

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
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
 Revised July 18, 2013

HOBBBS OCOID AMENDED REPORT
 NOV 15 2013

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

¹ Operator Name and Address VANGUARD PERMIAN LLC P O BOX 281 NORTH HIGHWAY 248 EUNICE, NM 88231		² OGRID Number 258350
⁴ Property Code 301591 312411		³ API Number 30-025-38207 ✓
⁵ Property Name NEW MEXICO M STATE		⁶ Well No. 57

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
I	18	22S	37E		1920	SOUTH	330	EAST	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

<i>Arrowhead</i>	Pool Name PENROSE SKELBY GRAYBURG	3040	Pool Code 50350
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Additional Well Information

¹¹ Work Type P	¹² Well Type O	¹³ Cable/Rotary	¹⁴ Lease Type STATE	¹⁵ Ground Level Elevation 3412
¹⁶ Multiple NO	¹⁷ Proposed Depth 4316	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ 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
	12.25	8.625	24	1069	350 SX POZ/C	
					150 SX C	
	17	5.5	17	4305	800 SX POZ/C	

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

²³ 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 <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: <i>Gaye Heard</i> Printed name: GAYE HEARD Title: AGENT E-mail Address: gheard@oilreportsinc.com Date: 11-14-2013 Phone:	OIL CONSERVATION DIVISION	
	Approved By: <i>[Signature]</i>	
	Title: Petroleum Engineer	
	Approved Date: NOV 26 2013	Expiration Date:
	Conditions of Approval Attached	

NOV 26 2013



WORKOVER PROCEDURE
Add Perforations and stimulate the Penrose Skelly
NM M State #57
Eunice Area
Lea County, New Mexico
11/12/2013

AFE #

Well Data:

RKB - GL: 3411' / 3401'
 Surf. Casing: 8-5/8", 24# J-55, set at 1069'
 Prod. Casing: 5-1/2", 15.5# K-55, set at 4305'
 Tbg & Pkr: 2 7/8", 6.5# J-55 EUE, set at unknown
 Perforations: San Andres 3,895' – 4,006' (See WBD)
 PBTD: 4,266' FC WLM,
 BHP: Not certain – well on pump
 BHT: 90°F @ TD

Casing Specifications

Depth (ft)	Casing Wt & Grade	Burst	Col	Body Yield	JT Yield	Wall	ID	Drift Dia.	Top Cmt
0 – 1069'	8-5/8, 24#, J-55 ST&C	2,950	1,370	630	381	-	8.097	7.972	Surf.
0 – 4,305'	5-1/2", 15.5#, K-55	4,810	4,040	273	272	-	4.95	4.825	Surf.

Safety:

Vanguard's policy on safety as employees and contractors is for everyone to go home safely every day. To this end a safety meeting involving all persons on location will be held at the beginning of each day and prior to any significant activity during the course of this operation. **It is the responsibility of the Wellsite Supervisor to lead these safety**

NM M State #57
Perf and Stim the Penrose Skelly

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meetings, document attendance, note in the daily report, and retain the documentation for the permanent well record. RECEIVED

While there are multiple aspects running a safe operation, one key point that should be made at each safety meeting is the Stop Work Authority (SWA) policy. The SWA Policy grants all persons on a Vanguard site, facility, location, or property the **Right, Obligation, Authority, and Responsibility** to stop any work or action that are unsafe to personnel, equipment, or that if continued may damage the environment. This is a key component of our safety policy and must be conveyed to all personnel on location.

Scope of Operations:

Isolate the current San Andres interval and add 48 new perforations to the Penrose Skelly Formation and fracture stimulate. Comingle with the San Andres if possible.

