

EC

Form 3160-3
(August 2007)

OCD Artesia

ATS-11-1013

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work: ☒ DRILL ☐ REENTER		CONFIDENTIAL	
1b Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		7 If Unit or CA Agreement, Name and No. NMNM071016X	
2 Name of Operator CHESAPEAKE OPERATING, INC. E-Mail linda.good@chk.com		8 Lease Name and Well No. PLU BIG SINKS 15 25 30 USA 1H [38539]	
3a Address P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496		9 API Well No. 30-015-39693	
3b Phone No. (include area code) Ph: 405-935-4275		10 Field and Pool or Exploratory Wildcat Big Sink; B.S.	
4 Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENW 10FNL 1980FWL At proposed prod zone NENW 350FNL 1980FWL		11 Sec., T., R., M., or Blk. and Survey or Area Sec 22 T25S R30E Mer NMP	
14 Distance in miles and direction from nearest town or post office* APPROXIMATELY 32 MILES SE OF LOVING, NEW MEXICO.		12. County or Parish EDDY	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drng. unit line, if any) APPROXIMATELY 2640' FROM EAST LINE OF SECTION 06		13. State NM	
16 No. of Acres in Lease SL 1920 acres BL 1920 acres		17. Spacing Unit dedicated to this well 160.00	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 2640' FROM EAST LINE OF SECTION 06		20 BLM/BIA Bond No. on file ESB000159	
19 Proposed Depth 13248' MD 8426 TVD 8465 TVD		21. Elevations (Show whether DF, KB, RT, GL, etc.) 3339 GL	
22 Approximate date work will start 04/01/2012		23 Estimated duration 45 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

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

25 Signature (Electronic Submission)	Name (Printed/Typed) LINDA GOOD Ph: 405-935-4275	Date 09/22/2011
Title SR. REGULATORY COMPLIANCE SPEC		
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date NOV 21 2011
Title JMI FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify 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.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

Additional Operator Remarks (see next page)

Electronic Submission #118176 verified by the BLM Well Information System
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

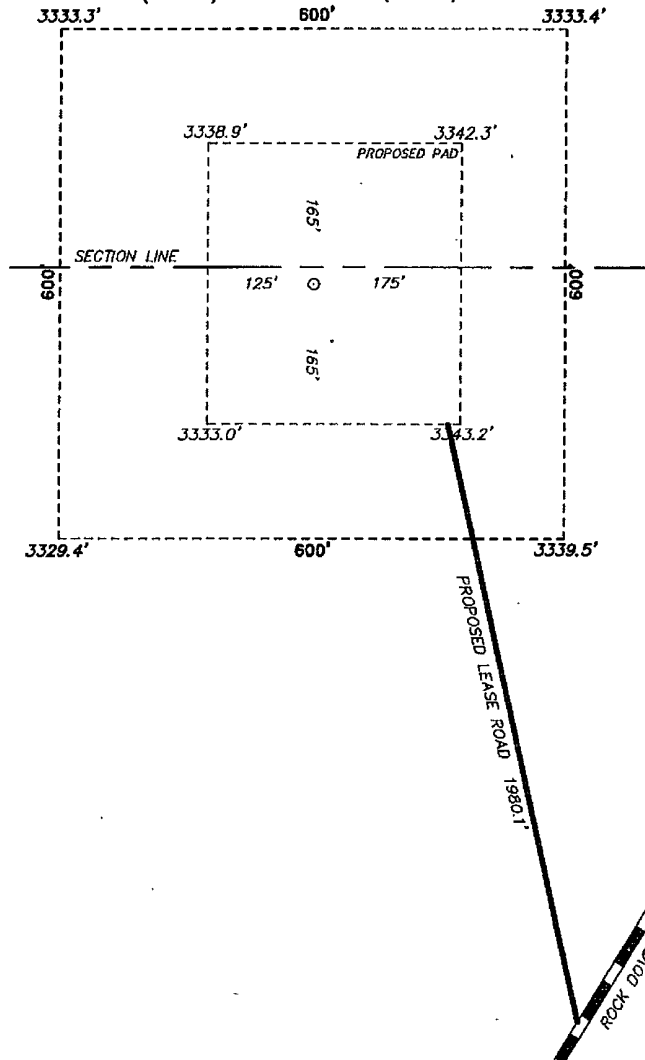
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Received 10-18-11

**SECTION 22, TOWNSHIP 25 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.**

**CHESAPEAKE OPERATING CO.
PLU BIG SINKS 15 25 30 USA #1H
ELEV. - 3339'**

Lat - N 32.12306940° Lat - N 32.12294525°
Long - W 103.8711942° Long - W 103.87071260°
NMSPC- N 408815.491 NMSPC- N 408757.366
 E 684404.128 E 643218.961
(NAD-83) (NAD-27)



Directions to Location:

FROM THE JUNCTION OF BUCK JACKSON AND BUCK THORN, GO NORTH 3.1 MILES TO ROCK DOVE, ON ROCK DOVE GO WESTERLY 1.8 MILES TO PROPOSED LEASE ROAD.

200 0 200 400 FEET
SCALE: 1" = 200'

CHESAPEAKE OPERATING CO.

REF: PLU BIG SINKS 15 25 30 USA #1H / WELL PAD TOPO

THE PLU BIG SINKS 15 25 30 USA #1H LOCATED 100'
FROM THE NORTH LINE AND 1980' FROM THE WEST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 24821

