

HOBBS OCD

UNORTHODOX
LOCATIONForm 3160-3
(March 2012)

FEB 28 2014

SECRETARY'S MOTASH

OCD

RECEIVED UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. <39365> Laguna 23 Federal Com #4H	
2. Name of Operator Nearburg Producing Company		9. API Well No. 30-015 025-41700	
3a. Address 3300 N. A Street, Bldg 2, Ste 120; Midland, Tx 79705	3b. Phone No. (include area code) 432-818-2940	10. Field and Pool, or Exploratory Lea Bone Spring South <37580>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 50' FSL & 810' FWL At proposed prod. Zone 330' FNL & 810' FWL Horizontal Bone Spring test		11. Sec., T. R. M. or Blk. and Survey or Area 23-20S-34E	
14. Distance in miles and direction from nearest town or post office* Approximately 25 miles southeast of Hobbs, NM		12. County or Parish Lea County	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 50'	16. No of acres in lease NMLC066126 = 800 acres NM078273 = 400 acres; NM124662 = 440 acres	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 180' from #2	19. Proposed Depth 14,365' MD 9,580' TVD	20. BLM/BIA Bond No. on File NMB000153	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3681' GR	22. Approximate date work will start* 01.15.14	23. Estimated duration 35-40 days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Tim Green	Date 09.05.13
Title Marketing and Production Services Manager		
Approved By (Signature) /s/George MacDonell	Name (Printed/Typed)	Date FEB 26 2014
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.S. 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.

(Continued on page 2)

*(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Capitan Controlled Water Basin

MAR 05 2014

Application to Drill
Laguna 23 Federal Com #4H
Nearburg Producing Company
UL: M; Sec 23-20S-34E
Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

- 1 Location: SHL 50' FSL & 810' FWL
BHL 330' FNL & 810' FWL
- 2 Elevation above sea level: 3681' GR
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: 14,365' MD 9,580' TVD
- 6 Estimated tops of geological markers:

Formation	Est. Top	Bearing
Rustler	1625	NA
Salt	1850	NA
Base Salt	3440	NA
Seven Rivers	4010	NA
Capitan	4040	NA
Delaware Sands	5530	Hydrocarbons
Basal Brushy Canyon	8082	Hydrocarbons
Bone Spring	8320	NA
Avalon Shale	9200	Hydrocarbons
1st BSS	9630	Hydrocarbons
2nd BSS	10070	Hydrocarbons
3rd BS Carbonate	10580	NA

*> missing
formations
0.0.1 - all*

- 7 Possible mineral bearing formation:
Shown above

7A OSE Ground Water estimated depth: 100'

- 8 Casing Program:

Casing Depth From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Open Hole Size (inches)	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	BHP (psig)	Anticipated Mud Weight (ppg)	Collapse SF (1.125)	Collapse SF 1/3 Evacuation (1.125)	Burst SF (1.125)	Cumulative Air Weight (lbs)	Cumulative Bouyed Weight (lbs)	Bouyant Tension SF (1.8)
Surface																
0'	1675'	1675'	17 1/2	13 3/8	54.5	J-55	ST&C	New	754	8.4	1.54		3.64	91,288	79,580	6.46
Intermediate																
0'	5450'	5450'	12 1/4	9 5/8	40	N-80	LT&C	New	2,453	10.2		1.82	2.34	218,000	184,052	4.00
Production																
0'	9190'	9190'	8 3/4	5 1/2	17	P-110	LT&C	New	2,203	9.2	1.70		4.83	162,860	139,985	3.18
9190'	14365'	9580'	8 3/4	5 1/2	17	P-110	BT&C	New	4,311	9.2	1.63		2.47	6,630	5,699	95.81

Casing Design Criteria and Casing Loading Assumptions:

Surface
Tension A 1.8 design factor with effects of buoyancy. 8.4 ppg
Collapse A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.4 ppg mud gradient
Burst A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

Intermediate
Tension A 1.8 design factor with effects of buoyancy. 10.2 ppg
Collapse A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.2 ppg mud gradient
Burst A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

Production
Tension A 1.8 design factor with effects of buoyancy. 9.2 ppg
Collapse A 1.125 design factor with full internal evacuation and a collapse force equal to a 9.2 ppg mud gradient
Burst A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

Drilling Plan
Laguna 23 Federal Com #4H
Nearburg Producing Company
UL: M; Sec 23-20S-34E
Lea County, NM

9 Cementing Program:

Surface
13 3/8" Lead
Tail

Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
1060	1.75	13.5	1862	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
220	1.34	14.8	291	Class C + LCM, 6.32 gps water
TOC: 0' 85% Excess Centralizers per Onshore Order 2.III.B.1f				

Intermediate
9 5/8" Lead
Tail

Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
1190	1.88	12.9	2232	35:65 (poz/C) + Salt + Bentonite + LCM + retarder , 9.65 gps water
310	1.34	14.8	411	Class C + retarder + LCM, 6.32 gps water
TOC: 0' 79% Excess				

Production
5 1/2" Lead
Tail

Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
436	2.4	11.9	1045	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
1468	1.24	14.5	1820	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder , 5.55 gps water

Cement volumes will be adjusted depending on hole size.

TOC: 5250' 25% Excess No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.

500' tie back
Secretarys Potash

10 Pressure Control Equipment:

Exhibit "E-1". A 13 3/8" 5000 PSI working pressure BOP, tested to 3000 psi on the surface casing and 5000 psi on the intermediate, consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be installed and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high on the surface casing and 250 psi low and 5000 psi high on the intermediate. Hydril will be tested to 250 psi low and 2500 psi high on the surface and intermediate casings.

Nearburg Producing Company requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Application to Drill
Laguna 23 Federal Com #4H
Nearburg Producing Company
UL: M; Sec 23-20S-34E
Lea County, NM

11 Proposed Mud Circulating System:

Depth		Mud Wt	Visc	Fluid Loss	Type Mud
0'	to 1675'	8.4	28	NC	FW Spud Mud
1675'	to 5450'	10.2	30-32	NC	Brine water
5450'	to 14365'	9.2	30-32	NC	FW/Cut Brine

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

12 Proposed Drilling Plan

Pilot Hole TD: No Pilot Hole

KOP: 9,190'

EOC: 9949'

Set Surface and Intermediate casing strings. Drill production hole to KOP. Continue drilling lateral through the curve to TD. Run prod casing & cement.

