Form 3160-3 (February 2005)	OCD-ARTESIA ATS-08				
DEPARTMENT OF THE	5 Lease Serial No. NMLC 047269				
RESUBNITIAND ABUREAU OF LAND MAN	NAGEMENT DRILL OR REENTER	85	6. If Indian, Allotee	or Tribe Name	
Ia. Type of work: DRILL	DEC 4 200	7	7 If Unit or CA Agre	cement, Name and No.	
1b. Type of Well: Oil Well Gas Well Other	OCD-ARTES	SIA Iultiple Zone	8. Lease Name and Sand Tank 7	Well No. Fed 3H	
2. Name of Operator EOG Resources, Inc.			9. API Well No.	15-25951	
3a. Address P.O. Box 2267 Midland, TX 79702	3b. Phone No. (include area coa 432-686-3642	e)	10. Field and Pool, or I Sand Tank; B	Exploratory one Spring	
4. Location of Well (Report location clearly and in accordance with a	ny State requirements.*)		11. Sec., T. R. M. or B	lk, and Survey or Area	
At surface 330' FNL & 510' FWL (U/L D) At proposed prod. zone 330' FSL & 660' FWL (U/L M)	Capitan Controlled	Water Bas	Section 7, T18	S-R30E, N.M.P.M.	
 Distance in miles and direction from nearest town or post office* Approx 3.5 miles SSW from Loco Hills, NM 			12 County or Parish Eddy	13 State NM	
15 Distance from proposed* 330'	16. No. of acres in lease	17. Spaci	ng Unit dedicated to this	well	
property or lease line, ft. (Also to nearest drig, unit line, if any)	160	w/2	W/2 of Sec 7, T18S-R	30E, N.M.P.M.	
18. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth	20. BLM	BIA Bond Na on file		
applied for, on this lease, ft.	8500' TVD; 12762' TMI		2308		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 3541'	22. Approximate date work wi 12/04/2007	II SI&TI*	23. Estimated duratio	n 	
	24. Attachments			······	
The following, completed in accordance with the requirements of Onsho	ore Oil and Gas Order No.1, must	be attached to t	his form:		
 Well plat certified by a registered surveyor. A Drilling Plan. 	4 Bond to co Item 20 abo	ver the operati ve).	ons unless covered by an	existing bond on file (see	
3. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).	a Lands, the 5. Operator co 6. Such other BLM.	rtification site specific in	formation and/or plans as	may be required by the	
25 Signature	Name (Printed/Typed)	tan		Date 10/24/2007	
Title Sr. Lease Operations ROW Papersentative	Douny G. Gian			10/24/2007	
Approved by (Signature)	Name (Printed/Typed)			Date	
Is/ James A. Amos	Tel 1	ames A.	Amos	NOV 2 4 2007	
THE FOR FIELD MANAGER	CARL	SBAD F	IELD OFFIC)E	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.					
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a States any false, fictitious or fraudulent statements or representations as	crime for any person knowingly s to any matter within its jurisdicti	and willfully to on.	make to any department	or agency of the United	
*(Instructions on page 2)					
		1	APPROVAL SU	IBJECT TO	
SEE ATTACHED FOR		ł	GENERAL REC	UIREMENTS	
CONDITIONS OF APPROVAL			AND SPECIAL	STIPULATIONS	

,

:

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

ŗ,

۹.

DISTRICT 1

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

State of New Mexic	Mexic	New	of	State
--------------------	-------	-----	----	-------

Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION

Form C-102 Revised August 15, 2000 Submit to Appropriate District Office State Lease - 4 copies Fee Lease - 3 copies

1	1220	South	St.	Francis	Dr.

