

DATE IN 1/16/01	SUSPENSE 2/5/01	ENGINEER DC	LOGGED IN MN	TYPE DHC	APP NO. 102248509
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



2870

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have reviewed the applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common.

*I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.*

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Robert P. Elliott

Print or Type Name

Signature

Title

Sr. Staff Production Engineer

1/9/01

Date

robert.elliott@oceanenergy.com  
 e-mail Address

District I  
1625 N. French Drive, Hobbs, NM 88240

District II  
811 South First Street, Artesia, NM 88210

District III  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87505

APPLICATION TYPE

☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Ocean Energy, Inc. , 1001 Fannin, Suite 1600, Houston, TX 77002

Operator Address  
Harrod 1 Unit "J", Sec. 9, T16S, R35E, Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 168355 Property Code 23891 API No. 30-025-34535 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	North ShoeBar Atoka <i>Und.</i>		Townsend Morrow
Pool Code	96763		86400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Perf: 11754-60 & 11816-23'		Perfs: 12180-12198'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1100 BTU		1185 BTU
Producing, Shut-In or New Zone	Producing		Shut-in
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 12/22/00 Rates: 400 MCFD, 3.3 BCPD, 2.0 BWPD	Date: Rates:	Date: 5/27/00 Rates: 367 MCFPD, 1.7 BCPD, 0 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 66 % 52%	Oil Gas % %	Oil Gas 34% 48 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes ☐ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE *Robert P. Elliott* TITLE Sr. Staff Production Engineer DATE 12/29/00

TYPE OR PRINT NAME Robert P. Elliott TELEPHONE NO. ( 713 ) 265-6839

Harrod #1  
1980' FSL & 1870' FEL  
Sec. 9, T-16-S, R-35-E  
Lea Co., NM

Elevation: 4012' GL, 4030' KB

Spud Date: 12/2/98  
Completion Date: 2/8/99

### Completion

1/99: MU TCP guns w/32 gram charges w/4spf to perf 12180-98'. Run guns, pkr & 2.375" tbg. Drop bar and perf'd Morrow. Had light blow after perforating. RU swab and tagged FL @ 2400'. Made one run and well KO flowing. Acidized w/4000 gals 15% NEFE w/80 BS. Open well after 1 hr. SI w/2650#. Flow well to pit for 2.5 hrs and gas hit surface. FTP increased while flowing back. Flowing ARO 1.35 MMCFPD w/2500 psi FTP. PWOL.

4/99: Frac'd Morrow. Flowing 3.8 MMcfpd.

6/00: Set blanking plug in 1.875" "R" nipple below pkr. Dumped 10' sand above pkr. Perf'd Atoka 11,816-23' and 11,754-60'. Ran Arrow Set I w/ on/off tool on 2-3/8" tbg and set pkr @ 11,665' in 20k lbs compression. Flowed well to pit ARO 400 mcfpd on 32/64" chk w/50 psi FTP. SI pressure 3450 psi overnight.

8/00: Frac'd Atoka w/55,000 gals 70 quality binary foam carrying 50,000# 20/40 interprop. IP 1.2 MMcfpd 20 bc/d.

DST #1 Wolfcamp( 10,930-84'): Opened tool w/good blow, and had GTS in 12 min. (170# @ 271MCFPD) Rec'd 67 BO and 3 bbl OGCM. IF 1756; FF 600; ISI 3567 psi; FS I 2666 psi. 15-60-60-180.

DST #2 Atoka (11,750-843'): Opened tool w/good blow. GTS 22 min. SI. Reopened tool w/well flowing 410# on 1/4" chk @ 590 Mcf/d. IF 307; FF 600; ISI 5419 psi; FSI 5387 psi.

13-3/8", 48#, H-40  
@ 400' w/ 440 sx - surf.

9-5/8", 36#, N-80 & J-55  
@ 4700' w/ 1750 sx - surf.