Drawn By: J. SMALL

Date: 08-26-2011

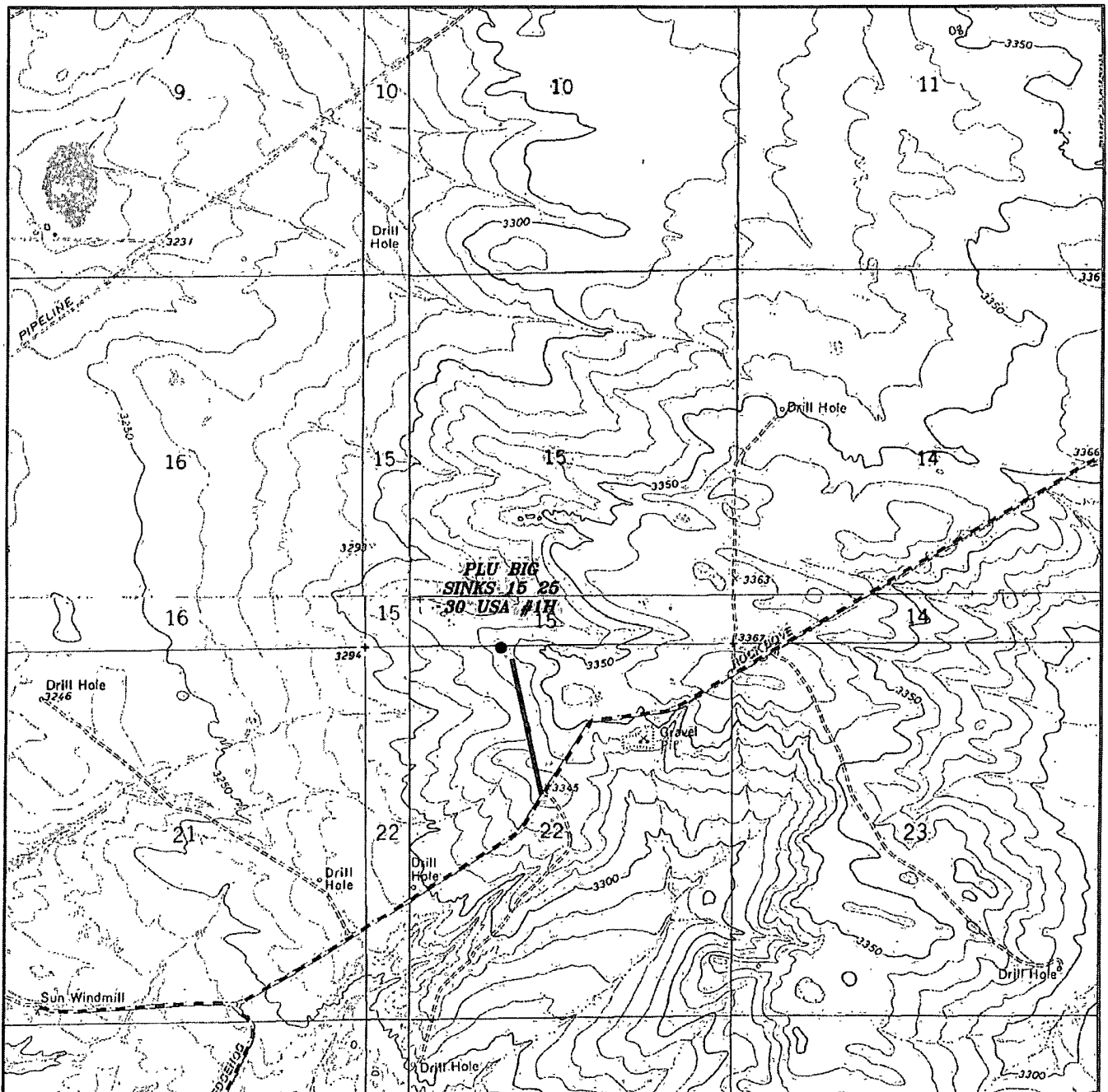
Disk: JMS 24821

Survey Date: 08-15-2011

Sheet 1 of 1 Sheets

Revised EXHIBIT A-2

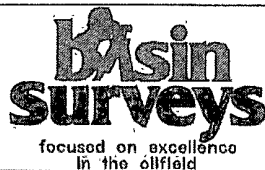
Received 10-18-11



PLU BIG SINKS 15 25 30 USA #1H

Located 10' FNL and 1980' FWL

Section 22, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 24821

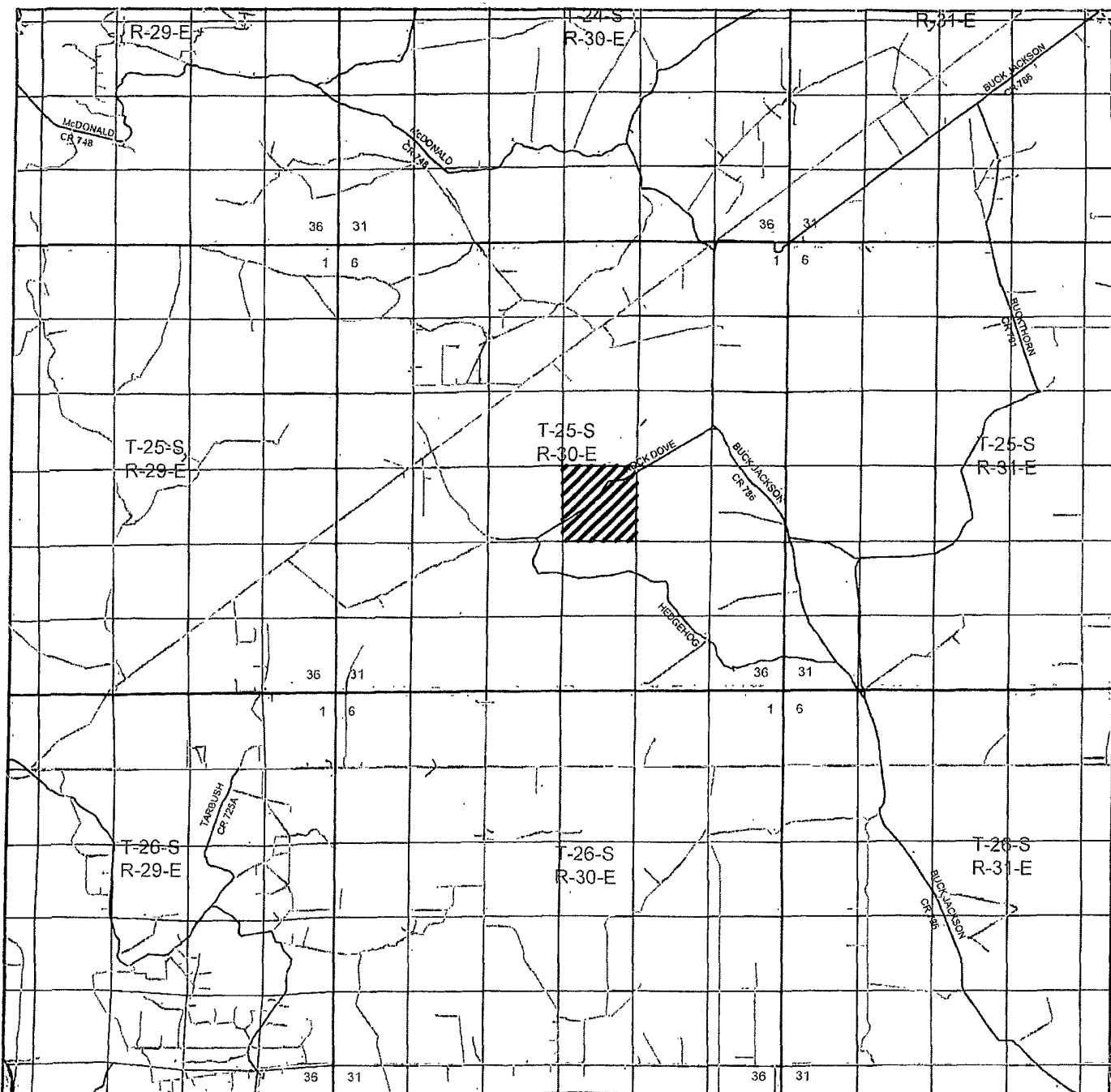
Survey Date: 08-15-2011

Scale: 1" = 2000'

