(August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

JUL 16 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER HOBBSOCD

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

5. Lease Serial No.

LC-0245247	

Approval Subject to General Requirements & Special Stipulations Attached

6. If Indian, Allotee or Tribe Nat	n
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la. Type of work: X DRILL REE	ENTER		7 If Unit or CA Agre	ement, Name and No.	
1b. Type of Well: X Oil Well Gas Well Other	区 Single Zone Mu	ltiplė Zone	8. Lease Name and McElvain # 1		_ >>
2 Name of Operator Mc ELVAIN OIL & GAS PROPERTIES (REF			9. API Well No. 30-02	5-40108	<u>z</u>
Ja. Address 1050 17th STREET SUITE 1800 DENVER, COLORADO 80265	303-893-0933		-10. Field and Pool. or EK-BONE SPR		500
4. Location of Well (Report location clearly and in accordance with At surface 900 FNL & 1170 FWL SECT	rion 31 tiss-R34E Le	ATION	II. Sec., T. R. M. or B SECTION 31	lk.and Survey or Area T18S-R34E	7
At proposed prod. zone Same 14. Distance in miles and direction from nearest town or post office* Approximately 30 miles West of I		· · · · · · · · · · · · · · · · · · ·	12. County or Parish LEA CO.	13. State	
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacin	g Unit dedicated to this v 80	vell	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 10,100		BIA Bond No. on file ON WIDE COBO	00009	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3860 GL.	22. Approximate date work will WHEN APPROVED	start*	23. Estimated duration	1	
	24. Attachments	· · · · · · · · · · · · · · · · · · ·	1 32		—
The following, completed in accordance with the requirements of Or		e attached to th	is form:		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Sys SUPO must be filed with the appropriate Forest Service Office) 	4. Bond to cove liem 20 above stem Lands, the 5. Operator cert	er the operation	ns unless covered by an		
25. Signature Jost. Jane	Name (Printed/Typed) Joe T. Janica			Date 05/04/10	
Title Permit Engineer	 				
Approved by (Signature) Title /s/ Don Peterson		/s/ Don Pe	terson	Date JUL 15	201
FIELD MANAGER		FIELD OFF		,	
Application approval does not warrant or certify that the applicant conduct operations thereon. Conditions of approval, if any, are attached.	t holds legal or equitable title to those r		pject lease which woulde PPROVAL FOR		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make i States any false, fictitious or fraudulent statements or representation	it a crime for any person knowingly ar ns as to any matter within its jurisdiction	id willfully to r	nake to any department o	r agency of the Unite	d
(Continued on page 2) Capitan Controlled V	Water Basin Ka	2 04/01	*(Inst)	ructions on page	2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL 1301 W. Grand Avenue, Artesia, NM 88210

Pool Code

State of New Mexico

Energy, Minerals and Natural Resources Department Companies Copy to appropriate District Office OIL CONSERVATION DIVISION

