

7/15/11	SUSPENSE	ENGINEER	7/15	LOGGED	4425	APPROVED	7/15/11 9240737
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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



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST 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

[D] Other: Specify _____

[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] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

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

D. Patrick Darden, P.E.
Print or Type Name

D. Patrick Darden
Signature

Sr. Engineer
Title

07/11/11
Date

pdarden@legacylp.com
e-mail Address

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

District II
1301 W. Grand Avenue, Artesa, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1230 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised June 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

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

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Legacy Reserves Operating LP P.O. Box 10848 Midland, TX 79702
Lease Elliott 31 Federal Well No. 6 Unit Letter-Section-Township-Range D-31-T24S-R38E County Lea
OGRID No. 240974 Property Code 309055 API No. 30-025-24097 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<u>Dollenhole (Tubb-Drinkard)</u>	<u>DOLLARHOPE</u>	<u>Devonian</u>
Pool Code	18830		18050
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	6608'-6852'		8103'-8224'
Method of Production (Flowing or Artificial Lift)	Beam Pumping Unit		Beam Pumping Unit
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)	Not Required 6608' x 1.50 = 9912' > 8224'		Not Required
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35 API		41.3 API
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: 04/06/11 Rates: 2.5BO+18BW+0MCF		Date: June 1997 Rates: 4BO+6BW+8MCF
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 38.5 % Gas 0 %		Oil 61.5 % Gas 100 %

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 D. Patrick Darden TITLE Sr. Engineer DATE 05/10/11

TYPE OR PRINT NAME D. Patrick Darden, P.E. TELEPHONE NO. (432) 689-5200

E-MAIL ADDRESS _____

Elliott 31 Fed #6

API #30-025-24097

Lea County, New Mexico

C-107A Attachments and Notes on Attachments

C-102:

From previous operators the only C-102's found were for the Ellenburger zone (April 10, 1972) and the Tubb-Drinkard zone (October 20, 1997). It appears no C-102 was ever submitted for the Devonian zone. Attached please find the previously submitted C-102 for the Ellenburger zone, and Tubb-Drinkard zone. Also attached is a C-102 for the Devonian zone (new submittal).

Production Curves:

Attached are production curves for the Devonian zone and the Tubb-Drinkard zone. The Devonian zone produced from 1972 to 1997. The Tubb-Drinkard zone has produced from 1997 to present.

Zones with no Production History:

All zones have production history. See attached curves.

Allocation Method or Formula:

Production allocation is derived by combining the production from each zone in its separate state and dividing that into the "separate state" of each zone. It should also be noted that when the Devonian zone is reactivated and stimulated it will be swab tested and the allocation could change at that time. Since no changes are being made to the Tubb-Drinkard zone its current daily rate will remain the same in the allocation process.

Notification of WIO, RI, and ORRI for Uncommon Interest Cases:

Not applicable as the WIO, RI, and ORRI are the same in the Devonian and Tubb-Drinkard zones.

Additional Statements to Support Commingling:

A current rate (and possible rate) of 2.5 BOPD, (Tubb-Drinkard 2 BOPD - active and lower Tubb-Drinkard 0.5 BOPD - inactive), will be left unproduced if downhole commingling is not permitted in this well. The cost to cement squeeze the Tubb-Drinkard zone to reactivate, stimulate and produce the Devonian by itself and then come back at a later time to re-perforate and stimulate the Tubb-Drinkard zone will not be economical, thus meaning this production will be lost forever. For this reason it is requested that downhole commingling be permitted of the Devonian and Tubb-Drinkard zones in the Elliott 31 Federal #6.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator Legacy Reserves Operating LP			Lease Elliott 31 Federal		Well No. 6
Unit Letter "D"	Section 31	Township 24-S	Range 38-E	County LEA	
Actual Survey Location of Wells 467 NORTH 990 WEST					
Ground Level Elev. 3121	Producing Formation Devonian	Pool Dollarhide	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>D. Patrick Darden</i></p> <p>Name D. Patrick Darden, P.E.</p> <p>Position Sr. Engineer</p> <p>Company Legacy Reserves Operating LP</p> <p>Date 05/10/11</p> <p>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 knowledge and belief.</p> <p>Date Surveyed APRIL 10, 1972</p> <p>Registered Professional Engineer and Land Surveyor MAX A. SCHUMANN JR.</p> <p>Certificate No. 1510</p>
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NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION

4/10/72
Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

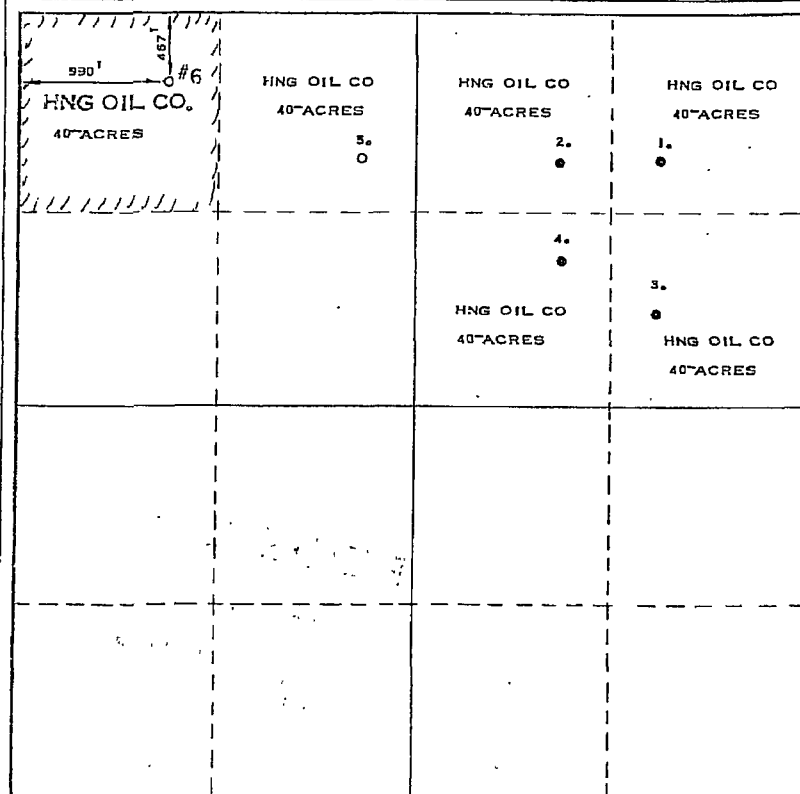
Operator HNG OIL COMPANY			Lease ELLIOTT-FEDERAL "31"		Well No. 6
Unit Letter "D"	Section 31	Township 24-S	Range 38-E	County LEA	
Actual Footage Location of Well: 457 feet from the NORTH line and 990 feet from the WEST line					
Ground Level Elev. 3121	Producing Formation ELLENBURGER		Pool ELLENBURGER	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



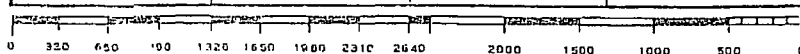
CERTIFICATION

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

Name
George R. McBride
Position
(George R. McBride)
Admin. Asst. to Dist. Supt.
Company
HNG Oil Company
Date
April 10, 1972

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 knowledge and belief.

Date Surveyed
APRIL 10, 1972
Registered Professional Engineer
and Land Surveyor
MAX A. SCHUMANN JR.
Certificate No.
1510



All distances must be from the outer boundaries of the Section.