Contact Information:

Name	Title	Office	Cell
Bryan Kindred	Workover Foreman		575-602-1788
Mike Jones	Production Foreman	575-396-0812	575-390-4611
Newt Painter	Production Superintendent	432-362-2209	432-438-3872
Randall Hicks	Senior Operations Engineer	832-377-2207	713-252-1626
Frank Lemkowitz	Operations Manager	832-377-2237	713-560-3122

Procedure:

1. MIRU completion rig and test anchors.
2. Unseat pump and POOH w/ rods and pump.
3. ND WH and NU BOP. Kill well with 2% KCL water, if necessary. Release TAC and POOH w/ tubing.
4. PU, strap and TIH with 4-3/4" bit, 5-1/2" casing scrapper & 2-7/8" tubing. Clean out hole to PBTD (4266') until clean returns, POOH.
5. MI wireline w/ packoff. RIH w/ CBP and GR/CCL & correlate to the Halliburton Spectral Density/Dual-spaced Neutron/GR log dated 6/08/2006.
6. Set CBP @ ~3600'. Test CBP to 3700 psi
7. MU 3-1/8" slick casing guns set at 3 spf, 120° phasing (0.40" hole, 21" penetration).
8. Perforate Penrose Skelly as follows:
 - a. 3442' – 3450' (8', 24 shots)
 - b. 3531' – 3539' (8', 24 shots) – (48 total shots)
9. RD wireline.
10. PU a 5-1/2" Arrowset I packer and RIH and set @ ~3420'. Load tubing/hole with 2 % KCl and set packer. Test csg/packer to 3700 psi.
11. MIRU pump truck and test lines to 3500 psi.
12. Pump 2500 gals 15% NEFE acid with 75 ball sealers.

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- a. Pump 500 gal then drop 75 balls over next 1500 gals.
 - b. Pump last 500 gals and flush to 3539'.
 - c. Record ISIP, 5 min, 10 min and 30 min.
13. RU swabber and swab well in to test acid job. Recover load and report fluid/gas entry.
 14. Load hole and release packer, POOH and lay out tubing
 15. RDMO completion rig.
 16. Call out 3-500 bbl tanks & fill with 2% KCl water. Install frac valve in preparation for frac job.
 17. RU frac Co. and test lines & pump as per frac schedule.
 18. Monitor ISIP, 10 min, 15 min. Flowback until well dies.
 19. MIRU completion rig.
 20. RIH w/ 5-1/2" TAC, SN and 2-7/8" tubing. Set SN at 3400'.
 21. RIH w/ rods and pump.
 22. RD & MO.
 23. Turn well on to production.
 24. Test well to get comingle permit.
 25. See additional procedure to comingle zones, if needed.

Note: It is the responsibility of Wellsite Supervisor to enter all daily activity reports and costs into WellView on a timely basis.

Originator:

Randall Hicks
Senior Operations Engineer

Approved:

Frank Lemkowitz
Operations Manager

NM M State #57
Perf and Stim the Penrose Skelly



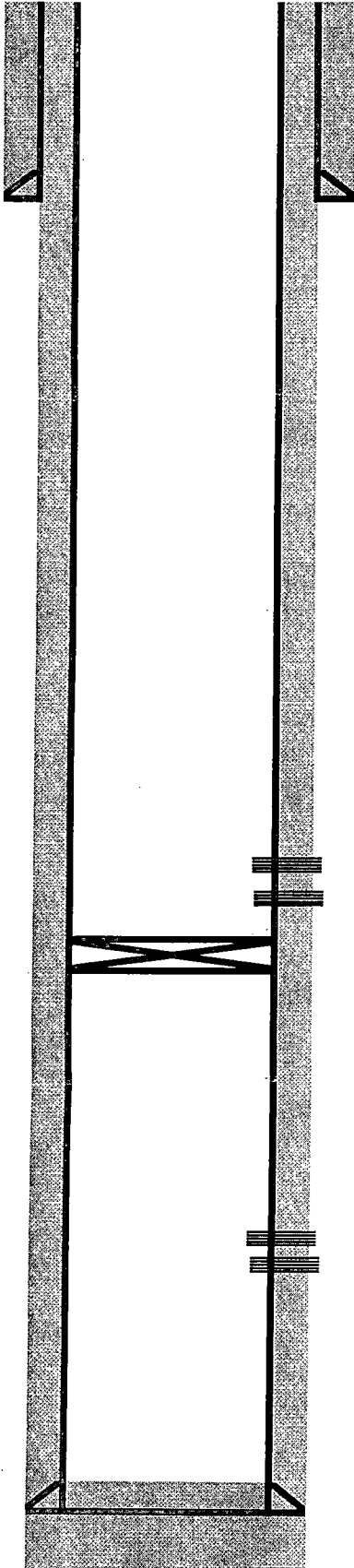
NM M State #57
Eunice SA SW Field - 30-025-38207
Lea County, New Mexico
PROPOSED COMPLETION - 10/2013