13 Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 5450' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / GR -- Inter. Csg to TD
CNL / GR -- Surf to Inter. Csg
- C. No DSTs or cores are planned at this time.
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

14 Potential Hazards:

See COA
No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Nearburg

Estimated BHP

4311 psi

Estimated BHT

160°

15 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take : **35-40 days**

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

16 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from TD over possible pay intervals.

Bone Spring pay will be perforated and stimulated.

The proposed well will be tested and potential as **Oil**

Nearburg (Cimarex) Laguna 23 Federal Com #4H Rev0 TP 22-Aug-13 Proposal Report (Def Plan)

Report Date: August 22, 2013 - 04:08 PM Client: Cimarex Energy Field: NM Lea County (NAD 83) Structure / Slot: Nearburg (Cimarex) Laguna 23 Federal Com #4H / Laguna 23 Federal Com #4H Well: Laguna 23 Federal Com #4H Borehole: Original Borehole UWI / API#: Unknown / Unknown Survey Name: Nearburg (Cimarex) Laguna 23 Federal Com #4H Rev0 TP 22-Aug-13 Survey Date: August 22, 2013 Tort / AHD / DDI / ERD Ratio: 91.136 ° / 4901.387 ft / 5.822 / 0.507 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 33' 5.42800", W 103° 32' 12.74616" Location Grid N/E Y/X: N 565287.000 HUS, E 786744.500 HUS CRS Grid Convergence Angle: 0.4286 ° Grid Scale Factor: 0.99997806	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 359.523 ° (Grid North) Vertical Section Origin: 0.000 ft, 0.000 ft TVD Reference Datum: Ground level TVD Reference Elevation: 3681.000 ft above MSL Seabed / Ground Elevation: 3681.000 ft above MSL Magnetic Declination: 7.433 ° Total Field Strength: 48564.274 nT Magnetic Dip Angle: 60.400 ° Declination Date: August 22, 2013 Magnetic Declination Model: BGGM 2012 North Reference: Grid North Grid Convergence Used: 0.4286 ° Total Corr Mag North->Grid North: 7.0046 ° Local Coord Referenced To: Structure Reference Point	
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Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
Tie-In	0.00	0.00	359.52	0.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	N/A
	100.00	0.00	359.52	100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	200.00	0.00	359.52	200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	300.00	0.00	359.52	300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	400.00	0.00	359.52	400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	500.00	0.00	359.52	500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	600.00	0.00	359.52	600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	700.00	0.00	359.52	700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	800.00	0.00	359.52	800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	900.00	0.00	359.52	900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1000.00	0.00	359.52	1000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1100.00	0.00	359.52	1100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1200.00	0.00	359.52	1200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1300.00	0.00	359.52	1300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1400.00	0.00	359.52	1400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1500.00	0.00	359.52	1500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1600.00	0.00	359.52	1600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1700.00	0.00	359.52	1700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1800.00	0.00	359.52	1800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	1900.00	0.00	359.52	1900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2000.00	0.00	359.52	2000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2100.00	0.00	359.52	2100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2200.00	0.00	359.52	2200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2300.00	0.00	359.52	2300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2400.00	0.00	359.52	2400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2500.00	0.00	359.52	2500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2600.00	0.00	359.52	2600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2700.00	0.00	359.52	2700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2800.00	0.00	359.52	2800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	2900.00	0.00	359.52	2900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3000.00	0.00	359.52	3000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3100.00	0.00	359.52	3100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3200.00	0.00	359.52	3200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3300.00	0.00	359.52	3300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3400.00	0.00	359.52	3400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3500.00	0.00	359.52	3500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3600.00	0.00	359.52	3600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3700.00	0.00	359.52	3700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3800.00	0.00	359.52	3800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	3900.00	0.00	359.52	3900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4000.00	0.00	359.52	4000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4100.00	0.00	359.52	4100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4200.00	0.00	359.52	4200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4300.00	0.00	359.52	4300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4400.00	0.00	359.52	4400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4500.00	0.00	359.52	4500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4600.00	0.00	359.52	4600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4700.00	0.00	359.52	4700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4800.00	0.00	359.52	4800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	4900.00	0.00	359.52	4900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5000.00	0.00	359.52	5000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5100.00	0.00	359.52	5100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5200.00	0.00	359.52	5200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5300.00	0.00	359.52	5300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5400.00	0.00	359.52	5400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
9 5/8 Casina Point	5450.00	0.00	359.52	5450.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5500.00	0.00	359.52	5500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5600.00	0.00	359.52	5600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5700.00	0.00	359.52	5700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5800.00	0.00	359.52	5800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	5900.00	0.00	359.52	5900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	6000.00	0.00	359.52	6000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	6100.00	0.00	359.52	6100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	6200.00	0.00	359.52	6200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	6300.00	0.00	359.52	6300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	6400.													