1220 South St. Francis Dr. JUL 16 2010

Santa Fe, New Mexico 87505

Pool Name

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

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

API Number

WELL LOCATION AND ACREAGE DEDICATION PLAT

D 31 UL or lot No. Section Dedicated Acres Joint or 80 7588 NO ALLOWABLE WI	76	.650 Prope	EK-BONE SPRING	<u> </u>		
22044 UL or lot No. Section D 31 UL or lot No. Section Dedicated Acres Joint or 80 7588 NO ALLOWABLE WI 3858.5' 66 86 1170' 1 3854.2' 185 NM-0245247		•	rty Name LVAIN		Well Nu	mber .
UL or lot No. Section D 31 UL or lot No. Section Dedicated Acres Joint or 80 7588 NO ALLOWABLE WITH Section 1170' 1		Opera	tor Name		Elevat	
D 31 UL or lot No. Section Dedicated Acres Joint or 80 7588 NO ALLOWABLE WITH Section 1170' 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M	cELVAIN OIL &	GAS PROPERTIES		3860)'
D 31 UL or lot No. Section Dedicated Acres Joint or 80 7588 NO ALLOWABLE WITH Section 1170' 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Surfac	e Location			
UL or lot No. Section Dedicated Acres Joint or 80 7586 NO ALLOWABLE WI 3858.5' 66 86 1170' 1 3854.2' 185 NM-0245247	Township Range	Lot Idn Feet from	m the North/South line	Feet from the	East/West line	County
Dedicated Acres Joint or 80 7588 NO ALLOWABLE WI. 3858.5' 06 86 1170' 1 3854.2' 185 NM-0245247	18 S 34 E	90	0 NORTH	1170	WEST	LEA
Dedicated Acres Joint or 80 75 86 NO ALLOWABLE WI. 3858.5' 06 86 1170' 1 3854.2' 185 NM-0245247	Bottom	Hole Location I	f Different From Su	<u> </u>		
3858.5' 6 .86 1170' 1 3854.2' 185 NM-0245247	Township Range	Lot Idn Feet from	m the North/South line	Feet from the	East/West line	County
3858.5' 0 186	ILL BE ASSIGNED	TO THIS COMPLET	TION UNTIL ALL INTE BEEN APPROVED BY		EN CONSOLIDA	TED
Lat - N 32"42'32.36" Long - W 103"36'14.99" NMSPCE- N 622433.092 E 765617.473 (NAD-83)	65.6'	 		I hereby certify on this plat was actual surveys supervison am correct to the Surveye Professional	Janica R CERTIFICAT that the well locate is plotted from field made by me or at that the same is to best of my belief RIL 7, 2010 d Seal of	ation ete to and that ing in the well at with an interest, or a entered by Date 5/04/10 TON Ton shown true and true

McELVAIN OIL & GAS PROPERTIES, INC. McELVAIN #11

UNIT "D" T18S-R34E SECTION 31 LEA CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

- 1. <u>LOCATION:</u> 900' FNL & 1170' FWL SECTION 31 T18S-R34E LEA CO. NM
- 2. ELEVATION ABOVE SEA LEVEL: 3860' GL.
- 3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solidsfrom the hole.
- 5. PROPOSED DRILLING DEPTH: 10,100'

6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	1702	Delaware	5427 '
Yates	3252'	Bone Spring	8187 '
Queen	4402	lst Bone Spring Sd.	8977 '
Penrose	4677 '	2nd Bone Spring Sd.	9502 '

7. POSSIBLE MINERAL BEARING FORMATIONS:

Queen	Oil	lst Bonr Spring Sd. 0il
Penrose	Oil	2nd Bone Spring Sd. Oil
2nd Delaware Sd	Oi 1	-me pour phrame pg. Off

8. CASING PROGRAM:

	HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAL	COLLAR.	GRADE C	CONDITION	
	26 "	0-40	20 ''	·NA	NA	NA	Conductor	New .	
50k	17½"	0-1000' 1000-1625'	13 3/8" 13 3/8"	48# 54.5#	8-R 8-R	ST&C ST&C	H-40 J-55	New New	
	11"	0-3450'	8 5/8"	32#	8 - R	ST&C	J-55	New	
	7 7/8"	0-10,000'	5½"	17#	8-R	LT&C	I-80	New	-
SA	AFETY FACTORS	S:							
	Burst 1.0) Collaps	se 1.125	Body Y	ield	1.5 Jos	int Streng	th 8-R Buttress	1.8 1.6

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

UNIT "D" T18S-R34E

SECTION 31 LEA CO. NM

9. CASING SETTING DEPTHS AND CEMENTING:

20" Conductor Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

13 3/8" Surface Run and set +625' of 13 3/8" casing as follows: 625' of 13 3/8" 54.5# J-55 ST&C, 1000' of 13 3/8" 49# h-40 ST&C CASING. Cement with 1000 Sx. of Class "C" cement + additives

Yield 1.75, tail in with 200 Sx. of Class "C" cement + additives, Yield 1.35, circulate cement to surface.

8 5/8" Intermediate Run and set 3450' of 8 5/8" 32# J-55 ST&C casing. Cement with 800 Sx. of Class "C" cement + additives, Yield 1.84,

tail in with 200 Sx. of Class "C" cement + additives,

Yield 1.35, circulate cement to surface.

