

District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address McElvain Oil & Gas Properties, Inc. 1050 17th St., Suite 1800 Denver, CO 80265-1801		² OGRID Number 22044
³ Property Code 28462	⁴ Property Name Badger 11	⁵ Well No 1A
⁹ Proposed Pool 1 Blanco Mesa Verde		¹⁰ Proposed Pool 2

7 Surface Location

UL or lot no G	Section 11	Township 25N	Range 2W	Lot Idn	Feet from the 2238	North/South line North	Feet from the 2298	East/West line East	County Rio Arriba
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8 Proposed Bottom Hole Location If Different From Surface

UL or lot no C	Section 11	Township 25N	Range 2W	Lot Idn	Feet from the 1000	North/South line North	Feet from the 1980	East/West line West	County Rio Arriba
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Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 7356'
¹⁶ Multiple No	¹⁷ Proposed Depth 6024' TVD/6337' MD	¹⁸ Formation Mancos	¹⁹ Contractor D&J Drilling	²⁰ Spud Date September 15, 2008

21 Proposed Casing and Cement Program

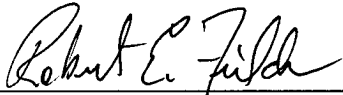
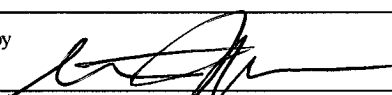
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	9.625"	36	600'	310	surface
8.750"	7.000"	20	3901' TVD/4150' MD	Stg 1-400	DV
			DV @ 1682MD	Stg 2-190	surface
6.250"	4.500"	10.5	3791' TVD/4030' MD	240	liner top
			-6024' TVD/6337' MD		

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any. Use additional sheets if necessary.
See attached drilling program and directional plan. Blowout prevention program described in at _____ of BOPE attached.

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.

Hold C104-
for Directional Survey
and "As Drilled" plat

**NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT**

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief		OIL CONSERVATION DIVISION	
Signature 		Approved by 	
Printed name Robert E. Fielder		Title DEPUTY OIL & GAS INSPECTOR, DIST. 4	
Title Agent		Approval Date NOV 06 2008	Expiration Date NOV 06 2010
E-mail Address pmci@advantas.net			
Date 9/4/2008	Phone 505.320.1435	Conditions of Approval Attached <input type="checkbox"/>	

NOV 06 2008

1220 S. St. Francis Dr., Santa Fe, NM 87505

16	West	80.08 Ch.	
80.00 Ch.	Bottom Hole 1000' FAL 1980' FAL	2238'	80.00 Ch.
	N 39° 08' 44" W, 1896.06'	Lat. 38.41353° N Long. 107.01838° W	
	Sec. 11	2298'	
N 0° 01' W		N 0° 01' W	
	N 89° 59' W	80.07 Ch.	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and accurate to the best of my knowledge and belief and that this organization either owns the working interest or retained mineral interest in the tract including the proposed bottom hole location or has a right to drill this well on this location pursuant to a contract with the owner of such a mineral or working interest, or to a preliminary pooling agreement or a complete pooling order.

Accepted and filed by the district:

Robert E. Felder 9/4/08
 Signature Date
 Robert E. Felder
 Printed Name


18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Rev. 9-4-08

Date of Survey: 22 Nov 2008

Signature and Seal of Professional Surveyor:



William F. Mahoke II
Certification Number: 81466

McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1A
2238' FNL & 2298' FEL (Surface)
1000' FNL & 1980' FWL (Bottomhole)
Section 11, T25N, R2W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose
2. **Surface Elevation:** 7356' GL.
3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top(TVD)-ft</u>	<u>Top(MD)-ft</u>	<u>Expected Production</u>
Nacimiento	1644	1682	
Ojo Alamo	3144	3322	
Fruitland	3394	3595	Gas
Pictured Cliffs	3519	3731	Gas
Lewis	3719	3950	
Huerfanito	3979	4234	
Chacra	4479	4779	
Cliff House	5254	5567	Gas
Menefee	5369	5682	Gas
Pt. Lookout	5699	6012	Gas
Upper Mancos	5874	6187	
TOTAL DEPTH	6024	6337	

4. **Surface Hole Program:**

Bit: Drill a 12 1/4" hole to 600'(MD/TVD) using a retip mill tooth, IADC Class 115 or 116, bit. WOB: all. RPM: 70 - 100.