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
	7700.00	0.00	359.52	7700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	7800.00	0.00	359.52	7800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	7900.00	0.00	359.52	7900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8000.00	0.00	359.52	8000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8100.00	0.00	359.52	8100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8200.00	0.00	359.52	8200.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8300.00	0.00	359.52	8300.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8400.00	0.00	359.52	8400.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8500.00	0.00	359.52	8500.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8600.00	0.00	359.52	8600.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8700.00	0.00	359.52	8700.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8800.00	0.00	359.52	8800.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	8900.00	0.00	359.52	8900.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	9000.00	0.00	359.52	9000.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	9100.00	0.00	359.52	9100.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
KOP, Build 12" DLS	9190.00	0.00	359.52	9190.00	0.00	0.00	0.00	565287.00	786744.50	N 32 33 5.43	W 103 32 12.75	0.00	0.00	0.00
	9200.00	1.20	359.52	9200.00	0.10	0.10	0.00	565287.10	786744.50	N 32 33 5.43	W 103 32 12.75	0.10	359.52	12.00
	9300.00	13.20	359.52	9299.03	12.62	12.61	-0.10	565299.61	786744.40	N 32 33 5.55	W 103 32 12.75	12.62	359.52	12.00
	9400.00	25.20	359.52	9393.29	45.44	45.44	-0.38	565332.44	786744.12	N 32 33 5.88	W 103 32 12.75	45.44	359.52	12.00
	9500.00	37.20	359.52	9478.67	97.15	97.15	-0.81	565384.14	786743.69	N 32 33 6.39	W 103 32 12.75	97.15	359.52	12.00
	9600.00	49.20	359.52	9551.44	165.48	165.47	-1.37	565452.47	786743.13	N 32 33 7.07	W 103 32 12.75	165.48	359.52	12.00
	9700.00	61.20	359.52	9608.41	247.44	247.44	-2.05	565534.43	786742.44	N 32 33 7.88	W 103 32 12.75	247.44	359.52	12.00
1st BSS	9749.59	67.15	359.52	9630.00	292.07	292.06	-2.43	565579.05	786742.07	N 32 33 8.32	W 103 32 12.75	292.07	359.52	12.00
	9800.00	73.20	359.52	9547.09	339.46	339.45	-2.82	565628.44	786741.68	N 32 33 8.79	W 103 32 12.75	339.46	359.52	12.00
LP	9900.00	85.20	359.52	9695.79	437.51	437.50	-3.63	565724.49	786740.87	N 32 33 9.76	W 103 32 12.75	437.51	359.52	12.00
	9949.45	91.13	359.52	9687.37	486.91	486.90	-4.05	565773.89	786740.45	N 32 33 10.25	W 103 32 12.75	486.91	359.52	12.00
	10000.00	91.13	359.52	9686.37	537.45	537.44	-4.47	565824.42	786740.04	N 32 33 10.75	W 103 32 12.75	537.45	359.52	0.00
	10100.00	91.13	359.52	9664.39	637.43	637.41	-5.30	565924.40	786739.20	N 32 33 11.74	W 103 32 12.75	637.43	359.52	0.00
	10200.00	91.13	359.52	9662.41	737.42	737.39	-6.13	566024.37	786738.37	N 32 33 12.72	W 103 32 12.75	737.42	359.52	0.00
	10300.00	91.13	359.52	9660.43	837.40	837.37	-6.96	566124.35	786737.54	N 32 33 13.71	W 103 32 12.75	837.40	359.52	0.00
	10400.00	91.13	359.52	9658.45	937.38	937.34	-7.79	566224.32	786736.71	N 32 33 14.70	W 103 32 12.76	937.38	359.52	0.00
	10500.00	91.13	359.52	9656.48	1037.36	1037.32	-8.62	566324.30	786735.88	N 32 33 15.69	W 103 32 12.76	1037.36	359.52	0.00
	10600.00	91.13	359.52	9654.50	1137.34	1137.30	-9.45	566424.27	786735.05	N 32 33 16.68	W 103 32 12.76	1137.34	359.52	0.00
	10700.00	91.13	359.52	9652.52	1237.32	1237.27	-10.28	566524.24	786734.22	N 32 33 17.67	W 103 32 12.76	1237.32	359.52	0.00
	10800.00	91.13	359.52	9650.54	1337.30	1337.25	-11.11	566624.22	786733.39	N 32 33 18.66	W 103 32 12.76	1337.30	359.52	0.00
	10900.00	91.13	359.52	9648.56	1437.28	1437.23	-11.94	566724.19	786732.56	N 32 33 19.65	W 103 32 12.76	1437.28	359.52	0.00
	11000.00	91.13	359.52	9646.58	1537.26	1537.21	-12.78	566824.17	786731.72	N 32 33 20.64	W 103 32 12.76	1537.26	359.52	0.00
	11100.00	91.13	359.52	9644.60	1637.24	1637.18	-13.61	566924.14	786730.89	N 32 33 21.63	W 103 32 12.76	1637.24	359.52	0.00
	11200.00	91.13	359.52	9642.62	1737.22	1737.16	-14.44	567024.12	786730.06	N 32 33 22.62	W 103 32 12.76	1737.22	359.52	0.00
	11300.00	91.13	359.52	9640.64	1837.20	1837.14	-15.27	567124.09	786729.23	N 32 33 23.61	W 103 32 12.76	1837.20	359.52	0.00
	11400.00	91.13	359.52	9638.67	1937.18	1937.11	-16.10	567224.07	786728.40	N 32 33 24.60	W 103 32 12.76	1937.18	359.52	0.00
	11500.00	91.13	359.52	9636.69	2037.16	2037.09	-16.93	567324.04	786727.57	N 32 33 25.58	W 103 32 12.77	2037.16	359.52	0.00
	11600.00	91.13	359.52	9634.71	2137.14	2137.07	-17.77	567424.02	786726.73	N 32 33 26.57	W 103 32 12.77	2137.14	359.52	0.00
1st BSS	11700.00	91.13	359.52	9632.73	2237.12	2237.04	-18.60	567523.99	786725.90	N 32 33 27.56	W 103 32 12.77	2237.12	359.52	0.00
	11800.00	91.13	359.52	9630.75	2337.10	2337.02	-19.43	567623.97	786725.07	N 32 33 28.55	W 103 32 12.77	2337.10	359.52	0.00
	11837.88	91.13	359.52	9630.00	2374.97	2374.89	-19.75	567661.83	786724.75	N 32 33 28.93	W 103 32 12.77	2374.97	359.52	0.00
	11900.00	91.13	359.52	9628.77	2437.08	2437.00	-20.26	567723.94	786724.24	N 32 33 29.54	W 103 32 12.77	2437.08	359.52	0.00
	12000.00	91.13	359.52	9626.79	2537.06	2536.97	-21.09	567823.91	786723.41	N 32 33 30.53	W 103 32 12.77	2537.06	359.52	0.00
	12100.00	91.13	359.52	9624.81	2637.04	2636.95	-21.93	567923.89	786722.57	N 32 33 31.52	W 103 32 12.77	2637.04	359.52	0.00
	12200.00	91.13	359.52	9622.83	2737.02	2736.93	-22.76	568023.86	786721.74	N 32 33 32.51	W 103 32 12.77	2737.02	359.52	0.00
	12300.00	91.13	359.52	9620.86	2837.00	2836.91	-23.59	568123.84	786720.91	N 32 33 33.50	W 103 32 12.77	2837.00	359.52	0.00
	12400.00	91.13	359.52	9618.88	2936.98	2936.88	-24.42	568223.81	786720.08	N 32 33 34.49	W 103 32 12.77	2936.98	359.52	0.00
	12500.00	91.13	359.52	9616.90	3036.96	3036.86	-25.26	568323.79	786719.24	N 32 33 35.48	W 103 32 12.78	3036.96	359.52	0.00
	12600.00	91.13	359.52	9614.92	3136.95	3136.84	-26.09	568423.76	786718.41	N 32 33 36.47	W 103 32 12.78	3136.95	359.52	0.00
	12700.00	91.13	359.52	9612.94	3236.93	3236.81	-26.92	568523.74	786717.58	N 32 33 37.46	W 103 32 12.78	3236.93	359.52	0.00
	12800.00	91.13	359.52	9610.96	3336.91	3336.79	-27.76	568623.71	786716.74	N 32 33 38.45	W 103 32 12.78	3336.91	359.52	0.00
	12900.00	91.13	359.52	9608.98	3436.89	3436.77	-28.59	568723.68	786715.91	N 32 33 39.43	W 103 32 12.78	3436.89	359.52	0.00
	13000.00	91.13	359.52	9607.00	3536.87	3536.74	-29.42	568823.66	786715.08	N 32 33 40.42	W 103 32 12.78	3536.87	359.52	0.00
	13100.00	91.13	359.52	9605.03	3636.85	3636.72	-30.26	568923.63	786714.25	N 32 33 41.41	W 103 32 12.78	3636.85	359.52	0.00
	13200.00	91.13	359.52	9603.05	3736.83	3736.70	-31.09	569023.61	786713.41	N 32 33 42.40	W 103 32 12.78	3736.83	359.52	0.00
	13300.00	91.13	359.52	9601.07	3836.81	3836.68	-31.92	569123.58	786712.58	N 32 33 43.39	W 103 32 12.78	3836.81	359.52	0.00
	13400.00	91.13	359.52	9599.09	3936.79	3936.65	-32.76	569223.56	786711.75	N 32 33 44.38	W 103 32 12.78	3936.79	359.52	0.00
	13500.00	91.13	359.52	9597.11	4036.77	4036.63	-33.59	569323.53	786710.91	N 32 33 45.37	W 103 32 12.79	4036.77	359.52	0.00
	13600.00	91.13	359.52	9595.13	4136.75	4136.61	-34.42	569423.51	786710.08	N 32 33 46.36	W 103 32 12.79	4136.75	359.52	0.00
	13700.00	91.13	359.52	9593.15	4236.73	4236.58	-35.26	569523.48	786709.24	N 32 33 47.35	W 103 32 12.79	4236.73	359.52	0.00
	13800.00	91.13	359.52	9591.17	4336.71	4336.56	-36.09	569623.46	786708.41	N 32 33 48.34	W 103 32 12.79	4336.71	359.52	0.00
	13900.00	91.13	359.52	9589.20	4436.69	4436.54	-36.92	569723.43	786707.58	N 32 33 49.33	W 103 32 12.79	4436.69	359.52	0.00
	14000.00	91.13												