Date: 08-26-2011

**CHESAPEAKE
OPERATING CO.**

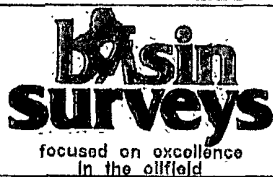
Revised EXHIBIT A-3



PLU BIG SINKS 15 25 30 USA #1H

Located 10' FNL and 1980' FWL

Section 22, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 24821

Survey Date: 08-15-2011

Scale: 1" = 2 Miles

Date: 08-26-2011

**CHESAPEAKE
OPERATING CO.**

EXHIBIT A-4

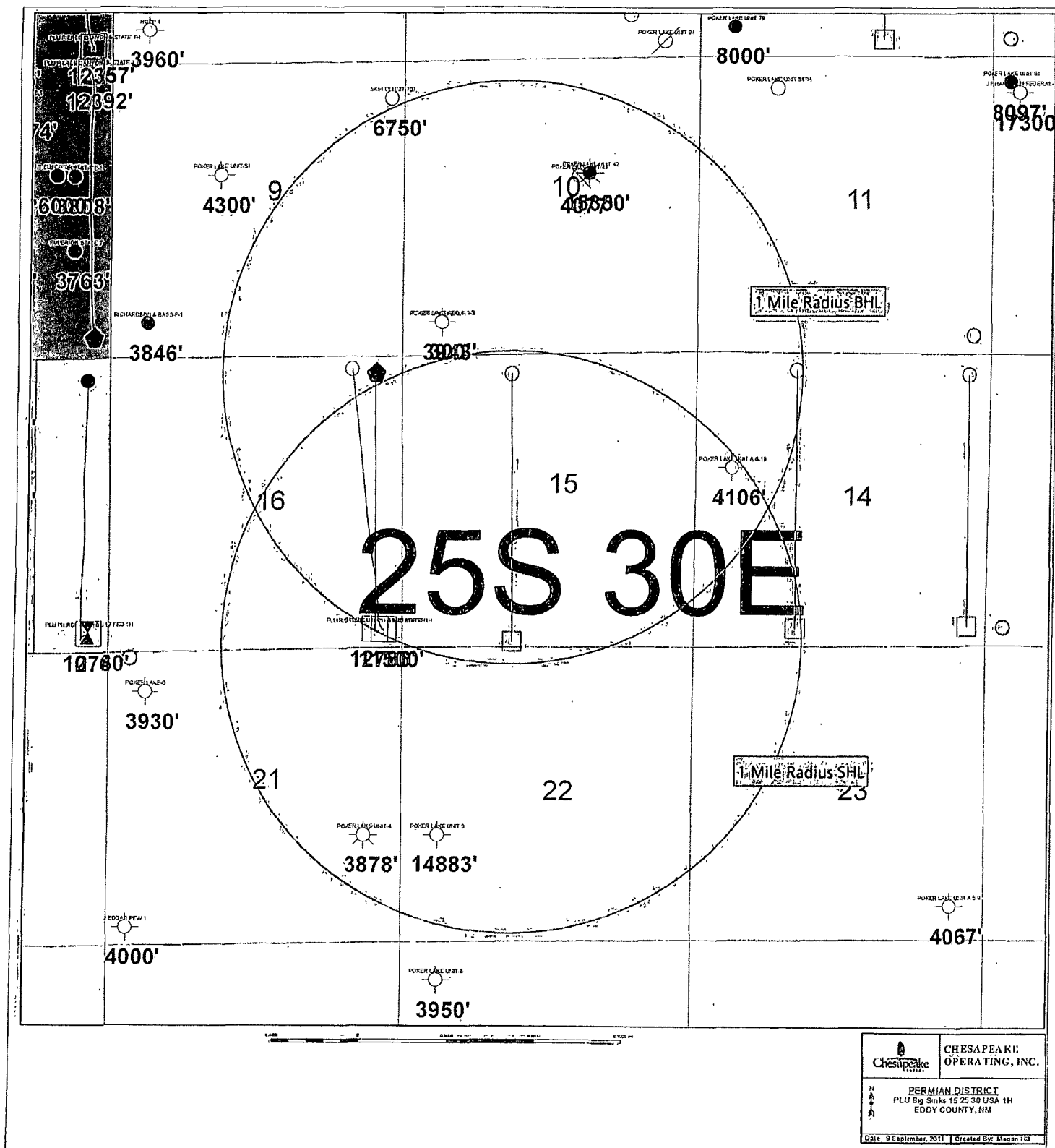


EXHIBIT B



Visual Asset Locator

Help

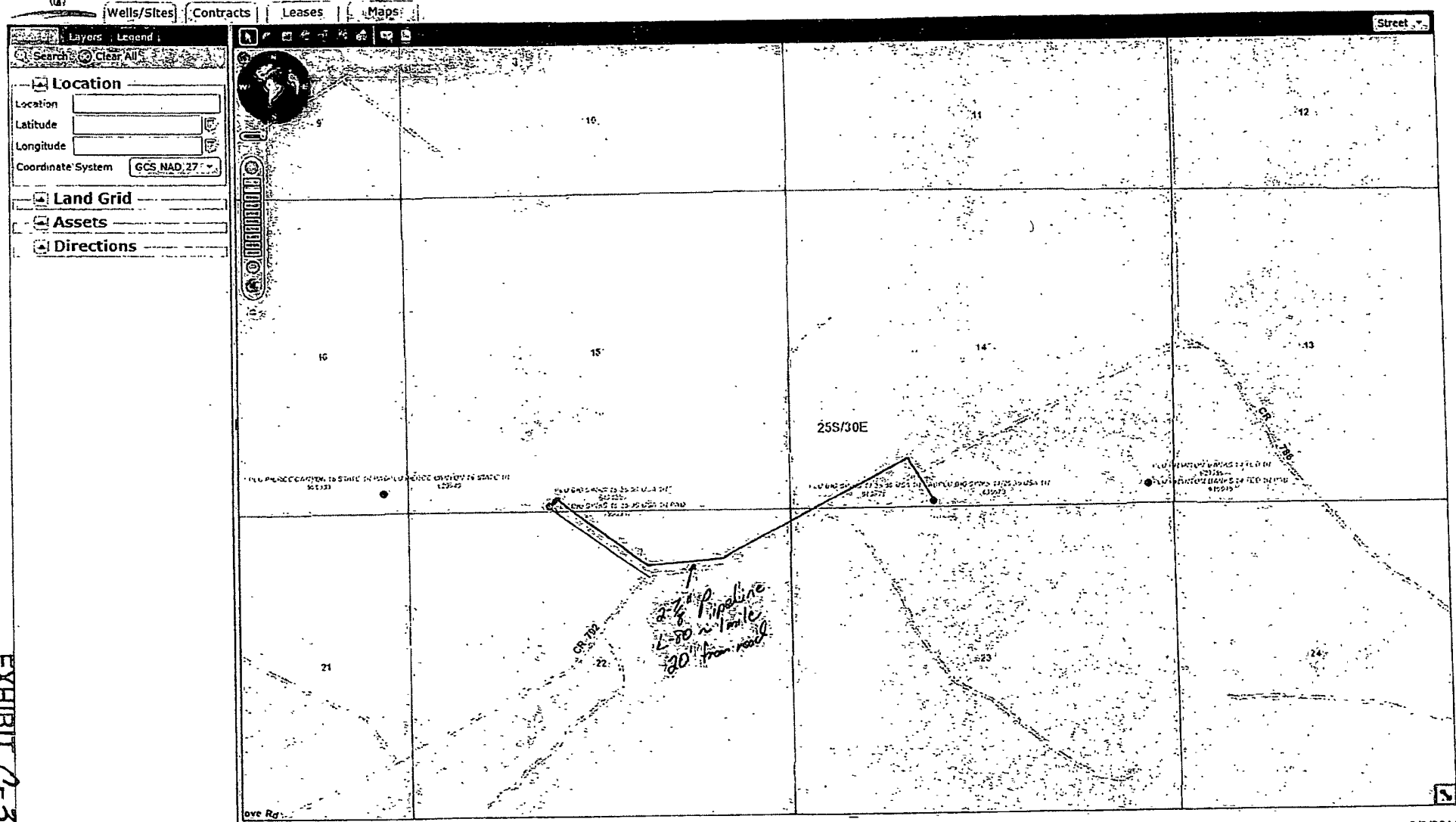


EXHIBIT 2-3

9/2/2011

•
Additional Operator Remarks:

▪ PROPOSED BHLOC LEASE NO. NMLC063873A

THERE WILL BE NO PILOT HOLE FOR THIS WELL.

Chesapeake Operating, Inc. respectfully requests permission to drill a well to 13,248' to test the Bone Spring formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and New Mexico Oil Conservation Division requirements.

Please find the Surface Use Plan and Drilling Plan as required by Onshore Order No. 1.

Attached are the Exhibit A-1 to A-4 Survey plats, Exhibit B 1 mile radius plat, Exhibit C Production facility, Exhibit D Generic Rig layout, Exhibit F-1 to F-2 BOP & Choke Manifold and Exhibit G Directional Drill Plan.

Archeological Survey will be delivered to the BLM when completed.

Chesapeake Operating, Inc. has an agreement with the grazing lessee.

Please be advised that Chesapeake Operating, Inc. is the Designated Agent for BOPCO, the Operator of this unit. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

(CHK PN 640122)

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E

Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NMNM 063875A

BL Lease Contract No. NMNM 063873A

DRILLING PLAN

PAGE: 1

OHSORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR 43, Part 3160) and the approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application 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.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA	KBTVD	MD
Rustler	2,203	1,156	1,156
Salt	636	2,498	2,498
Base of Salt	-509	3,868	3,868
Lamar	-595	3,954	3,954
Bell Canyon	-645	4,004	4,004
Cherry Canyon	-1,498	4,857	4,857
Brushy Canyon	-3,109	6,468	6,468
First Bone Spring Lime	-4,438	7,797	7,797
Lateral TD	-5,067	8,426	13,248

2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Water	Rustler	1,156
Oil/Gas	Bone Spring	7,797

All shows of fresh water and minerals will be reported and protected.

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E

Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NMNM 063875A

BL Lease Contract No. NMNM 063873A

DRILLING PLAN

PAGE: 2

3. BOP EQUIPMENT

Will have a 5000 psi rig stack (see proposed schematic) for drill out below surface casing, but this system will be tested to 3000 psi working pressure and 3000 psi working pressure for the annular preventer; therefore, no shoe tests will be conducted.

Chesapeake Operating Inc.'s minimum specifications for pressure control equipment are as follows:

I. BOP, Annular, Choke Manifold Pressure Test - See Exhibit F-1 and F-2

A. Equipment

1. The equipment to be tested includes all of the following that is installed on the well:
 - (a) Ram-type and annular preventers
 - (b) Choke manifolds and valves
 - (c) Kill lines and valves
 - (d) Upper and lower kelly cock valves, inside BOP's and safety valves

B. Frequency

1. All tests shall be performed with clear water
 - (a) when installed
 - (b) before drilling out each casing string
 - (c) at any time that there is a repair requiring a pressure seal to be broken in the assembly
 - (d) at least once every 30 days while drilling

C. Frequency

1. In some drilling operations, the pressures to be used for low and high pressure testing of preventers and casing may be different from those given below due to governmental regulations or approved local practices.
2. If an individual component does not test at the low pressure, do not, test to the high pressure and then drop back down to the low pressure.
3. All valves located downstream of a valve being tested must be placed in the open position.
4. All equipment will be tested with an initial "low pressure" test at 250 psi.
5. The subsequent "high pressure" test will be conducted at the rated working pressure of the equipment for all equipment except the annular preventer unless otherwise stated (see above).
6. The "high pressure" test for the annular preventer will be conducted at 70% of the rated working pressure unless otherwise stated (see above).
7. A record of all pressures will be made on a pressure-recording chart.