Mud: Use a fresh water base spud mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
0 - 500	8.6 or less	9.0-9.5	40 - 50	No Control

Casing and Cementing: A string of 9 5/8" 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 310 sacks (365.8 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl₂ and 0.25 pps celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus. Minimum clearance between couplings and hole is 0.8125". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test BOPE and wellhead to full working pressure. Drill out cement to within 20 feet of shoe. Test BOPE and surface casing to a minimum of 600 psig for 15 minutes.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1A
Page Two

4. Surface Hole Program: - continued

Centralizers: Run four (4) 9 $\frac{5}{8}$ " X 12 $\frac{1}{4}$ " regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

Float Equipment: Cement nose guide shoe run on bottom of first joint. Self fill insert float valve run in top of first joint. Thread lock shoe and connection between first and second joint run.

5. Intermediate Hole Program:

Bit: Drill an 8 $\frac{3}{4}$ " hole to 700' (TVD/MD) using TCI, IADC Class 447 bits. WOB: 35-45K. RPM: 60 - 75. Pick up directional tools and begin 3°/ 100 foot build section. Drill build section to 1474' TVD/1497' MD to build inclination to 23.8°. Drill 23.80° hold section to 3901' TVD/ 4150' MD. All directional section will be on a 320.89° azimuth.

Mud: Use a fresh water base LSND mud with the following properties:

<u>Interval (ft) (TVD/MD)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
700 - 3215/3400	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
3215/3400 - 3901/4150	8.9 - 9.2	9.0-9.5	35 - 50	8 - 10

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the rig pits will be visually monitored and recorded on a routine basis.

pH is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Hole will be drilled to top of Fruitland using polymer and drispac additions to water. Mud up before drilling into Fruitland.

Lost Circulation is expected and can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1A
Page Three

5. Intermediate Hole Program: - continued

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to full working pressure. BOPE and surface casing will be tested to a minimum of 600 psig before drilling out from under surface casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 7" rams will be installed before running intermediate casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: None

Casing and Cementing Program: Run 7" 20# J-55 production casing from surface to Intermediate TD and cement in 2 stages with a DV tool installed at $\pm 1644'$ (TVD)/ $1682'$ (MD). **Stage 1 :** will be cemented with 300 sacks (636.0 cf) of 65/35 Class B Poz containing 5 pps Gilsonite, and 0.25 pps celloflake mixed at 12.1 PPG to yield 2.12 cf/sk. Tail in with 100 sacks (126.0 cf) of Type V with 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 ppg to yield 1.26 cf/sk. **Stage 2 :** will be cemented with 140 sacks (296.8 cf) of 65/35 Class B Poz with 5 pps gilsonite and 0.25 pps celloflake mixed at 12.1 PPG to yield 2.12 cf/sk. Follow with 50 sacks (63.0 cf) of Type V with 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 PPG to yield 1.26 cf/sk.

Circulate and WOC between stages for four (4) hours.

Slurry volumes assume a 150% excess over gauge hole volume. Minimum clearance between couplings and hole is 0.5470". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

WOC 12 HOURS from plug down on first stage. Pressure test intermediate casing and BOPE to 1500 psi for 15 minutes.

Centralizers: 10 - 7" X 8 $\frac{3}{4}$ " bowspring centralizers will be run across all prospective pays and 5 - 7" X 8 $\frac{3}{4}$ " turbolizers will be spaced such that one (1) is just below the Basal Fruitland Coal, two (2) across base of Ojo Alamo, and two (2) across base of Nacimiento. Additional centralizers will be placed between these two groups and top of hole to insure standoff of the pipe from the lower hole wall.

