29.3	82.9		5830	87.2	88.2	
1200	1.62	225.85		5000	34.2	80.7		5862	88.3	87.5	
1300	1.85	284.95		5100	36.3	81.7		5894	87.8	86.7	
1400	2.05	263.02		5200	39.8	83.1		5925	87.3	87.9	
1500	2.2	265.19		5300	43.1	84.2		5957	88.6	86.5	
1600	2.06	263.89		5400	46.3	84.7		5988	88.6	87	
1700	2	266.06		5500	49.2	85.2		6020	89	87.3	
1800	1.54	274.63		5600	53.1	85.8		6052	89.4	88.1	
1900	0.66	283.67		5700	58.9	86.1		6085	91.2	86.7	
2000	0.08	345.62		5800	64.6	87.5		6116	89.9	87	
2100	0.51	115.74		5900	69.6	90		6148	89.4	86.5	
2200	1.42	94.15		6000	73.2	92.8		6179	89.7	86.8	
2300	2.08	92.51		6100	77	93.8		6211	90	87.2	
2400	2.56	87.92		6200	82.9	95.2		6242	90.1	87.9	
2500	2.45	80.54		6300	86	91.4		6274	89.6	87.3	
2600	1.94	75.22		6400	87.2	92.3		6304	87.9	87.3	
2700	1.82	75.37		6500	87.6	91		6336	87.9	87.2	
2800	1.58	68.19		6600	85.7	91.6		6367	88.3	87	
2900	1.57	63.9		6700	84.9	90.3		6398	88.6	86.8	
3000	1.5	61.78		6800	84.3	90.3		6430	88.9	87.2	
3100	1.45	57.98		6900	83.3	91.6		6461	88.8	88.1	
3200	1.45	59.05		7000	83.4	92.1		6493	88.5	89.5	
3300	1.4	59.61		7100	83.7	92.1		6525	88.6	89.5	
3400	1.15	57.55		7200	83.7	92.1		6555	88.6	89.5	
3500	0.98	51.57		7300	87.9	89.3		6587	89.2	89.3	
3600	0.98	52.46		7400	90.3	87.3		6618	89.9	89.3	
3700	0.85	46.93		7500	90.8	88.2		6650	89.9	89.3	
3800	0.89	39.28		7600	90.7	88.1					

LEASEWELL: PENNSYLVANIA STATE #1

GR 2971  
FB CORR

SURF LOCATION:  
66' PUL & 2.46' FEL  
59' PUL & 3.67' FEL  
B-SEC 10-725-A2E

COAST: EDDY COUNTY, NEW MEXICO

SPUNDED  
COMPLETED  
6/4/2002  
7/12/2002  
12/2/2010  
SOUTHWESTERN ENERGY PRODUCTION COMPANY  
INSTALL 3-1/2" LINER AND FRAC

