Form 3160-3	OCD-ARTESIA	ASH	FORM A	- 0 7 - 587 PPROVED 1004-0137	
UNITED STATE	ËS		5 Lease Serial No.	arch 31, 2007	
DEPARTMENT OF THE BUREAU OF LAND MA		2007	, NM-0560363 2	NM 0560353	e1 81
APPLICATION FOR PERMIT TO	D DRILL OR REENTERAR	ic.A	6 If Indian, Allotee	or Tribe Name	
la. Type of work 🗹 DRILL 🗌 REEN	l'I ER	<u></u>	7 If Unit or CA Agree	ement, Name and No.	
Ib. Type of Well: 🖌 Oil Well 🗍 Gas Well 🗍 Other	Single Zone Mul	tiple Zone	8. Lease Name and W		
2 Name of Operator			9 API Well No.	eral, Well No. 12	
Chi Operating, Inc.	The Dhenn No. (1, 1, 1, 1, 1)			5-35791	
3a. Address p.O. Box 1799 Midland, TX 79702	3b Phone No. (include area code) 432-685-5001		10 Field and Pool, or E Benson Delawa		
4 Location of Well (Report location clearly and in accordance with	any State requirements *)		11 Sec., T. R M. of Bil	k and Survey or Area	
At surface 2547' FNL & 519' FWL At proposed prod. zone 2310' FSL & 800' FWL			Sec. 12-T19S-R	30E	
 14 Distance in miles and direction from nearest town or post office* 16 miles south of Loco Hills, NM 			12 County or Parish Eddy	13 State NM	
15 Distance from proposed* 800' location to nearest	16 No of actes in lease	17 Spacir	g Unit dedicated to this w	ell	
property or lease line, ft (Also to nearest drig, unit line, if any) 330'	2160.32	40 ac	res		
18 Distance from proposed location*	19 Proposed Depth	20 BLM/	BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft 1150'	5500'	NM-	616		
 Elevations (Show whether DF, KDB, RT, GL, etc.) 3424' GL 	22. Approximate date work will s 09/26/2007	tart*	23. Estimated duration 4-6 weeks		
	24. Attachments		_L		
The following, completed in accordance with the requirements of Ons	shore Oil and Gas Order No.1, shall be	attached to the	is form		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Office) 	Em Lands, the 5 Operator certi). fication	ons unless covered by an original oristetina origina original original original original original orig	existing bond on file (see may be required by the	
····	authorized of Name (Printed Typed)			Date	
25 Signature Bedrack Smith	George R. Smith			08/03/2007	
Title Agent for Chi Operating, Inc.					
Approved by (Signature) Sesse 5 Juer	Name (Printed Typed)			Date 8-31-6	Л
Title STATE DIRECTOR	Office NM STAT	E OFF	ICE		
Application approval does not warrant or certify that the applicant h conduct operations thereon Conditions of approval, if any, are attached.		ghts in the su	bject lease which would e	ntitle the applicant to DR TWO YEARS	5
Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a States any false, fictitious or fraudulent statements or representations	a crime for any person knowingly and as to any matter within its jurisdiction.	1 willfully to	nake to any department o	r agency of the United	
*(Instructions on page 2) Capitan Controlled					
Lease Responsibility Statement: Chi Operating, I concerning operations conducted on the leased la	Inc. accepts all applicable ter	rms, cond [0	itions, stipulations,	and restrictions	
(GENERAL REQUIREM		GRA.		٤
ATTACHED FOR A	AND SPECIAL STIPUL		eorge R. Smith, ag	ent	
DITIONS OF APPROVAL	\TTACHED		NSC	Required 7 reduce	آد
			Pr	reduce	

State of New Mexico District I Form C-102 1825 N. French Dr., Hobbs. NN 88240 Energy, Minerals & Natural Resources Department District II