II. Accumulator Performance Test

A. Scope

1. The purpose of this test is to check the capabilities of the Bop control systems and to detect deficiencies in the hydraulic oil volume and recharge time.

B. Test Frequency

1. The accumulator is to be tested each time the BOP's are tested, or any time a major repair is performed.

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E

Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NMNM 063875A

BL Lease Contract No. NMNM 063873A

DRILLING PLAN

PAGE.

3

C. Minimum Requirements

1. The accumulator should be of sufficient volume to supply 1.5 times the volume to close and hold all BOP equipment in sequence, without recharging and the pump turned off, and have remaining pressures of 200 psi above the precharge pressure.
2. Minimum precharge pressures for the various accumulator systems per manufacturers recommended specifications are as follows:

System Operating Pressure	Precharge Pressure
1500 psi	750 psi
2000 psi	1000 psi
3000 psi	1000 psi

3. Closing times for the annular preventer should be less than 20 seconds and for the ram-type preventers less than 10 seconds.
4. System recharge time should not exceed 10 minutes.

D. Test Procedure

1. Shut accumulator pumps off and record accumulator pressure.
2. In sequence, close the annular and one set of properly sized pipe rams, and open the HCR valve
3. Record time to close or open each element and the remaining accumulator pressure after each operation.
4. Record the remaining accumulator pressure at the end of the test sequence. Per the previous requirement, this pressure should not be less than the following pressures:

System Operating Pressure	Remaining Pressure After Test
1500 psi	950 psi
2000 psi	1200 psi
3000 psi	1200 psi

5. Turn the accumulator pumps on and record the recharge time. This time should not exceed 10 minutes.
6. Open annular and ram-type preventers. Close HCR valve.
7. Place all 4-way control valves in full open or full closed position. Do not leave in neutral position.

3. CASING PROGRAM

- a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	1,250'	17-1/2"	13-3/8"	48 #	H-40	STC	New
Intermediate	0'	3,975'	11"	8-5/8"	32 #	J-55	LTC	New
Production	0'	13,248'	7-7/8"	5-1/2"	20 #	L-80	LTC	New

- b. Casing design subject to revision based on geologic conditions encountered.

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E

Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NMNM 063875A

BL Lease Contract No. NMNM 063873A

DRILLING PLAN

PAGE:

4

c. Casing Safety Factors

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension
Surface	1.43	1.36	2.11
Intermediate	1.45	1.47	2
Production	1.22	2.34	1.69

Min SF is the smallest of a group of safety factors that include the following considerations:

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int	Prod
Burst Design			
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X		
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 15 ppg Frac Gradient		X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid			X
Collapse Design			
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X
Tension Design			
100k lb overpull	X	X	X

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E
Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NM 063875A

BL Lease Contract No. NM 063873A

DRILLING PLAN

PAGE: 5

5. CEMENTING PROGRAM

Slurry	Type	Top	Btm	Wt	Yld	%Exc	Sx
Surface				(ppg)	(sx/cu ft)	Open Hole	
Single Slurry	C + 5% Gel	0'	1,250'	13.5	1.73	150	1242
Shallow Int							
Lead	TXI +5% Salt	0'	3,475'	12	1.8	150	1110
Tail	50C/50Poz +5% Salt	3,475'	3,975'	14.2	1.37	150	243
Production							
Slurry 1 Lead	35/65Poz H +8% Gel	4,800'	8,000'	12.4	2.09	75	464
Slurry 1 Tail	50H/50Poz	8,000'	13,248'	14.5	1.24	75	1292
Slurry 2 Lead	35/65Poz H +8% Gel	3,475'	4,550'	12.4	2.19	200	177
Slurry 2 Tail	50H/50Poz	4,550'	4,800'	14.8	1.33	200	98

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. The production casing will be cemented in two stages with the DV tool place at: 4,800'
4. Production casing will have one centralizer on every other joint from TD to KOP (horizontal type) and from KOP to intermediate casing (bowspring type).

Pilot Hole Plugging Plan:

There will be no pilot hole for this well.

ONSHORE ORDER NO. 1

Chesapeake Operating, Inc. Agent for BOPCO

PLU Big Sinks 15-25-30 USA 1H

SHL: 10' FNL 1980' FWL, Section 22, Township 25S, Range 30 E

BHL: 350' FNL 1980' FWL, Section 15 Township 25S, Range 30 E
Eddy, NM

CONFIDENTIAL -- TIGHT HOLE

SL Lease Contract No. NMLC 063875A

BL Lease Contract No. NMN 063873A

DRILLING PLAN

PAGE: 6

6. MUD PROGRAM

From	To	Type	Weight	F. Vis	FL
Depth					
0'	1,250'	Spud Mud	8.4 - 8.7	32 - 34	NC - NC
1,250'	3,975'	Brine	9.8 - 10.1	28 - 29	NC - NC
3,975'	7,988'	Cut Brine	8.4 - 9	28 - 30	NC - NC
7,988'	8,742'	Cut Brine	8.4 - 9	28 - 30	NC - NC
8,742'	13,248'	Cut Brine	8.4 - 9	28 - 30	NC - NC

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

7. TESTING, LOGGING, AND CORING *See COA*

The anticipated type and amount of testing, logging, and coring are as follows:

- Drill stem tests are not planned.
- The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlog	Mudlog	Int Csg to TD	Drill out Int Csg	Suttles
OH	Triple Combo (Dual Induction)	Curve to Int Csg	After Curve	TBD
LWD	GR/Neutron	Int Csg to Surface	While Drilling	TBD
LWD	MWD/Gamma	Curve/Lateral	While Drilling	TBD

- Core samples are not planned.
- A Directional Survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP is: 3742 psi
- Hydrogen sulfide gas is not anticipated.

Permian District

Poker Lake

PLU Big Sinks 15-25-30 USA 1H

Well #1

Wellbore #1

Plan: Design #1

Standard Planning Report

08 September, 2011

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	RKB @ 3364.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	RKB @ 3364.0usft (Original Well Elev)
Site:	PLU Big Sinks 15-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Poker Lake, Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	PLU Big Sinks 15-25-30 USA 1H
------	-------------------------------

Site Position:	From:	Lat/Long	Northing:	408,815.49 usft	Latitude:	32.1230694000
			Easting:	684,404.11 usft	Longitude:	-103.8711942000
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.2457611 °	

Well	Well #1
------	---------

Well Position	+N/-S	0.0 usft	Northing:	408,815.49 usft	Latitude:	32.1230694000
	+E/-W	0.0 usft	Easting:	684,404.11 usft	Longitude:	-103.8711942000
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:	3,339.0 usft		

Wellbore	Wellbore #1
----------	-------------

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/7/2011	7.6759000	60.0590308	48,514

Design	Design #1
--------	-----------

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.75

Plan Sections:	
----------------	--

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Doglog Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0000000	
7,987.9	0.00	0.00	7,987.9	0.0	0.0	0.00	0.00	0.00	0.0000000	
8,742.0	90.50	359.75	8,465.3	481.6	-2.1	12.00	12.00	0.00	59.7536297	
13,247.9	90.50	359.75	8,426.0	4,987.3	-21.4	0.00	0.00	0.00	0.0000000	BHL #1