Production Run and set 10,100' of $5\frac{1}{2}$ " 17# I-80 LT&C casing. Cement in 2 stages with DV Tool at $6750\pm$ '. Cement 1st stage with 550 Sx. of Class "H" cement + additives, Yield 1.27, cement 2nd

stage with 350 Sx. of Class "H" cement + additives, Yield 2.42, tail in with 550 Sx. of Class "H" cement + additives,

Yield 1.27, circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor. Middle blind rams, and bottom pipe rams. The B.O.P. will be mippled up on the 13 3/8" casinghead, tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period, and the blind rams will be operated when the drill pipe is out of the hole on trips, Full opening stabbing valve and upper kelly cock will be available on the derrick floor at all times. Exhibit "E-1" shows a hydraulically operated closing unit and a 3000 PSI working pressure choke manifold with adjustable chokes. No abnormal temperatures or pressures are expected while drilling this well.

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McELVAIN #11

UNIT "D" T18S-R34E SECTION 31 LEA CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

_	DEPHT	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
Spl	40-1625	8.4-9.4	32–36	NC	Fresh water use paper to control seepage
COA	<u>1625</u> -3450'	10.0-10.2	28-30	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
	3450-10,100'	8.9-9.6	29-34	12-15 or less	Brine and cut brine Chlorides 65-80K use high viscosity sweeps to clean hole.

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

THIS WELL WILL BE DRILLED USING A CLOSED MUD SYSTEM

McELVAIN OIL & GAS PROPERTIES, INC. McELVAIN #11

UNIT "D" T18S-R34E

SECTION 31 LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM: See COA

- A. Open hole logs: GammaRay from TD to surface, Density/Neutron from TD back to 8 5/8" casing shoe, HRLA from TD back to 8 5/8" casing shoe.
- B. Rig up mud logger on hole at 3600'
- C. No Cores, DST"s are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of $\rm H^2S$ in this area. If $\rm H^2S$ is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP $\frac{1}{2}$ 4000 PSI, and Estimated BHT 145°

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 30 days. If production casing is run then an additional 45 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray Collar logs will be run over all possible productive zones. The <u>Bone Spring</u> formation will be perforated and stimulated in order to establish production. The well will be tested and potentialed as an oil well.

202	Oulside	Weight	Thread	J	80 Pertor	-80 Performance Properties	operties		7	-55 Perto	J-55 Performance Properties	roperdes			1-80 Perfo	N-80 Performence Properties	roperties	
Performance		T&C		8	Burst	Tension, 1000 lbs		Maximum (Collapse	Bursk	Tension, 1000 bs	-	Maximum Callabse, Set Denth nai	Collapse,	Burst	Terison, 1000 lbs		Maximum Set Depth
Property	3	e B		Ž	3		_	faet	Ī.	. [اعد	feer	i		Yield	ड	(eet
Comparison	4.500	9.50	Short	3900	6380	221	13B	6930	3310	4360	152	101.	5890	3900	6380	22	143	6930
		10.50	Short	4940	0269	241	173	8780	4010	4790	165	.132	2000	4940	6970	241	1 86	8780
		11.50	Long	6350	7780	267	804	9610	4960	5350	184	162	0972	0389	7780	267	. 223	10580
	5.500	14.00	Short	3620	6210	322	234	6440	3120	4270	222	172	5550	3820	6210	322	243	6440
		15.50	Long	4990	2007	361	282	8870	4040	4810	248	217	7180	4980	7000	361	308	8870
		17.00	Long	6280	7740	397	320	10470	4910	2320	273	247	8060	6280	7740	387	348	11170
	7.000	20.00	Short	2740	5440	94	320	4870	2270	3740	316	234	4040	2740	5440	460	331	4870
		23.00	Long	3830	6340	532	458	6810	3270	4360	366	313	5810	3830	6340	535	442	6810
	•	26.00	Lang	5410	7240	604	502	9620	4320	4980	415	. 367	7680	5410	7240	604	519	9620
-	8.525	24.00	Short	1430	4290	555	337	2540	1370	2950	381	244	2440	1430	4290	555	346	2540
	•	28.00	Long	2160	4930	636	47B	3840	1880	3390	437	348	3340	2160	4930	636	493	3840
		32.00	Long	3050	01/9	732	574	5420	2530	3930	503	417	4500	3020	5710	732	281	5420
1-80 Dimensions,	Outside	Welchi	Thread		Dimer	Dimensions, Inch	동		Make	Make-Up Torque	Tre-	Hydro-				·		
Tomines and	Diameter,	T. €.		Wal	Inside	O . 海Q	Coupling N	Melke-up		t x lbs		<u>\$</u>						
	nc.	ी per त		Thickness Diameter	Yameler (Diameter (Outside	Loss) numminac	Venimum +	Optimum Minimum Maximum Pressure	Plessure,	•	i i	3	i		
nyaro-rest Drocerros						2	Diametev					E	- 0	APIBUII October 19	letin 503, 994 was c	1. API buileun 503, sixta Edilon, Odober 1994 was used to determine the	ion, Iemnine Ih	ø.
es incesi	4.500	9.50	Short	0.205	4,090	3.965	5.000	2,000	1380	1040	1730	5800	25	listed properties.	arties.			
		10,50	Short		4.052			2.625	1790	1340	2240	\$400	8	The vert	lical set d	2. The vertical set depth was computed	computed	
		11,60	gua	0.250	4,000	3.875	2.000	3,000	2190	1640	2740	7100	, כ י	sing a 9.6	325 fb. pe	using a 9.825 lb. per U.S. gallon mud,	on mud,	
,	5.500	14.00	Short	0.244	5.012	4.887	6.050	2.875	2340	1760	2930	2700	8 2	aro sarony esnerative	ימביטון א גע נסר בחל	respectively for collapse burst and		
		15,50	Lang		4.950		6.050	3,500	2950	2210	3690	6400		ension.				
		17.00	Lang		4.892	4.767	6.050	3.500	3350	2510	4190	7100	n	. Products	s are avai	3. Products are available plain end and	end and	
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	2	23.00	lono.		6.366		7,656	4,000	4280	3210	5350	5800	U	CB2.				
		26.00	Long		6.276			4.000	0203	3770	6280	6600	∢ 0	 As a service, IPSCO offer string designs upon request. 	více, IPS gns upon	 As a service, IPSCO offers casing string designs upon request. 	casing	
	8.625	24.00	Short	0.264	8.097		9,625	3,000	3370	2530	4210	3900						
		28,00	Long		8,017	7.892	9.625	4.500	4780	3530	2080	4500						
		32,00	الوا	0.352	7.921		9.625	4.500	5740	4310	7180	5200						