Float Equipment: Cement nose float shoe, 1 joint 7" casing, float collar, and 1 - DV tool.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1A
Page Four

6. Production Hole Program:

Bits: Drill a 6 1/4" hole to 4353' (TVD)/4644' (MD) with TCI, IADC class 637 bit and directional tools holding angle at 23.8° on an azimuth of 320.89°. Drill to 5124' (TVD)/5437' (MD) dropping 3°/100' on 320.89° azimuth. Drill to TD holding angle at 0°.

Mud: This interval will be drilled using a fresh water based low solids non dispersed system with the following properties:

<u>Interval (ft) (TVD/MD)</u>	<u>Weight (ppg)</u>	<u>pH</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
3901/4150 - 6024/6337	8.6 - 9.0	9.0-9.5	28 - 40	8 - 10 cc

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to full working pressure after cutoff of 7" casing. Casing and BOP will be tested to a minimum of 1500 psig before drilling out from under intermediate casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 4 1/2" rams will be installed before running production casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: Gamma Ray Induction and Compensated Density/Epithermal neutron logs from TD to intermediate casing shoe. Merge deep induction curve onto porosity logs.

Casing and Cementing Program: Run 4 1/2" 10.5# J-55 production liner from TD to 120 feet into intermediate casing. Cement in a single stage with 140 sacks (296.8 cf) of 65/35 Class B Poz containing 5 pps gilsonite and 0.25 pps celloflake mixed at 12.1 PPG to yield 2.12 cf/sk. Follow with 100 sacks (126.0 cf) of Type V with 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 PPG to yield 1.26 cf/sk.

Slurry volumes assume a 79% excess over gauge hole volume to bring cement back into the intermediate casing. Cement volume is subject to change after review of open hole caliper log to caliper volume + 30%. Minimum clearance between couplings and hole is 0.625". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

Centralizers: 7 - 4 1/2" X 6 3/8" rigid centralizers will be run across prospective pays of the Mesa Verde. Additional rigid centralizers will be spaced between these and the intermediate casing shoe to insure standoff of the pipe from the lower hole wall.

Float Equipment: Cement nose float shoe, 1 joint 4 1/2" 10.5 # casing, and plug landing collar. TIW 4 1/2" X 7" liner hanger.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1A
Page Five

7. Auxiliary Equipment:

An upper kelly cock will be utilized. The handle will be available on rig floor at all times

8. Logging Program:

Gamma Ray Induction and Epithermal Neutron / Formation Density will be run from TD to intermediate casing shoe. Bulk density will be presented on a 5 " scale through the coals in the Menefee. Deep induction curve will be merged onto the porosity log.

Coring and Testing Program:

No cores or drill stem tests are planned.

9. Abnormal Pressure:

Although not expected, abnormal pressures are possible in the Fruitland formation.

Estimated Bottom Hole Pressure:

1500 - 2000 psig.

10. Anticipated Starting Date:

September 15, 2008

Duration of Operations: It is estimated a total of 10 days will be required for drilling operations and 10 days for the completion operation.