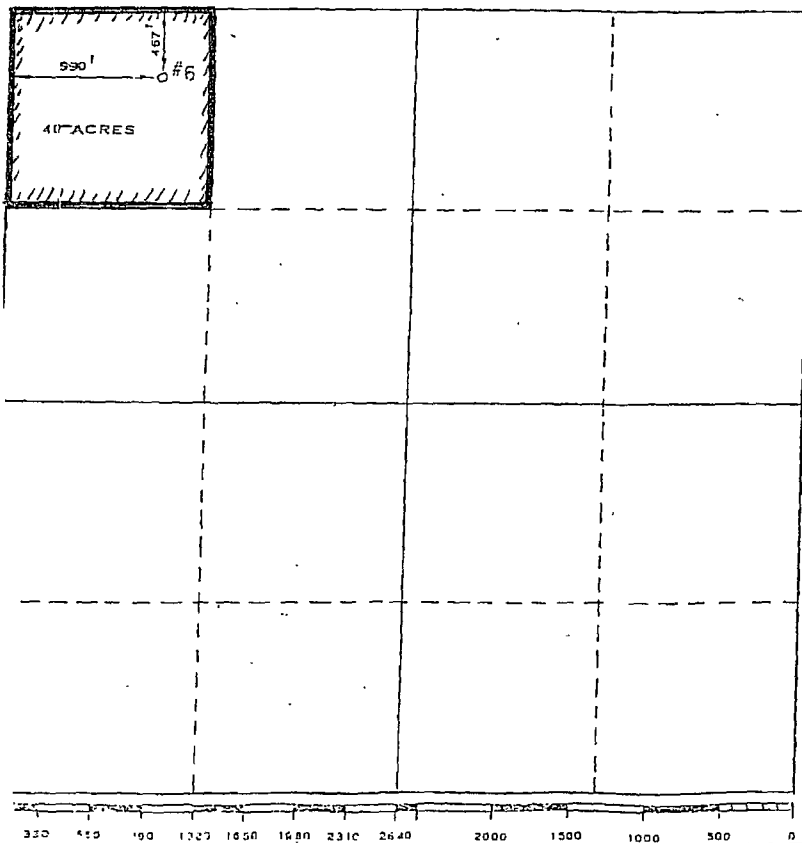
Operator Lynx Petroleum Consultants, Inc.			Lease Elliott "31" Federal		Well No. 6
Unit Letter "D"	Section 31	Township 24-S	Range 38-E	County LEA	
Actual Footage Location of Well: 457 feet from the NORTH line and 990 feet from the WEST line					
Ground Level Elev: 3121	Producing Formation Drinkard		Pool Dollarhide		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name Max A. Schuman Jr.
