

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-101
Revised February 10, 1999
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies
☐ AMENDED REPORT

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

¹ Operator Name and Address CHEVRON USA INC 15 SMITH RD, MIDLAND, TX 79705		² OGRID Number 4323
		³ API Number 30-025-29512
⁴ Property Code 30020	⁵ Property Name V.M. HENDERSON	⁶ Well No. 12

⁷ Surface Location

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	30	21S	37E		330	NORTH	886	WEST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
⁹ Proposed Pool 1 Penrose Skelly Grayburg					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² WellType Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3499' GL
¹⁶ Multiple No	¹⁷ Proposed Depth 5270'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date 6/30/2005

²¹ Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					
Permit Expires 1 Year From Approval Date Unless Drilling Underway Plugback					

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL FROM THE PADDOCK TO THE PENROSE SKELLY GRAYBURG RESERVOIR.

A PIT WILL NOT BE USED FOR THIS PLUGBACK. A STEEL FRAC TANK WILL BE UTILIZED.

THE CURRENT AND PROPOSED WELLBORE DIAGRAM IS ATTACHED FOR YOUR APPROVAL.

THE INTENDED PROCEDURE IS ATTACHED.

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature *Denise Pinkerton*

Printed Name Denise Pinkerton

Title Regulatory Specialist

Date 6/15/2005

Telephone 432-687-7375

OIL CONSERVATION DIVISION

Approved By: *[Signature]*

Title: JUN 21 2005 PETROLEUM ENGINEER

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

Well: **V. M. Henderson # 12**

Field: **Paddock**

Reservoir: **Paddock**

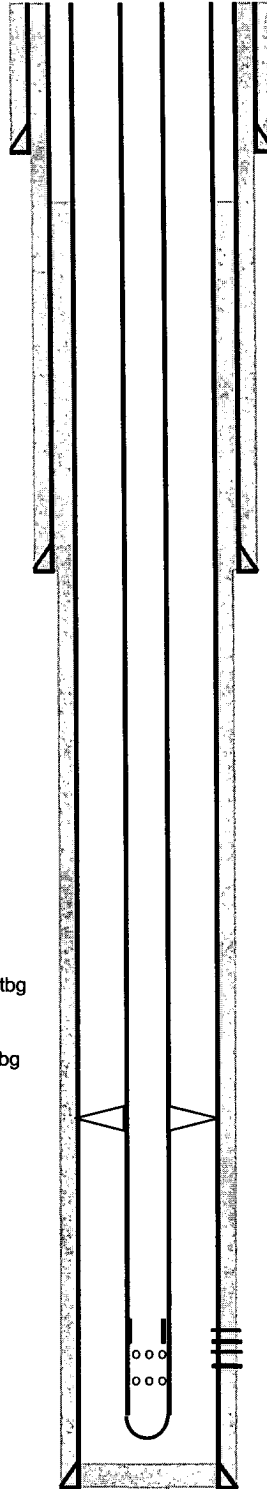
Location:

330' FNL & 886' FWL
Section: 30
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:

GL: 3499'
KB: 3515'
DF: 3514'

**Current
Wellbore Diagram**



Well ID Info:

Chevno: ID2284
API No: 30-025-29512
L5/L6: U493800
Spud Date: 2/17/86
Compl. Date: 3/10/86

Surf. Csg: 13 3/8", 54.5#, J-55

Set: @ 400' w/ 500 sks

Hole Size: 17 1/2"

Circ: Yes **TOC:** Surface

TOC By: Circulated

Interm. Csg: 8 5/8", 32#, J-55

Set: @ 4230' w/ 2100 sks

Hole Size: 12 1/4"

Circ: Yes **TOC:** Surface

TOC By: Circulated

Tbg Detail:

BP @ 5199'
1 jt. 2 7/8" tbg
2 7/8" x 4' perf sub
SN @ 5162'
1 jt. 2 7/8" EUE 8R IPC J-55 tbg
6 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 4932'
159 jts. 2 7/8" EUE 8R J-55 tbg

COTD: 5262'

PBTD: 5262'

TD: 5270'

Updated: 6/14/2005

By: A. M. Howell

Perfs:

5151-61'

Status

Paddock - Open

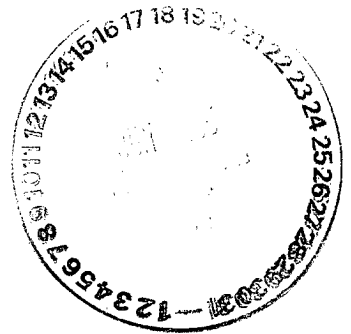
Prod. Csg: 5 1/2", 15.5#, J-55

Set: @ 5270' w/ 800 sks

Hole Size: 7 7/8"

