

District I
1625 N French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0720
District II
811 S First St., Artesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170
District IV
1220 S St Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised December 16, 2011

Permit

RCVD JUN 28 '12
OIL CONS. DIV.
DIST. 3

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

¹ Operator Name and Address Koch Exploration Company, LLC PO Box 489, Aztec, NM 87410		² OGRID Number 12807
		³ API Number 30-045-35385
⁴ Property Code 39314	⁵ Property Name Bisti 36	⁶ Well No 1

⁷ Surface Location

UL - Lot D	Section 36	Township 25N	Range 13W	Lot Idn	Feet from 660	N/S Line North	Feet From 660	E/W Line West	County San Juan
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⁸ Pool Information

Fruitland Coal

Additional Well Information

⁹ Work Type N	¹⁰ Well Type G	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 6307'
¹⁴ Multiple N	¹⁵ Proposed Depth 1200'	¹⁶ Formation Fruitland Coal	¹⁷ Contractor TBD	¹⁸ Spud Date 10-01-12
Depth to Ground water 975'		Distance from nearest fresh water well > 2 Miles		Distance to nearest surface water > 24 Miles

¹⁹ Proposed Casing and Cement Program

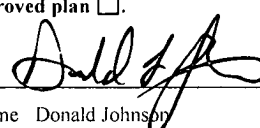
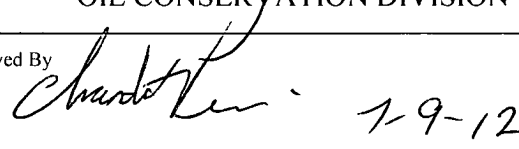
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
SC	12 1/4"	8 5/8"	24.0# J-55 STC	120'	98	Surface
PC	6 1/4"	4 1/2"	10.5# J-55 LTC	1200'	130	Surface

Casing/Cement Program: Additional Comments

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Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double-gated with pipe rams and blind rams with rotation	2000 psi	250 psi - low pressure 2000 psi - high pressure	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> . Signature  Printed name Donald Johnson Title Operations Manager E-mail Address johnso@d@kochind.com Date 06/28/2012 Phone 505-334-9111		OIL CONSERVATION DIVISION Approved By  7-9-12 Title SUPERVISOR DISTRICT #3 Approved Date JUL 10 2012 Expiration Date JUL 10 2014 Conditions of Approval Attached	
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NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

JUL 10 2012 ca

AV

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone (505) 478-3460 Fax: (505) 478-3462

Certificate Number

Bisti 36-1

Surface: 660' FNL & 660' FWL, Sec. 36, T25N, R13W (D)

San Juan Co., New Mexico

Lease # ST NM VB-1443-0000

Drilling Program**1) Formation Tops**

Estimated tops of important geological markers:

	<u>Measured Depth</u>	<u>Sub-sea</u>
Kirtland Shale	360'	5951'
Fruitland Fm	760'	5551'
Fruitland Coal	975'	5336'
Pictured Cliffs	1025'	5286'
TD	1200'	5091'

2) Estimated depths of Notable Zones:

Water	0' to 975'
Oil and Gas	975' to 1200'

3) Pressure Control Equipment:

- a. 10-inch 900 series or 2,000 psi test double gate hydraulic with 4-1/2" pipe rams and cross spool with flanged outlets. See BOP diagram at **Exhibit F-1** for drawing of choke lines, kill lines and choke manifold. Procedures will include waiting on cement 12 hours, nipple up blowout preventer (BOP) assembly and test to 70% of yield of casing or 600 psi maximum. The production casinghead pressure rating will be 5,000 psi.
- b. Type of BOP rams: Blind rams and pipe rams are used as shown on the BOP diagram at **Exhibit F-1**. Occasionally, the position of the rams is reversed depending on the drilling contractor's methods.
- c. The choke manifold and header will have 2 - 2" choke outlets and a 2" straight through line. A 2" adjustable choke will be installed on each of the choke outlets. The manifold inlet from the drilling spool will be a 2" line. All lines, valves, chokes and fittings will be rated to 3,000 psi. The choke manifold and header system will have manual control valves. No hydraulic valves will be installed. Casing testing procedure – Surface casing will be tested at 600 psi maximum for 30 minutes, after cementing in place and before drilling out of shoe. Production casing will be tested to 3,800 psi for 30 minutes, after drilling to the required depth, and after cementing in place.
- d. The BOPS are hydraulic controlled.
- e. BOP testing procedures and frequency:
BOP tests will be performed using an appropriately sized test plug. The test will be performed and recorded using a test pump, calibrated test gauges, and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test of 250 psi held for five minutes and a high pressure test of 2,000 psi for ten minutes as described in Onshore Order No. 2.
- f. Casing head connections will be 2-inch; these outlets will usually be bull plugged during drilling operations. No pumping through these connections is allowed except in emergency to keep from wearing out the head.