Position President
Company Lynx Petroleum Consultants
Date 10/20/97

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 knowledge and belief.

Date Surveyed APRIL 10, 1972
Registered Professional Engineer and Land Surveyor
MAX A. SCHUMAN JR.
Certificate No. 1510

Rate/Time Graph

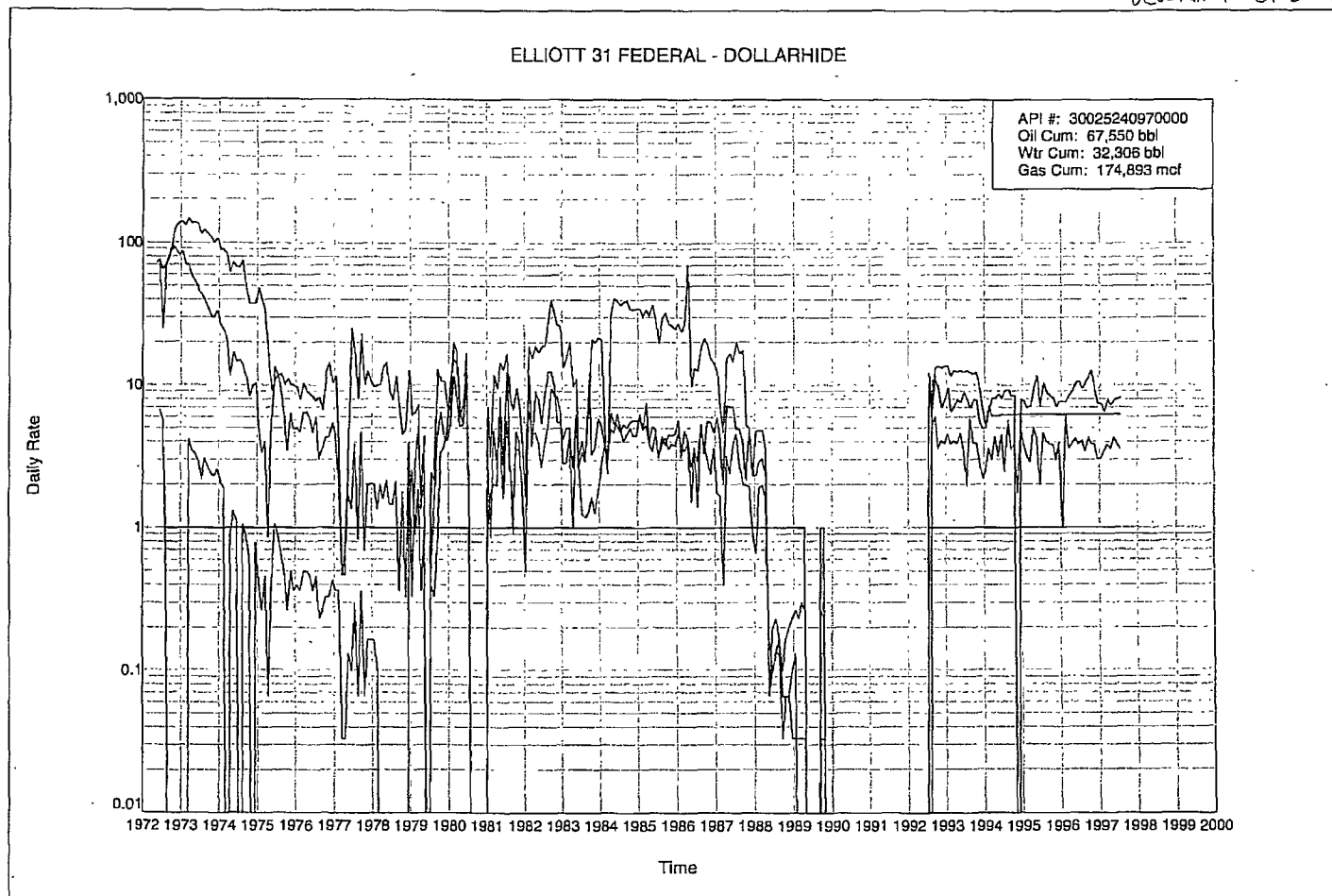
Lease Name: ELLIOTT 31 FEDERAL (6)
County, ST: LEA, NM
Location: 31D 24S 38E