1301 W. Grand Avenue, Artesia, NM 88210

District_III

1000 Rio Brazos Rd., Astec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87605

OIL CONSERVATION DIVISION

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

1220 South St. Francis Dr. Santa Fe. NM 87505

AMENDED REPORT

·····		WI	<u>ELL LO</u>	CATIO.	<u>N AND AC</u>	REAGE DED		LAT		
1	API Numbe	17		7083		Ben	S pool Name son Delawai	ce		
4 Propert	y Code				5 Property	Name		1	6 We	U Number
361	3			Λ	IUNCHKIN	FEDERAL			1	12
7 OCR11 437					⁸ Operator CHI OPER.	- Name ATING, INC.				Elevation 424
				·	¹⁰ Surface	Location		_		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Une	Feet from the	East/West	line	County
E	12	19-S	30-E		2547	NORTH	519	WES	T	EDDY
		''Bo	ttom .	Hole L	ocation If	f Different	From Sur	face		
UL or lot no.	Section	Township	Range	Lot Idm	Feet from the	North/South line	Feet from the	East/West		County
L	12	19-S	30-E		2310	SOUTH	800	WES	T	EDDY
2 Dedicated Acr	es 13 Joint	or Infill 14 Co	msolidation	Code 15	Order No.		· · · · · · · · · · · · · · · · · · ·			
40										

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.



APPLICATION FOR DRILLING

CHI OPERATING, INC. Munchkin Federal, Well No. 11 Surface Location: 2418' FNL & 541' FWL, Sec. 12-T19S-R30E Bottom Hole: 2100' FSL & 330' FEL, Sec. 11-T19S-R30E Eddy County, New Mexico Lease No.: NM-0560353 (Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Chi Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Anhydrite	400'	Queen	3050'
Yates	2240'	Delaware	4170'
Seven Rivers	2430'	T.D.	5500'

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 300'.

Oil: Possible in the Queen, Delaware.

Gas: Possible in the Delaware.

4. Proposed Casing Program: (New Casing)

HOLE	CASING	WEIGHT	GRADE	COLLAR	SETTING	COLLAPSE	BURST	TENSION
<u>SIZE</u>	SIZE				DEPTH	DESIGN	DESIGN	DESIGN
						<u>FACTOR</u>	<u>FACTOR</u>	<u>FACTOR</u>
17 1/2"	13 3/8"	48.0#	J-55	ST&C	500'	2.850	1.51	15.04J
11"	8 5/8"	32.0#	J-55	LT&C	2,050'	2.376	3.38	7.47J
7 7/8"	5 1/2"	17.0#	J-55	LT&C	5,500'	1.488	1.77	2.97J

Note: Deviation Requirements: Commencing at 2100": Kick off and build angle at 2.5 degrees per 100 feet. Drill and build curve section to 21.25 degrees to T.D. See Exhibit "F".

5. Cement Program:

^يتر ز

- a. 13 3/8" casing: 500' Circ. to surface: 500sx "C" + additives, Yield 1.34
- b. -8 5/8" casing: 2050' Circ. to surface: Lead: 375 sx "C" Lite, Tail: 150 Sx "C" + additives, <u>Yield 1.34</u>
- c. 5 1/2" casing Stage 1: 5,500" Circ. to surface: Lead: 376 sx "C" + additives Yield 1.55
- 5 1/2" casing Stage 2: 5,500' Circ. Tail: 675 sx (35:65) Poz: Premium Plus "C" + add. <u>Yield: 2.1 & 1.34</u> Note: If DV Tool is required, will start at +/-3700'
- 6. Proposed Control Equipment: A 10" 3000 psi wp double hydraulic ram BOP will be installed on the 13 3/8" casing and will be used as a 2,000 psi system. Casing and BOP will be tested to 1000 psi before drilling out with 11". The BOP and casing will be tested according to Onshore Oil & Gas Order #2 before drilling out with 7 7/8". The pipe rams will be operated and checked daily plus each time drill pipe is out of hole. This will be documented on driller's log. See Exhibit "E".

