

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**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.*

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JAN 07 2014

5. Lease Serial No.  
NMNM78273

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
LAGUNA 23 FEDERAL COM 2H

9. API Well No.  
30-025-40697

10. Field and Pool, or Exploratory LEA

11. County or Parish, and State  
LEA COUNTY, NM

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

RECEIVED

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
NEARBURG PRODUCING COMPANY  
Contact: TIM GREEN  
E-Mail: tgreen@nearburg.com

3a. Address  
330 NORTH A STREET BLDG 2 SUITE 120  
MIDLAND, TX 79707

3b. Phone No. (include area code)  
Ph: 432-818-2940

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 23 T20S R34E SWSW 50FSL 630FWL

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Drilling Operations
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Nearburg Producing Company respectfully requests approval to change the directional plan and casing for the above referenced well:

Directional Plan changes:  
KOP: 10603'  
Landing Point: 11372'  
TD: 15781'  
Directional plan attached for review and approval.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Approved:  
Surf csg: 17-1/2" hole, 13-3/8", 54.5#, J55, ST&C set @ 1665'. Cmt w/ Lead: 1800 sx Class C; 1.75 yield

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #229454 verified by the BLM Well Information System  
For NEARBURG PRODUCING COMPANY, sent to the Hobbs  
Committed to AFMSS for processing by JOHNNY DICKERSON on 12/18/2013 ()

Name (Printed/Typed) TIM GREEN Title MARKETING & PRODUCTION SERVICE

Signature (Electronic Submission) Date 12/13/2013

**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.

APPROVED  
JAN 2 2014  
BUREAU OF LAND MANAGEMENT  
ARLSBAD FIELD OFFICE

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

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**Additional data for EC transaction #229454 that would not fit on the form**

**32. Additional remarks, continued**

tail w/ 250 sx Class C. Circ to surface.

Int Casing: 12-1/4" hole, 9-5/8", 40#, N-80/HCN80, LTC set @ 5500'. Cmt w/ Lead: 1600 sx 50:50

PoZ Class C; tail w/ 370 sx C neat. Circ to surf.

Prod Casing: 8-3/4" hole, 5-1/2", 17#, HCP110, LTC set @ 15928', DV tool @ 6500'. Cmt w/ 1st

stage lead: 500 sx 65/35 POZ Class H; tail w/ 1500 sx 50/50 POZ H. 2nd stage: lead: 400 sx Class C; tail w/ 100 sx Class C. Circ to surf.

**Proposed Changes:**

Surf Casing: 17-1/2" hole, 13-3/8", 54.5#, J55, ST&C set @ 1665'. Cement w/ Lead: 1050 sx

ExtendaCem ? CZ; Tail w/ 290 sx HalCem ? C. Circ to surface.

Int Casing: 12-1/4" hole, 9-5/8", 40#, N80, LTC set @ 5500'. DV tool w/ ACP @ +/- 3500'. Cmt w/

1st stage lead: 350 sx Econocem @ 12.9 ppg, 1.88 yld, water 9.63 gal/sx; tail w/ 340 sx HalCem - C

@ 14.8 ppg, 1.33 yld, water 6.34 gals/sx. TOC @ 3500'. 2nd stage lead: 2800 sx Econocem @ 12.9 ppg, 1.88 yld, water 9.63 gals/sx. TOC @ surface.

Prod Casing: 8-3/4" & 8-1/2" hole, 5-1/2", 17#, P110 LTC/BTC set @ 15781'. Cmt w/ lead: 940 sx

EconoCem @ 11.9 ppg, 2.44 yld, water 14 gals/sx; tail w/ 1540 sx VersaCem ? H @ 14.5 ppg, 1.22 yld, water 5.3 gals/sx. TOC @ 3000'.

Nearburg wishes to reserve the right to alter the cement volumes based on measurements of actual hole size or change in casing setting depth.