Santa Fe, New Mexico 87505

7	AMENDED	REPORT
	10111011000000	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	2 Pool Code	Sand Tank.	Bool Name	
	14036	David Jann	Done Spring.	
⁴ Property Code	5	Property Name		 Well Number
36879	SAND	TANK "7" FED		ЗН
⁷ OGRID No.	·······	Operator Name		Elevation
7377	EOG R	ESOURCES, INC.		3541

¹⁶ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Fect from the	East/West line	County
D	7	18 SOUTH	30 EAST, N.M.P.M.		330'	NORTH	510'	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idu	Feet from the	North/South line	Feet from the	East/West line	County
H	7	18 SOUTH	30 EAST, N.M.P.M.		330'	SOUTH	660'	WEST	EDDY
¹² Dedicated Acres		³ Joint or Infill	¹⁴ Consolidation Code	15 Order N	0.				
160									

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Exhibit Z

LOCATION & ELEVATION VERIFICATION MAP





1307 N. HOBART PAMPA, TX. 79065 (800) 658-6382

ŗ

6709 N. CLASSEN BLVD. OKLAHOMA CITY, OK. 73116 (800) 654-3219 2903 N. BIG SPRING MIDLAND, TX. 79705 (800) 767-1653

DRILLING PROGRAM

1. GEOLOGIC NAME OF SURFACE FORMATION: Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	500'
San Andres	3,400'
1 st Bone Spring	7,600'
2 nd Bone Spring	8,150'
TD	8,500'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 250'	Fresh Water
Grayburg/ San Andres	3,000'	Oil
1 st Bone Spring	7,600'	Oil
2 nd Bone Spring	8,150'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 11.75" casing at 350° and circulating cement back to surface.

4. CASING PROGRAM-NEW



						<u>Collapse</u>	<u>Burst</u>	Tension
						Design	<u>Design</u>	<u>Design</u>
<u>Hole</u>	<u>Interval</u>	OD Csg	<u>Weight</u>	<u>Grade</u>	<u>Conn.</u>	Factor	Factor	Factor
1 4.750"	0-350'	11.75"	42#	H-40	ST&C	6.22	1.96	6.29
11.00"	0-3,300'	8.625"	32#	J-55	LT&C	1.74	1.88	4.03
7.875"	0-12,323'	5.5"	17#	N-80	LT&C	1.60	1.33	2.28

Cementing Program: 11.75" Surface Casing:	Cement to surface, 200 sx Premium Plus C + 0.005 pps Static Free + 2% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L, 14.8 ppg, 1.35 yield
8.625" Intermediate Casing:	Cement to surface, Lead: 500 sx 50:50 Poz C + 0.005 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8 ppg, 2.45 yield Tail: 200 sx Prem Plus C + 0.25 pps CelloFlake + 0.005 FP-6L + 1% CaCl ₂ , 14.8 ppg, 1.34 yield 1.

 5.50" Production Casing:
 Cement to 2,600', Lead: 600 sx 50:50 Poz C + 0.005

 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5

 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite, 11.8

 ppg, 2.29 yield

 Tail: 600 sx 50:50 Poz H + 2% Bentonite + 0.005 gps

 FP-6L + 0.005 pps Static Free + 5% NaCl + 0.1% R-3

 + 0.2% CD-32 + 0.3% FL-52A, 14.2 ppg, 1.30 yield

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. for a 2M system prior to drilling out of the surface casing shoe and while drilling the intermediate section. Before drilling out of the intermediate casing, the ram- type BOP and accessory equipment will be tested to 5000/ 250 psig and the annulur preventer to 3500/ 250 psig.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer mud system. The applicable depths and properties of this system are as follows:



			Wt	Viscosity	Waterloss
	Depth	Type	<u>(PPG)</u>	(sec)	<u>(cc)</u>
/	•0-350'	Fresh – Gel	8.6-8.8	28-34	N/c
4	350'-3,300'	Brine	10.0-10.2	28-34	N/c
	3,300'-7,000'	Fresh water	8.4-8.6	28-34	N/c
	7,000'-7,500'	Cut Brine	8.8-9.6	28-34	N/c
	7,500'-8,125'	Cut Brine	8.8-9.6	28-34	10-15
	7,433'-12,323'	Polymer (Lateral)	8.8-9.6	40-45	10-25

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Laterlog and GR-Compensated Density-Neutron from TD to intermediate casing with a GR- Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to intermediate casing.