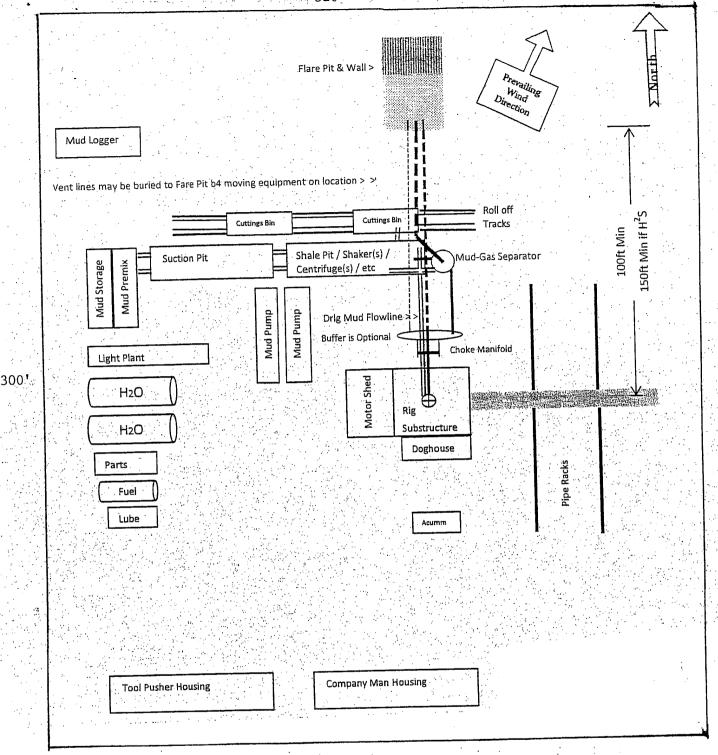
The information and data contained herein are accurate to our knowledge, based upon standard industry calculations. Buyers are encouraged to make their own evaluations of the above derived performance properties for their perticular use. The specific warranty epplicable to these goods is as contained in IPSCO's Order Actinov/ledgment, Conditions of Sale.