Project: p:\w9.1\projects\legacy-elliott-31-fed_area.mdb

Date: 5/10/2011
Time: 9:45 AM

Operator: LYNX PETROLEUM CONSULTANTS INCORPORATED
Field Name: DOLLARHIDE

DENOMIAN: 8108' - 8224'



Rate/Time Graph

Project: p:\v9.1\projects\legacy-elliott-31-fed_area.mdb

Date: 5/10/2011

Time: 9:44 AM

Lease Name: ELLIOTT 31 FEDERAL (6)

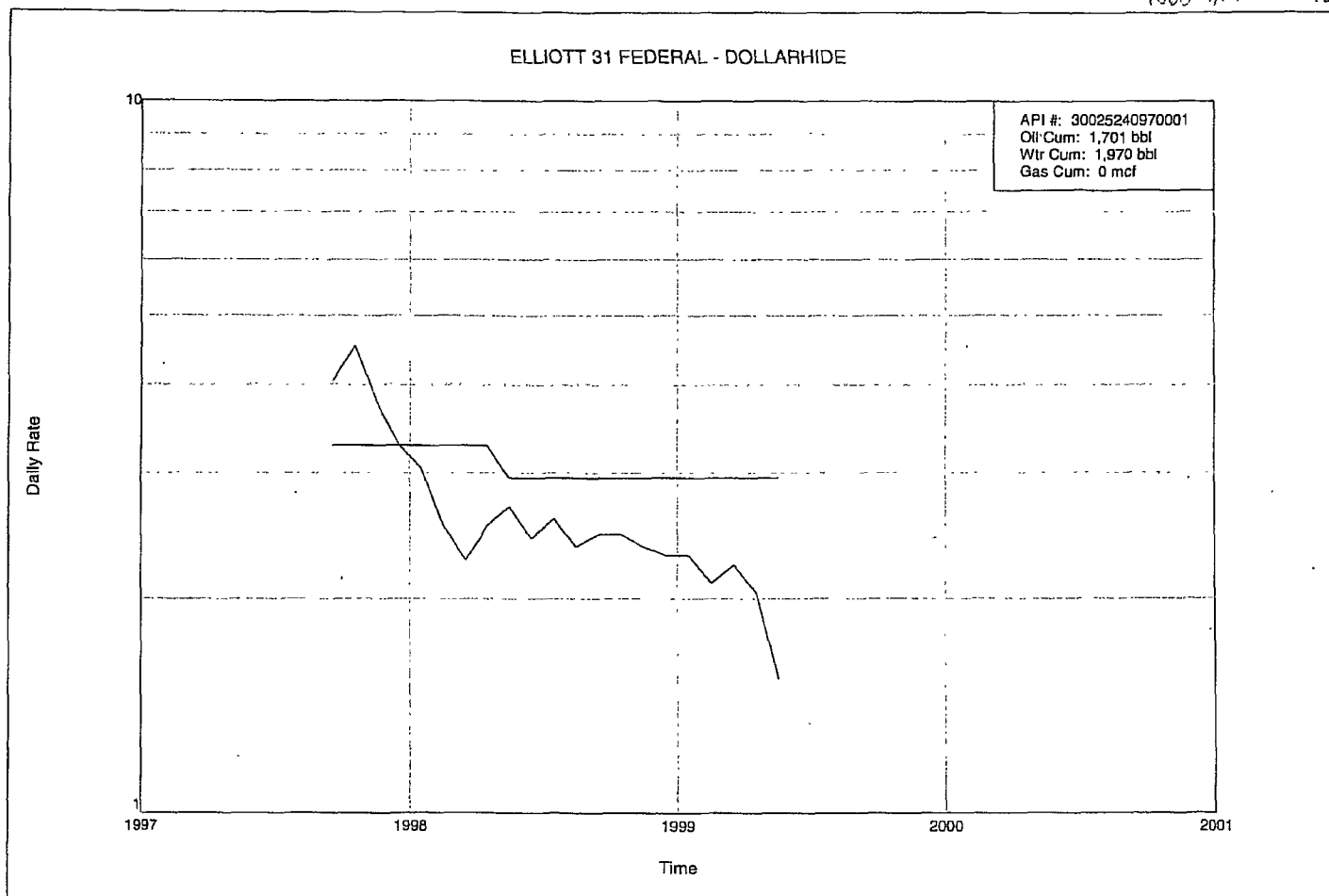
County, ST: LEA, NM

Location: 31D 24S 38E

Operator: MACK ENERGY CORPORATION

Field Name: DOLLARHIDE

TUBB - DRINKARD 660' - 6892'



Rate/Time Graph

Project: p:\w9.1\projects\legacy-elliott-31-fed_area.mdb

Date: 5/10/2011

Time: 9:42 AM

Lease Name: ELLIOTT 31 FEDERAL (6)