Pkr Fluid - 2% KCl water

2-3/8", 4.7# L-80 EUE 8rd tubing

TOC - 8930' CBL

Weatherford on/off tool  
w/1.875" Baker "F" profile  
@ 11,682'

Pkr @ 11,683'  
Type: Arrowset I  
20K lbs compression  
8' 2-3/8" N-80 pup jt  
1.875" Baker "R" nipple @ 11,699'

Atoka: 11,754-60' & 11,816-23'  
10' of sand on top of pkr/plug.  
Tagged top w/slick line @ 12,093'  
Arrowset pkr @ 12,103'  
10' pup jt  
1.875" Baker "F" nipple  
10' pup jt  
Blanking plug in 1.875" "R" nipple  
Morrow:  
12180-98'

7", 26# & 23#, P-110 @  
12,780' w/ 550sx

PBTD 12,728'  
TD 12,780'

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Instruction on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Townsend Morrow
Property Code	Property Name	Well Number
	HARROD	1
OGRID No.	Operator Name	Elevation
169355	OCEAN ENERGY RESOURCES INC.	4012'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	9	16 S	35 E		1980	SOUTH	1870	EAST	LEA

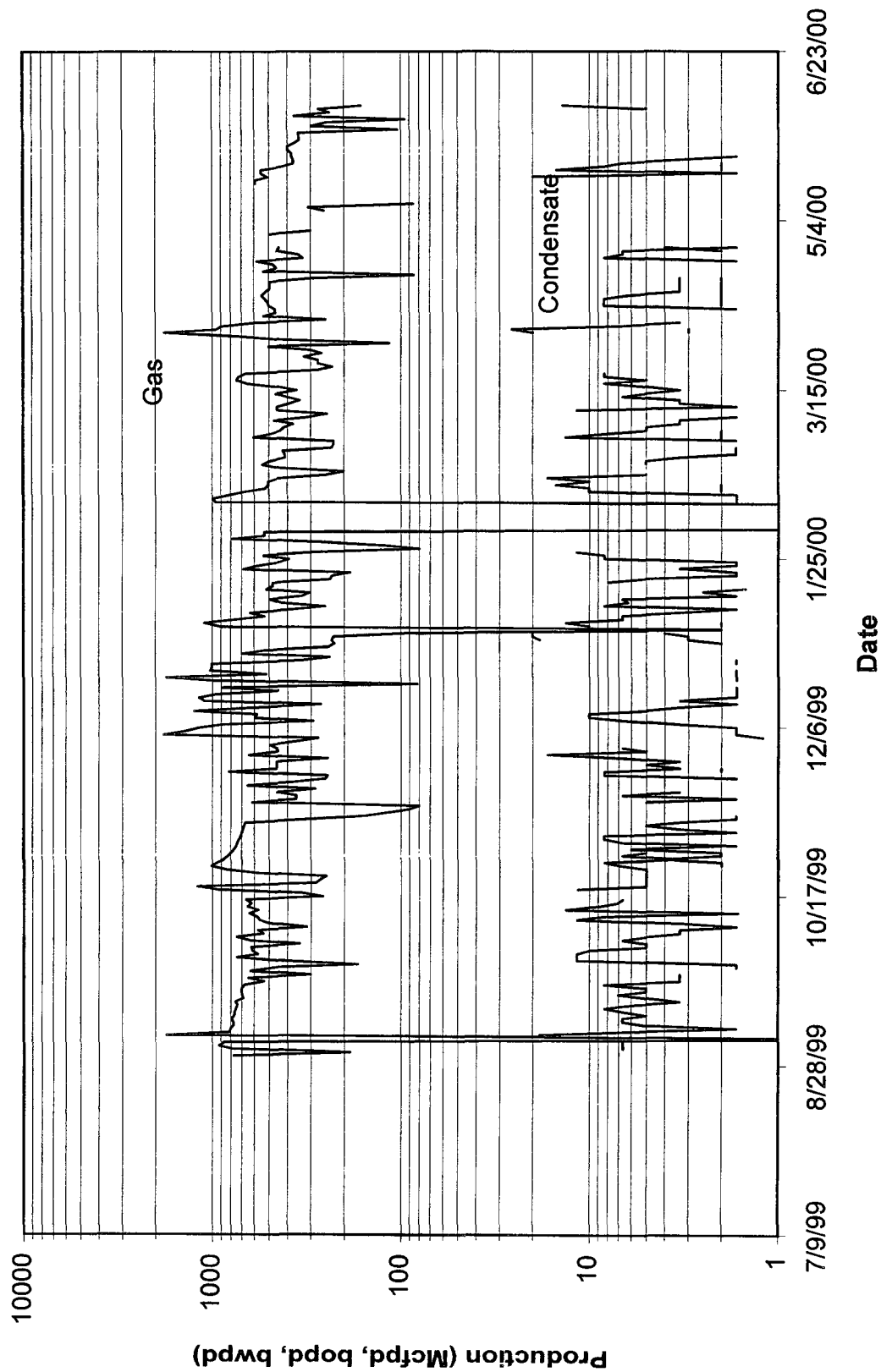
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>   Signature Scott M. Webb Printed Name Regulatory Coordinator Title 11/23/98 Date
	<b>SURVEYOR CERTIFICATION</b>  <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</i>  November 11, 1998 Date Surveyed Signature of Gary L. Jones Professional Surveyor NEW MEXICO 7977 W.O. No. 8499 Certificate No. Gary L. Jones 7977 PROFESSIONAL LAND SURVEYOR