Circ: No **TOC:** 540'

TOC By: CBL



Well: **V. M. Henderson # 12**Field: **Penrose Skelly**Reservoir: **Grayburg****Location:**

330' FNL & 886' FWL
 Section: 30
 Township: 21S
 Range: 37E
 County: Lea State: NM

Elevations:

GL: 3499'
 KB: 3515'
 DF: 3514'

Proposed
Wellbore Diagram

Well ID Info:

Chevno: ID2284
 API No: 30-025-29512
 L5/L6: U493800
 Spud Date: 2/17/86
 Compl. Date: 3/10/86

Surf. Csg: 13 3/8", 54.5#, J-55**Set:** @ 400' w/ 500 sks**Hole Size:** 17 1/2"**Circ:** Yes **TOC:** Surface**TOC By:** Circulated**Interm. Csg:** 8 5/8", 32#, J-55**Set:** @ 4230' w/ 2100 sks**Hole Size:** 12 1/4"**Circ:** Yes **TOC:** Surface**TOC By:** Circulated**Perfs:****Status**

3637-42'	Grayburg - Open
3650-58'	Grayburg - Open
3670-78'	Grayburg - Open
3688-96'	Grayburg - Open
3707-15'	Grayburg - Open
3724-28'	Grayburg - Open
3738-46'	Grayburg - Open
3766-74'	Grayburg - Open
3781-85'	Grayburg - Open
3792-98'	Grayburg - Open
3804-10'	Grayburg - Open
3817-27'	Grayburg - Open
3836-44'	Grayburg - Open
3854-58'	Grayburg - Open
3864-72'	Grayburg - Open
3880-88'	Grayburg - Open
3900-08'	Grayburg - Open
3918-26'	Grayburg - Open
3932-38'	Grayburg - Open

Perfs:**Status**

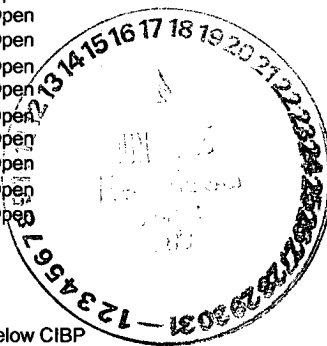
5151-61'	Paddock - Below CIBP
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Prod. Csg: 5 1/2", 15.5#, J-55**Set:** @ 5270' w/ 800 sks**Hole Size:** 7 7/8"**Circ:** No **TOC:** 540'**TOC By:** CBL**Tubing Detail:**

#Jts:	Size:	Footage
	KB Correction	14.00
121	Jts. 2 7/8" J-55 Cl. 'B'	3751.00
	2 7/8" x 6' Tbg Sub	6
	Drain Valve	0.55
	2 7/8" x 2 3/8" X-Over	0.60
	Centriflgt Sub Pump	35.41
121	Bottom Of Mtr >>	3807.56

RBP @ 5100'
 (20' sand on top)

COTD: 5080'
PBTD: 5080'
TD: 5270'

Updated: 6/14/2005**By:** A. M. Howell

V. M. Henderson # 12
Penrose Skelly Field
T21S, R37E, Section 30
Job: PB To Grayburg Formation, Acidize, And Frac

Procedure:

1. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. AGU, EMSU, and EMSUB buried fiberglass lines will be tested with 300 psi. All polypipe (SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Donnie Ives for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.
2. MI & RU workover unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi. POH LD 2 7/8" tbg string.
3. PU and GIH with 4 3/4" MT bit and 2 7/8" work string to 5150'. POH with work string and bit. LD bit.
4. PU and GIH with 5 1/2" RBP to 5100'. Set RBP at 5100'. Dump 20' 16/30 sand on top of RBP. PUH to 5000'. Let sand fall to top of RBP. Reverse circulate well clean from 5000' using 8.6 PPG cut brine water. Pressure test csg and RBP to 500 psi. POH with 2 7/8" work string.
5. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH with 3 1/8" DP slick casing gun and perforate from 3637-42', 3650-58', 3670-78', 3688-96', 3707-15', 3724-28', 3738-46', 3766-74', 3781-85', 3792-98', 3804-10', 3817-27', 3836-44', 3854-58', 3864-72', 3880-88', 3900-08', 3918-26', and 3932-38' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Use casing collars from Schlumberger Compensated Neutron Log dated 3/6/86 for depth correction.**
6. PU and GIH w/ 5 1/2" PPI pkr (with 12' element spacing) and SCV on 2 7/8" work string to approximately 3630'. Test tbg to 5500 psi while GIH.
7. MI & RU DS Services. Acidize perms 3637-3938' with 3,800 gals anti-sludges 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of 3500 psi. Spot acid across perms at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