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	RKB @ 3364.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	RKB @ 3364.0usft (Original Well Elev)
Site:	PLU Big Sinks 15-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Doglog Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	RKB @ 3364.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	RKB @ 3364.0usft (Original Well Elev)
Site:	PLU Big Sinks 15-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,987.9	0.00	0.00	7,987.9	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	1.46	359.75	8,000.0	0.2	0.0	0.2	12.00	12.00	0.00
8,100.0	13.46	359.75	8,099.0	13.1	-0.1	13.1	12.00	12.00	0.00
8,200.0	25.46	359.75	8,193.1	46.4	-0.2	46.4	12.00	12.00	0.00
8,300.0	37.46	359.75	8,278.2	98.4	-0.4	98.4	12.00	12.00	0.00
8,400.0	49.46	359.75	8,350.7	167.1	-0.7	167.1	12.00	12.00	0.00
8,500.0	61.46	359.75	8,407.3	249.3	-1.1	249.3	12.00	12.00	0.00
8,600.0	73.46	359.75	8,445.6	341.5	-1.5	341.5	12.00	12.00	0.00
8,700.0	85.46	359.75	8,463.8	439.6	-1.9	439.6	12.00	12.00	0.00
8,742.0	90.50	359.75	8,465.3	481.6	-2.1	481.6	12.00	12.00	0.00
8,800.0	90.50	359.75	8,464.8	539.6	-2.3	539.6	0.00	0.00	0.00
8,900.0	90.50	359.75	8,463.9	639.6	-2.8	639.6	0.00	0.00	0.00
9,000.0	90.50	359.75	8,463.1	739.6	-3.2	739.6	0.00	0.00	0.00
9,100.0	90.50	359.75	8,462.2	839.6	-3.6	839.6	0.00	0.00	0.00
9,200.0	90.50	359.75	8,461.3	939.6	-4.0	939.6	0.00	0.00	0.00
9,300.0	90.50	359.75	8,460.5	1,039.6	-4.5	1,039.6	0.00	0.00	0.00
9,400.0	90.50	359.75	8,459.6	1,139.6	-4.9	1,139.6	0.00	0.00	0.00
9,500.0	90.50	359.75	8,458.7	1,239.6	-5.3	1,239.6	0.00	0.00	0.00
9,600.0	90.50	359.75	8,457.8	1,339.5	-5.8	1,339.6	0.00	0.00	0.00
9,700.0	90.50	359.75	8,457.0	1,439.5	-6.2	1,439.6	0.00	0.00	0.00
9,800.0	90.50	359.75	8,456.1	1,539.5	-6.6	1,539.6	0.00	0.00	0.00
9,900.0	90.50	359.75	8,455.2	1,639.5	-7.0	1,639.5	0.00	0.00	0.00
10,000.0	90.50	359.75	8,454.3	1,739.5	-7.5	1,739.5	0.00	0.00	0.00
10,100.0	90.50	359.75	8,453.5	1,839.5	-7.9	1,839.5	0.00	0.00	0.00
10,200.0	90.50	359.75	8,452.6	1,939.5	-8.3	1,939.5	0.00	0.00	0.00
10,300.0	90.50	359.75	8,451.7	2,039.5	-8.8	2,039.5	0.00	0.00	0.00
10,400.0	90.50	359.75	8,450.9	2,139.5	-9.2	2,139.5	0.00	0.00	0.00
10,500.0	90.50	359.75	8,450.0	2,239.5	-9.6	2,239.5	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Well #1
Company:	Permian District	TVD Reference:	RKB @ 3364.0usft (Original Well Elev)
Project:	Poker Lake	MD Reference:	RKB @ 3364.0usft (Original Well Elev)
Site:	PLU Big Sinks 15-25-30 USA 1H	North Reference:	Grid
Well:	Well #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,600.0	90.50	359.75	8,449.1	2,339.5	-10.1	2,339.5	0.00	0.00	0.00	
10,700.0	90.50	359.75	8,448.2	2,439.5	-10.5	2,439.5	0.00	0.00	0.00	
10,800.0	90.50	359.75	8,447.4	2,539.5	-10.9	2,539.5	0.00	0.00	0.00	
10,900.0	90.50	359.75	8,446.5	2,639.5	-11.3	2,639.5	0.00	0.00	0.00	
11,000.0	90.50	359.75	8,445.6	2,739.5	-11.8	2,739.5	0.00	0.00	0.00	
11,100.0	90.50	359.75	8,444.7	2,839.5	-12.2	2,839.5	0.00	0.00	0.00	
11,200.0	90.50	359.75	8,443.9	2,939.5	-12.6	2,939.5	0.00	0.00	0.00	
11,300.0	90.50	359.75	8,443.0	3,039.5	-13.1	3,039.5	0.00	0.00	0.00	
11,400.0	90.50	359.75	8,442.1	3,139.5	-13.5	3,139.5	0.00	0.00	0.00	
11,500.0	90.50	359.75	8,441.3	3,239.5	-13.9	3,239.5	0.00	0.00	0.00	
11,600.0	90.50	359.75	8,440.4	3,339.5	-14.4	3,339.5	0.00	0.00	0.00	
11,700.0	90.50	359.75	8,439.5	3,439.4	-14.8	3,439.5	0.00	0.00	0.00	
11,800.0	90.50	359.75	8,438.6	3,539.4	-15.2	3,539.5	0.00	0.00	0.00	
11,900.0	90.50	359.75	8,437.8	3,639.4	-15.6	3,639.5	0.00	0.00	0.00	
12,000.0	90.50	359.75	8,436.9	3,739.4	-16.1	3,739.5	0.00	0.00	0.00	
12,100.0	90.50	359.75	8,436.0	3,839.4	-16.5	3,839.5	0.00	0.00	0.00	
12,200.0	90.50	359.75	8,435.1	3,939.4	-16.9	3,939.5	0.00	0.00	0.00	
12,300.0	90.50	359.75	8,434.3	4,039.4	-17.4	4,039.5	0.00	0.00	0.00	
12,400.0	90.50	359.75	8,433.4	4,139.4	-17.8	4,139.5	0.00	0.00	0.00	
12,500.0	90.50	359.75	8,432.5	4,239.4	-18.2	4,239.4	0.00	0.00	0.00	
12,600.0	90.50	359.75	8,431.7	4,339.4	-18.7	4,339.4	0.00	0.00	0.00	
12,700.0	90.50	359.75	8,430.8	4,439.4	-19.1	4,439.4	0.00	0.00	0.00	
12,800.0	90.50	359.75	8,429.9	4,539.4	-19.5	4,539.4	0.00	0.00	0.00	
12,900.0	90.50	359.75	8,429.0	4,639.4	-19.9	4,639.4	0.00	0.00	0.00	
13,000.0	90.50	359.75	8,428.2	4,739.4	-20.4	4,739.4	0.00	0.00	0.00	
13,100.0	90.50	359.75	8,427.3	4,839.4	-20.8	4,839.4	0.00	0.00	0.00	
13,200.0	90.50	359.75	8,426.4	4,939.4	-21.2	4,939.4	0.00	0.00	0.00	
13,247.9	90.50	359.75	8,426.0	4,987.3	-21.4	4,987.3	0.00	0.00	0.00	

