Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
NMLC032592A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit of CA/Agreement, Name and/or No.
N/A

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
TARANTULA "3" FEDERAL #3

2. Name of Operator
VANGUARD PERMIAN LLC

9. API Well No.
30-025-38208

3a. Address
PO BOX 1570 281 NORTH NM HIGHWAY 248 EUNICE, NM 88231

3b. Phone No. *(include area code)*
832-377-2207 (RANDALL HICKS)

10. Field and Pool or Exploratory Area
JUSTIS BLINEBRY

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
2310 FSL & 330 FEL UNIT I SEC 3 T25S R37E

11. County or Parish, State
LEA NEW MEXICO

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☑ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

PLEASE SEE ATTACHMENT

HOBBS OCD
SEP 26 2013
RECEIVED

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
GAYE HEARD

Title AGENT

Signature Gaye Heard

Date 08/21/2013

APPROVED
SEP 25 2013
Date
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

Conditions of approval, if any, are attached. Approval of this notice 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.

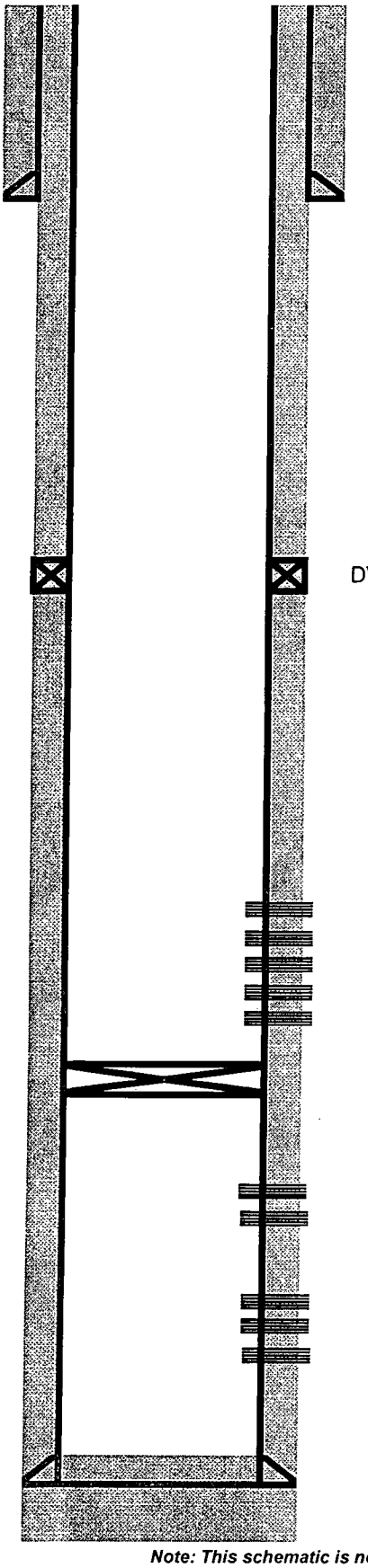
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

OCT 0 2 2013

Tarantula 3 Fed #3
Justis Blinebry/Drinkard/Tubb - 30-025-38208
Lea County, New Mexico
INTERIM COMPLETION - 8/2013

KB: 3163'
GL: 3153'



CASING PROGRAM

Depth	Size	Weight	Grade	I.D.	Collapse	Burst
1064'	8 5/8"	24#	J-55	8.097	1,370	2,950
6500'	5 1/2"	17#	J-55	4.892	4,910	5,320

PRODUCTION TUBING

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

Proposed
Upper Blinebry Perforations 30 holes:
5,304' - 5,306' (3 spf. 6 holes)
5,384' - 5,386' (3spf, 6 holes)
5,420' - 5,422' (3 spf, 6 holes)
5,464' - 5,466' (3 spf, 6 holes)
5,508'- 5,510' (3 spf, 6 holes)

CIBP @ 5600'

Current
Blinebry Perforations 18 holes:
5,654' - 5,657' (3 spf, 9 holes)
5,727' - 5,730' (3 spf, 9 holes)

Drinkard Perforations 18 holes:
6,058' - 6,060' (3 spf, 6 holes)
6,127' - 6,129' (3 spf, 6 holes)
6,264' - 6,266' (3 spf, 6 holes)

PBTD = 6,436'

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

Tarantula 3 Fed #3
Justis Blinebry/Drinkard/Tubb - 30-025-38208
Lea County, New Mexico
CURRENT COMPLETION - 8/2013

