

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD MOBS OCD
10/25/05

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

AUG 09 2012

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.

5. Lease Serial No.
NMNM-108973

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

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well

☐ Gas Well

☐ Other

2. Name of Operator
VPR Operating LLC

7. If Unit of CA/Agreement, Name and/or No.
NMNM-128803

8. Well Name and No.
Harrier 35 Federal Conn 1H

9. API Well No.
30-025-40572

3a. Address
1406 Camp Craft Road, Suite 106, Austin, TX 78746

3b. Phone No. (include area code)
(512) 327-8776

10. Field and Pool or Exploratory Area
Wildcat; Bone Spring

4. Location of Well (Footage, Sec., T, R, M., or Survey Description)
1980' FNL & 1500' FEL SEC. 35, T 25 S, R 32 E, NMMPM

11. Country or Parish, State
Lea County, NM

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
☐ Subsequent Report	☒ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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 recomple 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 recomple 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.)

Will change target zone and casing as described on the attachments.

See comments in procedure

cc: Maxey, Pullen, Tibbitts

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
BRIAN WOOD

Title CONSULTANT (505 466-8120)

Signature

Date 08/06/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

APPROVED

AUG 6 2012

Date

WESLEY W. INGRAM
PETROLEUM ENGINEER

AUG 10 2012

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)

VPR Operating LLC

Harrier 35 Federal Com 1H

Sec 35 T25S R32E

Lea County, NM

Amended Drilling Plan

August 5, 2012

Total depth of the 8 3/4" pilot hole of 12,300' was reached 7/31/2012. Based on results of the pilot hole, rather than drill a lateral in the Avalon section of the Bone Spring, VPR proposes to drill a lateral in the Red Hills member of the Third Bone Spring. Verbal approval for changing the cementing of the kick off plug was received from Wesley Ingram on 8/3/2012 and a 500 sx Class H slurry of 17.8 ppg density and 0.94 cu ft/sx yield was set from TD @ 12,300' and later tagged strictly for location purposes at 11,260'. Current WOC time has been greater than 24 hours. The cement plug will be dressed off to a KOP of 11,444' where a 10°/100' curve will be initiated at an azimuth of 270° and landed at 12,407' md (12,065' tvd) at an inclination of 91.2°. A lateral will then be drilled to a TD of 17,925' md (11,950' tvd @ 6,101' vs). The directional plan is attached.

Because of the change in the horizontal program the operator also proposes to utilize the alternate casing program in the APD, with changes to the 7" and 4 1/2" casing and cementing program. The 7" casing will be set at the EOC back to surface with a DV tool set at 8400'. The 4 1/2" will be a liner set at the EOL back to 300' above the KOP.

Hole Size	Csg OD	Weight/Ft	Grade	Connection	Csg Set Depth (ft)	Burst SF	Coll SF	Tens SF
8.75"	7"	29#	P110	Buttress	Surf to 12,407	1.25	1.10	1.65
6"	4 1/2"	11.6#	P110	Buttress	12,100 – 17,925	1.25	1.10	1.65

⁵²⁰
The 7" casing 1st stage will be cemented with 500 sx PVL plus 1.3% PF44, 5% PF174, 0.5% PF606, 0.8% PF13, and 0.2% PF153 (Density 13.0 ppg, Yield 1.48). The 2nd stage lead slurry is 250 sx 35/65 P/H plus 5% PF44, 6% PF20, 2 pps PF42, 0.4% PF13, 0.125 pps PF29, and 0.25 pps PF46 (Density 12.6 pps, Yield 2.06) and followed by tail 200 sx PVL plus 1.3% PF44, 5% PF174, 0.5% PF606, 0.8% PF13, 0.2% PF153, 0.25 pps PF46 (Density 13.0 ppg, Yield 1.48). TOC estimated at a minimum of 300' tie back into the 9 5/8" intermediate. All volumes include 25% excess.

The 4 1/2" liner will be cemented with 550 sx PVL plus 1.3% PF44, 5% PF174, 0.5% PF606, 0.8% PF13, and 0.2% PF153 (Density 13.0 ppg, Yield 1.48). TOC calculated to the top of the liner. All volumes include 25% excess.

If cement does not circulate on first stage, contact BLM before proceeding. Operator shall provide verification method for second stage TOC and TOC on liner.

VPR Operating, LLC

Lea County, NM

Harrier "35" Fed. Com.