Harrod #1 (Townsend Morrow)



Townsend Morrow

Wildcat Measurement Service  
PO Box 1836  
Artesia, New Mexico 88211-1836  
Office #505-746-3461  
"Quality and Service is our First Concern"

JOS 2.0

Run No. 20301-01  
Date Run 02/29/2000  
Date Sampled 01/01/2000

Analysis for: OCEAN ENERGY RESOURCES, INC.

GPANGL 250

Well Name: HAYROD #1  
Field: WEST LOYINGTON  
Sta. Number:  
Purpose: SFOI  
Sampling Temp: 62 DEG F  
Volume/day: 232.8 MCF/DAY  
Pressure on Cylinder: 357 PSIG

Producer: OCEAN ENERGY RESOURCES, INC.  
County: LRA State: NM  
Sampled By: KARE HAFNY  
Atmos Temp: 64 DEG F  
Formation:  
Line Pressure: 370.2 PSIA

## GAS COMPONENT ANALYSIS

		Mol %	GPM
Carbon Dioxide	CO2	0.486	
Nitrogen	N2	0.889	
Methane	C1	94.301	14.299
Ethane	C2	8.382	2.162
Propane	C3	3.628	1.060
Iso-Butane	IC4	0.524	0.171
Nor-Butane	NC4	1.093	0.345
Iso-Pentane	IC5	0.340	0.124
Nor-Pentane	NC5	0.254	0.106
Hexanes Plus	C6+	0.161	0.156
TOTAL		100.000	18.353

Pressure Base: 14.730

Real BTU Dry: 1185  
Real BTU Wet: 1164  
Real Calc. Specific Gravity: 0.684  
Field Specific Gravity: 0.600

Standard Pressure: 14.696  
BTU Dry: 1182  
BTU Wet: 1162

Z Factor: 0.9370  
N Value: 1.2866  
Avg Mol Weight: 19.7479  
Avg CuFt/Gal: 55.9361  
26 Lb Product: 0.5768  
Methane+ GPM: 18.353  
Ethane+ GPM: 4.064  
Propane+ GPM: 1.903  
Butane+ GPM: 0.903  
Pentane+ GPM: 0.387