Scientific Drilling
Planning Report



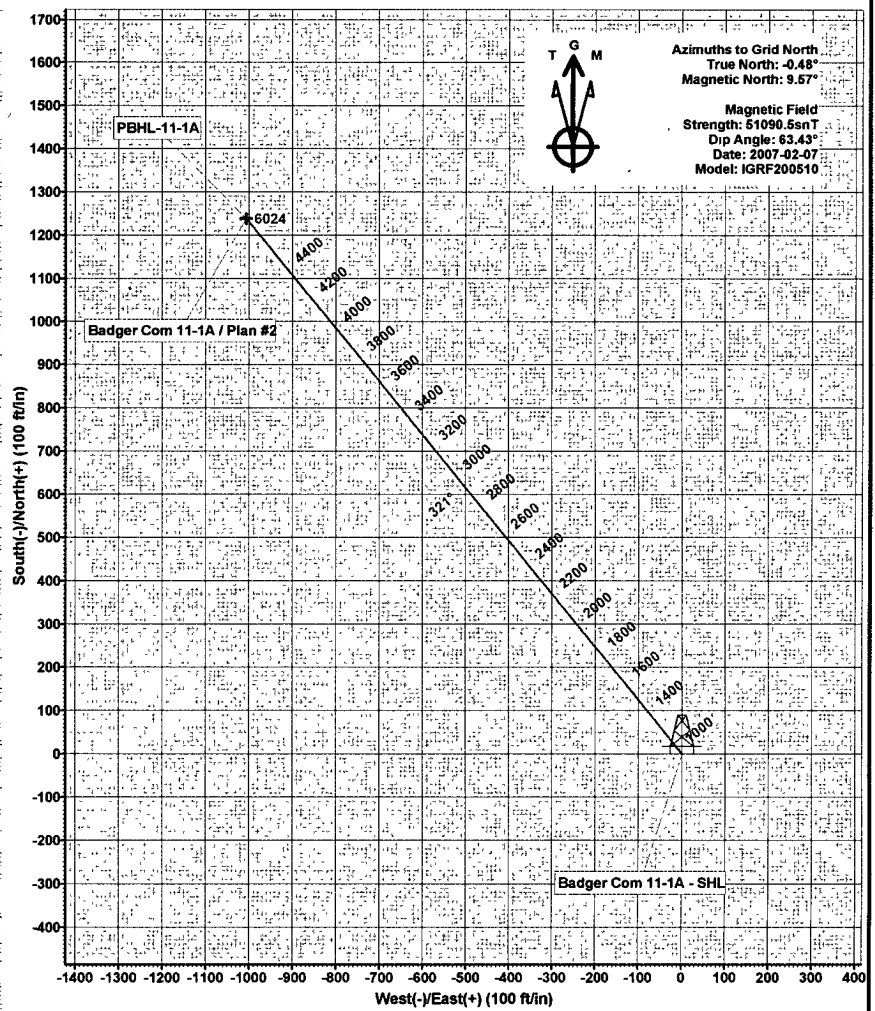
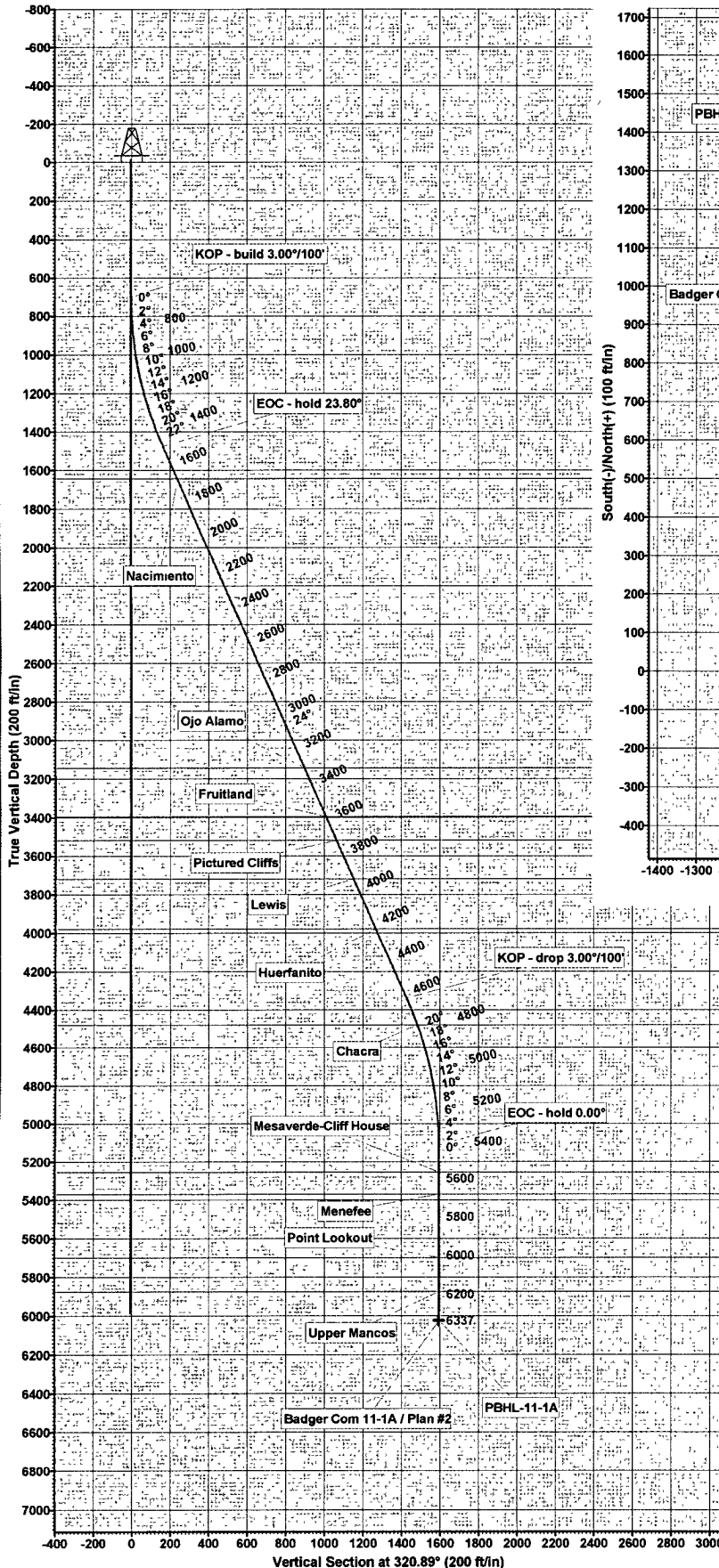
Database:	EDM 2003 14 Single User Db	Local Co-ordinate Reference:	Well Badger Com 11-1A
Company:	McElvain Oil & Gas	TVD Reference:	11-1A @ 7369.50ft (KB Elev 11-1A)
Project:	Rio Arriba County, NM (NAD 27)	MD Reference:	11-1A @ 7369.50ft (KB Elev 11-1A)
Site:	Badger Com 11	North Reference:	Grid
Well:	Badger Com 11-1A	Survey Calculation Method:	Minimum Curvature
Wellbore:	11-1A		
Design:	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,566.62	5,253.50	Mesaverde-Cliff House		0.00		
3,950.05	3,718.50	Lewis		0.00		
4,778.68	4,478.50	Chacra		0.00		
1,682.18	1,643.50	Nacimiento		0.00		
3,321.60	3,143.50	Ojo Alamo		0.00		
3,731.46	3,518.50	Pictured Cliffs		0.00		
5,681.62	5,368.50	Menefee		0.00		
4,234.21	3,978.50	Huerfanito		0.00		
6,011.62	5,698.50	Point Lookout		0.00		
6,186.62	5,873.50	Upper Mancos		0.00		
3,594.84	3,393.50	Fruitland		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
700.00	700.00	0.00	0.00	KOP - build 3.00°/100'	
1,496.79	1,473.88	127.10	-103.34	EOC - hold 23.80°	
4,627.02	4,337.91	1,107.23	-900.24	KOP - drop 3.00°/100'	
5,423.82	5,110.70	1,238.31	-1,006.81	EOC - hold 0.00°	