1H

Harrier 35 #1H

Plan: Plan No.4

ProDirectional X&Y Report

05 August, 2012

HOBBS OCD

AUG 09 2012

RECEIVED



Professional Directional

ProDirectional X&Y Report



Company:	VPR Operating, LLC	Local Co-ordinate Reference:	Well 1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3381 0usft (PinPointDrilling "PPD" #12 RKB 1
Site:	Harrier "35" Fed Com.	MD Reference:	WELL @ 3381 0usft (PinPointDrilling "PPD" #12 RKB 1
Well:	1H	North Reference:	Grnd
Wellbore:	Harrier 35 #1H	Survey Calculation Method:	Minimum Curvature
Design:	Plan No 4	Database:	Well Planner1

Project:	Lea County, NM	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Harrier "35" Fed Com
Site Position:	
From:	Map
Position Uncertainty:	0.0 usft
Northing:	396,726 67 usft
Easting:	755,434 67 usft
Slot Radius:	13-3/16 "
Latitude:	32° 5' 19 661 N
Longitude:	103° 38' 31 240 W
Grid Convergence:	0.37 °

Well:	1H
Well Position	
+N/-S	0.0 usft
+E/-W	0.0 usft
Wellhead Elevation:	usft
Latitude:	32° 5' 19 661 N
Longitude:	103° 38' 31 240 W
Ground Level:	3,363.0 usft

Wellbore:	Harrier 35 #1H
Magnetics:	
Model Name:	IGRF2010
Sample Date:	8/3/2012
Declination (°)	7.47
Dip Angle (°)	60.02
Field Strength (nT)	48,414

Design:	Plan No 4
Audit Notes:	
Version:	
Phase:	PLAN
Tie On Depth:	11,400.0
Vertical Section:	
Depth From (TVD) (usft)	0.0
+N/-S (usft)	0.0
+E/-W (usft)	0.0
Direction (°)	269.57

Professional Directional

ProDirectional X&Y Report



Company: VPR Operating, LLC
 Project: Lea County, NM
 Site: Harrier "35" Fed Com
 Well: 1H
 Wellbore: Harrier 35 #1H
 Design: Plan No 4

Local Co-ordinates Reference:
 TVD Reference:
 MWD Reference:
 North Reference:
 Survey Calculation Method:
 Database:

Well 1H
 WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1)
 WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1)
 Grd
 Minimum Curvature
 Well Planner1

Survey Tool Program: Date 8/5/2012

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100 0	4,794 3	Gyrodota (Harrier 35 #1H)	NS-GYRO-MS	North sensing gyrocompassing m/s
4,800 0	11,400 0	Schlumberger (Harrier 35 #1H)	MWD	MWD - Standard
11,400 0	17,924 9	Plan No 4 (Harrier 35 #1H)	MWD	MWD - Standard

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	EW (usft)	TVDSS (usft)	North (usft)	East (usft)
11,400 0	1.89	3.74	11,397 4	4 1	-25 5	-3 9	8,016 4	396,701.16	755,430 78
11,444 1	5 02	64 21	11,441 4	2 3	-23 9	-2 1	8,060 4	396,702 72	755,432 56
11,450 0	5 02	64 21	11,447 3	1 8	-23 7	-1 6	8,066 3	396,702 95	755,433 03
11,500 0	2 21	347.39	11,497 2	0 0	-21 8	0 1	8,116 2	396,704 84	755,434 79
11,600 0	10 69	281 14	11,596 6	9 6	-18 1	-9 4	8,215 6	396,708 52	755,425 25
11,700 0	20 58	275 37	11,692 8	36 2	-14 7	-36 1	8,311 8	396,711 97	755,398 59
11,800 0	30 54	273 27	11,782 9	79 1	-11 6	-79 0	8,401 9	396,715 07	755,355 62
11,900 0	40 52	272 14	11,864 2	137 1	-8 9	-137 0	8,483 2	396,717 74	755,297 65
12,000 0	50 50	271 39	11,934 2	208 3	-6 8	-208 2	8,553 2	396,719 90	755,226 44
12,100 0	60 49	270 83	11,990 7	290 5	-5 2	-290 5	8,609 7	396,721 47	755,144 15
12,200 0	70 48	270 38	12,032 2	381 4	-4 3	-381 4	8,651 2	396,722 41	755,053 28
12,284 7	78 95	270 03	12,054 5	463 1	-4 0	-463 0	8,673 5	396,722 70	754,971 63
Target Line 12,065' TVD @ 0° VS									
12,300 0	80 47	269 97	12,057 2	478 1	-4 0	-478 1	8,676 2	396,722 70	754,956 60
12,400 0	90 47	269 59	12,065 1	577 6	-4 3	-577 6	8,684 1	396,722 32	754,857 04
12,407 3	91 19	269 57	12,065 0	584 9	-4 4	-584 9	8,684 0	396,722 27	754,849 77
LP (Harrier 35 #1H)									
12,500 0	91 19	269 57	12,063 1	677 6	-5 1	-677 6	8,682 1	396,721 57	754,757 07
12,600 0	91 19	269 57	12,061 0	777 6	-5 9	-777 6	8,680 0	396,720 81	754,657 09
12,700 0	91 19	269 57	12,058 9	877 6	-6 6	-877 6	8,677 9	396,720 05	754,557 11
12,800 0	91 19	269 57	12,056 8	977 6	-7 4	-977 5	8,675 8	396,719 29	754,457 14