FIELD: WILLOW LAKE, DELAWARE, SW

L&T  
LONG  
22.150053  
-104.074934

ARTNO: 30415-2312

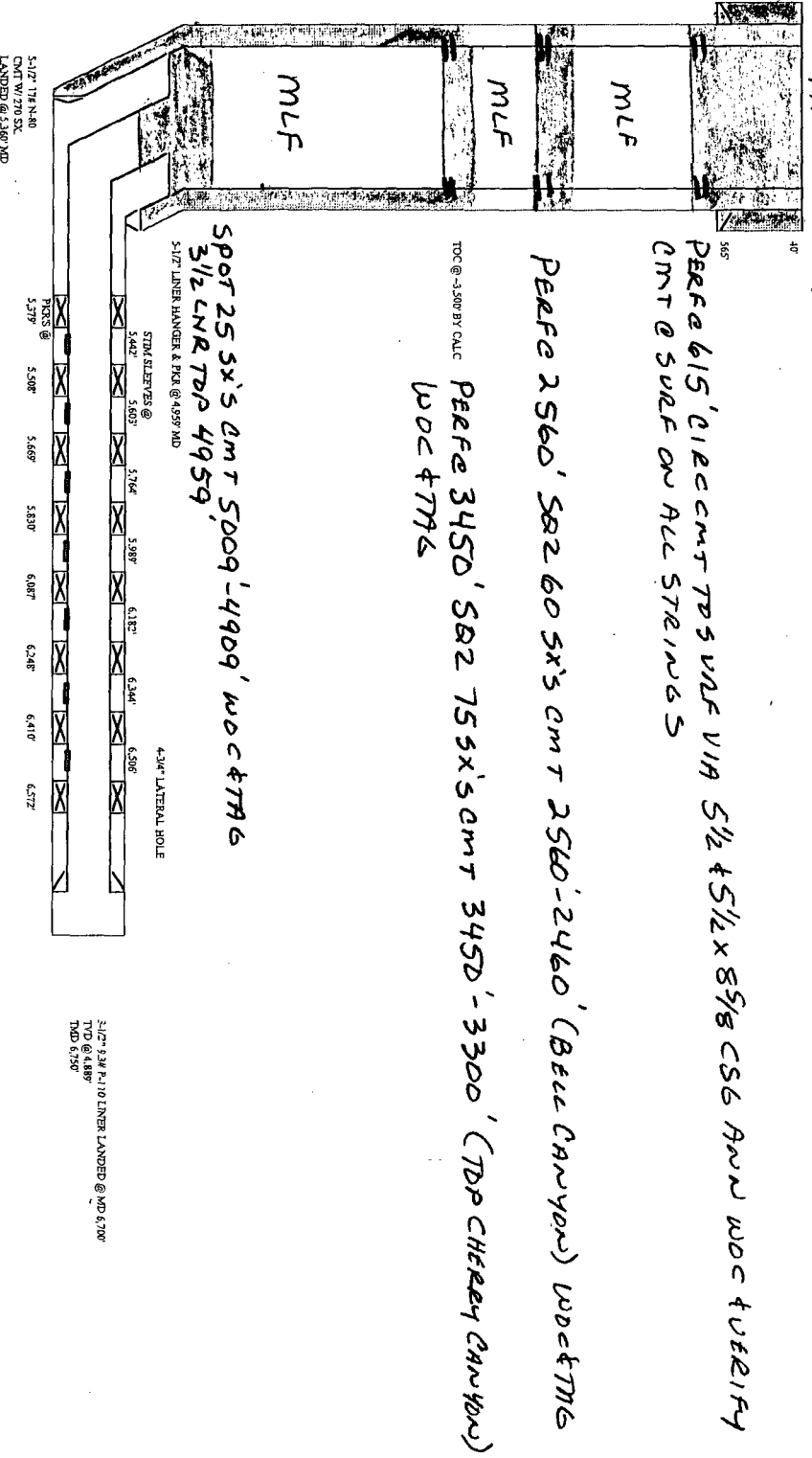
AFTER P4A

26" CONDUCTOR  
CMT W/ 9 SX READY MIX

12-3/4" HOLE

8-1/2" 40# C-95  
CMT W/ 350 SX CONC.

7-7/8" HOLE



## CONDITIONS FOR PLUGGING AND ABANDONMENT

### District II / Artesia N.M.

The following is a guide or checklist in preparation of a plugging program, this is not all inclusive and care must be exercised in establishing special plugging programs in unique and unusual cases, **Notify NMOCD District Office II at (575)-748-1283 at least 24 hours before beginning work.**