*Yields? assumed  
Jammes before  
See e-mail  
on next page*

*1.34 yld*

# 'From Halliburton Cementing Cost Estimate 12/19/2013

## Job Recommendation Surface Casing

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Install floating equipment, run casing to bottom, and circulate a minimum of 2-3 hole volumes prior to cementing as follows:

### Fluid Instructions

Fluid 1: Lead  
ExtendaCem – CZ

Fluid Weight 13.50 lbm/gal  
Slurry Yield: 1.75 ft<sup>3</sup>/sk  
Total Mixing Fluid: 9.20 Gal/sk

Fluid 2: Tail-in  
HalCem – C  
1 % Calcium Chloride - Flake (Accelerator)

Fluid Weight 14.80 lbm/gal  
Slurry Yield: 1.34 ft<sup>3</sup>/sk  
Total Mixing Fluid: 6.36 Gal/sk





**Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-Dec-13 Proposal Report**

(Def Plan)

<b>Report Date:</b>	December 12, 2013 - 02:23 PM	<b>Survey / DLS Computation:</b>	Minimum Curvature / Lubinski
<b>Client:</b>	Cimarex	<b>Vertical Section Azimuth:</b>	0.000 ° (Grid North)
<b>Field:</b>	NM Lea County (NAD 83)	<b>Vertical Section Origin:</b>	0.000 ft, 0.000 ft
<b>Structure / Slot:</b>	Cimarex Laguna 23 Federal Com #2H / Laguna 23 Federal Com #2H	<b>TVD Reference Datum:</b>	RKB
<b>Well:</b>	Laguna 23 Federal Com #2H	<b>TVD Reference Elevation:</b>	3705.000 ft above MSL
<b>Borehole:</b>	ST01	<b>Seabed / Ground Elevation:</b>	3680.000 ft above MSL
<b>UWI / API#:</b>	Unknown / Unknown	<b>Magnetic Declination:</b>	7.398 °
<b>Survey Name:</b>	Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-Dec-13	<b>Total Field Strength:</b>	48524.553 nT
<b>Survey Date:</b>	December 12, 2013	<b>Magnetic Dip Angle:</b>	60.389 °
<b>ToR / AHD / DDI / ERD Ratio:</b>	92.340 ° / 4901.930 ft / 5.809 / 0.442	<b>Declination Date:</b>	December 12, 2013
<b>Coordinate Reference System:</b>	NAD83 New Mexico State Plane, Eastern Zone, US Feet	<b>Magnetic Declination Model:</b>	BGM 2012
<b>Location Lat / Long:</b>	N 32° 33' 5.42648", W 103° 32' 14.84918"	<b>North Reference:</b>	Grid North
<b>Location Grid N/E Y/X:</b>	N 565285.500 NUS, E 786584.500 NUS	<b>Grid Convergence Used:</b>	0.4282 °
<b>CRS Grid Convergence Angle:</b>	0.4282 °	<b>Total Corr Mag North-&gt;Grid North:</b>	6.9693 °
<b>Grid Scale Factor:</b>	0.99997756	<b>Local Coord Referenced To:</b>	Structure Reference Point

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Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (NUS)	Easting (NUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
9 5/8 Casino Point Tie-In Pilot Hole	5480.00	0.00	359.88	5450.00	1745.00	0.00	0.00	0.00	0.00	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
KOP, Build 12" DLS	10603.00	0.00	359.88	10603.00	6898.00	0.00	0.00	0.00	N/A	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
3rd BS C Sand Landing Point	11231.31	75.41	359.88	11065.00	7360.00	357.13	357.13	-0.78	12.00	56542.62	786563.72	N 32 33 8.96	W 103 32 14.83
	11372.39	92.34	359.88	11060.00	7375.00	496.89	496.89	-1.08	12.00	565782.38	786563.42	N 32 33 10.34	W 103 32 14.82
Cimarex Laguna 23 Federal Com #2H - PBHL	15781.11	92.34	359.87	10900.00	7195.00	4901.92	4901.92	-10.70	0.00	570187.30	786553.80	N 32 33 53.93	W 103 32 14.55

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000		1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only
	25.000	10600.000		1/100.000	30.000	30.000	SLB_MWD-STD
	10600.000	15781.108		1/100.000	30.000	30.000	SLB_MWD-STD

Pilot Hole / Cimarex Laguna 23 Federal Com #2H Pilot Hole Rev0  
Pilot Hole / Cimarex Laguna 23 Federal Com #2H Pilot Hole Rev0  
ST01 / Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-



## Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-Dec-13 Proposal Report

(Def Plan)

