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

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

Form C-101
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

RCVD SEP 22 '08
OIL CONS. DIV.
DIST. 3

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

[1] Operator Name and Address	[2] OGRID Number
McElvain Oil & Gas Properties, Inc. 1050 17th St., Suite 1800 Denver, CO 80265-1801	22044
	[3] API Number 30-039-30502

[3] Property Code	[5] Property Name	[6] Well No.
28462	Badger 11	1B

[9] Proposed Pool 1	[10] Proposed Pool 2
Blanco Mesa Verde	

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	11	25N	2W		2262	North	2307	East	Rio Arriba

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	25N	2W		1980	North	660	West	Rio Arriba

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	P	7355'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	6014'TVD/6688' MD	Mancos	D&J Drilling	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"	23	3879'TVD/4438'MD	Stg. 1-450	DV
			DV@ 1700'MD	Stg.2-190	surface
6.250"	4.500"	10.5	3781'TVD/4318'MD	250	Liner top
			- 6014'TVD/6688'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 attached drilling program. Schematic of BOPE attached.

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

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

Hold C104
for Directional Survey
and "As Drilled" plat

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Robert E. Fielder

Printed name: Robert E. Fielder

Title: Agent

E-mail Address: pmci@ advantas.net

Date: September 4, 2008

Phone: 505.320.1435

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: NOV 06 2008

Expiration Date: NOV 06 2010

Conditions of Approval Attached ☐

NOV 06 2008

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-30562	72319	Blanco Mesa Verde

4 Property Code	5 Property Name	6 Well Number
28462	BADGER 11	1B

7 OGRID No.	8 Operator Name	9 Elevation
22044	McELVAIN OIL & GAS PROPERTIES	7355

10 Surface Location

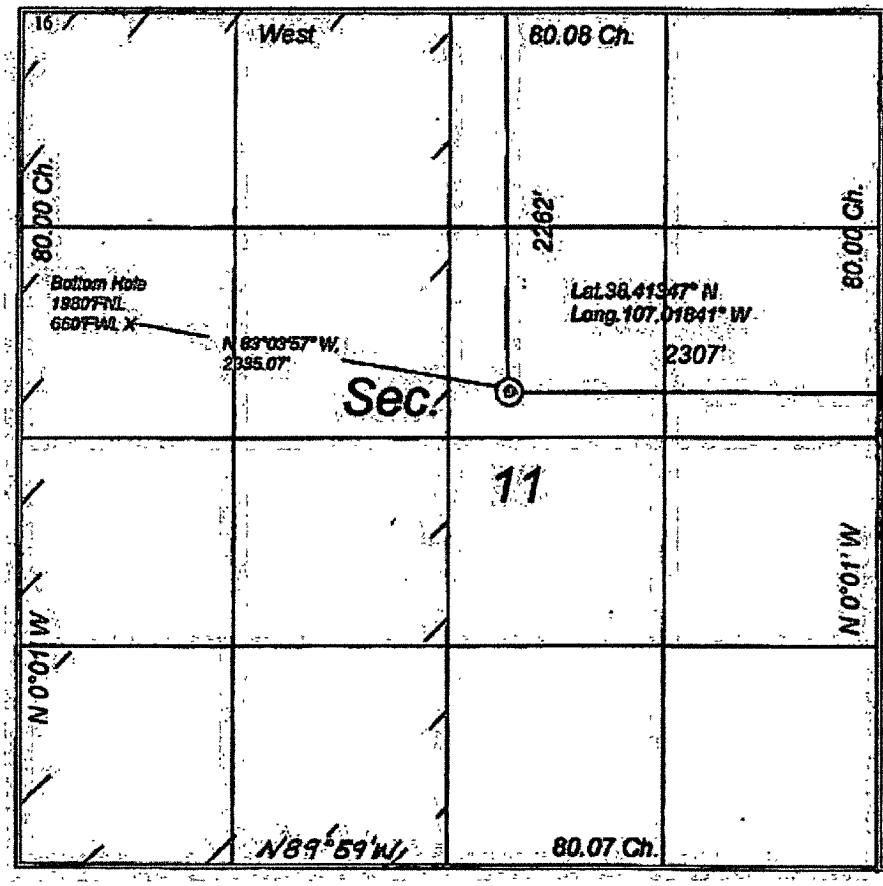
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	11	25N	2W		2262	North	2307	East	Rio Arriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	25N	2W		1980	North	660	West	Rio Arriba

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

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. 2006
Signature and Seal of Professional Surveyor:

NEW MEXICO
8466
William E. Mahnke II

Certificate Number 8466

McElvain Oil & Gas Properties, Inc.
Badger 11 No. 1B
2262' FNL & 2307' FEL (Surface)
1980' FNL & 660' FWL (Bottomhole)
Section 11, T25N, R2W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose

2. **Surface Elevation:** 7355'GL.