Cimarex Energy

PATHFINDER
A Schlumberger Company

WELL			FIELD			STRUCTURE		
Laguna 23 Federal Com #4H			NM Lea County (NAD 83)			Nearburg (Cimarex) Laguna 23		
Magnetic Parameters			Surface Location			Miscellaneous		
Model: BGGM 2012			NAD83 New Mexico State Plane, Eastern Zone, US Feet			Stat: Laguna 23 Federal Com #4H TVD Ref: Ground level (3681ft above MSL)		
Dip: 60.400°			Lat: N 32 33 5.428			Northing: 565281.00 NUS		
Date: August 22, 2013			Easting: 780744.50 NUS			Scale Fact: 0.99997806		
Mag Dec: 7.433°			Lon: W 103 32 12.746			Plan: Nearburg (Cimarex) Laguna 23 Federal Com #4H Rev0 TP 22-Aug-13		
FS: 48564.3m								



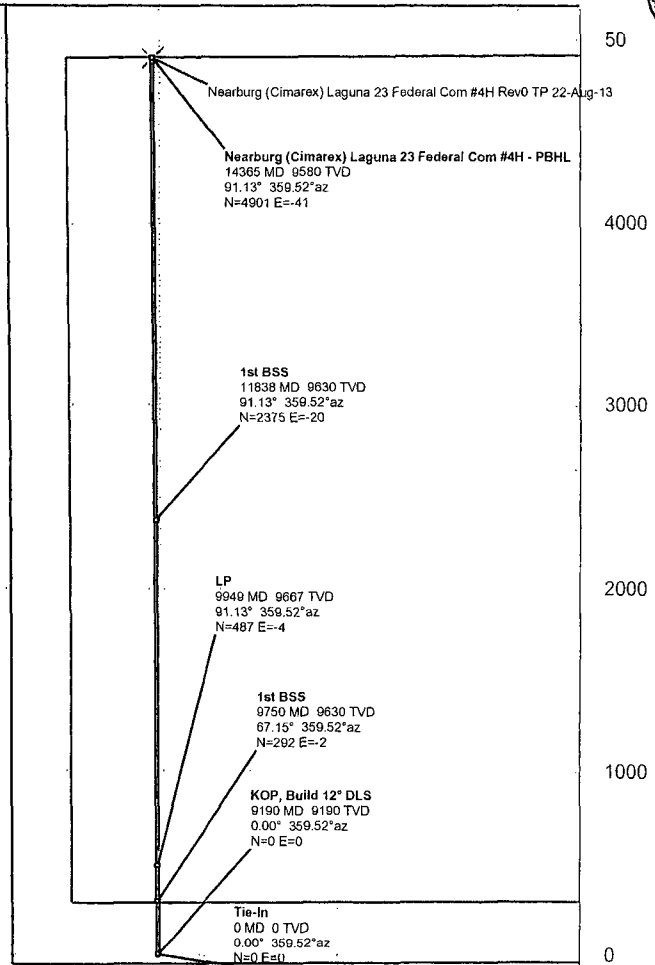
Grid North
Tot Corr (M->G 7.0046°)
Mag Dec (7.433°)
Grid Conv (0.429°)