Report Date:	December 12, 2013 - 02:23 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	0.000 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Laguna 23 Federal Com #2H / Laguna 23 Federal Com #2H	TVD Reference Datum:	RKB
Well:	Laguna 23 Federal Com #2H	TVD Reference Elevation:	3705.000 ft above MSL
Borehole:	ST01	Seabed / Ground Elevation:	3680.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.398 °
Survey Name:	Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-Dec-13	Total Field Strength:	48524.553 nT
Survey Date:	December 12, 2013	Magnetic Dip Angle:	60.389 °
Tort / AHD / DDI / ERD Ratio:	92.340 ° / 4901.930 ft / 5.809 / 0.442	Declination Date:	December 12, 2013
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Declination Model:	BGGM 2012
Location Lat / Long:	N 32° 33' 5.42648", W 103° 32' 14.84918"	North Reference:	Grid North
Location Grid N/E Y/X:	N 565285.500 ftUS, E 786564.500 ftUS	Grid Convergence Used:	0.4282 °
CRS Grid Convergence Angle:	0.4282 °	Total Corr Mag North->Grid North:	6.9693 °
Grid Scale Factor:	0.99997796	Local Coord Referenced To:	Structure Reference Point

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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Tie-In	0.00	0.00	0.00	0.00	-3705.00	0.00	0.00	0.00	N/A	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
9 5/8 Casing Point	5450.00	0.00	359.88	5450.00	1745.00	0.00	0.00	0.00	0.00	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
Tie-In Pilot Hole	10600.00	0.00	359.88	10600.00	6895.00	0.00	0.00	0.00	N/A	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
KOP, Build 12" DLS	10603.00	0.00	359.88	10603.00	6898.00	0.00	0.00	0.00	0.00	565285.50	786564.50	N 32 33 5.43	W 103 32 14.85
	10700.00	11.64	359.88	10699.33	6994.33	9.82	9.82	-0.02	12.00	565295.32	786564.48	N 32 33 5.52	W 103 32 14.85
	10800.00	23.64	359.88	10794.46	7089.46	40.07	40.07	-0.09	12.00	565325.57	786564.41	N 32 33 5.82	W 103 32 14.85
	10900.00	35.64	359.88	10881.21	7176.21	89.44	89.44	-0.20	12.00	565374.94	786564.30	N 32 33 6.31	W 103 32 14.84
	11000.00	47.65	359.88	10955.80	7250.80	155.77	155.77	-0.34	12.00	565441.27	786564.16	N 32 33 6.97	W 103 32 14.84
	11100.00	59.65	359.88	11014.97	7309.97	236.17	236.17	-0.52	12.00	565521.66	786563.98	N 32 33 7.76	W 103 32 14.83
	11200.00	71.65	359.88	11056.12	7351.12	327.10	327.10	-0.71	12.00	565612.59	786563.79	N 32 33 8.66	W 103 32 14.83
3rd BS C Sand	11231.31	75.41	359.88	11065.00	7360.00	357.13	357.13	-0.78	12.00	565642.62	786563.72	N 32 33 8.96	W 103 32 14.83
	11300.00	83.65	359.88	11077.47	7372.47	424.61	424.61	-0.93	12.00	565710.10	786563.57	N 32 33 9.63	W 103 32 14.82
Landing Point	11372.39	92.34	359.88	11080.00	7375.00	496.89	496.89	-1.08	12.00	565782.38	786563.42	N 32 33 10.34	W 103 32 14.82
	11400.00	92.34	359.87	11078.87	7373.87	524.47	524.47	-1.14	0.00	565809.96	786563.36	N 32 33 10.62	W 103 32 14.82
	11500.00	92.34	359.87	11074.79	7369.79	624.39	624.39	-1.36	0.00	565909.87	786563.14	N 32 33 11.60	W 103 32 14.81
	11600.00	92.34	359.87	11070.71	7365.71	724.31	724.31	-1.58	0.00	566009.79	786562.92	N 32 33 12.59	W 103 32 14.80
	11700.00	92.34	359.87	11066.62	7361.62	824.22	824.22	-1.80	0.00	566109.70	786562.70	N 32 33 13.58	W 103 32 14.80
	11800.00	92.34	359.87	11062.54	7357.54	924.14	924.14	-2.02	0.00	566209.62	786562.48	N 32 33 14.57	W 103 32 14.79
	11900.00	92.34	359.87	11058.46	7353.46	1024.06	1024.06	-2.23	0.00	566309.53	786562.27	N 32 33 15.56	W 103 32 14.79
	12000.00	92.34	359.87	11054.38	7349.38	1123.97	1123.97	-2.45	0.00	566409.44	786562.05	N 32 33 16.55	W 103 32 14.78
	12100.00	92.34	359.87	11050.29	7345.29	1223.89	1223.89	-2.67	0.00	566509.36	786561.83	N 32 33 17.54	W 103 32 14.77
	12200.00	92.34	359.87	11046.21	7341.21	1323.80	1323.80	-2.89	0.00	566609.27	786561.61	N 32 33 18.52	W 103 32 14.77
	12300.00	92.34	359.87	11042.13	7337.13	1423.72	1423.72	-3.11	0.00	566709.19	786561.39	N 32 33 19.51	W 103 32 14.76
	12400.00	92.34	359.87	11038.04	7333.04	1523.64	1523.64	-3.33	0.00	566809.10	786561.17	N 32 33 20.50	W 103 32 14.75
	12500.00	92.34	359.87	11033.96	7328.96	1623.55	1623.55	-3.54	0.00	566909.01	786560.96	N 32 33 21.49	W 103 32 14.75
	12600.00	92.34	359.87	11029.88	7324.88	1723.47	1723.47	-3.76	0.00	567008.93	786560.74	N 32 33 22.48	W 103 32 14.74
	12700.00	92.34	359.87	11025.80	7320.80	1823.39	1823.39	-3.98	0.00	567108.84	786560.52	N 32 33 23.47	W 103 32 14.74