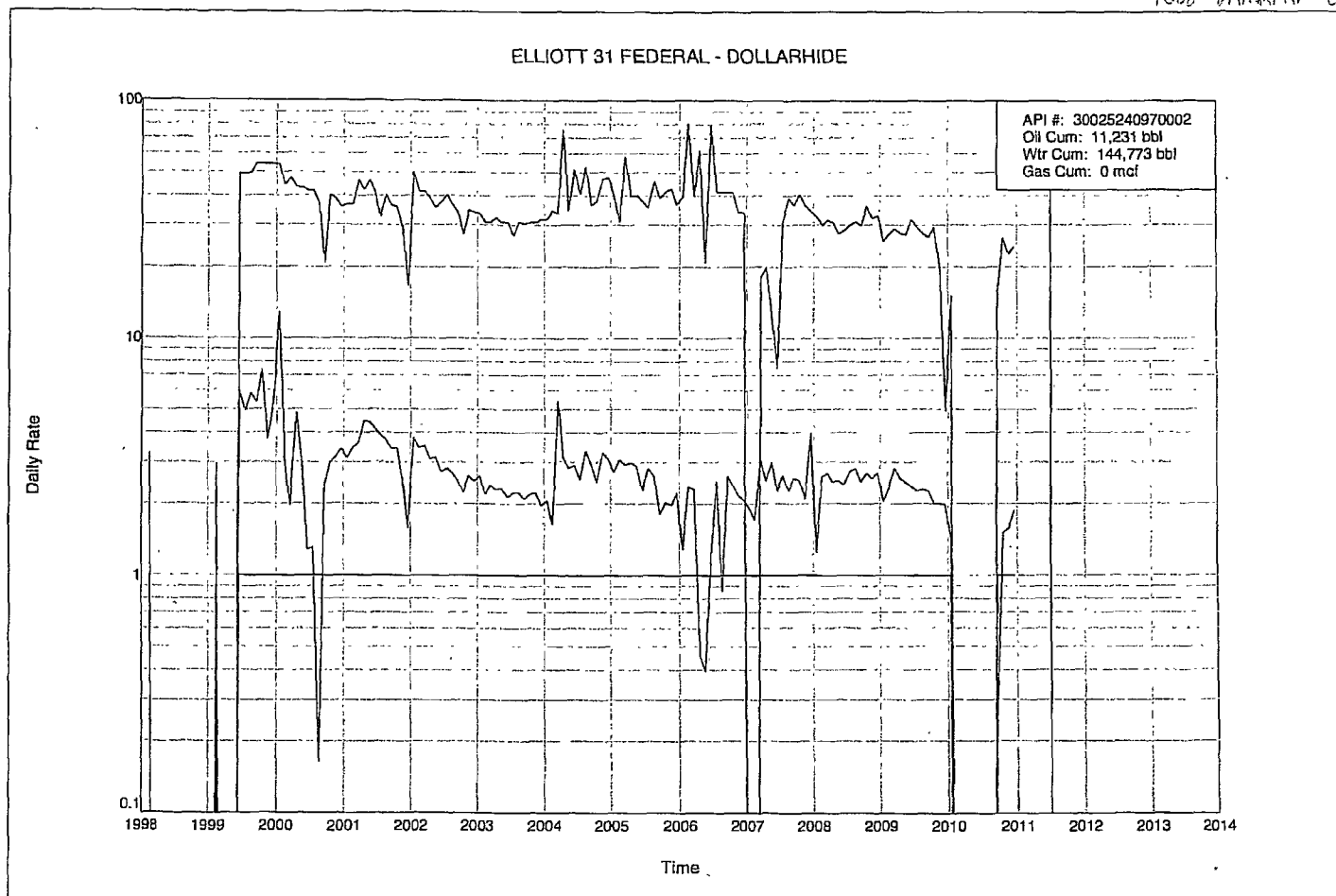
County, ST: LEA, NM

Location: 31D 24S 38E

Operator: LEGACY RESERVES OPERATING LP

Field Name: DOLLARHIDE

TUBB-DRIKARD 6623-6141



Legacy Reserves - Well Tests

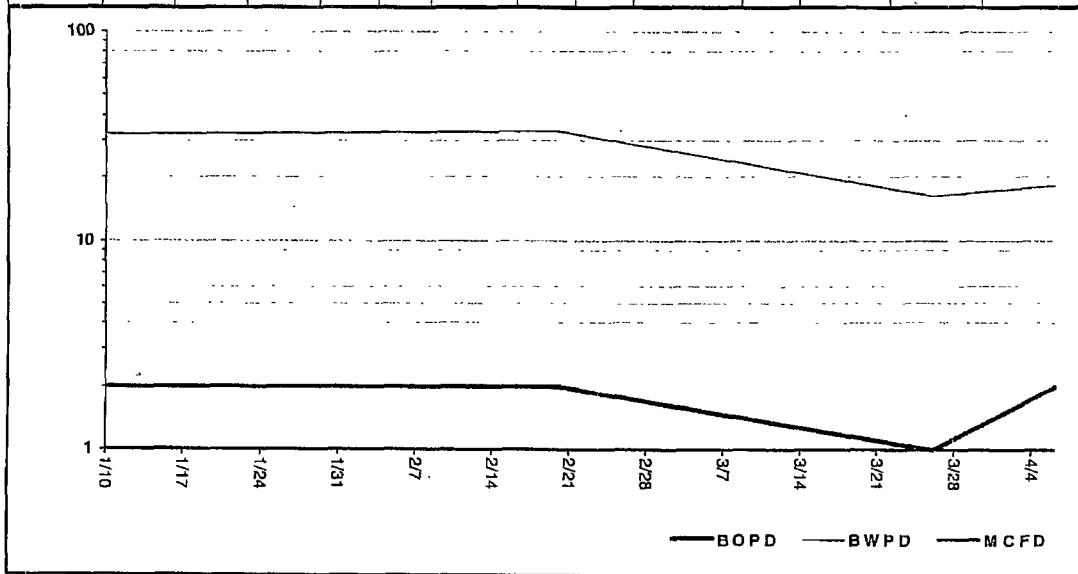
ELLIOTT 31 FEDERAL # 0006

Perforated Intervals in This Zone

BOLO ID: 300163.06		API # 3002524097	
Zone	Tubb	Zone#	1
County/ST	LEA	NM	Status A
Foreman	Tommy Hill Wes	Pumper/Beat	Tommy Hill West