Scale = 1:1000(ft)
-1000 0 1000 2000

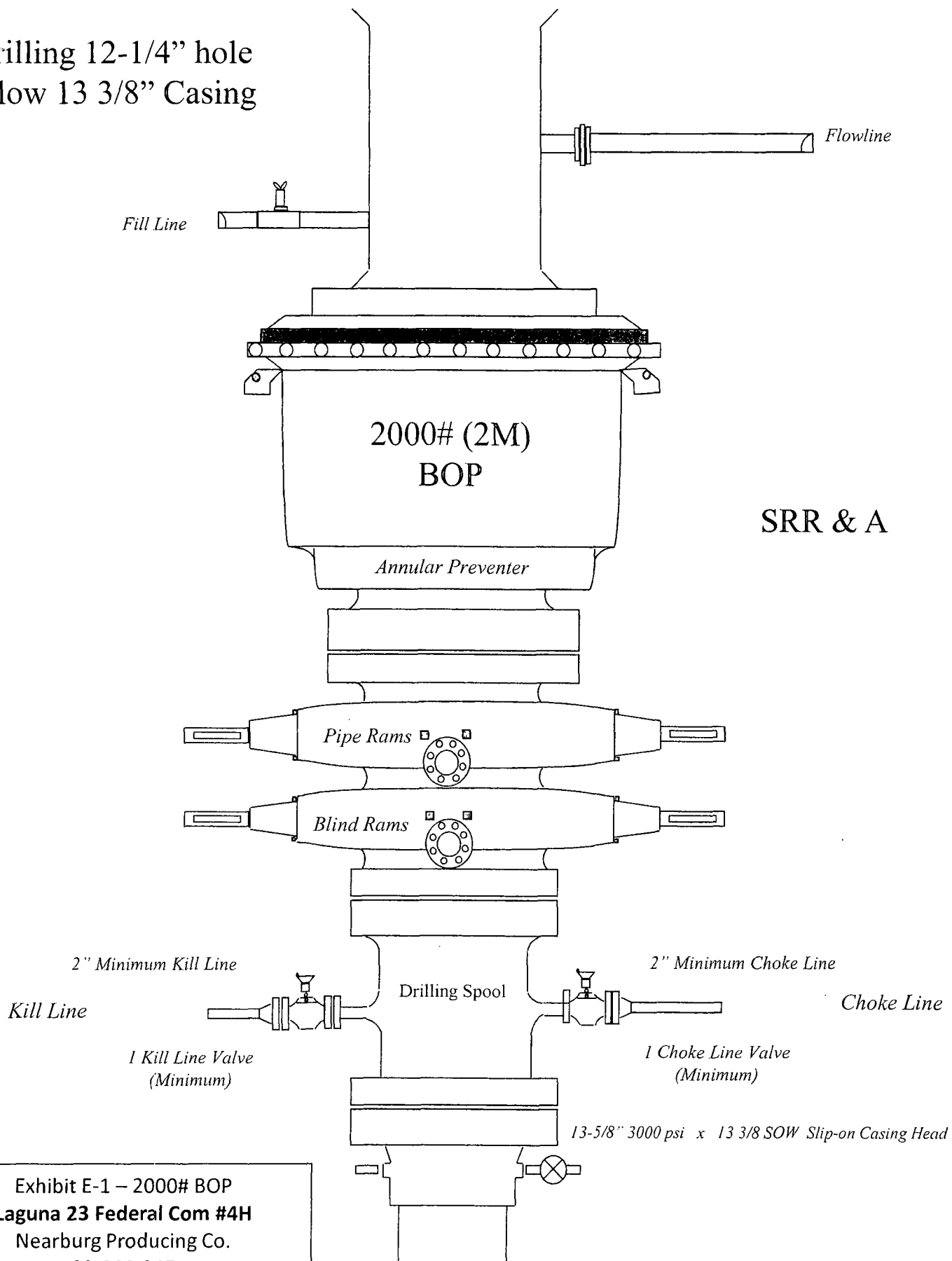


Scale = 1:1000(ft)
N
S

7000
Nearburg (Cimarex) Laguna 23 Federal Com #4H



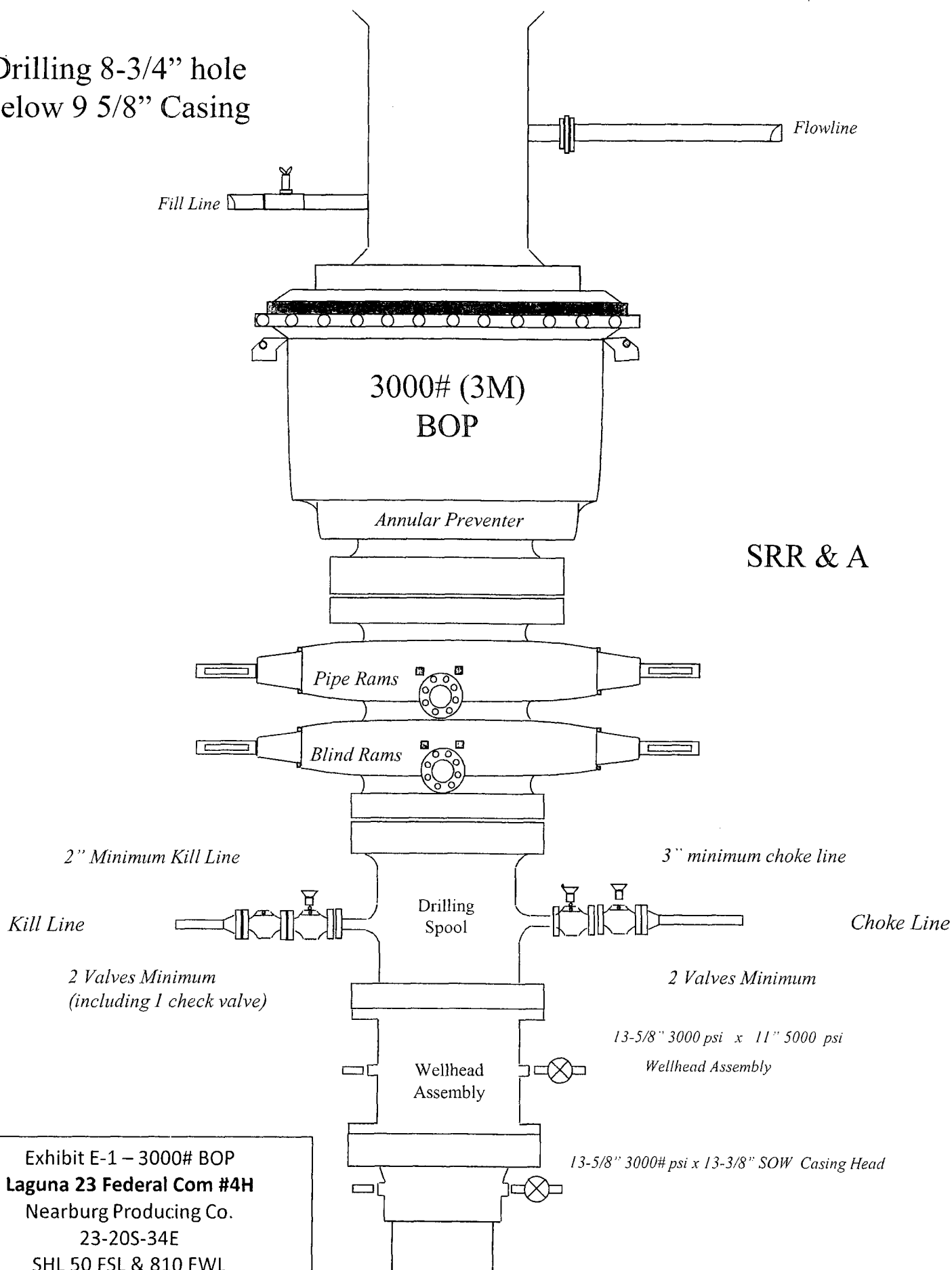
Drilling 12-1/4" hole
below 13 3/8" Casing