VANGUARD PERMIAN, LLC

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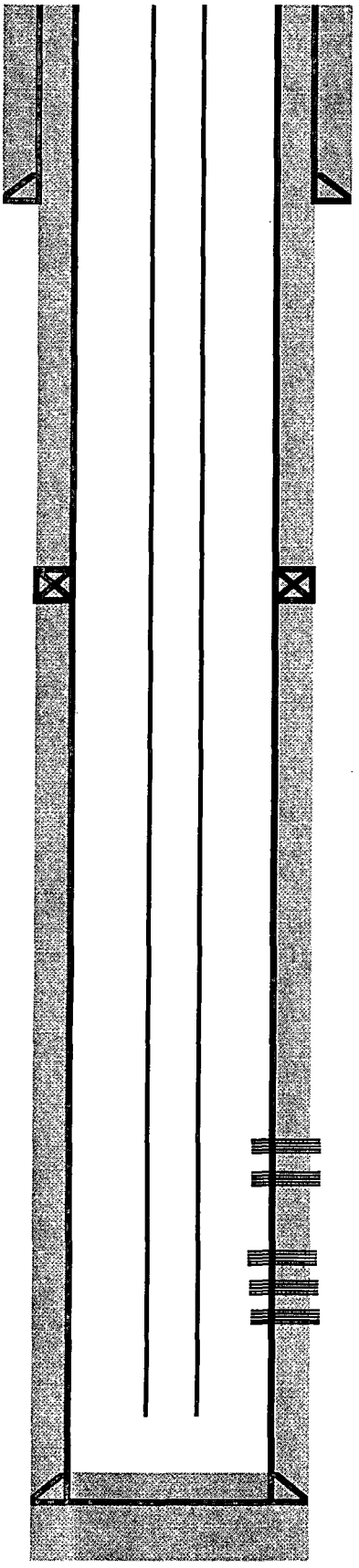
GL: 3153'



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VANGUARD
PERMIAN, LLC

WORKOVER PROCEDURE
Add Perforations, Stimulate & Test the Upper Blinebry
Tarantula 3 Fed #3
Loving Area
Lea County, New Mexico
8/8/2013

AFE #_____

Well Data:

RKB - GL: 3163' / 3153'
Surf. Casing: 8-5/8", 24# J-55, set at 1064'
Prod. Casing: 5-1/2", 17# K-55, set at 6500'
Tbg & Pkr: 2 7/8", 6.5# J-55 EUE, set at unknown
Perforations: Blinebry/Drinkard 5654' – 6,266' (See WBD)
PBTD: 6,436'
BHP: Not certain – well on pump
BHT: 111°F @ TD from logs

Casing Specifications

Depth (ft)	Casing Wt & Grade	Burst	Col	Body Yield	JT Yield	Wall	ID	Drift Dia.	Top Cmt
0 – 1064'	8-5/8, 24#, J-55 ST&C	2,950	1,370	630	381	-	8.097	7.972	Surf.
0 – 6500'	5-1/2", 17#, J-55	5,320	4,910	273	272	-	4.892	4.767	DV @ 3504'

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**

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

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 Blinebry/Drinkard/Tubb interval and add 18 new perforations to the Upper Blinebry Formation, fracture stimulate and test the Upper Blinebry.

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 ~6300' until clean returns, POOH and lay out 2-7/8" tubing.
5. MI wireline w/ packoff. RIH w/ CBP and GR/CCL & correlate to the Halliburton Gamma/Neu/Den Log dated 10-Jan-2007.
6. Set CBP @ ~5600'. Test CBP and casing to 1000 psi.
7. MU 3-1/8" slick casing guns set at 3 spf, 120° phasing (0.40" hole, 21" penetration).
8. Perforate as follows:
    a. 5304' – 5306 (2', 3 spf, 6 shots)
    b. 5384' – 5386' (2', 3 spf, 6 shots)
    c. 5420' – 5422' (2', 3 spf, 6 shots)
    d. 5465' – 5466' (2', 3 spf, 6 shots)
    e. 5508' – 5510' (2', 3 spf, 6 shots) for a total of 30 shots
9. RD wireline.