Date # Jts PFL(w/gas) PFL(w/o gas) Fld to Pump PIP Csg SN Pumping Unit SPM S L Pump 24hr80%PD

Test Date	BOPD	MCFD	BWPD	SPM	SL	Pump Sz	TP	CP	Choke	LP	Top Perf	Btm Perf	Allocate Test?
1/10/2011	2	0	32										Yes
2/20/2011	2	0	33										Yes
10 days weather, 16 days SI not pumping													
3/26/2011	1	0	16										Yes
12 days RP													
4/6/2011	2	0	18										Yes



Tests from 1/1/2011 through 5/6/2011

Printed: 5/6/2011

Page 1



ELLIOTT 31 FED #6

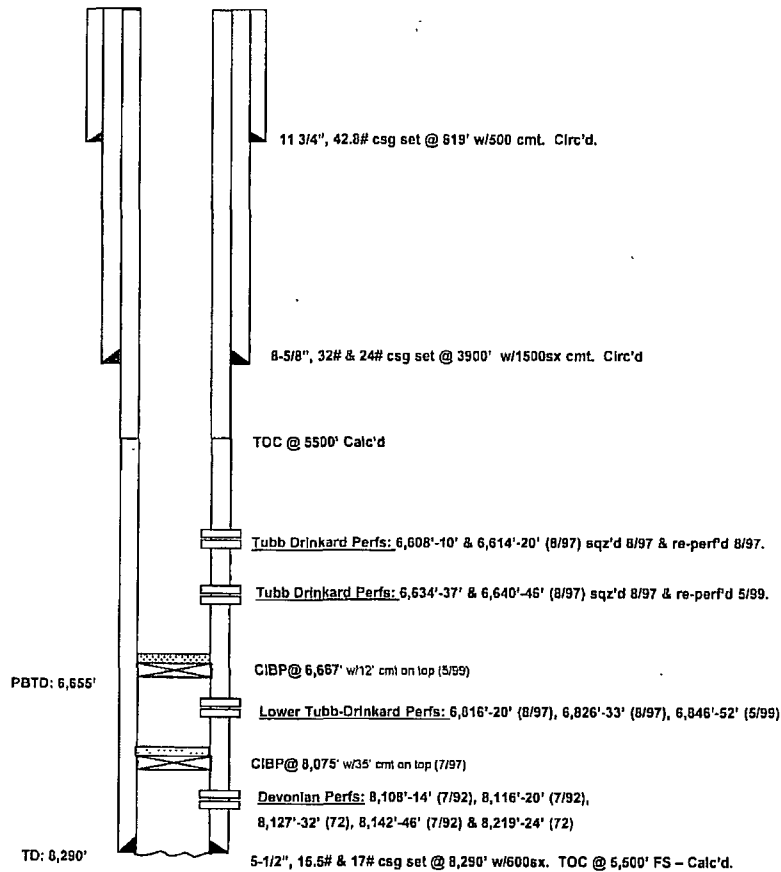
LOCATION: 467' FNL & 990' FWL, Sec 31, T24S, R38E

Current Wellbore Condition

FIELD: Dollarhide (Tubb Drinkard)
COUNTY: Lea
STATE: New Mexico

GL: 3121'
KB: 3134'
SPUD DATE: 4/11/72

LATEST UPDATE: 05/03/2011
BY: DP Darden
API No: 30-025-24097





ELLIOTT 31 FED #6

LOCATION: 467' FNL & 990' FWL, Sec 31, T24S, R38E

Proposed Wellbore Setup

FIELD: Dollarhide (Tubb Drinkard)

GL: 3121'