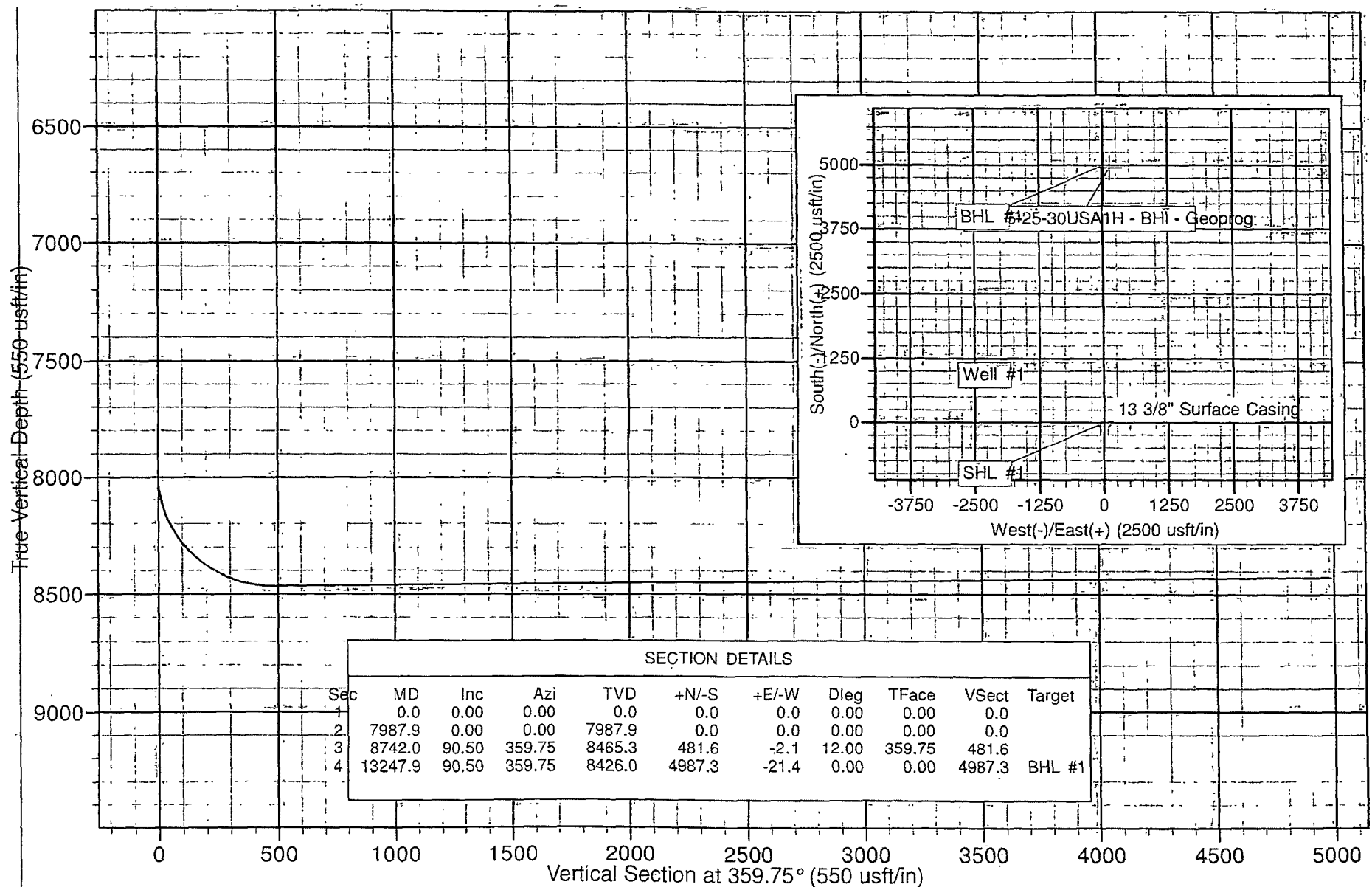
Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL #1	0.00	0.00	8,426.0	4,987.3	-21.4	413,802.79	684,382.66	32.1367790391	-103.8711943636
- plan hits target center									
- Point									
SHL #1	0.00	0.00	8,470.0	0.0	0.0	408,815.49	684,404.12	32.1230694029	-103.8711941495
- plan misses target center by 201.2usft at 8371.6usft MD (8331.6 TVD, 146.1 N, -0.6 E)									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,250.0	1,250.0	13 3/8" Surface Casing	13.375	17.500	
3,975.0	3,975.0	8 5/8" Intermediate Casing	8.625	11.000	
13,248.0		5 1/2" Production Casing	5.500	7.875	

Project: Poker Lake
 Site: PLU Big Sinks 15-25-30 USA 1H
 Well: Well #1
 Wellbore: Wellbore #1
 Design: Design #1

PROJECT DETAILS: Poker Lake

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS-1980
 Zone: New Mexico Eastern Zone



Chesapeake Minimum BOPE Requirements

Wellname: PLU Big Sinks 15-25-30 USA 1H

Operation: Intermediate and Production Hole Sections

BLOWOUT PREVENTER SCHEMATIC CHESAPEAKE OPERATING INC

WELL : Permian District
FIELD : Avalon
RIG :
COUNTY :
OPERATION : Intermediate and Production Hole Sections

STATE :
REVISION : : / /

Component Descriptions

Size	Pressure	Description
A 13 3/4"	LP	Rotating Head w/ Orbit Valve
B 13 3/4"	5,000 psi	Annular
C 13 3/4"	5,000 psi	Pipe Ram
D 13 3/4"	5,000 psi	Blind Ram
E 13 3/4"	5,000 psi	Mud/Cross
F 13 3/4"	5,000 psi	Drilling Spool (as req'd)
G		
OSA (Int)	13 3/4" 3M x 13 3/4" 5M	
OSA (Prod)	11" 5M x 13 3/4" 5M	
B Sec	13 3/4" 3M x 11" 5M with 5M Gate Valves	
A Sec	13 3/4" 50W x 13 3/4" 3M w/ 3M Gate Valve	

Exception	Reference

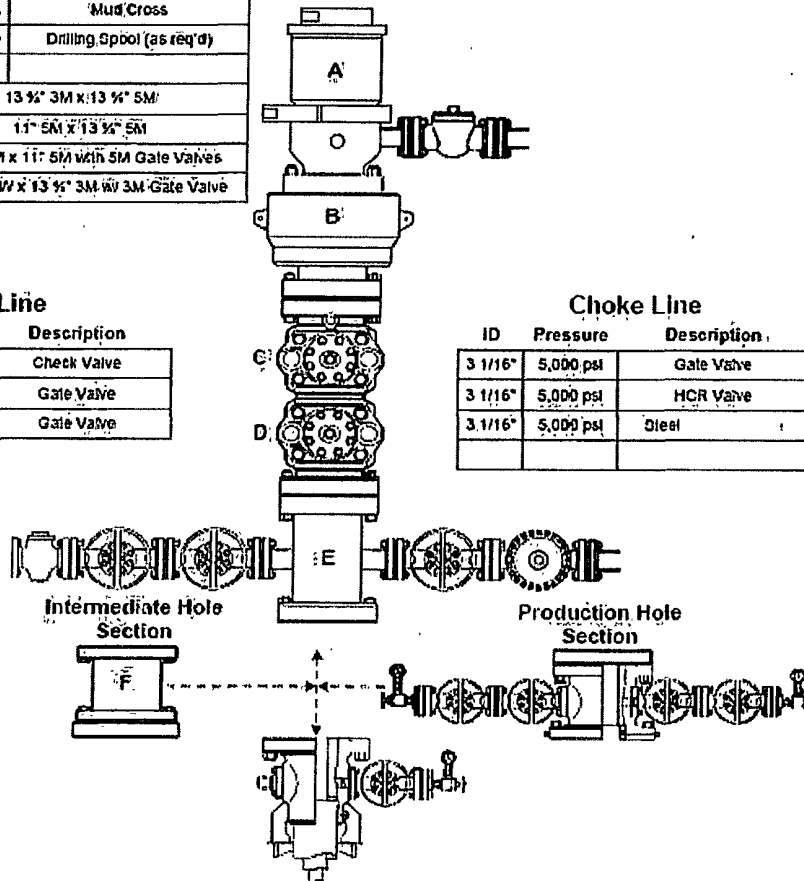
Trip/Tank Required: Yes ☒ No ☐

Kill Line

ID	Pressure	Description
2 1/16"	5,000 psi	Check Valve
2 1/16"	5,000 psi	Gate Valve
2 1/16"	5,000 psi	Gate Valve

Choke Line

ID	Pressure	Description
3 1/16"	5,000 psi	Gate Valve
3 1/16"	5,000 psi	HCR Valve
3 1/16"	5,000 psi	Steel



Testing Requirements

Item	Pressure	Frequency
Rotating Head	250 psi	Once prior to DO shoe
Annular	250 / 3,500 psi	Every 21 Days
Rams	250 / 5,000 psi	Every 21 Days
Choke Manifold	250 / 5,000 psi	Every 21 Days