Bisti 36-1

Surface: 660' FNL & 660" FWL, Sec. 36, T25N, R13W (D)

San Juan Co., New Mexico

Lease # ST NM VB-1443-0000

- g. The drilling spool will be a series 900 2,000 psi WP with a 2-inch kill line and a 2-inch outlet.

4) Proposed Casing Program:

Surface Casing Program:	<u>Hole Size</u>			<u>Depth</u>
Surface Casing	12 1/4"	8 5/8"	24.0# J-55 STC	120'
Production Casing	6 1/4"	4 1/2"	10.5# J-55 STC	1200'

Proposed setting depth, amount and type of cement including additives:

8 5/8" Surface Casing – Surface to 120' – Cement with 98 sks Premium Cement (15.80 ppg, yield 1.17 cf/sk) Cement + 2% Calcium Chloride + .125 lbs/sk. Poly-E-Flake, volume: 115 cf., includes 100% excess. Centralizers will be run all joints starting at the shoe joint.

4 1/2" Production Liner – Surface to 1200' – Lead cement with 80 sks. Premium Light + 2% Calcium Chloride + 5 lb/sk Kol-Seal + .125 lb/sk Poly-E-Flake (wt. 12.5 ppg, yield 1.88) volume: 150 cf., includes 50% excess. Tail with 50 sks. Premium Cement + 1% Calcium Chloride (wt 15.8 ppg, yield 1.16) volume: 58 cf. includes no excess. Centralizers will be run on the bottom 2 joints, then every 10th joint thereafter or +/- 400'.

5) Mud Program:

0' – 120' – Spud mud and water treated with gel lime.

120' – 1200' – Lime mud, water, and polymer.

6) Testing, Logging, and Coring Program:

No drill stem tests or cores will be taken, a CBL will be run if cement does not circulate to surface on production casing. The following open hole logs; Gamma Ray/Induction/Density/Neutron will be run.

7) Expected Pressures –

Fruitland Fm. 200 psi

Bottom Hole 200 psi

No abnormal pressures, temperature or poisonous gas anticipated.

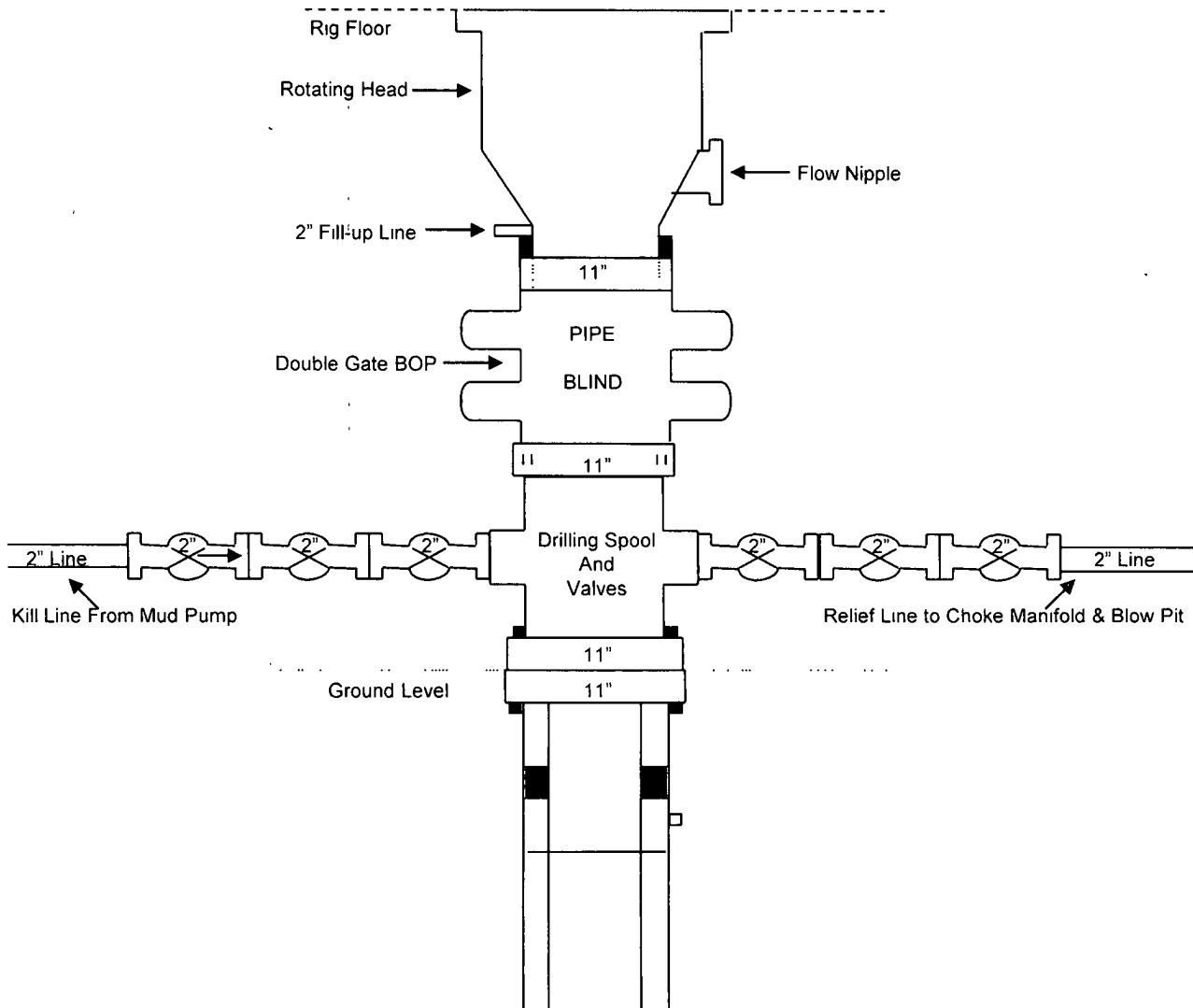
Anticipated Spud Date:

October 1, 2012

Anticipated Completion Date:

November 1, 2012

DRILLING RIG 2000 psi System

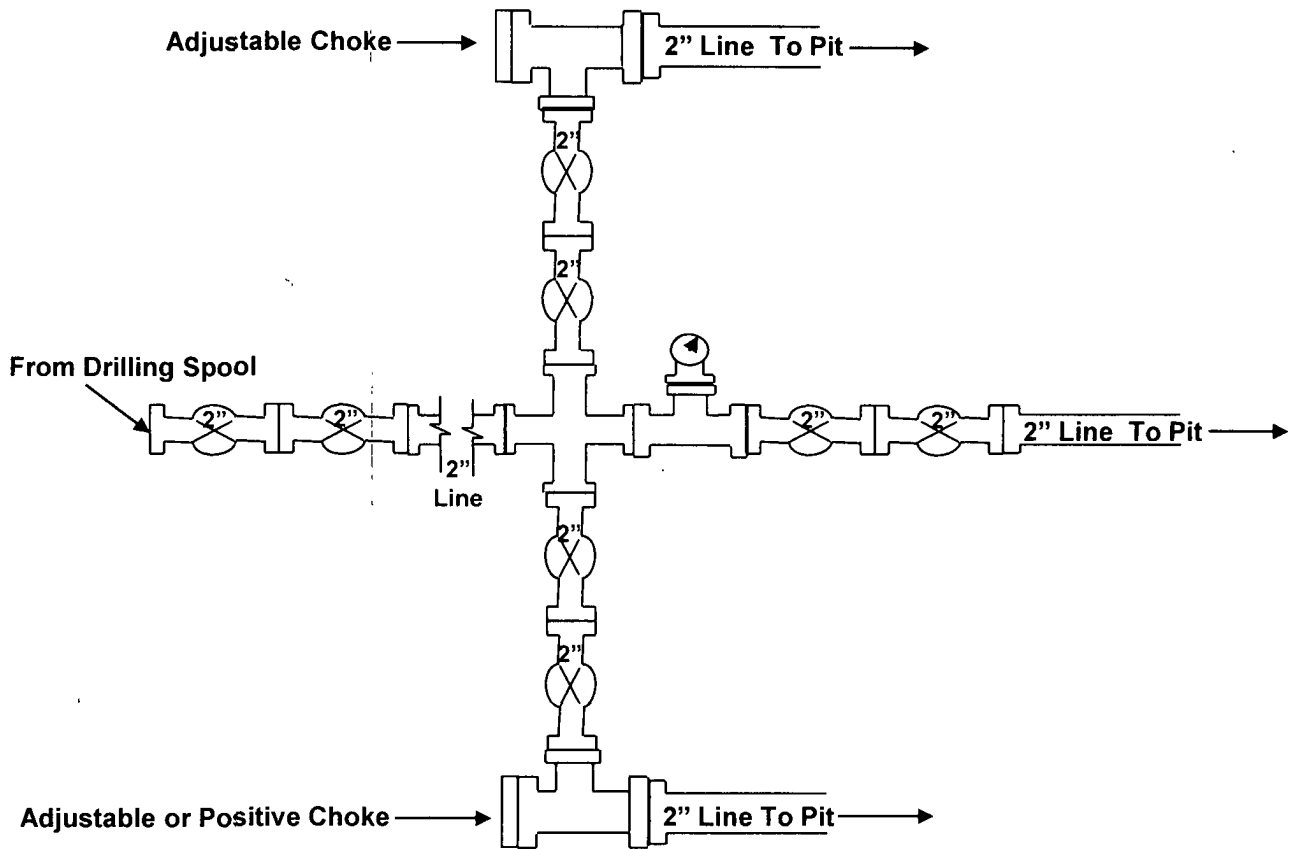


11" Bore (10" Nominal). 2000 psi working pressure minimum double Gate BOP to be equipped with blind and pipe rams. A rotating head On the top of the rams. All BOP equipment is 2000 psi working pressure.

NOTE: A floor safety valve and upper kelly cock with handle will be available.

EXHIBIT F-1

Drilling Rig Choke Manifold Configuration 2000 psi System



2000 psi working pressure equipment with two chokes.