LATEST UPDATE: 05/03/2011

COUNTY: Lea

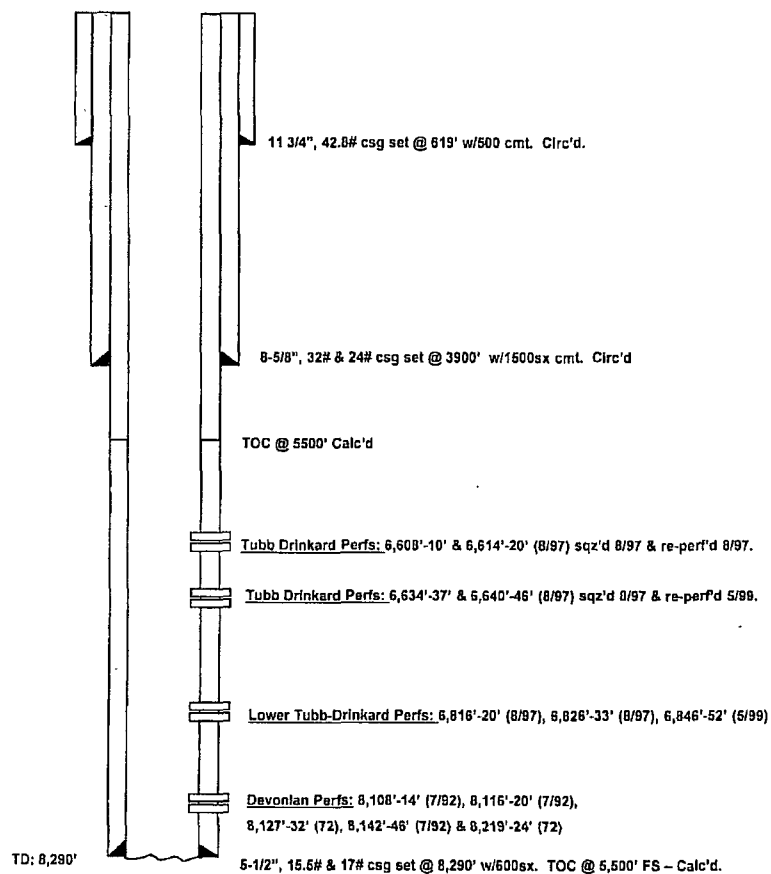
KB: 3134'

BY: DP Darden

STATE: New Mexico

SPUD DATE: 4/11/72

API No: 30-025-24097



Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, July 11, 2011 11:25 AM
To: 'pdarden@legacylp.com'
Cc: Mull, Donna, EMNRD; Ezeanyim, Richard, EMNRD
Subject: RE: Elliott 31 Fed #6 C-107A.

Pat,
my copy of the C-107 is very hard to read,
Could you send a better resolution copy along with the other form you are sending?

Thank You,

Will Jones
New Mexico
Oil Conservation Division
[Images](#) [Contacts](#)

From: Jones, William V., EMNRD
Sent: Monday, July 11, 2011 11:04 AM
To: 'pdarden@legacylp.com'
Cc: Mull, Donna, EMNRD; Ezeanyim, Richard, EMNRD
Subject: Elliott 31 Fed #6 C-107A.

Hello Pat,
Donna enclosed your C-107A form by email attachment – I can log it in,
Do you know the correct pool names? If so, I will write them on the form.

One other form – the “Administrative Order Checklist” is needed. It is the first unnumbered form on the OCD web site under “Forms”.

If you will fill that out, sign and email it to me, I am doing DHC permits today and can add this one to the list.
I try to do all pending applications every 3 weeks or so.

Regards,

Will Jones
New Mexico
Oil Conservation Division
[Images](#) [Contacts](#)

From: Mull, Donna, EMNRD
Sent: Monday, July 11, 2011 10:38 AM
To: Jones, William V., EMNRD
Subject: FW: Lea Unit #4 C-144CLEZ and Elliott 31 Fed #6 C-107A.

Will,

Did you receive this C-107A? Pat stated that he sent it to OCD Santa Fe the middle of May. I looked and did not find where this has been approved. Would you please look at the attachment and get back with Pat.

Thanks Donna

From: Pat Darden [<mailto:pdarden@legacylp.com>]
Sent: Monday, July 11, 2011 9:31 AM
To: Mull, Donna, EMNRD
Cc: Pat Darden; Sharon Bowersock
Subject: Lea Unit #4 C-144CLEZ and Elliott 31 Fed #6 C-107A.

Donna:

Please find attached the two applications we discussed this morning. Thank you so much for your help on these.

As I mentioned, in our conversation, regarding the Lea Unit #4 (API#: 30-025-02424) we have moved in the workover rig so we need approval on this as soon as possible.

On the Elliott 31 Fed #6 (API#: 30-025-24097) we sent the Downhole Commingling (DHC) permit in sometime back and have not heard anything at all on this.

Thanks in advance for your help on this.

D. Patrick Darden, P. E.
Sr. Engineer
Legacy Reserves, LP
432-689-5237 office
432-296-0070 cell