7	MUD PROGRAM:		MUD WEIGHT	VIS.	W/L CONTROL
	0' - 500':	Fresh water/Spud:	8.4 - 8.7 ppg	32 - 34	No W/L control
	500' - 2050':	Brine mud:	10.0 ppg	29 - 30	No W/L control
	2050' - 5500':	Brine mud:	9.2 ppg	29 - 32	No W/L control
	5500'		9.2 ppg		W/L cont. <15 cc @ TD

Chi Operating, Inc. Munchkin Federal, Well No. 11 Page 2

6. A. S.

7

8. Auxiliary Equipment: Blowout Preventer, Kelly cock.

9. Testing, Logging, and Coring Program:

Mud Logging:	10' samples-2050) to TD (2 sets of samples)					
Drill Stem Tests:	As deemed neces	as deemed necessary.					
Logging:	T.D thru pay:	GR-CAL-CNL-LDT, GR-CAL DLL-MICRO and CMR					
	T.D. to Surface:	GR-Neutron					
Coring:	Rotary Sidewall:	as dictated by logs.					

- 10. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 2420 psi with a temperature of 115° .
- 11. H₂S: None expected. None in previous drilling of wells, but the Mud Log Unit will be cautioned to use a gas trap to detect H₂S and if any is detected the mud weight will be increased along with H₂S inhibitors sufficient to control the gas.
- **12.** Anticipated starting date: August 23, 2007 Anticipated completion of drilling operations: Approximately 30 days.

	E. Styl	e e
i	1 ⁻ 11 -	

RIG

.

BLOWOUT PREVENTOR ARRANGEMENT

10" SHAFFER TYPE "E", 3000 psi WP 80 GALLON, 4 STATION KOOMEY ACCUMULATOR 3000 psi WP CHOKE MANIFOLD



CHI OPERATING, INC. Munchkin Federal, Well No. 12 BOP Specifications



•

1

EXHIBIT "E" CHI OPERATING, INC. Munchkin Federal, Well No. 12 BOP Specifications

Appendix G

Planned Wellpath Report

Plan #1

Page 1 of 3



REFER	ENCE WELLPATH IDENTIFICATION		
Operator	Chi Operating, Inc.	Slot	#12_SHL
Area	Eddy County, NM	Well	#12
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#12 PWB
Facility	Munchkin Federal #12	** / / · · · · ·	

REPORT SETUP	INFORMATION	needen als anne anne anne anne anne anne anne ann	
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect [™] 1.2
North Reference	Grid	User	Jonebea
Scale	0.999927	Report Generated	08/02/07 at 10:58:55
Wellbore last revised		Database/Source file	WA_Midland/#12_PWB

WELLPATH LOCATION									
1	Local coordinates		Grid co	ordinates	Geographic coordinates				
and the second se	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]			
Slot Location	0.00	0.00	664699.00	609573.00	32 40 30.434N	103 55 56.689W			
Facility Reference Pt			664699.00	609573.00	32 40 30.434N	103 55 56.689W			
Field Reference Pt			664720.00	609701.00	32 40 31.700N	103 55 56.438W			

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on #12_SHL (RT) to Facility Vertical Datum	0.00 feet
Horizontal Reference Pt	Slot	Rig on #12_SHL (RT) to GRN. ELEV.	3424.00 feet
Vertical Reference Pt	Rig on #12_SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00 feet
MD Reference Pt	Rig on #12_SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	146.15°

EXHIBIT "F" Chi Operating, Inc. Munchkin Federal, Well No. 12 **Directional Drilling Program** Surface Location: 2547' FNL & 519' FWL, Sec. 12-T19S-R30E Bottom Hole Location: 2310' FSL & 800' FWL, Sec. 12-T19S-R30E