McElvain Oil & Gas

Project: Rio Arriba County, NM (NAD 27)
Site: Badger Com 11
Well: Badger Com 11-1A
Wellbore: 11-1A
Design: Plan #2



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
2	1493.35	23.80	320.89	1470.73	126.02	-102.46	3.00	320.89	162.42	
3	4643.27	23.80	320.89	4352.77	1112.32	-904.38	0.00	0.00	1433.58	
4	5436.62	0.00	0.00	5123.50	1238.34	-1006.84	3.00	180.00	1596.00	
5	6336.62	0.00	0.00	6023.50	1238.34	-1006.84	0.00	0.00	1596.00	PBHL-11-1A

WELL DETAILS: Badger Com 11-1A

+N/-S	+E/-W	North	East	Ground Level	Latitude	Longitude	Slot
0.00	0.00	1970782.28	739796.31	7356.00	36° 24' 48.708 N	107° 1' 6.168 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL-11-1A	6023.50	1238.34	-1006.84	36° 25' 1.037 N	107° 1' 18.358 W	Point

PROJECT DETAILS: Rio Arriba County, NM (NAD 27)

Plan: Plan #2 (Badger Com 11-1A/11-1A)

Geodetic System: US State Plane 1927 (Exact solution) Created By: Julio Piña Date: 07-Feb-07

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1886

Zone: New Mexico West 3003

Checked: _____ Date: _____

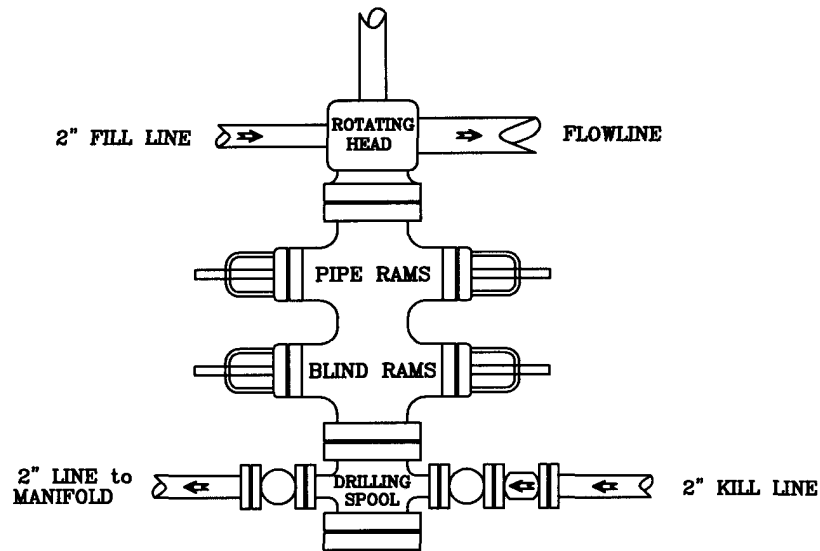
Reviewed: _____ Date: _____

Approved: _____ Date: _____

System Datum: Mean Sea Level

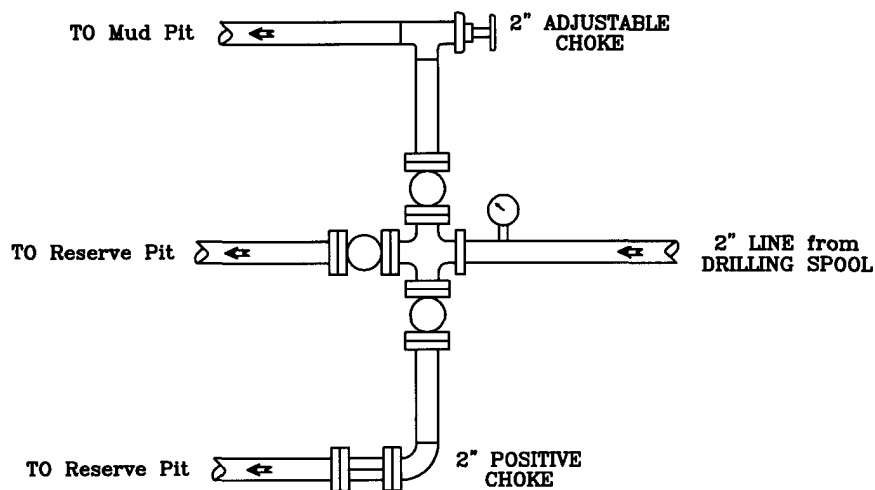
PRESSURE CONTROL

Wellhead Assembly



Preventer and Spools are to have a
6" Bore or larger and a 2000 PSI
or higher Pressure Rating

Choke Manifold



McElvain Oil & Gas Properties, Inc.

Badger 11 No. 1A
2238' FNL - 2298' FEL (surface)
Section 11, T25N, R02W, NMPM
Rio Arriba County, New Mexico