3. **Estimated Formation Tops:**

Formation	Top(TVD)-ft	Top(MD)-ft	Expected Production
Nacimiento	1624	1664	
Ojo Alamo	3124	3506	
Fruitland	3374	3814	Gas
Pictured Cliffs	3499	3969	Gas
Lewis	3699	4216	
Huerfanito	3959	4537	
Chacra	4459	5116	
Cliff House	5239	5914	Gas
Menefee	5354	6028	Gas
Pt. Lookout	5684	6358	Gas
Upper Mancos	5859	6533	
TOTAL DEPTH	6014	6688	

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:

Interval (ft)	Weight (ppg)	Ph	Vis(sec/qt)	Water Loss
0 - 600	8.6 or less	9.0-9.5	40 - 50	No Control

Casing and Cementing: A string of 9⅝" 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% $CaCl_2$ 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 12¼" by 9⅝" 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.

4. **Surface Hole Program:** - continued

Centralizers: Run four (4) 9⅝" X 12 ¼" 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 ¾" 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 1820'TVD/1897'MD to build inclination to 35.9°. Drill 35.90° hold section to 3879'TVD/ 4438'MD. All directional section will be on a 276.93° azimuth.

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

Interval (ft)(TVD/MD)	Weight (ppg)	Ph	Vis(sec/qt)	Water Loss
700 - 3200/3600	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
3200/3600 - 3879/4438	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.

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" 23# J-55 production casing from surface to Intermediate TD and cement in 2 stages with a DV tool installed at ± 1655'(TVD)/1700'(MD). **Stage 1** : will be cemented with 350 sacks (742.0 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 8¾" bowspring centralizers will be run across all prospective pays and 5 - 7" X 8¾" 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.

6. Production Hole Program:

Bits: Drill a 6 1/4" hole to 4043'(TVD)/4642'(MD)with TCI, IADC class 637 bit and directional tools holding angle at 35.9° on an azimuth of 276.93°. Drill to 5164'(TVD)/5838'(MD) dropping 3°/100' on 276.93° 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:

Interval (ft)(TVD/MD)	Weight (ppg)	pH	Vis(sec/qt)	Water Loss
3879/4438 - 6014/6688	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 ½" 10.5# J-55 production liner from TD to 120 feet into intermediate casing. Cement in a single stage with 150 sacks (318.0 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. 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 - 4½" X 6⅛" 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 4½" X 7" liner hanger.

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.

Database:	EDM 2003.14 Single User Db	**Local Co-ordinate Reference:**	Well Badger Com 11-1B
Company:	McElvain Oil & Gas	**TVD Reference:**	Well @ 7368.50ft (KB Elev 11-1B)
Project:	Rio Arriba County, NM (NAD 27)	**MD Reference:**	Well @ 7368.50ft (KB Elev 11-1B)
Site:	Badger Com 11	**North Reference:**	Grid
Well:	Badger Com 11-1B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	11-1B		
Design:	Plan #2		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,663 90	1,623.50	Nacimiento		0.00	
4,215.67	3,698.50	Lewis		0.00	
4,536 63	3,958.50	Huerfanito		0 00	
6,028 36	5,353.50	Menefee		0 00	
3,814.49	3,373.50	Fruitland		0.00	
3,505 88	3,123.50	Ojo Alamo		0.00	
6,358.36	5,683.50	Point Lookout		0.00	
3,968 79	3,498 50	Pictured Cliffs		0 00	
6,533.36	5,858.50	Upper Mancos		0.00	
5,913.36	5,238.50	Mesaverde-Cliff House		0.00	
5,116.28	4,458.50	Chacra		0.00	