Planned Wellpath Report Plan #1 Page 2 of 3



REFER	RENCE WE	LLPATH IDENTI	FICATION					
Operator	r Chi Operati	ing, Inc.		Slot	#12_SHL	ġġĸĸĸġĸĸġĸĸġġġġġġġġġġġġġġġġġġ		, <u>1997 - 1997 - 1997 - 1997 - 1997</u>
Area	Eddy Count	ty, NM		Well	#12			* * *
Field	Ser is a ser se	Section 12 T19S R3	30E	Wellbore	#12 PWB		~ .	* *
Facility	Munchkin F	VILLAN APPROVAL ADAPATED MARKED	· · · · · · · · · · · · · · · · · · ·	where the state of			· · · ···· ··· ··· ···	
Longer, solar		(\$36.0.7 m (496.7 - 41.46 , mex.75	ww.w. * 5 15 5 3	* x y * x = 1	1	Spann C 1 3	(· · · · · · · · · · · · · · · · · · ·	1913 Maria Maria Maria Anglinga
WEITI		A (58 stations) †	= interpolated/e	rtranalated stati	, an			** ** *****
3 m w n n	MD	Inclination	Azimuth	TVD	Vert Sect	North	East	DLS
	feet]	[°]	1°]	[feet]	[feet]	[feet]	[feet]	[°/100ft]
5	. 0.00	0.000	146.154	0.00	0.00	0.00	0.00	0.00
	100.00†	0.000	0.000	100.00	0.00	0.00	0.00	0.00
	200.00†	0.000	0.000	200.00	0.00	0.00	0.00	0.00
	300.00†	0.000	0.000	300.00	0.00	0.00	0.00	0.00
	400.00†	0.000	0.000	400.00	0.00	0.00	0.00	
	500.00†	0.000	0.000	500.00	0.00	0.00	0.00	0.00
	600.00† 700.00†	0.000	0.000	600.00	0.00	0.00	0.00	0.00
	700.00	0.000	0.000	700.00 800.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	800.00† 900.00†	0.000 0.000	0.000 0.000	900.00	0.00	0.00	0.00	0.00
Ro Carlo Maine	1000.00†	0.000	0.000	1000.00	0.00	0.00	0.00	0.00
	1100.00†	0.000	0.000	1100.00	0.00	0.00	0.00	0.00
ya mana isani is	1200.00†	0.000	0.000	1200.00	0.00	0.00	0.00	0.00
	1300.00†	0.000	0.000	1300.00	0.00	0.00	0.00	0.00
	1400.00†	0.000	0.000	1400.00	0.00	0.00	0.00	0.00
hall har says a search	1500.00†	0.000	0.000	1500.00	0.00	0.00	0.00	0.00
	1600.00†	0.000	0.000	1600.00	0.00	0.00	0.00	0.00
	1700.00†	0.000	0.000	1700.00	0.00	0.00	0.00	0.00
	1800.00†	0.000	0.000	1800.00	0.00	0.00	0.00	0.00
	1900.00†	0.000	0.000	1900.00	0.00	0.00	0.00	0.00
	2000.00†	0.000	0.000	2000.00	0.00	0.00	0.00	0.00
	2100.00†	0.000	0.000	2100.00	0.00	0.00	0.00	0.00
	2200.00†	0.000	0.000	2200.00	0.00	0.00	0.00	0.00
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	2300.00†	0.000	0.000	2300.00	0.00	0.00	0.00	0.00
	2400.00†	0.000	0.000	2400.00		0.00	0.00	i i i i i i i i i i i i i i i i i i i
	2500.00†	0.000	0.000	2500.00	0.00	0.00	0.00	0.00
	2600.00†	0.000	0.000	2600.00	0.00	0.00	0.00	1 · · · ·
	2700.00	0.000	0.000	2700.00	0.00	0.00	0.00	1
1.	2800.00†	0.000	0.000	2800.00	0.00	0.00	0.00	
RACE	2900.00† 3000.00†	0.000 0.000	0.000 0.000	2900.00 3000.00	0.00 0.00	0.00 0.00	0.00 0.00	
,	3100.00†	0.000	0.000	3100.00	0.00	0.00	0.00	angarara a a sa a - ana amanananana mananana m
pm 100 5 110	3200.00	0.000	146.154	3200.00	0.00	0.00	0.00	ารู้การการการว่าง เกาะคางเพราะ
	3300.00†	2.500	146.154	3299.97	2.18	-1.81	1.21	2.50
	3400.001	5.000	146.154	3399.75	8.72	-7.24	4.86	an a
: Footstriffic (* 1997)	3500.00†	7.500	146.154	3499.14	19.6 1	-16.28	4.80	YA I WE MA MANAGE CALMAN WAY
	3600.00†	10.000	146.154	3597.97	34.82	-28.92	19.39	i for a a summer second and and and and and and and and and a
• • •	3700.00†	12.500	146.154	3696.04	54.33	-45.12	30.26	4
1	3766.00	14.150	146.154	3760.27	69.54	-57.75	38.73	1
0230307	3800.00†	14.150	146.154	A MARANA AND A STATE OF A CARD AND A CARD AND A CARD AND A CARD AND A CARD A CARD A CARD A CARD A CARD A CARD A	77.85	·	43.36	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Planned Wellpath Report Plan #1 Page 3 of 3