SRR & A

Exhibit E-1 – 2000# BOP
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM

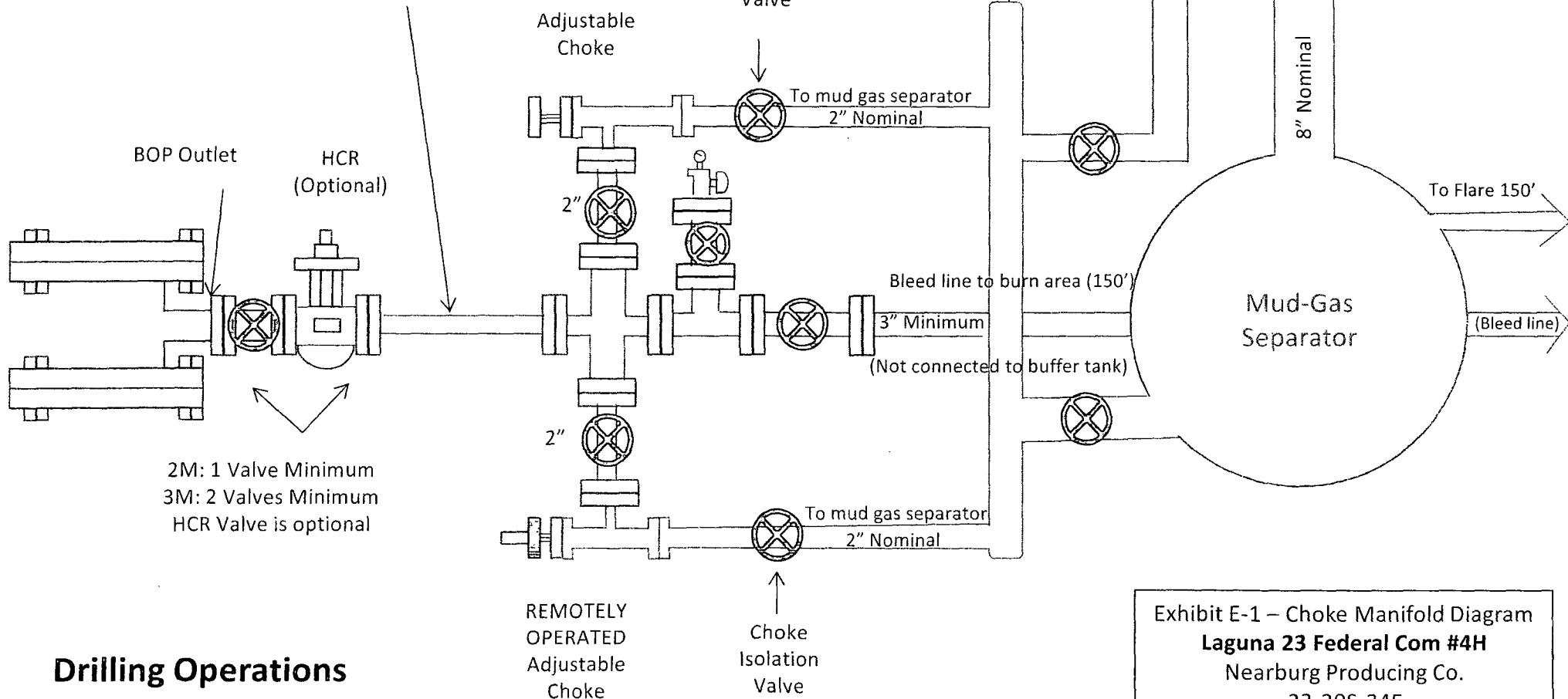
Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

Exhibit E-1 – 3000# BOP
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM

Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be
 used if approved in APD



2M: 1 Valve Minimum
 3M: 2 Valves Minimum
 HCR Valve is optional

Drilling Operations Choke Manifold 2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Laguna 23 Federal Com #4H
 Nearburg Producing Co.
 23-20S-34E
 SHL 50 FSL & 810 FWL
 BHL 330 FNL & 810 FWL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Laguna 23 Federal Com #4H

Nearburg Producing Co.

23-20S-34E

SHL 50 FSL & 810 FWL

BHL 330 FNL & 810 FWL

Lea County, NM



Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:

Oderco Inc

P.O. Number:

odyd-271

HOSE SPECIFICATIONS

Type: Stainless Steel Armor
Choke & Kill Hose

Hose Length: 45'ft.