10. PU a 5-1/2" Arrowset packer and 3-1/2" tubing and RIH with tubing to ~5250' and set packer. Test tubing going in the hole to 5000 psi. (3-1/2" L-80 is rated to 8,640 psi Burst)
11. MIRU pump truck (with 2000 gals acid) and test lines to 4500 psi.
    a. Spot 500 gals of acid across perforations. Load tubing with 2 % KCl and set packer at 5400'.
    b. Pump 1000 gals 15% NEFE acid with 20 ball sealers.
    c. Pump 500 gal then drop 30 balls over next 500 gals.
    d. Pump last 500 gals and flush to 5510'.
    e. Record ISIP, 5 min, 10 min and 30 min.
12. RU swabber and swab well in to test acid job. Recover load and report fluid/gas entry, if possible. If well is on vacuum, continue to Step 13.
13. RDMO completion rig.
14. Call out 3-500 bbl tanks & fill with 2% KCl water. Install frac valve in preparation for frac job down 3-1/2" tubing.
15. RU frac Co. and test lines & pump as per frac schedule.
16. Monitor ISIP, 5 min, 10 min, 15 min. Flowback until well dies.
17. Rig down frac valve and release frac tanks.
18. MIRU completion rig.
19. Load hole if possible (may be on vacuum) then release Arrowset packer, ensure well is stable, POOH laying out 3-1/2" tubing.
20. RIH w/ 5-1/2" TAC, SN and 2-7/8" tubing. Set SN at ~5275'.
21. RIH w/ rods and pump.
22. RD & MO.
23. Turn well on to production.
24. Test well to determine if we will need 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

Proposal No: 891550098A

VANGUARD NATURAL RESOURCES LLC

Tarantula 3 Fed # 3

New Mexico
August 15, 2013

Fracturing Proposal

Prepared for:
Randall Hicks

Prepared by:
Raymond M Sama
Region Engineer
Email: raymond.sama@bakerhughes.com
Mobile: 281-763-0282

Service Point:
BJS, HOBBS
Bus Phone: 575-3925556
Fax: 575-492-0292

Service Representatives:
Steve D Matlock
Senior District Sales Supv.

SAM ESTES
Executive Account Manager

Powered by
PowerVision

Operator Name:	VANGUARD NATURAL RESOURCES
Well Name:	Tarantula 3 Fed # 3
Job Description:	Viking 2000 @ 40-bpm Brady/SLC
Date:	August 15, 2013

Proposal No: 891550098A

WELL DATA

RESERVOIR DATA

Depth to Middle Perforation	5,407 ft
Fracture Gradient	0.71 psi/ft
Bottom Hole Fracture Pressure	3,839 psi
Bottom Hole Static Temperature	115 ° F

PERFORATED INTERVAL

DEPTH(ft)		Shots per Foot	Perf Diameter (in)	Total Perfs
MEASURED	TRUE VERTICAL			
5,304 - 5,306	5,304 - 5,306	3	0.42	6
5,384 - 5,386	5,384 - 5,386	3	0.42	6
5,420 - 5,422	5,420 - 5,422	3	0.42	6
5,464 - 5,466	5,464 - 5,466	3	0.42	6
5,508 - 5,510	5,508 - 5,510	3	0.42	6

Total Number of Perforations	30
Total Feet Perforated	10 ft

TUBULAR GEOMETRY

				Top	Bottom
Casing	5 1/2" O.D.	(4.892" .I.D)	17 # K-55	0	6,500
Tubing	3 1/2" O.D.	(3.068" .I.D)	7.7 #	0	5,290

End of Tubing	5,290 ft
Pump Via	Tubing

* All tubular specifications (size, weight, depths) should be confirmed on-site with operator's representatives

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JOB AT A GLANCE

Surface Treating Pressure (max)		4,336 psi
Total Rate (max)		40.00 bpm
Estimated Pump Time (HH:MM)		00:40
Frac Fluid	8,186 gals	AquaCare 2000
Acid	2,500 gals	15% HCL
Frac Fluid	38,800 gals	Viking 2000
Proppants	29,000 lb	Super LC, 20/40
	56,000 lb	Sand, Brown, 20/40

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FLUID SPECIFICATIONS

Frac Fluid: AquaCare 2000

8,186 Gallons

Components:

100 %	2% KCl Water	Base Fluid
5 gpt	GW-4LDF	Gelling Agent
1 gpt	NE-23, 55 gl drum	Non-Emulsifier
1 ppt	GBW-5	Gel Breaker
0.5 gpt	BC-3	Gel Breaker
0.33 ppt	X-CIDE 207	StimPlus Products

Acid: 15% HCL

2,500 Gallons

Components:

5 gpt	Ferrotrol 280L	Iron Control Product
1 gpt	CI-27	Corrosion Inhibitor
1 gpt	NE-23, 55 gl drum	Non-Emulsifier

Frac Fluid: Viking 2000

38,800 Gallons

Components:

100 %	2% KCl Water	Base Fluid
10 gpt	Superset-W, 55 gal drum (Pump in RCP Stage)	Resin Activator
5 gpt	GW-4LDF	Gelling Agent
1 gpt	NE-23, 55 gl drum	Non-Emulsifier
1 gpt	XLW-10A	Crosslinker
1 ppt	GBW-5	Gel Breaker
0.5 gpt	BC-3	Gel Breaker
0.33 ppt	X-CIDE 207	StimPlus Products

Proppants

29,000 lb 100% Super LC, 20/40

56,000 lb 100% Sand, Brown, 20/40

* Exact breaker, crosslinker, and buffer loadings to be determined by field laboratory testing.
* Exact polymer concentration in flush will depend on volume of fluid remaining in hydration tank.
* BHI recommends testing for the proper NE loading based on an oil sample from an offset well.
* Operator to supply three 500 bbl frac tanks filled with 2% KCL water.

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FRACTURE TREATMENT SCHEDULE

INPUT PARAMETERS

TVD Depth (Mid Perforation)	5,407 ft
MD Depth (Mid Perforation)	5,407 ft
Perforations Number	30
Perforation Diameter	0.420 in
Bottom Hole Frac Pressure	3,839 psi
Bottom Hole Static Temperature	115 ° F

				Top	Bottom
Casing	5 1/2" O.D.	(4.892" I.D.)	17 # K-55	0	6,500
Tubing	3 1/2" O.D.	(3.068" I.D.)	7.7 #	0	5,290

CALCULATED RATES, PRESSURES & HHP REQUIREMENTS

	Maximum	Minimum	Average
Surface Treating Pressure (psi)	4,336	3,304	3,971
Slurry Rate (bpm)	40.0	40.0	40.0
Proppant Rate (lbs/min)	6,827	3,082	5,162
Slurry Hydraulic Horsepower	4,251	3,239	3,894

PROCEDURE

	Fluid		Proppant			
Stage	Type	Volume (gal)	Conc. (ppa)	Type	Stage (lbs)	Cum (lbs)
1	AquaCare 2000	1000		Break Down		
2	15% HCL	2500		S/H Acid		
3	AquaCare 2000	3700		Linear Pre Pad		
4	Viking 2000	15000		X/L Pad		
5	Viking 2000	5000	2.000	100%Sand, Brown, 20/40	10000	10000
6	Viking 2000	6000	3.000	100%Sand, Brown, 20/40	18000	28000
7	Viking 2000	7000	4.000	100%Sand, Brown, 20/40	28000	56000
8	Viking 2000	5800	5.000	100%Super LC, 20/40	29000	85000
9	AquaCare 2000	3486		Flush		85000
Total		49486				85000

Operator Name:	VANGUARD NATURAL RESOURCES LLC
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BAKER HUGHES

Proposal No: 891550098A

FRACTURE TREATMENT SCHEDULE

TREATMENT SCHEDULE

Stage	Surface Treating Pressure (psi)	Rates			Volume				Stage Pump Time hh:mm:ss
		Slurry (bpm)	Clean Fluid (bpm)	Prop. Rate (lb/min)	Slurry		Fluid		
					Stage (bbls)	Cum. (bbls)	Stage (bbls)	Cum. (bbls)	
1	1657	8.0	8.0		23.8	23.8	23.8	23.8	00:02:58
2	1774	8.0	8.0		59.5	83.3	59.5	83.3	00:07:26
3	3304	40.0	40.0		88.1	171.4	88.1	171.4	00:02:12
4	4336	40.0	40.0		357.1	528.6	357.1	528.6	00:08:55
5	4131	40.0	36.7	3081.3	129.8	658.4	119.0	647.6	00:03:14
6	4017	40.0	35.2	4438.0	162.2	820.6	142.9	790.5	00:04:03
7	3904	40.0	33.9	5690.7	196.8	1017.4	166.7	957.1	00:04:55
8	3787	40.0	32.5	6826.8	169.9	1187.4	138.1	1095.2	00:04:14
9	3304	40.0	40.0		83.0	1270.4	83.0	1178.2	00:02:04
								Total Pump Time:	00:40:05