- Function test on clips
- H₂S service trim required

Approved by

Date

BOV	
VP	
MC	

EXHIBIT F-1

Chesapeake Minimum BOPE Requirements

Wellname: PLU Big Sinks 15-25-30 USA 1H

Operation: Intermediate and Production Hole Sections

CHOKE MANIFOLD SCHEMATIC CHESAPEAKE OPERATING INC

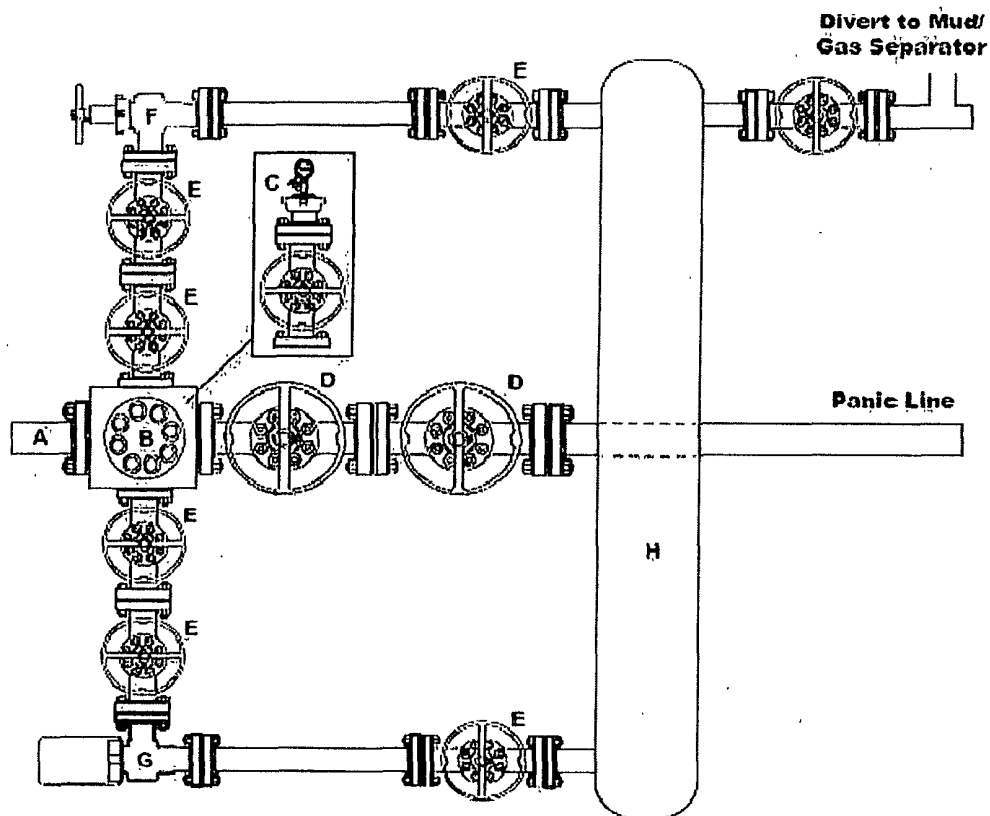
WELL : Permian District
FIELD : Avalon
RIG :
COUNTY :
OPERATION :

STATE :
REVISION : : / /

Component Descriptions

	Size	Pressure	Description
A	3 1/16"	5,000 psi	Steel
B	3 1/16" x 2 1/16"	5,000 psi	Block T
C	2 1/16"	5,000 psi	Top Valve
D	3 1/16"	5,000 psi	Gate Valve
E	2 1/16"	5,000 psi	Gate Valve
F	2 1/16"	5,000 psi	Manual Choke
G	2 1/16"	5,000 psi	Hydraulic Choke
H	8" minimum		Buffer Chamber

Exception	Reference

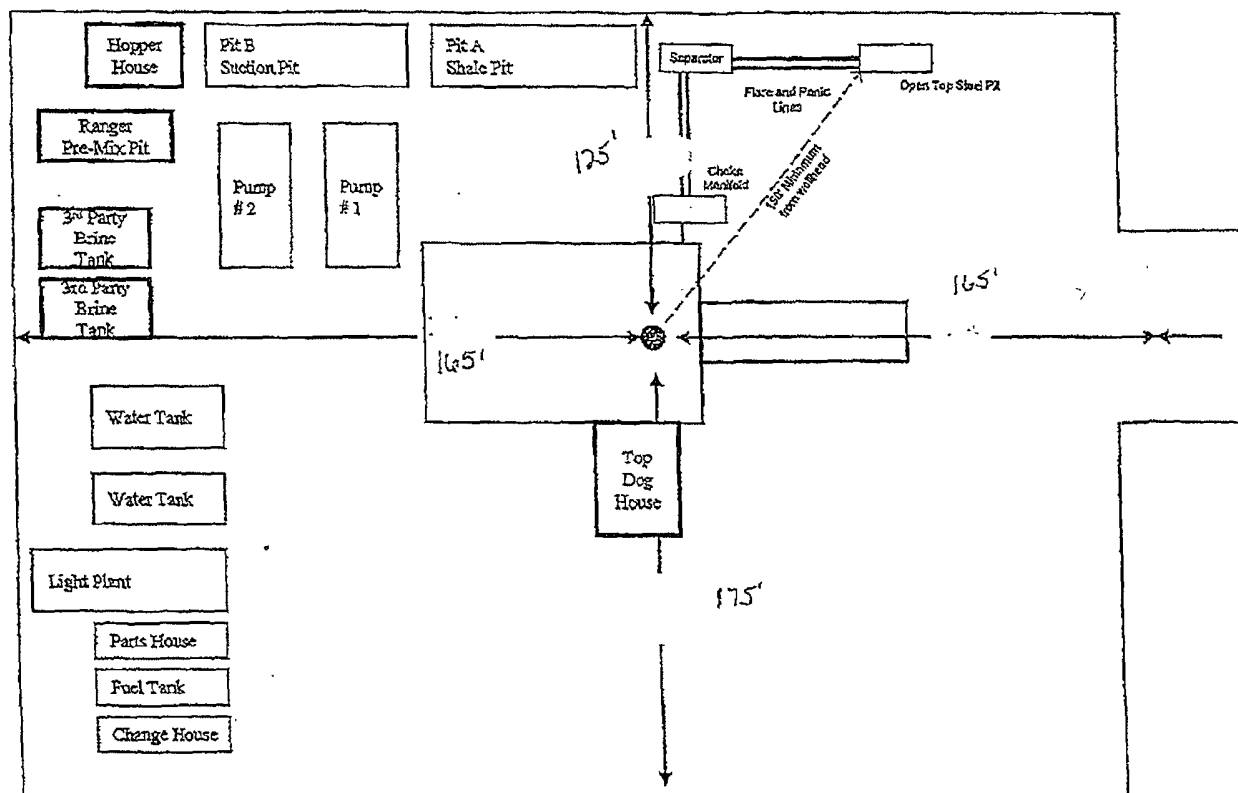


Approved by Date

DCM	
VP	
MLC	

EXHIBIT F-2

EXHIBIT D





PLU Big Sinks 15-25-30 USA 1H

Property # 640122 PAD SITE # 902317

Section 22 – T25S – R30E NENW 10 FNL & 1980 FWL of Section

Lat.: 32.123345 – Long.: -103.890627

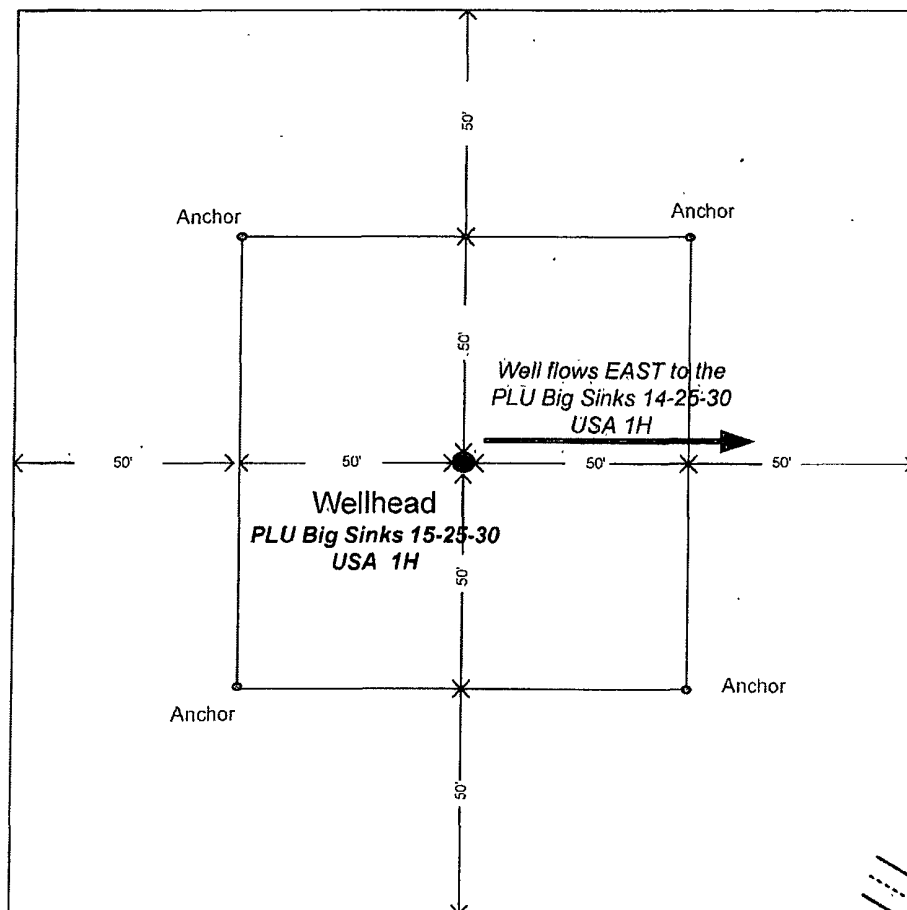
Eddy County, New Mexico

Drawing not to scale

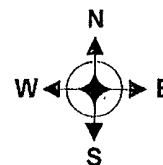
Topset

Reclamation
Area

300 Feet



General sealing of valves and sales by tank gauging.
Production phase: all drain valves (D1-D3) and sales valves (L1-L6) sealed closed.
Sales phase: the tank from which sales are being made will be isolated by sealing closed the drain, fill, and any equalizer valves during sales.
Draining phase: the tank being drained will be isolated by sealing closed the sales, fill, equalizer valves and drain valves on the other tanks.