I.D. 4 INCHES

O.D. 9 INCHES

WORKING PRESSURE

TEST PRESSURE

BURST PRESSURE

10,000 PSI

15,000 PSI

0 PSI

COUPLINGS

Stem Part No.

OKC

OKC

Ferrule No.

OKC

OKC

Type of Coupling:

Swage-It

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE

ACTUAL BURST PRESSURE:

15 MIN.

0 PSI

Hose Assembly Serial Number:

79793

Hose Serial Number:

OKC

Comments:

Date:

3/8/2011

Tested:

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

Approved:



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

Hose Specifications

Hose Type

C & K

I.D.

4"

Working Pressure

10000 PSI

Length

45'

O.D.

6.09"

Burst Pressure

Standard Safety/Multiplier Applies

Verification

Type of Fittings

41/1610K

Die Size

6.38"

Hose Serial #

5544

Cauling Method

Swage

Final O.D.

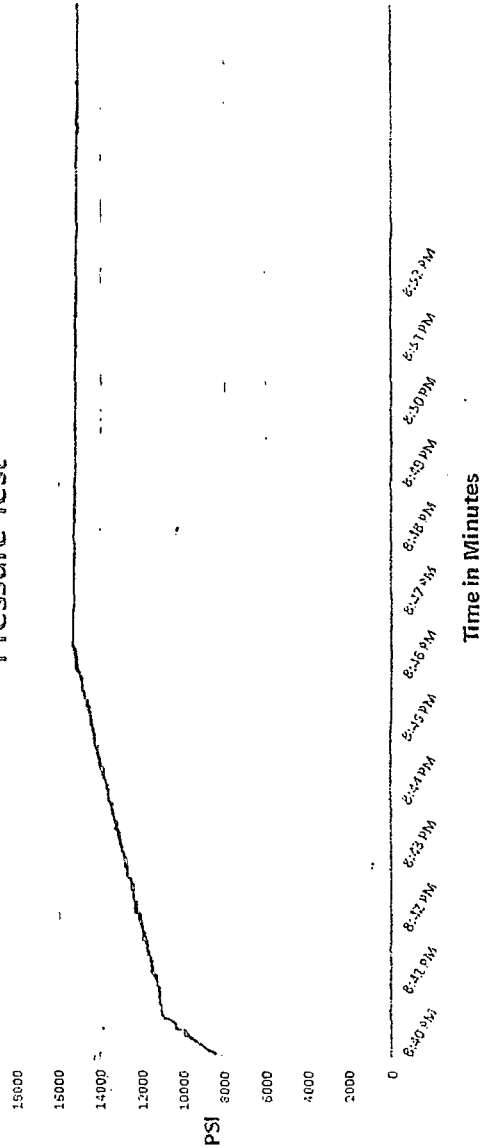
6.25"

Hose Assembly Serial #

79793

Exhibit F-1 - Co-Flex Hose Hydrostatic Test
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM

Pressure Test



Test Pressure 15000 PSI
Time Held at Test Pressure 11 Minutes
Actual Burst Pressure
Peak Pressure 15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: Kim Thomas

Zac McConnell

Kim Thomas

March 3, 2011



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

| | |
|-------------------------------|--|
| Working Pressure: | 5,000 or 10,000 psi working pressure |
| Test Pressure: | 10,000 or 15,000 psi test pressure |
| Reinforcement: | Multiple steel cables |
| Cover: | Stainless Steel Armor |
| Inner Tube: | Petroleum resistant, Abrasion resistant |
| End Fitting: | API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections |
| Maximum Length: | 110 Feet |
| ID: | 2-1/2", 3", 3-1/2", 4" |
| Operating Temperature: | -22 deg F to +180 deg F (-30 deg C to +82 deg C) |

Exhibit F-2 -- Co-Flex Hose
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM

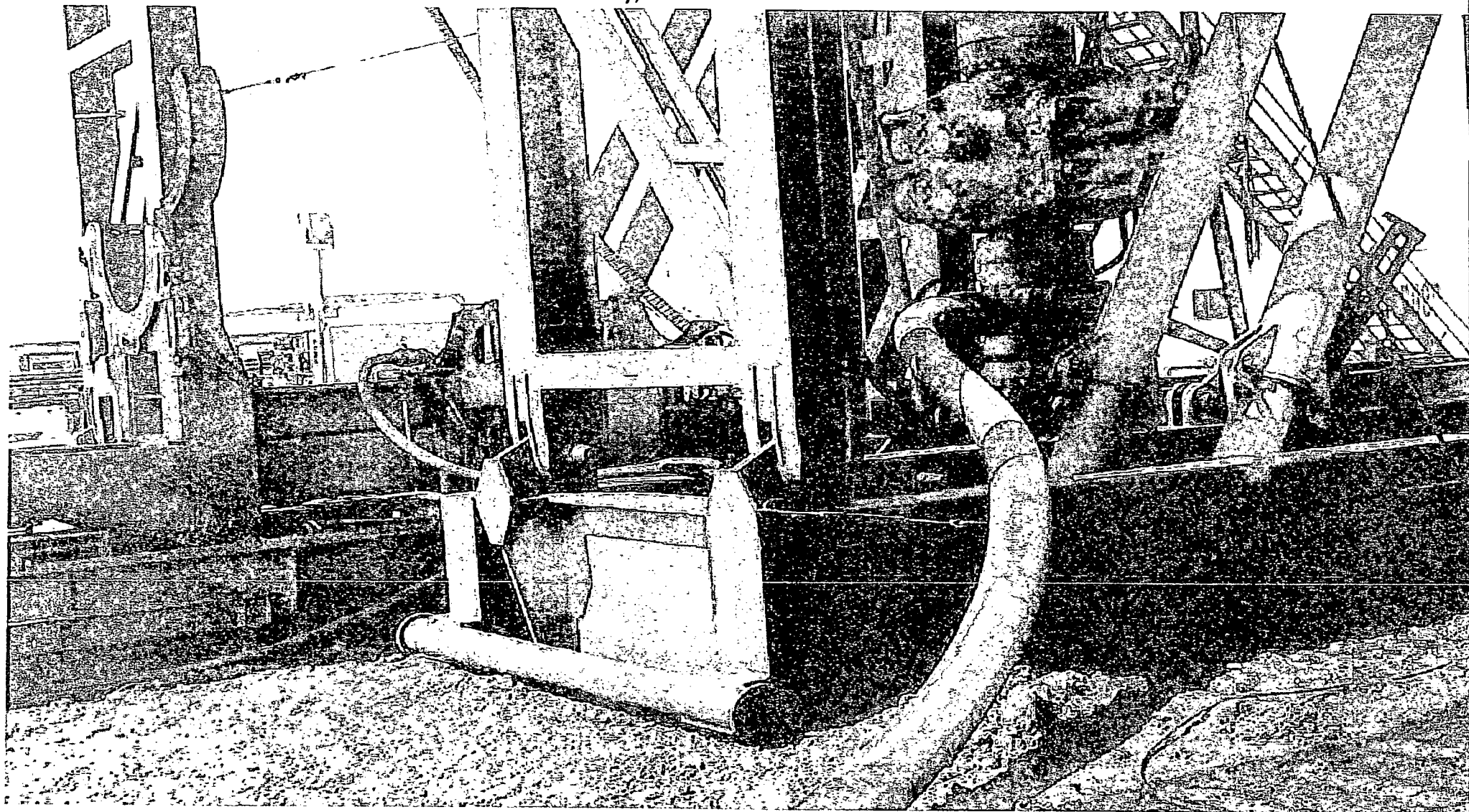


Midwest Hose & Specialty, Inc.

Certificate of Conformity

| | | |
|---|---------------|--------------|
| Customer: | | PO |
| DEM | | ODYD-271 |
| SPECIFICATIONS | | |
| Sales Order | Dated: | |
| 79793 | 3/8/2011 | |
| <p>We hereby cerify that the material supplied
for the referenced purchase order to be true
according to the requirements of the purchase
order and current industry standards</p> <p>Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041</p> | | |
| Comments: | | |
| Approved: | | Date: |
| <i>James Garcia</i> | | 3/8/2011 |

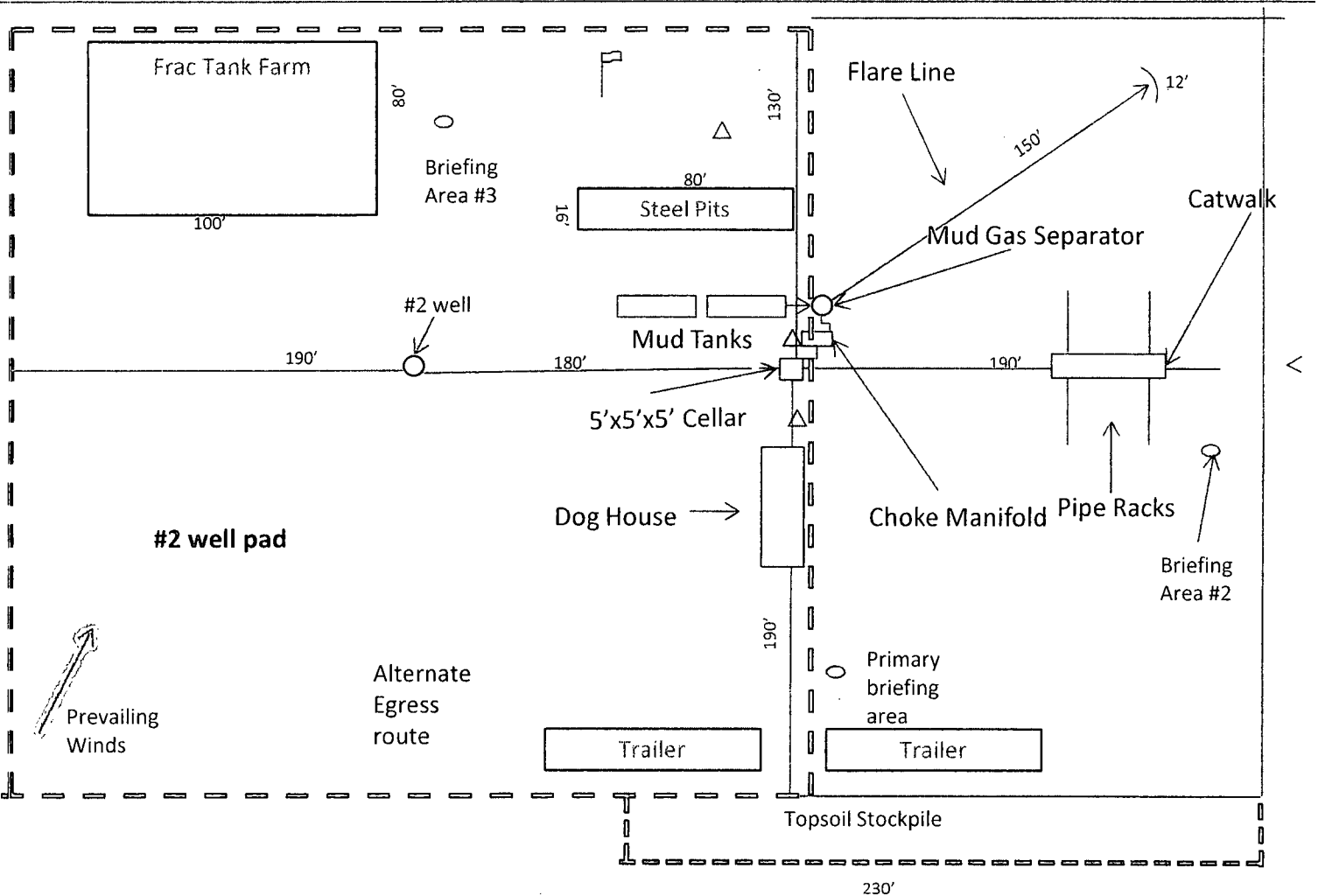
Exhibit F — Co-Flex Hose
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM



Condition
Warning
Sign
(Driver Side)



Access Road



#2 well pad



Wind Direction Indicators
(wind sock or streamers)



• H2S Monitors
(alarms at bell nipple and shale
shaker)



Briefing Areas

N



Exhibit D – Rig Diagram
Laguna 23 Federal Com #4H
Nearburg Producing Co.
23-20S-34E
SHL 50 FSL & 810 FWL
BHL 330 FNL & 810 FWL
Lea County, NM