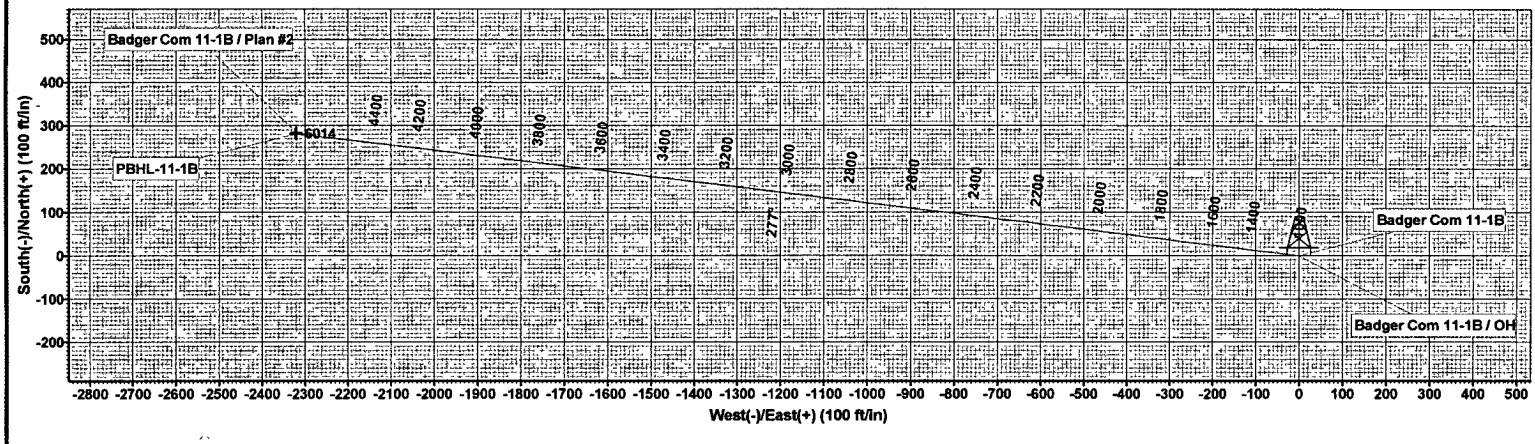
Plan Annotations

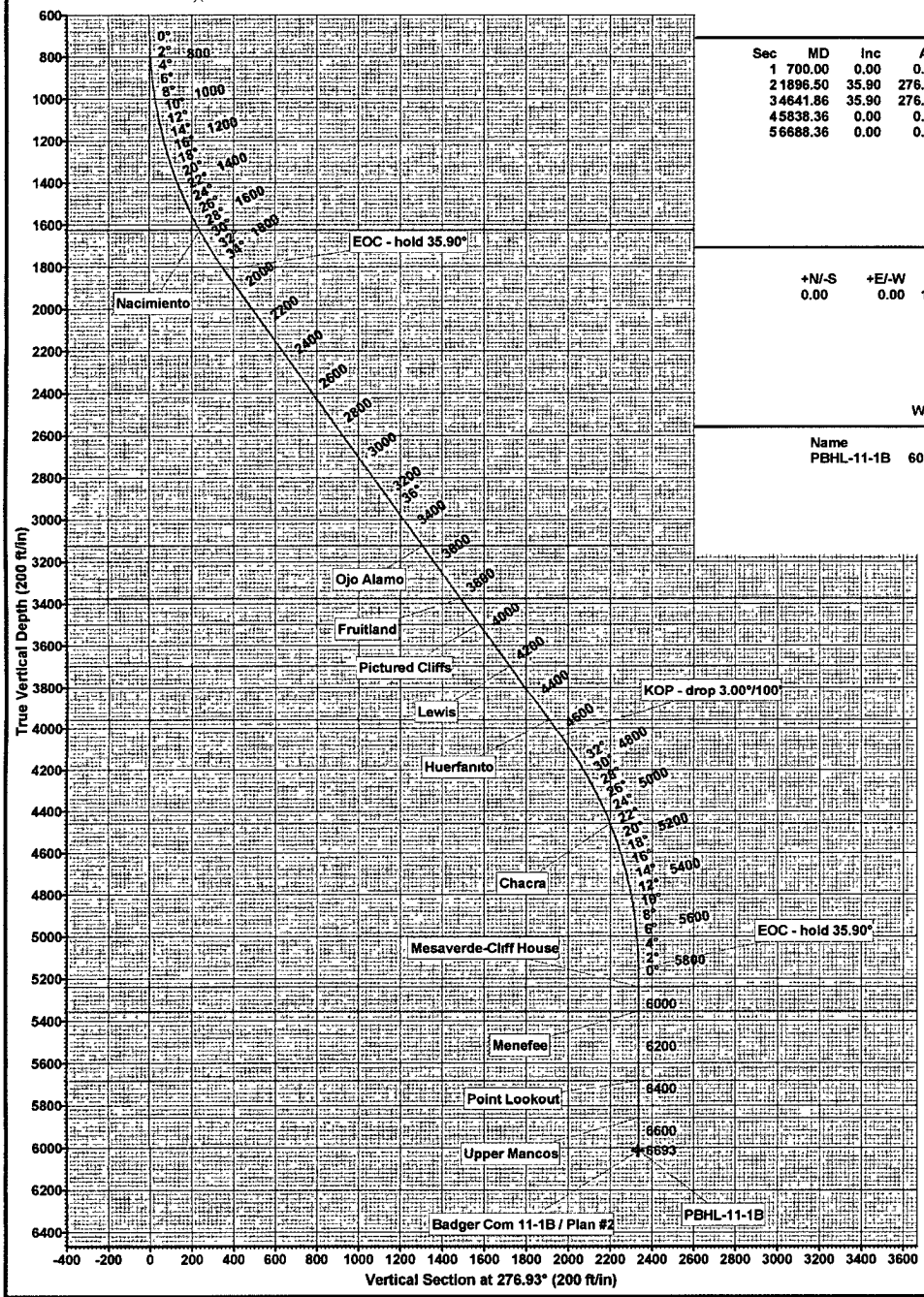
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
695 00				KOP - build 3 00°/100'
1,891 54	1,815.73	43.44	-357.16	EOC - hold 35.90°
4,636.86	4,039.70	237.75	-1,954.97	KOP - drop 3 00°/100'
5,833.40	5,158.54	281.89	-2,317.92	EOC - hold 35.90°