P.O. Box 18 Camanche, Iowa 52730 Phons: (563) 242-0000 Toil Free: 1-800-950-4772

400 505-3rd Street SW Calgary, Alberta T2P 3E6 Phone: (403) 543-8000 Toll Free: 1-877-780-7560

P.O. Box 1670 Regina, Saskatchewan S4P 3C7 Phone: (306) 924-7700 Toll Free: 1-800-667-1616



Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-gas separator location and their connection routing.

Generic Drill Site Layout

EXHIBIT "D"
RIG LAY OUT PLAT

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

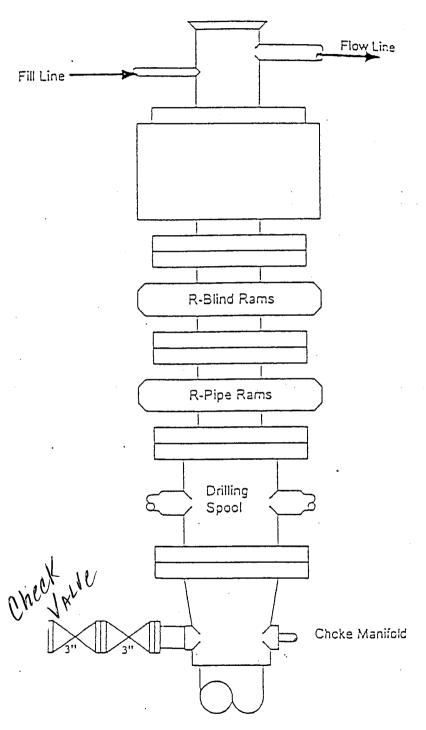
UNIT"D"
T18S-R34E

SECTION 31 LEA CO. NM

McElvain Oil & Gas Properties, Inc. - Generic Well Pad for ± 10,000 Foot Single Well Pad with Closed Loop Mud System 155 feet - Catwalk Side North 165 feet - Motor/Pump Side

Overall Pad Dimensions 320' (East-West) x 300' (North-South)

South

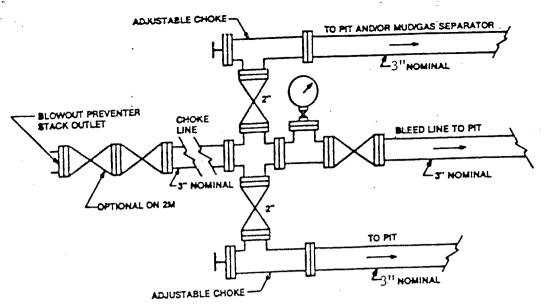


Type 900 Series 3000 psi WP

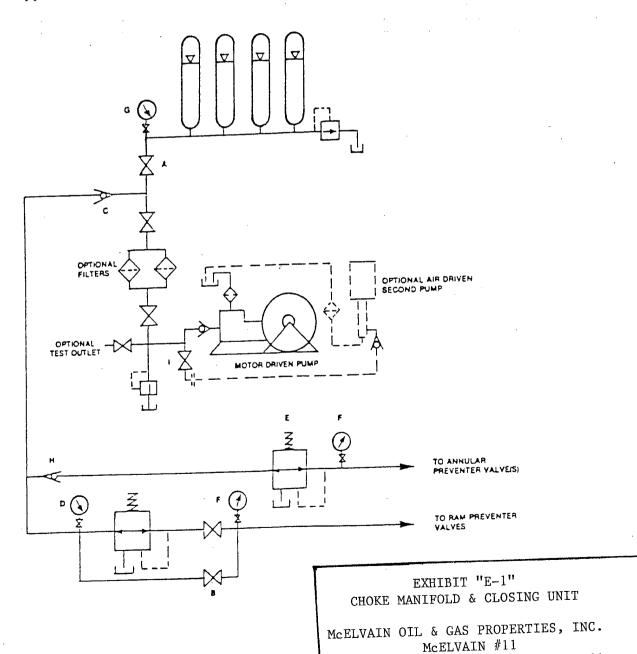
EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

McELVAIN OIL & GAS PROPERTIES, INC.
McELVAIN #11

UNIT"D" T18S-R34E SECTION 31 LEA CO. NM



Typical choke manifold assembly for 3M WP system



UNIT "D"

T18S-R34E

SECTION 31 LEA CO. NM