REFER	ENCE WELLPATH IDENTIFICATION	and states	
Operator	Chi Operating, Inc.	Slot	#12_SHL
Area	Eddy County, NM	Well	#12
Field	(Munchkin) Section 12 T19S R30E		#12 PWB
Facility	Munchkin Federal #12	· . · · · · · · · · · ·	

WELLPATH DATA (58 stations) \dagger = interpolated/extrapolated station

MD [feet]	Inclination	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North feet	East feet	DLS [º/100ft]
3900.00†	14.150	146.154	3890.20	102.29	-84.96	56.97	0.00
4000.00†	14.150	146.154	3987.16	126.74	-105.26	70.59	0.00
4100.00†	14.150	146.154	4084.13	151.19	-125.57	84.21	0.00
4200.00†	14.150	146.154	4181.10	175.63	-145.87	97.82	0.00
4300.00†	14.150	146.154	4278.06	200.08	-166.17	111.44	0.00
4400.00†	14.150	146.154	4375.03	224.53	-186.48	125.05	0.00
4500.00†	14.150	146.154	4471.99	248.97	-206.78	138.67	0.00
4600.00†	14.150	146.154	4568.96	273.42	-227.08	152.29	0.00
4700.00†	14.150	146.154	4665.93	297.86	-247.39	165.90	0.00
4800.00†	14.150	146.154	4762.89	322.31	-267.69	179.52	0.00
4900.00†	14.150	146.154	4859.86	346.76	-287.99	193.13	0.00
5000.00†	14.150	146.154	4956.82	371.20	-308.30	206.75	0.00
5100.00†	14.150	146.154	5053.79	395.65	-328.60	220.36	0.00
5200.00†	14.150	146.154	5150.75	420.10	-348.90	233.98	0.00
5300.00†	14.150	146.154	5247.72	444.54	-369.2 1	247.60	0.00
5400.00†	14.150	146.154	5344.69	468.99	-389.51	261.21	0.00
5500.00†	14.150	146.154	5441.65	493.44	-409.81	274.83	0.00
5560.17	14.150	146.154	5500.00 ¹	508.15	-422.03	283.02	0.00