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12800.00	92.34	359.87	11021.71	7316.71	1923.30	1923.30	-4.20	0.00	567208.76	786560.30	N 32 33 24.46	W 103 32 14.73
	12900.00	92.34	359.87	11017.63	7312.63	2023.22	2023.22	-4.42	0.00	567308.67	786560.08	N 32 33 25.45	W 103 32 14.72
	13000.00	92.34	359.87	11013.55	7308.55	2123.14	2123.14	-4.63	0.00	567408.58	786559.87	N 32 33 26.43	W 103 32 14.72
	13100.00	92.34	359.87	11009.46	7304.46	2223.05	2223.05	-4.85	0.00	567508.50	786559.65	N 32 33 27.42	W 103 32 14.71
	13200.00	92.34	359.87	11005.38	7300.38	2322.97	2322.97	-5.07	0.00	567608.41	786559.43	N 32 33 28.41	W 103 32 14.71
	13300.00	92.34	359.87	11001.30	7296.30	2422.88	2422.88	-5.29	0.00	567708.33	786559.21	N 32 33 29.40	W 103 32 14.70
	13400.00	92.34	359.87	10997.22	7292.22	2522.80	2522.80	-5.51	0.00	567808.24	786558.99	N 32 33 30.39	W 103 32 14.69
	13500.00	92.34	359.87	10993.13	7288.13	2622.72	2622.72	-5.72	0.00	567908.15	786558.78	N 32 33 31.38	W 103 32 14.69
	13600.00	92.34	359.87	10989.05	7284.05	2722.63	2722.63	-5.94	0.00	568008.07	786558.56	N 32 33 32.37	W 103 32 14.68
	13700.00	92.34	359.87	10984.97	7279.97	2822.55	2822.55	-6.16	0.00	568107.98	786558.34	N 32 33 33.35	W 103 32 14.67
	13800.00	92.34	359.87	10980.89	7275.89	2922.47	2922.47	-6.38	0.00	568207.90	786558.12	N 32 33 34.34	W 103 32 14.67
	13900.00	92.34	359.87	10976.80	7271.80	3022.38	3022.38	-6.60	0.00	568307.81	786557.90	N 32 33 35.33	W 103 32 14.66
	14000.00	92.34	359.87	10972.72	7267.72	3122.30	3122.30	-6.82	0.00	568407.72	786557.68	N 32 33 36.32	W 103 32 14.66
	14100.00	92.34	359.87	10968.64	7263.64	3222.22	3222.22	-7.03	0.00	568507.64	786557.47	N 32 33 37.31	W 103 32 14.65
	14200.00	92.34	359.87	10964.55	7259.55	3322.13	3322.13	-7.25	0.00	568607.55	786557.25	N 32 33 38.30	W 103 32 14.64
	14300.00	92.34	359.87	10960.47	7255.47	3422.05	3422.05	-7.47	0.00	568707.47	786557.03	N 32 33 39.29	W 103 32 14.64
	14400.00	92.34	359.87	10956.39	7251.39	3521.96	3521.96	-7.69	0.00	568807.38	786556.81	N 32 33 40.27	W 103 32 14.63
	14500.00	92.34	359.87	10952.31	7247.31	3621.88	3621.88	-7.91	0.00	568907.29	786556.59	N 32 33 41.26	W 103 32 14.63
	14600.00	92.34	359.87	10948.22	7243.22	3721.80	3721.80	-8.12	0.00	569007.21	786556.38	N 32 33 42.25	W 103 32 14.62
	14700.00	92.34	359.87	10944.14	7239.14	3821.71	3821.71	-8.34	0.00	569107.12	786556.16	N 32 33 43.24	W 103 32 14.61
	14800.00	92.34	359.87	10940.06	7235.06	3921.63	3921.63	-8.56	0.00	569207.04	786555.94	N 32 33 44.23	W 103 32 14.61
	14900.00	92.34	359.87	10935.97	7230.97	4021.55	4021.55	-8.78	0.00	569306.95	786555.72	N 32 33 45.22	W 103 32 14.60
	15000.00	92.34	359.87	10931.89	7226.89	4121.46	4121.46	-9.00	0.00	569406.86	786555.50	N 32 33 46.21	W 103 32 14.59
	15100.00	92.34	359.87	10927.81	7222.81	4221.38	4221.38	-9.21	0.00	569506.78	786555.29	N 32 33 47.19	W 103 32 14.59
	15200.00	92.34	359.87	10923.73	7218.73	4321.30	4321.30	-9.43	0.00	569606.69	786555.07	N 32 33 48.18	W 103 32 14.58
	15300.00	92.34	359.87	10919.64	7214.64	4421.21	4421.21	-9.65	0.00	569706.61	786554.85	N 32 33 49.17	W 103 32 14.58
	15400.00	92.34	359.87	10915.56	7210.56	4521.13	4521.13	-9.87	0.00	569806.52	786554.63	N 32 33 50.16	W 103 32 14.57
	15500.00	92.34	359.87	10911.48	7206.48	4621.04	4621.04	-10.09	0.00	569906.43	786554.41	N 32 33 51.15	W 103 32 14.56
	15600.00	92.34	359.87	10907.39	7202.39	4720.96	4720.96	-10.31	0.00	570006.35	786554.20	N 32 33 52.14	W 103 32 14.56
	15700.00	92.34	359.87	10903.31	7198.31	4820.88	4820.88	-10.52	0.00	570106.26	786553.98	N 32 33 53.13	W 103 32 14.55
Cimarex Laguna 23 Federal Com #2H - PBHL	15781.11	92.34	359.87	10900.00	7195.00	4901.92	4901.92	-10.70	0.00	570187.30	786553.80	N 32 33 53.93	W 103 32 14.55