Professional Directional

ProDirectional X&Y Report



Company: VPR Operating, LLC		Local Co-ordinate Reference:		Well 1H				
Project: Lea County, NM		TVD Reference:		WELL @ 3381 0usft (PinPointDrilling "PPD" #12 RKB 1)				
Site: Harner "35" Fed Com		MD Reference:		WELL @ 3381 0usft (PinPointDrilling "PPD" #12 RKB 1)				
Well: 1H		North Reference:		Gnd				
Wellbore: Harrier 35 #1H		Survey/Calculation Method:		Minimum Curvature				
Design: Plan No 4		Database:		Well_Planner1				
Planned Survey								
MD (usft)	Azi (azimuth)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	TVDSS (usft)	Northing (usft)	Easting (usft)
12,900 0	91 19	269 57	1,077 5	-8 1	-1,077 5	8,673 7	396,718 53	754,357 16
13,000 0	91 19	269 57	1,177 5	-8 9	-1,177 5	8,671 6	396,717 78	754,257 19
13,100 0	91 19	269 57	1,277 5	-9 7	-1,277 5	8,669 6	396,717 02	754,157 21
13,200 0	91 19	269 57	1,377 5	-10 4	-1,377 4	8,667 5	396,716 26	754,057 24
13,300 0	91 19	269 57	1,477 4	-11 2	-1,477 4	8,665 4	396,715 50	753,957 26
13,400 0	91 19	269 57	1,577 4	-11 9	-1,577 4	8,663 3	396,714 74	753,857 29
13,500 0	91 19	269 57	1,677 4	-12 7	-1,677 4	8,661 2	396,713 98	753,757 31
13,600 0	91 19	269 57	1,777 4	-13 4	-1,777 3	8,659 1	396,713 23	753,657 34
13,700 0	91 19	269 57	1,877 4	-14 2	-1,877 3	8,657 1	396,712 47	753,557 36
13,800 0	91 19	269 57	1,977 3	-15 0	-1,977 3	8,655 0	396,711 71	753,457 39
13,900 0	91 19	269 57	2,077 3	-15 7	-2,077 3	8,652 9	396,710 95	753,357 41
14,000 0	91 19	269 57	2,177 3	-16 5	-2,177 2	8,650 8	396,710 19	753,257 43
14,100 0	91 19	269 57	2,277 3	-17 2	-2,277 2	8,648 7	396,709 44	753,157 46
14,200 0	91 19	269 57	2,377 3	-18 0	-2,377 2	8,646 6	396,708 68	753,057 48
14,300 0	91 19	269 57	2,477 2	-18 7	-2,477 2	8,644 6	396,707 92	752,957 51
14,400 0	91 19	269 57	2,577 2	-19 5	-2,577 1	8,642 5	396,707 16	752,857 53
14,500 0	91 19	269 57	2,677 2	-20 3	-2,677 1	8,640 4	396,706 40	752,757 56
14,600 0	91 19	269 57	2,777 2	-21 0	-2,777 1	8,638 3	396,705 65	752,657 58
14,700 0	91 19	269 57	2,877 1	-21 8	-2,877 1	8,636 2	396,704 89	752,557 61
14,800 0	91 19	269 57	2,977 1	-22 5	-2,977 0	8,634 1	396,704 13	752,457 63
14,900 0	91 19	269 57	3,077 1	-23 3	-3,077 0	8,632 0	396,703 37	752,357 66
15,000 0	91 19	269 57	3,177 1	-24 1	-3,177 0	8,630 0	396,702 61	752,257 68
15,100 0	91 19	269 57	3,277 1	-24 8	-3,277 0	8,627 9	396,701 85	752,157 70
15,200 0	91 19	269 57	3,377 0	-25 6	-3,376 9	8,625 8	396,701 10	752,057 73
15,300 0	91 19	269 57	3,477 0	-26 3	-3,476 9	8,623 7	396,700 34	751,957 75
15,400 0	91 19	269 57	3,577 0	-27 1	-3,576 9	8,621 6	396,699 58	751,857 78
15,500 0	91 19	269 57	3,677 0	-27 8	-3,676 9	8,619 5	396,698 82	751,757 80

Professional Directional

ProDirectional X&Y Report



Company: VPR Operating, LLC
 Project: Lea County, NM
 Site: Harrier "35" Fed Com
 Well: 1H
 Wellbore: Harrier 35 #1H
 Design: Plan No 4