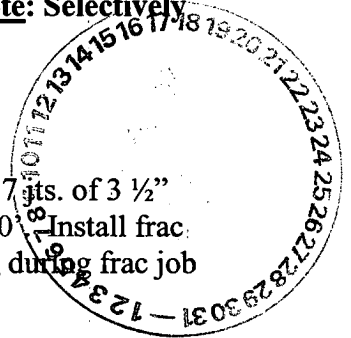
Interval	Amt. Acid	Max Rate	PPI Setting
3932-38'	200 gals	1/2 BPM	3930-42'
3918-26'	200 gals	1/2 BPM	3916-28'

3900-08'	200 gals	½ BPM	3898-3910'
3880-88'	200 gals	½ BPM	3878-90'
3864-72'	200 gals	½ BPM	3862-74'
3854-58'	200 gals	½ BPM	3850-62'
3836-44'	200 gals	½ BPM	3834-46'
3817-27'	200 gals	½ BPM	3816-28'
3804-10'	200 gals	½ BPM	3800-12'
3792-98'	200 gals	½ BPM	3787-99'
3781-85'	200 gals	½ BPM	3778-90'
3766-74'	200 gals	½ BPM	3764-76'
3738-46'	200 gals	½ BPM	3736-48'
3724-28'	200 gals	½ BPM	3722-34'
3707-15'	200 gals	½ BPM	3705-17'
3688-96'	200 gals	½ BPM	3686-98'
3670-78'	200 gals	½ BPM	3668-80'
3650-58'	200 gals	½ BPM	3648-60'
3637-42'	200 gals	½ BPM	3635-47'

Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note:** Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 1000 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.

* Acid system is to contain:	1 GPT A264	Corrosion Inhibitor
	8 GPT L63	Iron Control Agent
	2 PPT A179	Iron Control Aid
	20 GPT U66	Mutual Solvent
	2 GPT W53	Non-Emulsifier

8. Release PPI pkr and PUH to approximately 3625'. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. **Note: Selectively swab perfs as directed by Engineering if excessive water is produced.**
9. Open well. Release PPI pkr. POH with tbg and PPI packer. LD PPI tool.
10. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 117 lbs. of 3 ½" EUE 8R L-80 work string, testing to 8500 psi. Set pkr at approximately 3530'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.



11. MI & RU DS Services. Frac well down 3 ½" tubing at **40 BPM** with 84,000 gals of YF130, 160,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR1630 proppant. Observe a maximum surface treating pressure of **7500 psi**. Pump job as follows:

Pump 2,000 gals 2% KCL water containing 55 gals Baker RE 4777-SCW Scale Inhibitor

Pump 1,000 gals 2% KCL water spacer

Pump 14,000 gals YF130 pad containing 5 GPT J451 Fluid Loss Additive

Pump 14,000 gals YF130 containing 0.5 PPG 16/30 mesh Jordan Sand & 5 GPT J451 FL Additive

Pump 12,000 gals YF130 containing 1.5 PPG 16/30 mesh Jordan Sand

Pump 12,000 gals YF130 containing 2.5 PPG 16/30 mesh Jordan Sand

Pump 12,000 gals YF130 containing 3.5 PPG 16/30 mesh Jordan Sand

Pump 14,000 gals YF130 containing 4.5 PPG 16/30 mesh Jordan Sand

Pump 6,000 gals YF130 containing 5 PPG **resin-coated** 16/30 mesh CR1630 proppant.