1. A notice of intent to plug and abandon a wellbore is required to be approved before plugging operations are conducted. A cement evaluation tool is required in order to ensure isolation of producing formations, protection of water and correlative rights. A cement bond log or other accepted cement evaluation tool is to be provided to the division for evaluation if one has not been previously run or if the well did not have cement circulated to surface during the original casing cementing job or subsequent cementing jobs.
2. Closed loop system is to be used for entire plugging operation. Upon completion, contents of steel pits are to be hauled to a permitted disposal location.
3. Trucking companies being used to haul oilfield waste fluids to a disposal – commercial or private – shall have an approved NMOCD C-133 permit. A copy of this permit shall be available in each truck used to haul waste products. It is the responsibility of the operator as well as the contractor, to verify that this permit is in place prior to performing work. Drivers shall be able to produce a copy upon request of an NMOCD Field inspector.
4. Filing a subsequent C-103 will serve as notification that the well has been plugged.
5. A final C-103 shall be filed (and a site inspection by NMOCD Inspector to determine if the location is satisfactorily cleaned, all equipment, electric poles and trash has been removed to Meet NMOCD standards) before bonding can be released.
6. If the well is not plugged within 1
7. If work has not begun within 1 Year of the approval of this procedure, an extension request must be file stating the reason the well has not been plugged.
8. **Squeeze pressures are not to exceed 500 psi, unless approval is given by NMOCD.**
9. Produced water **will not** be used during any part of the plugging operation.
10. Mud laden fluids must be placed between all cement plugs mixed at 25 sacks per 100 bbls of water.
11. All cement plugs will be a minimum of 100' in length or a minimum of 25 sacks of cement, whichever is greater. 50' of calculated cement excess required for inside casing plugs and 100% calculated cement excess required on outside casing plugs.
12. **Class 'C' cement will be used above 7500 feet.**
13. **Class 'H' cement will be used below 7500 feet.**
14. **A cement plug is required to be set 50' above and 50' below, casing stubs, DV tools, attempted casing cut offs, cement tops outside casing, salt sections and anywhere the casing is perforated, these plugs require a 4 hour WOC and then will be tagged**
15. **All Casing Shoes Will Be Perforated 50' below shoe depth and Attempted to be Squeezed, cement needs to be 50' above and 50' Below Casing Shoe inside the Production Casing**

16. When setting the top out cement plug in production, intermediate and surface casing, wellbores should remain full at least 30 minutes after plugs are set
17. **A CIBP is to be set within 100' of production perforations, capped with 100' of cement, WOC 4 hours and tag.**
18. A CIBP with 35' of cement may be used in lieu of the 100' plug if set with a bailer. This plug will be placed within 100' of the top perforation, **(WOC 4 hrs and tag).**
19. **No more than 3000' is allowed between cement plugs in cased hole and 2000' in open hole.**
20. Some of the Formations to be isolated with cement plugs are: These plugs to be set to isolate formation tops
  - A) Fusselman
  - B) Devonian
  - C) Morrow
  - D) Wolfcamp
  - E) Bone Springs
  - F) Delaware
  - G) Any salt sections
  - H) Abo
  - I) Glorieta
  - J) Yates.
  - K) **Potash---** (In the R-111-P Area (Potash Mine Area), a solid cement plug must be set across the salt section. Fluid used to mix the cement shall be saturated with the salts that are common to the section penetrated and in suitable proportions, not more than 3% calcium chloride (by weight of cement) will be considered the desired mixture whenever possible, **WOC 4 hours and tag, this plug will be 50' below the bottom and 50' above the top of the Formation.**
21. **If cement does not exist behind casing strings at recommended formation depths, the casing can be cut and pulled with plugs set at recommended depths. If casing is not pulled, perforations will be shot and cement squeezed behind casing, WOC and tagged. These plugs will be set 50' below formation bottom to 50' above formation top inside the casing**

#### **DRY HOLE MARKER REQUIREMENTS**

The operator shall mark the exact location of the plugged and abandoned well with a steel marker not less than four inches in diameter, 3' below ground level with a plate of at least ¼" welded to the top of the casing and the dry hole marker welded on the plate with the following information welded on the dry hole marker:

**1. Operator name   2. Lease and Well Number   3.API Number   4. Unit Letter   5. Quarter Section (feet from the North, South, East or West)   6. Section, Township and Range   7. Plugging Date   8. County                      (SPECIAL CASES)-----AGRICULTURE OR PRARIE CHICKEN BREEDING AREAS**

In these areas, a below ground marker is required with all pertinent information mentioned above on a plate, set 3' below ground level, a picture of the plate will be supplied to NMOCD for record, the exact location of the marker (longitude and latitude by GPS) will be provided to NMOCD (We typically require a current survey to verify the GPS)