HOLE & CASIN	G SECTION	S Ref V	Wellbor	re: #12 P	WB Ref	Wellpath	: Plan #1			
String/Diameter	Start M [feet]	1	I MD eet]	Interval [feet]	Start TVD feet]	End TV [feet]	D Start N/S [feet]	Start E/W [feet]	End N/S [feet]	End E/W [feet]
7.875in Open Hole	3200	10 0 55	560.17	2360.17	3200.00	5500	0.00 0.0	0.00	-422.03	283.02
	2050	с, ^л								
TARGETS	, , , ,,	~			,				~ ~ ,	,
Name		MD [feet]	TVD [feet]	North [feet]		d East rvey feet]	Grid North us survey feet]	Latitude [°]	Longitude [°]	e Shape
1) #12_ BHL		5560.17	5500.00) -422.03	283.02 6	64982.00	609151.00	32 40 26.248N	103 55 53.39	7W point
		2310' FSL & 800' FWL								
SURVEY PROG	RAM Ref W	ellbore:	#12 PV	VB Re	ef Wellpath:	Plan #1	A.C. (1.M. C. (2.1.2.2.2.6.1.6.000		· · · · · · · · · · ·	
Start MD [feet]	End MD [feet]		Positio	nal Uncerta	ninty Model		Log Na	me/Comment	W	ellbore
0.00	5560.17 N	aviTrak (Standard	d) (b		ten waar een een een soorgee			#12 PW	/B



MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC Munchkin Federal, Well No.12 Surface Location: -2600² FNL & -520² FWL, Sec. 12 -T19S-R30E Bottom Hole: 2310' FSL & 800' FWL, Sec. 12 -T19S-R30E Eddy County, New Mexico Lease No.: NM-0560353 (Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

.

- A. Exhibit "A" is a portion of a BLM Hackberry Lake Topo map showing the location of the proposed well as staked. The well site location is approximately 36 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82, NM Hwy 360 and county roads No. 250 and 251, there will be 33 miles of paved highway, plus 3 miles of existing gravel oilfield roads.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 14 miles, turn southeast on NM Hwy 360 for approximately 13 miles to paved County Rd #251. Turn north on #251 for 1.8 mile to County Rd. # 250, then turn right on #250 for 3.8 miles to top of Nimenim Ridge. Turn south onto a gravel oilfield road just west of a cattle guard with a pipeline buried near the road. Continue south for .8 mile to a large tank battery and water injection pump house; turn right (west) for .25 mile to a pump jack, then south (left) for .63 mile to a P/A well site with a gas line tap. Turn right (west) for .3 mile, then south .25 mile to the Munchkin Fed. #1 well site. Turn west, north of the #1, for .2 mile to the access road on the left (south) side. Follow this road southeast then south to the southwest corner of the Munchkin Fed. #4 well pad. The access road continues at the southwest corner of the pad and runs southeast for 1000 feet to the southeast corner of this well pad for 900' to the pipeline; then 1,100' west, south of the pipeline, to the northeast corner of the Munchkin Federal #8 well pad. The proposed well is on the SW corner the No. 8 well pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be no new proposed access road. The existing roads are color coded on Exhibit "A".
- B. Construction: The existing access roads will be repaired, as needed, by grading and topping with compacted caliche and will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None required
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: An off lease ROW No. NM-102279 was issued with a previous APD covering the existing access road in the E2 of Sec. 1-T19S-R30E.

Chi Operating, Inc. Munchkin Federal, Well No. 12 Page 2

•

.

3. LOCATION OF EXISTING WELLS:

A. Existing wells within a one-mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. Chi Operating, Inc. has production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities and gas production-process equipment will be installed on the drilling pad of the Munchkin Fed. #8 well, which also has storage facilities and pipelines available on the well pad. Additional storage may be added if required.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche for surfacing and maintenance of the existing access road and construction of the well site pad will be obtained from a pit on the location, if available, or from a BLM approved pit on the drill site for the Wizard Federal #3 in the NW¼SE¼, Sec. 1-T19S-R30E. The archaeologist has cleared this pit. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access roads.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

A. None required.

Chi Operating, Inc. Munchkin Federal, Well No. 12 Page 3

.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area was originally staked and flagged, 600' X 600'.
- B. Mat Size: 245' X 165', plus 100' X 100' reserve pits on the west.
- C Cut & Fill: The location will require a 2 3 foot cut on the west, undisturbed area, for the pits with fill to the east. There are undulating sand dunes 2 3 feet high that will need to be leveled.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