REMARKS:  
H2S ON LOCATION: NONE DETECTED

Approved by: DON NORMAN

Wed Mar 01 13:00:49 2000

## District I

PO Box 1980, Hobbs, NM 88241-1980

## District II

811 South First, Artesia, NM 88210

## District III

1000 Rio Brazos Rd., Aztec, NM 87410

## District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30 025,34535		<sup>2</sup> Pool Code 96763		<sup>3</sup> Pool Name North Shocbar Atoka	
<sup>4</sup> Property Code 23891		<sup>5</sup> Property Name Harrod			<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 169355		<sup>8</sup> Operator Name OCEAN ENERGY, INC.			<sup>9</sup> Elevation 4012'

<sup>10</sup> Surface Location

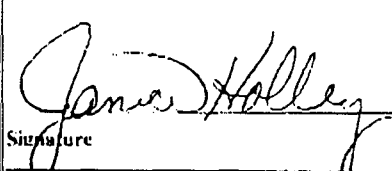
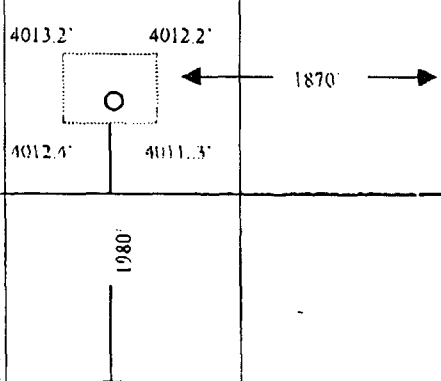
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	9	16S	35E		1980	South	1870	East	Lea

<sup>11</sup> Bottom Hole Location If Different From Surface

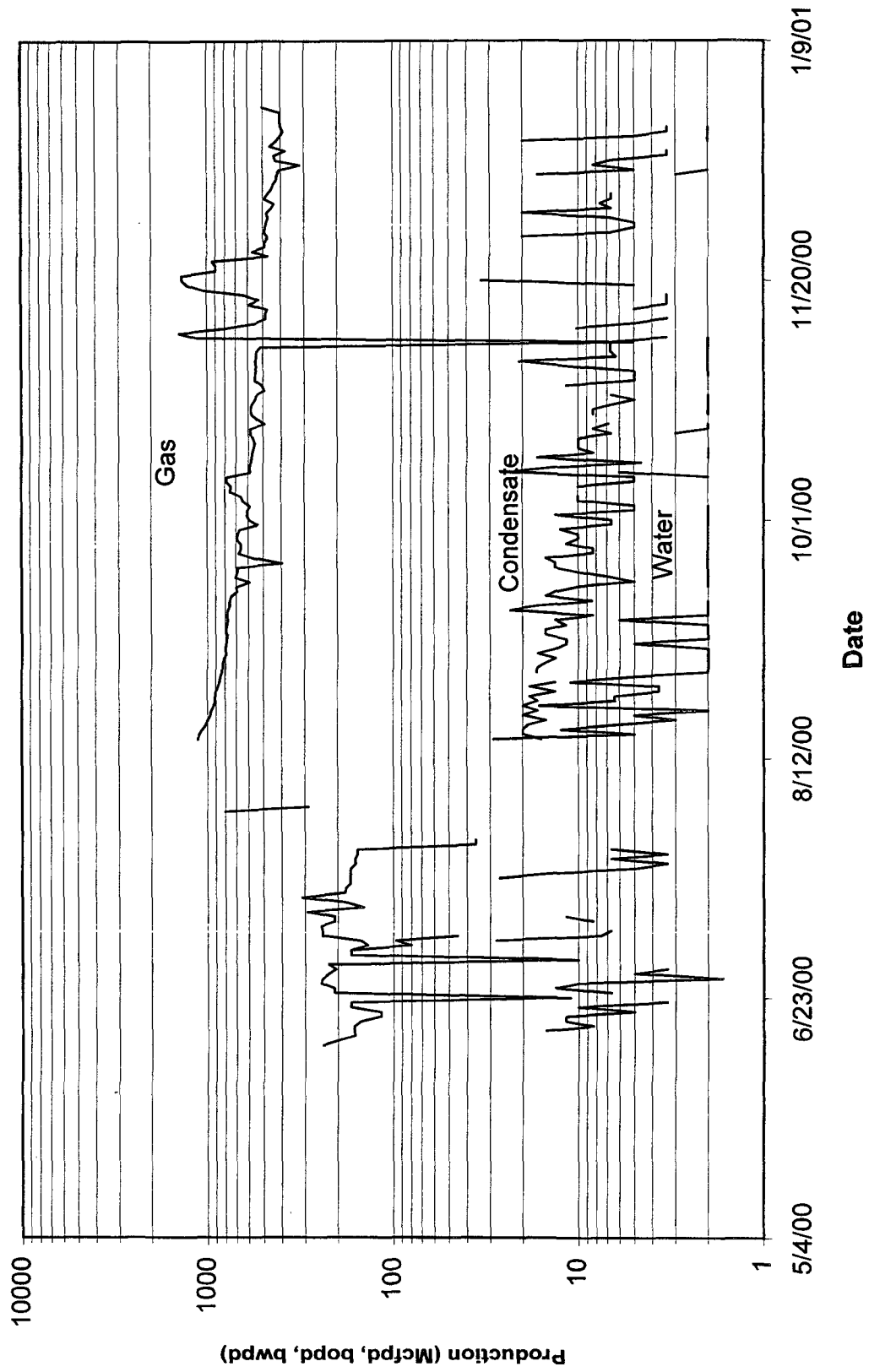
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill N	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A  
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16				<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and  Signature Printed Name: Janice Holley Title: Production Analyst Date: 6-2-00
			LAT. 32°56'05.4" N LONG 103°27'36.9" W 	<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by  Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