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Pilot Hole / Cimarex Laguna 23 Federal Com #2H Pilot Hole Rev0
	25.000	10600.000	1/100.000	30.000	30.000	SLB_MWD-STD	Pilot Hole / Cimarex Laguna 23 Federal Com #2H Pilot Hole Rev0
	10600.000	15781.108	1/100.000	30.000	30.000	SLB_MWD-STD	ST01 / Cimarex Laguna 23 Federal Com #2H Rev0 TP 12-

JAN 07 2014

# CONDITIONS OF APPROVAL

RECEIVED

OPERATOR'S NAME:	Nearburg Producing Company
LEASE NO.:	NM-78273
WELL NAME & NO.:	Laguna 23 Fed Com #2H
SURFACE HOLE FOOTAGE:	175' FSL & 660' FWL
BOTTOM HOLE FOOTAGE:	330' FNL & 660' FWL
LOCATION:	Section 23, T. 20 S., R. 34 E., NMPM
COUNTY:	Lea County, New Mexico
API:	30-025-40697

**The original COAs still stand with the following drilling modifications:**

## I. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

## **B. CASING**

**Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

### **Secretary's Potash**

**Possible lost circulation in the Red Beds, Capitan Reef, Delaware and Bone Spring Groups.**

1. **The 13-3/8 inch surface casing shall be set at approximately 1665 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.**
  - a. **If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.**

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Special Capitan Reef requirements:**

**If any lost circulation occurs below the Base of the Salt, the operator shall do the following:**

- **Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.**
  - **Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.**
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

**Operator has proposed DV tool at depth of 3500'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.**

a. First stage to DV tool:

- Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash and Capitan Reef.**

**Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Cement as proposed by operator. Operator shall provide method of verification. **Additional cement may be required – excess calculates to 23%.**

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi.**
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
  - f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**JAM 010214**