330'

Reclamation
Area

Reclamation
Area

Direction of Flow off Site: East

Prepared by: Jean Ann Dunn
Date: 9-2-11

Approved by:
Date:

This lease is subject to
Chesapeake's Site
Security Plan located
at 6100 N. Western
Oklahoma City, OK
73118

EXHIBIT C-1



CHESAPEAKE OPERATING, INC.

PLU Big Sinks 14-25-30 USA 1H

Property # 639973

NE NW Section 14 – T25S – R30E

100 FSL & 1980 FWL

Lat.: 32.136756– Long.: -103.853394

Eddy County, New Mexico

Drawing Not to Scale

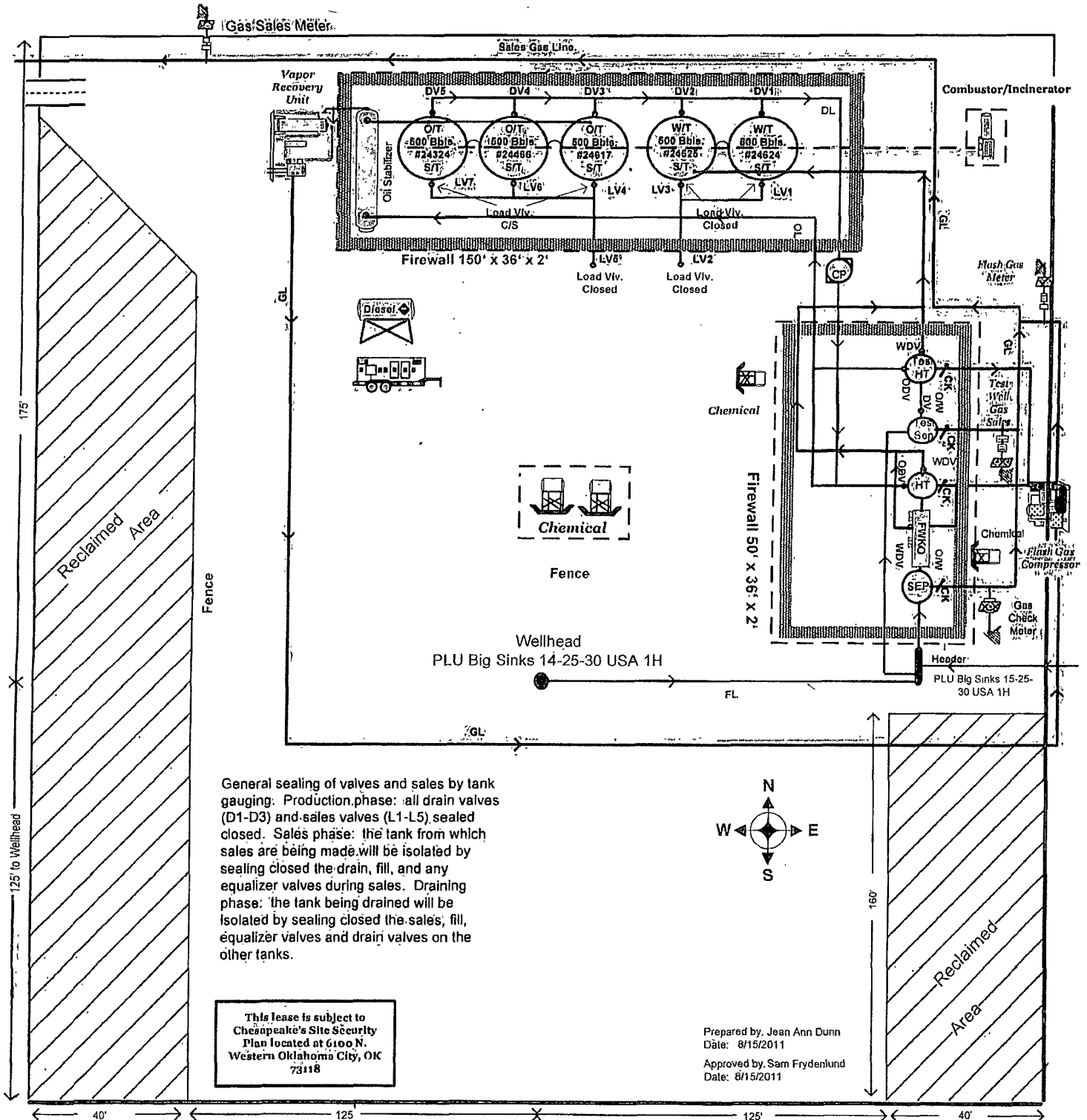


EXHIBIT C-2

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

[38939]

Operator Chesapeake OGRID # 147179
 Well Name & # PLU Big Sinks 152530 USA Surface Type (F) (S) (P)
 Location: UL C, Sect 22 Township 25 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 11/23/2011 C101 reviewed 11/28/2011

B. 1. Check mark, Information is OK on Forms:

OGRID ✓, BONDING ✓, PROP CODE ✓, WELL # ✓, SIGNATURE ✓

2. Inactive Well list as of: 11/28/2011 # wells 748, # Inactive wells 15

a. District Grant APD but see number of inactive wells:

No letter required ✓; Sent Letter to Operator ✓, to Santa Fe ✓

3. Additional Bonding as of: 11/28/2011

a. District Denial because operator needs addition bonding:

No Letter required ✓; Sent Letter to Operator ✓, To Santa Fe ✓

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required ✓; Sent Letter to Operator ✓, To Santa Fe ✓

C. C102 YES ✓, NO ✓, Signature ✓

1. Pool WILDCAT Big Sink; B.S., Code 96654

a. Dedicated acreage 160, What Units ✓

b. SUR. Location Standard ✓; Non-Standard Location ✓

c. Well shares acres: Yes ✓, No ✓, # of wells ✓ plus this well # ✓

2. 2nd. Operator in same acreage, Yes ✓, No ✓

Agreement Letter ✓, Disagreement letter ✓

3. Intent to Directional Drill Yes ✓, No ✓

a. Dedicated acreage 160, What Units C-F-K-N-C

b. Bottomhole Location Standard ✓, Non-Standard Bottomhole ✓

4. Downhole Commingle: Yes ✓, No ✓

a. Pool #2 ✓, Code ✓, Acres ✓

Pool #3 ✓, Code ✓, Acres ✓

Pool #4 ✓, Code ✓, Acres ✓

5. POTASH Area Yes ✓, No ✓

D. Blowout Preventer Yes ✓, No ✓

E. H2S Yes ✓, No ✓

F. C144 Pit Registration Yes ✓, No ✓

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes ✓, No ✓, NSL # ✓

2. Non-Standard Proration: Yes ✓, No ✓, NSP # ✓

3. Simultaneous Dedication: Yes ✓, No ✓, SD # ✓

Number of wells ✓ Plus # ✓

4. Injection order Yes ✓, No ✓; PMX # ✓ or WFX # ✓

5. SWD order Yes ✓, NO ✓; SWD # ✓

6. DHC from SF ✓; DHC-HOB ✓; Holding ✓

7. OCD Approval Date 11/28/2011

API #30-0 15 39693

8. Reviewers 107