Harrod #1 (North Shoe Bar Atoka)





N. Shoobar Atoka

Wildcat Measurement Service  
PO Box 1836  
Artesia, New Mexico 88211-1836  
Office 8505-746-7481  
"Quality and Service is our First Concern"

DOS 2.0

Run No. 20613-01  
Date Run 06/13/2000  
Date Sampled 06/12/2000

Analysis for: OCEAN ENERGY RESOURCES, INC.

GPANGL 160

Well Name: NARROD #1

Field: WEST LOVINGTON

Sta. Number:

Purpose: SPOT

Sampling Temp: 60

DEG F

Volume/day:

Pressure on Cylinder: 1300

PSIG

Producer: OCEAN ENERGY RESOURCES, INC.

County: LRA

State: NM

Sampled By: SCOTT MCCORMICK

Atmos Temp: 90 DEG F

Formation:

Line Pressure: 1313.2 PSIA

## GAS COMPONENT ANALYSIS

Pressure Base: 14.730

	Mol %	GPM
Carbon Dioxide CO2	0.249	
Nitrogen N2	1.307	
Methane C1	89.304	
Ethane C2	6.159	1.647
Propane C3	2.042	0.563
Iso-Butane IC4	0.206	0.067
Nor-Butane NC4	0.362	0.114
Iso-Pentane IC5	0.088	0.032
Nor-Pentane NC5	0.070	0.025
Hexanes Plus C6+	0.213	0.092
TOTAL	100.000	2.541

Real BTU Dry: 1100  
Real BTU Wet: 1081  
Real Calc. Specific Gravity: 0.630  
Field Specific Gravity: 0.000

Standard Pressure: 14.696  
BTU Dry: 1098  
BTU Wet: 1079

Z Factor: 0.9975  
N Value: 1.2957  
Avg Mol Weight: 18.1949  
Avg CuFt/Gal: 57.3407  
26 Lb Product: 0.2343  
Methane+ GPM: 17.677  
Ethane+ GPM: 2.541  
Propane+ GPM: 0.893  
Butane+ GPM: 0.331  
Pentane+ GPM: 0.149

## REMARKS:

W2S ON LOCATION: NONE DETECTED

Approved by: DON NORMAN

Tue Jun 13 13:08:29 2000