

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101  
Revised July 18, 2013

**HOBBS OCD**

Energy Minerals and Natural Resources

Oil Conservation Division

AMENDED REPORT

**DEC 16 2013**

1220 South St. Francis Dr.

**RECEIVED**

Santa Fe, NM 87505

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address <b>VANGUARD PERMIAN LLC</b> <b>P O BOX 1570 281 NORTH NM HIGHWAY 248</b> <b>EUNICE, NM 88231</b>		<sup>2</sup> OGRID Number 258350
<sup>4</sup> Property Code <b>312414</b>		<sup>3</sup> API Number 30-025-10337
<sup>5</sup> Property Name STATE C		<sup>6</sup> Well No. 1

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	17	22S	37E		1980	NORTH	1981.5	WEST	LEA

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

**9. Pool Information**

<sup>9</sup> Pool Name <b>PENROSE SKELLY; GRAYBURG</b>	<sup>10</sup> Pool Code <b>50350</b>
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**Additional Well Information**

<sup>11</sup> Work Type <b>P</b>	<sup>12</sup> Well Type OIL	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type STATE	<sup>15</sup> Ground Level Elevation 3405
<sup>16</sup> Multiple	<sup>17</sup> Proposed Depth 3929	<sup>18</sup> Formation GRAYBURG	<sup>19</sup> Contractor	<sup>20</sup> Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
		8 5/8		315	210	
		5 1/2		3435	300	
		4" Lnr		3400-3929	70	

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.  
 I further certify that I have complied with 19.15.14.9 (A) NMAC  and/or 19.15.14.9 (B) NMAC , if applicable.  
 Signature: *Gaye Heard*

Printed name: GAYE HEARD

Title: AGENT

E-mail Address: gheard@oilreportsinc.com

Date: 12-13-13

Phone: 575-393-2727

OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 12/16/13

Expiration Date: 12/16/15

Conditions of Approval Attached

**DEC 16 2013**

VANGUARD PERMIAN LLC

STATE C #1

API #30-025-10337

Sec 17 T22S R37E

1. Unseat pump and POOH w/rods and pump
2. ND WH and NU BOP. Kill well with 2% KCL water, if necessary. Release TAC and POOH w/tubing.
3. PU, strap and TIH with 3 1/8" bit, 20 jts 2 1/16" CS Hydril and 2 7/8" tubing. Clean out hole to PBDT (3856') until clean returns, POOH.
4. MI wireline w/packoff. RIH and GR/CCL
5. Perforate as follows:
  - a. 3712-3716 (4', 8 shots)
  - b. 3740-3742 (2', 4 shots)
  - c. 3770-3774 (4', 8 shots)
  - d. 3781-3783 (2', 4 shots)
  - e. 3792-3798 (6', 12 shots)
  - f. 3805-3820 (15', 30 shots) – (66 total shots)
6. PU a 5 1/2" Arrowset I packer and RIH to ~3350', above 4" liner top at 3400'. Load tubing/hole with 2% KCl and set packer. Test csg/packer down backside to 3500 psi.
7. MIRU pump truck and test lines to 3500 psi.
8. Pump 4000 gals 15% NEFE acid with rock salt.
  - a. Pump 500 gal then pump rock salt over next 3000 gals.
  - b. Pump last 500 gals and flush to 3776'.
  - c. Record ISIP, 5 min, 10 min and 30 min
9. RU swabber and swab well in to test acid job. Recover load and report fluid/gas entry.
10. RIH w/rods and pump.
11. Turn well on production.



State C #1  
 Grayburg - 30-025-10337  
 Lea County, New Mexico  
 CURRENT COMPLETION - 10/2013

KB: 3415'  
 GL: 3398'