- A. Topography: The proposed location and access road are located in an area on top of and east of the Niminem Ridge. The location has an overall 2% slope to the east/northeast from an elevation of 3424' GL.
- B. Soil: The topsoil at the well site is a deep yellowish red colored noncalcareous sandy loam with some caliche scatter on the surface. The soil is of the Berino loamy fine sands series.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of threeawn, grama, dropseed, fluff grass and bush muhly along with plants of mesquite, broomweed, yucca, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: None in the area except oil field equipment and tank batteries.
- F. Land Use: Cattle grazing.
- }
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is some evidence of archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202 have conducted an archaeological survey and submitted their report No. ASC 05-013 on September 6, 2005 to the appropriate government agencies. Another report will be furnished after an additional 100' X 600' area is to be cleared on the west side, which will take care of the re-route of the bike trail and give a 120' buffer west of the mud pits.

Chi Operating, Inc. Munchkin Federal, Well No. 12 Page 4

.

. .

12. OPERATOR'S REPRESENTATIVE:

,

A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls Chi Operating, Inc. P. O. Box 1799 Midland, Texas 79701 Office Phone: (432) 685-5001 Cell Phone: (432) 557-8774

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Chi Operating, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

August 3, 2007

eorger. Smith

.

George R. Smith Agent for: Chi Operating, Inc.





RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.

Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

<u>Reclamation</u>: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Conditions of Approval Recreation

EA#: NM-520-07-0883 Lease #: NM-0560353 Chi Operating, Inc. Munchkin Fed. #11 & #12

The proposed action lies on one of the trails to the Hackberry OHV recreation area. The company will be responsible for rerouting these trails safely around the proposed pads. This may be as simple as flagging a new route to the blading of a new route. These new routes will be completed before the existing routes are closed.

Please call Jon Jasper (505) 234-2221 to discuss routing proposals, before beginning pad construction.

Operator's Name:	Chi Operating Inc	
Well Name & No.	12-Munchkin Federal	
Location (SHL):	2547' FNL, 0519' FWL, Sec. 12, T-19-S, R-30-E, Eddy County, NM	
Location (BHL):	2310' FSL, 0800' FWL, Sec. 12, T-19-S, R-30-E, Eddy County, NM	
Lease:	NM-0560353	

I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 2 hours in advance for a representative to witness:
 - 1. Spudding well
 - 2. Setting and/or Cementing of all casing strings
 - 3. BOPE tests

· ·

1

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard and has been detected in Township 32E measuring 200-3000 ppm in gas streams and 200-3000 ppm in STVs from the Yates and Delaware formations.
- **C.** Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- **D.** Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturers of the logging tools recommended speed. (R-111-P area only)

II. CASING: If used casing is used, certification required.

A. The <u>13-3/8</u> inch surface casing shall be set <u>a minimum of 25 feet into the Rustler Anhydrite</u> <u>at approximately 500</u> feet and cemented to the surface.

- 1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 24 hours in the potash area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- 4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Artesia Group and Capitan Reef. Possible water flows in the Artesia and Salado Groups.

- **B.** The minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing is for cement to come to surface. If cement does not circulate see A.1 thru 4.
- C. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is for cement to come to surface. If cement does not circulate see A.1 thru 4.
- **D.** If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- E. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed, which includes all cement seal tests prior to and after drilling out each string.

III. PRESSURE CONTROL:

ŝ

•

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- **B.** The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - 1. The tests shall be done by an independent service company.
 - 2. The results of the test shall be reported to the appropriate BLM office.
 - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - 5. A variance to test the surface casing and BOP/BOPE to the reduced pressure of <u>1000</u> psi with the rig pumps is approved.

IV. Drill Stem Test

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

Engineer on call phone (after hours): Carlsbad - 505-706-2779

WWI 081707

Y