Flush to 3584' with 1,344 gals WF130. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services. **Leave well SI overnight.**

12. Open well. GIH and swab well until there is no sand inflow. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. Release pkr and POH with 3 ½" work string. Lay down work string and pkr.
13. PU and GIH with 4 ¾" MT bit on 2 7/8" work string to 4200'. If fill is found above 4200', clean out fill to 5080' using 8.6 PPG cut brine water and air unit (if necessary). POH with 2 7/8" work string and bit. LD 2 7/8" work string and bit.
14. PU and GIH w/ Centrilift sub pump assembly, drain sub, 2 7/8" x 6' tbg sub, SN, and 121 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Suspend tbg with bottom of sub pump assembly at approximately 3808'.
15. Remove BOP's and install WH. RD & release workover unit.
16. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
6/15/2005



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Form C-102

Revised February 10, 1999

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-29512	² Pool Code 50350	³ Pool Name PENROSE SKELLY GRAYBURG
⁴ Property Code 30020	⁵ Property Name V.M. HENDERSON	⁶ Well No. 12
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation 3499' GL

¹⁰ Surface Location

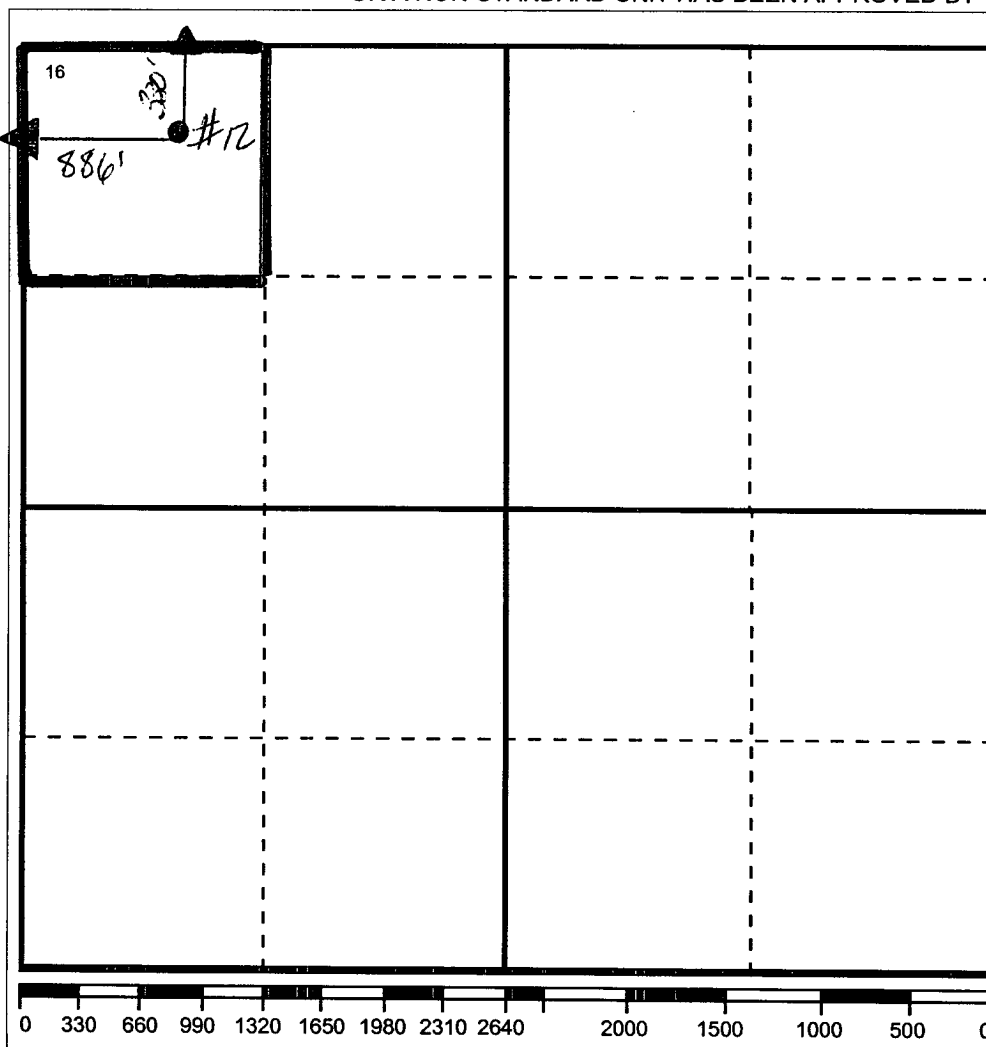
UI or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	30	21S	37E		330	NORTH	886	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

¹² Dedicated Acre 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ 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



17 OPERATOR CERTIFICATION

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

Signature

Printed Name

Denise Pinkerton

Position

Regulatory Specialist

Date

6/15/2005

18 SURVEYOR CERTIFICATION

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

Signature & Seal of
Professional Surveyor

Certificate No.