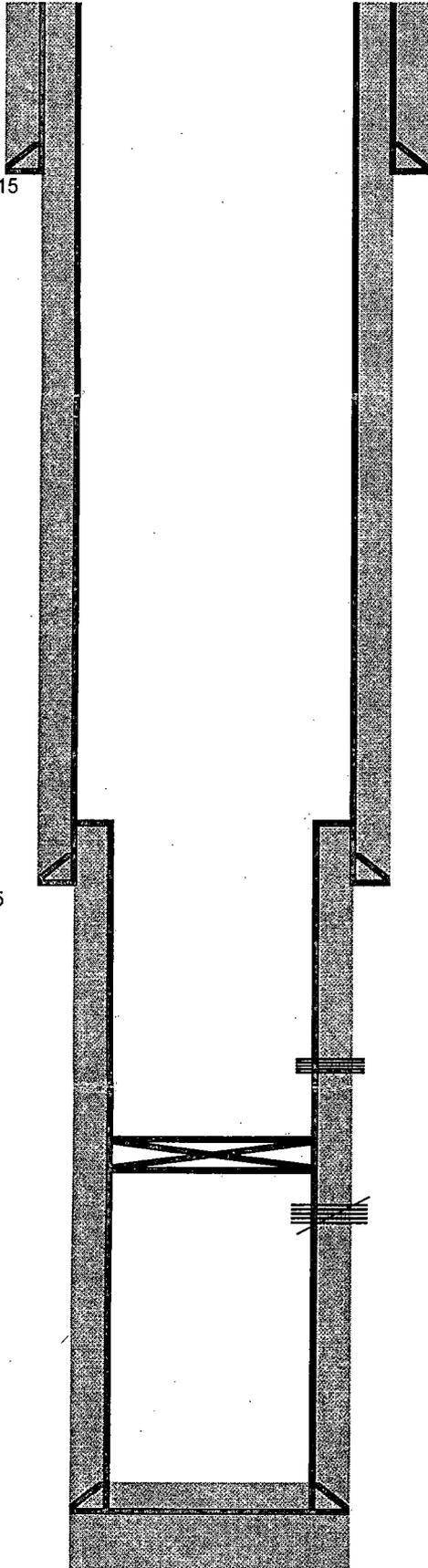
TOC @ surf  
 500 sxs

8 5/8" csg @ 315

TOC @ surf  
 1050 sxs

5 1/2" csg @ 3435

4" csg @ 3929



CASING PROGRAM						
Depth	Size	Weight	Grade	I.D.	Collapse	Burst
315	8 5/8"	24#	J-55	8.097	1,370	2,950
3435	5 1/2"	14#	K-55	4.892	4,910	5,320
3929	4"	12.5	K-55	4.892	4,910	5,320

PRODUCTION TUBING				
Depth	Size	Weight	Grade	Threads
unknown	2 7/8"	6.5#	J-55	EUE

Top of 4" Liner at 3400'

Grayburg Perforations:  
 3830' - 3834' (2 spf, 4 holes)

Cmt retainer @ 3856'

San Andres Perforations: Squeezed in 1980  
 3,864' (3 holes)

PBTD = 3,929' FC

Note: This schematic is not to scale. For display purposes only.



**State C #1**  
**Grayburg - 30-025-10337**  
**Lea County, New Mexico**  
 PROPOSED COMPLETION - 11/2013

KB: 3415'  
 GL: 3398'

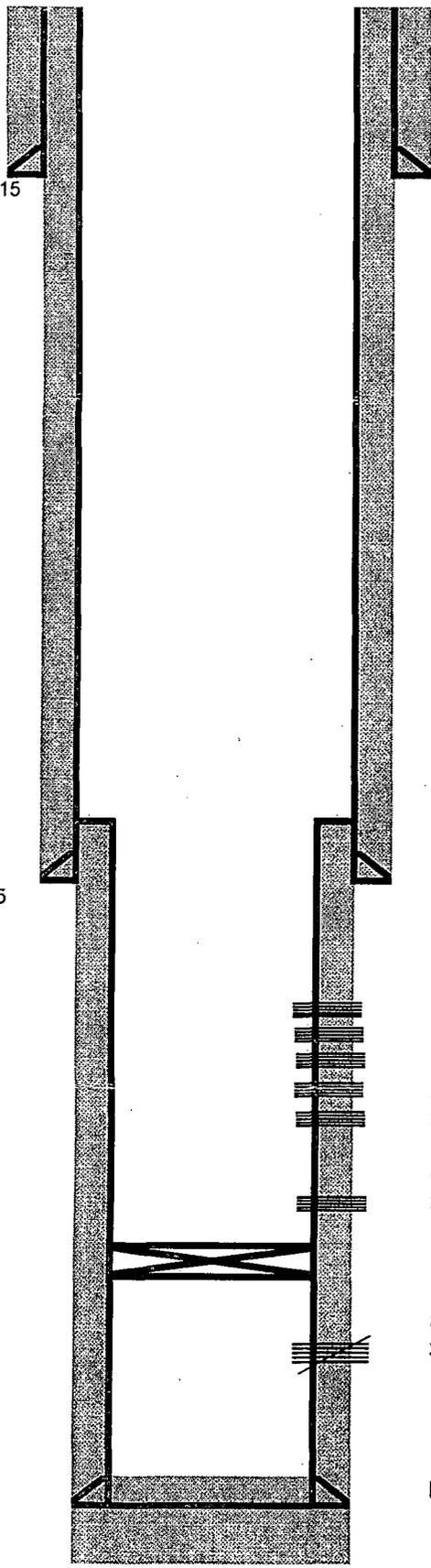
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3435	5 1/2"	14#	K-55	4.892	4,910	5,320
3929	4"	13.4#	N-80	3.340	12,110	11,550

3.215" Drift

**PRODUCTION TUBING**

Depth	Size	Weight	Grade	Threads
unknown	2 7/8"	6.5#	J-55	EUE

Top of 4" Liner at 3400'

- Grayburg Perforations:
- 3712' - 3716' (2 spf, 8 holes) **PROPOSED**
  - 3740' - 3742' (2 spf, 4 holes) **PROPOSED**
  - 3770' - 3774' (2 spf, 8 Holes) **PROPOSED**
  - 3781' - 3783' (2 spf, 4 Holes) **PROPOSED**
  - 3792' - 3796' (2 spf, 12 Holes) **PROPOSED**
  - 3805' - 3820' (2 spf, 30 Holes) **PROPOSED**

- Grayburg Perforations:
- 3830' - 3832' (2 spf, 4 holes)

Cmt retainer @ 3856'

- San Andres Perforations: Squeezed in 1980
- 3,864' (3 holes)

PBTD = 3,929' FC

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