McElvain Oil & Gas

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

Scientific Drilling





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	1896.50	35.90	276.93	1819.75	43.79	-360.04	3.00	276.93	362.70	
3	4641.86	35.90	276.93	4043.75	238.11	-1957.88	0.00	0.00	1972.30	
4	5838.36	0.00	0.00	5163.50	281.90	-2317.92	3.00	180.00	2335.00	
5	6688.36	0.00	0.00	6013.50	281.90	-2317.92	0.00	0.00	2335.00	PBHL-11-1B

WELL DETAILS: Badger Com 11-1B

Ground Level: 7355.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1970760.37	739787.67	36° 24' 48.492 N	107° 1' 6.276 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL-11-1B	6013.50	281.90	-2317.92	36° 24' 51.472 N	107° 1' 34.604 W	Point

Azimuths to Grid North
True North: -0.48°
Magnetic North: 9.57°

Magnetic Field
Strength: 51090.4snT
Dip Angle: 63.43°
Date: 2007-02-07
Model: IGRF200510

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

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003

System Datum: Mean Sea Level

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

Created By: Julio Piña Date: 07-Feb-07

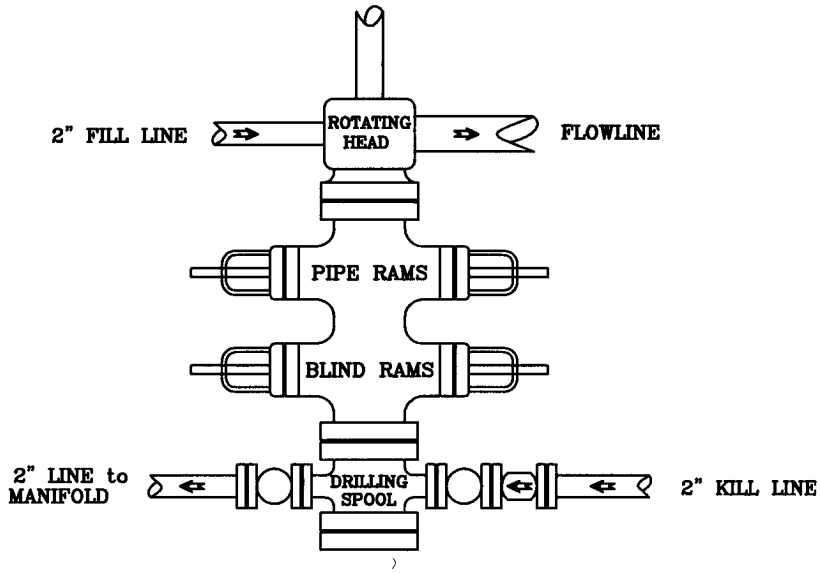
Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

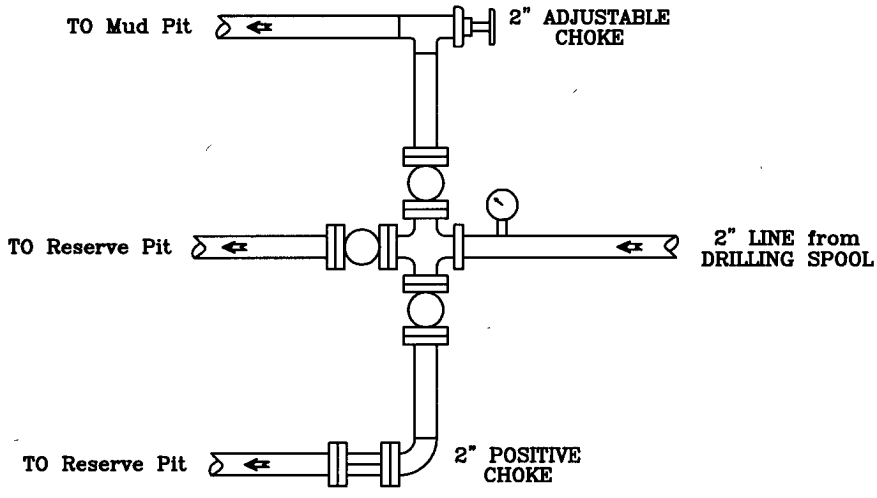
PRESSURE CONTROL

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. 1B

2262' FNL – 2307' FEL (surface)

Section 11, T25N, R02W, NMPM

Rio Arriba County, New Mexico