KB: 3412'
 GL: 3402'

TOC @ surf
 500 sxs

8 5/8" csg @ 1069'

TOC @ surf
 800 sxs



<u>CASING PROGRAM</u>							
<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>I.D.</u>	<u>Collapse</u>	<u>Burst</u>	
1069'	8 5/8"	24#	J-55	8.097	1,370	2,950	
4305'	5 1/2"	17#	K-55	4.892	4,910	5,320	

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

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Penrose Skelly Perforations 36 holes:
 3,442' - 3,450' (3spf, 24 holes)
 3,531' - 3,539' (3 spf, 24 holes)

**PROPOSED
 PROPOSED**

CIBP @ 3600'

San Andres Perforations 55 holes:
 3,895' - 3,920' (1 spf, 25 holes)
 3,976' - 4,006' (1 spf, 30 holes)

PBTB = 4,266' FC

5 1/2" csg @ 4305'

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



NM M State #57
Eunice SA SW Field - 30-025-38207
Lea County, New Mexico
 CURRENT COMPLETION - 10/2013

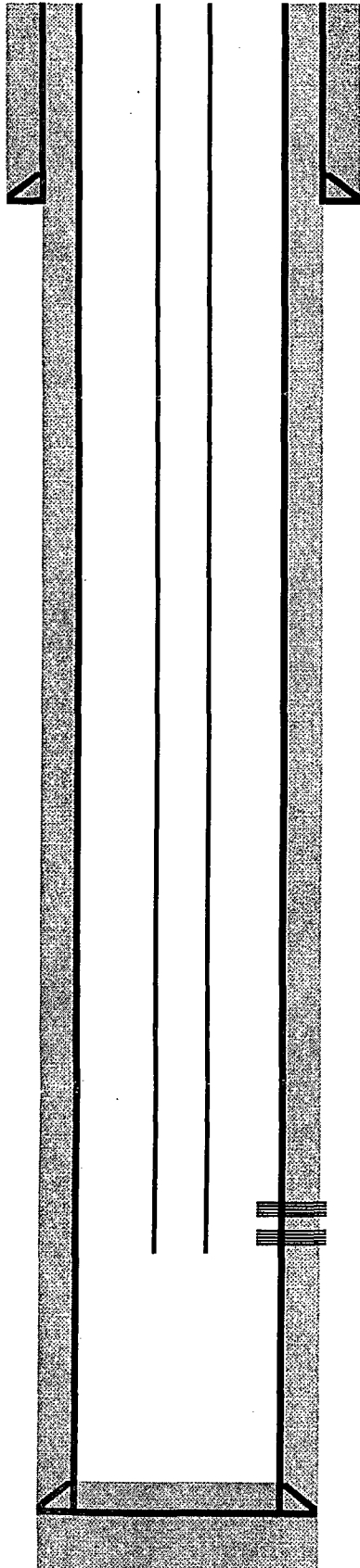
KB: 3412'
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TOC @ surf
 500 sxs

8 5/8" csg @ 1069'

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