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey/Calculation Method:
 Database:

Well 1H
 WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1)
 WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1)
 Grid
 Minimum Curvature
 Well_Planner1

Planned Survey	MD (ust)	Inc (°)	Azi (azimuth) (°)	TVD (ust)	V. Sec (ust)	N/S (ust)	E/W (ust)	TVDSS (ust)	North (ust)	East (ust)
	15,600 0	91 19	269 57	11,998 5	3,776 9	-28 6	-3,776 8	8,617 5	396,698 06	751,657 83
	15,700 0	91 19	269 57	11,996 4	3,876 9	-29 4	-3,876 8	8,615 4	396,697 31	751,557 85
	15,800 0	91 19	269 57	11,994 3	3,976 9	-30 1	-3,976 8	8,613 3	396,696 55	751,457 88
	15,900 0	91 19	269 57	11,992 2	4,076 9	-30 9	-4,076 8	8,611 2	396,695 79	751,357 90
	16,000 0	91 19	269 57	11,990 1	4,176 9	-31 6	-4,176 7	8,609 1	396,695 03	751,257 93
	16,100 0	91 19	269 57	11,988 0	4,276 8	-32 4	-4,276 7	8,607 0	396,694 27	751,157 95
	16,200 0	91 19	269 57	11,986 0	4,376 8	-33 2	-4,376 7	8,605 0	396,693 52	751,057 98
	16,300 0	91 19	269 57	11,983 9	4,476 8	-33 9	-4,476 7	8,602 9	396,692 76	750,958 00
	16,400 0	91 19	269 57	11,981 8	4,576 8	-34 7	-4,576 6	8,600 8	396,692 00	750,858 02
	16,500 0	91 19	269 57	11,979 7	4,676 8	-35 4	-4,676 6	8,598 7	396,691 24	750,758 05
	16,600 0	91 19	269 57	11,977 6	4,776 7	-36 2	-4,776 6	8,596 6	396,690 48	750,658 07
	16,700 0	91 19	269 57	11,975 5	4,876 7	-36 9	-4,876 6	8,594 5	396,689 72	750,558 10
	16,800 0	91 19	269 57	11,973 4	4,976 7	-37 7	-4,976 5	8,592 4	396,688 97	750,458 12
	16,900 0	91 19	269 57	11,971 4	5,076 7	-38 5	-5,076 5	8,590 4	396,688 21	750,358 15
	17,000 0	91 19	269 57	11,969 3	5,176 6	-39 2	-5,176 5	8,588 3	396,687 45	750,258 17
	17,100 0	91 19	269 57	11,967 2	5,276 6	-40 0	-5,276 5	8,586 2	396,686 69	750,158 20
	17,200 0	91 19	269 57	11,965 1	5,376 6	-40 7	-5,376 4	8,584 1	396,685 93	750,058 22
	17,300 0	91 19	269 57	11,963 0	5,476 6	-41 5	-5,476 4	8,582 0	396,685 18	749,958 25
	17,400 0	91 19	269 57	11,960 9	5,576 6	-42 3	-5,576 4	8,579 9	396,684 42	749,858 27
	17,500 0	91 19	269 57	11,958 9	5,676 5	-43 0	-5,676 4	8,577 9	396,683 66	749,758 30
	17,600 0	91 19	269 57	11,956 8	5,776 5	-43 8	-5,776 3	8,575 8	396,682 90	749,658 32
	17,700 0	91 19	269 57	11,954 7	5,876 5	-44 5	-5,876 3	8,573 7	396,682 14	749,558 34
	17,800 0	91 19	269 57	11,952 6	5,976 5	-45 3	-5,976 3	8,571 6	396,681 39	749,458 37
	17,900 0	91 19	269 57	11,950 5	6,076 4	-46 0	-6,076 3	8,569 5	396,680 63	749,358 39
	17,924 9	91 19	269 57	11,950 0	6,101 4	-46 2	-6,101 2	8,569 0	396,680 44	749,333 49

PBHL (Harrier 35 #1H)

Professional Directional ProDirectional X&Y Report



Company: VPR Operating, LLC Project: Lea County, NM Site: Harner "35" Fed Com Well: 1H Wellbore: Harner 35 #1H Design: Plan No 4		Local Co-ordinate Reference: TVD Reference: MDR Reference: North Reference: Survey/Calculation Method: Database:		Well 1H WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1 WELL @ 3381 Oust (PinPointDrilling "PPD" #12 RKB 1 Grd Minimum Curvature Well_Planner1	
Formations	Measured Depth (usft)	Vertical Depth (usft)	Name	Dip	Direction
	12,284.7	12,065.0	Target Line 12,065' TVD @ 0° VS	-1.30	269.27
			Lithology		