Possible sidewall cores based on shows.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 165 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3500 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

ATTACHMENT TO EXHIBIT #1

- 1. Wear ring to be properly installed in head.
- 2. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum. Exhibit #1.
- 3. All fittings to be flanged

1

- 4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
- 5. All choke and fill lines to be securely anchored especially ends of choke lines.
- 6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 7. Kelly cock on kelly.
- 8. Extension wrenches and hand wheels to be properly installed.
- 9. Blow out preventer control to be located as close to driller's position as feasible.
- 10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

.



...

.

Permit Information:

Well Name: Sand Tank 7 Fed #3H

.

Location:

SL	330' FNL & 510' FWL, Section 7, T-18-S, R-30-E, Eddy Co., N.M.
BHL	330' FSL & 660' FWL, Section 7, T-18-S, R-30-E, Eddy Co., N.M.

ı

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	350'	14-3/4"	11-3/4"	42#	H-40	Surface
Intermediate	3,300'	11"	8-5/8"	32#	J-55	Surface
Production	12,323'	7-7/8"	5 1/2"	17#	N-80	2,600'

Cement Program:

Depth	No. Sacks	Slurries:
350'	200	Premium Plus C + 0.005 pps Static Free + 2% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
3,300'	500	Lead: 50:50 Poz C + 0.005 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite
	200	Tail: Premium Plus C + 0.005 pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
12,323'	600	Lead: 50:50 Poz C + 0.005 pps Static Free + 5% NaCl + 0.25 pps CelloFlake + 5 pps LCM-1 + 0.005 gps FP-6L + 10% Bentonite
	600	Tail: 50:50 Poz H + 2% Bentonite + 0.005 gps FP-6L + 0.005 pps Static Free + 5% NaCl + 0.1% R-3 + 0.2% CD-32 + 0.3% FL-52A

Mud Program:

.

Depth	Туре	Weight (ppg)	Viscosity	Water Loss
0 – 350'	Fresh - Gel	8.6-8.8	28-34	N/c
350' - 3,300'	Brine	10.0-10.2	28-34	N/c
3,300' - 7,000'	Fresh Water	8.4 - 8.6	28-34	N/c
7,000' – 7,500'	Cut Brine	8.8-9.6	28-34	N/c
7,500' - 8,125'	Cut Brine	8.8-9.6	28-34	10-15
7,433' – 12,323'	Cut Brine/	8.8-9.6	40-45	10-25
	Polymer (Lateral)			

÷

•

:

Planning Report

CPASS Velocity	abase leany. ective string bore: set ign co	EOG - Midlar Sand Tank (Sand Tank 7 Sand Tank 7 Sand Tank 7 Original Plan	nd (3) Bone Spring) Fed #3H Fed #3H Fed #3H	n an		Local Co TVDIRefer MDIRefer North Refer SUTVEY, Ca LOCAL	cellation incellation incellation irence iculation Magin	erence chi ethod-9	Well Sand Tan WELL @ 3560 WELL @ 3560 Grid Minimum Curv	k 7 Fed #3H 00ft (Original 00ft (Original 00ft (eriginal	Well Elev) Well Elev)
Pro	iector A	Sand Ta	πk (Bone Spri	ng); Eddy	County NM	2003. ACT 10. 100 200	79400 H. AD. 1944				The state of the s
Map Geo Map	o System: o Datum: o Zone:	US State NAD 1927 New Mexi	Plane 1927 (E 7 (NADCON C co East 3001	xact soluti ONUS)	ion)	System [Datum:		Mean Sea Leve	ei 	
Site		Sand Ta	nk 7 Fed #3H								ALL
Site	Position:			North	ing:	643	,349.00ft	Latitude:			32° 46' 5.738 N
Fro	m:	Map		Easti	ng:	597	,080.00ft	Longitud	e:		104° 1' 3.020 W
Pos	ition Uncer	tainty:	0.00 ft	Slot F	Radius:		•1	Grid Con	vergence:		0.17 *
We		Sand Tar	nk 7.Fed #3H		مودين و معروفين. د و الدوليز، حو ال					د بر محد دها مد. د از از از از از از	
Wol	Position	57922.4539972475 +N/-S	0.00 f	t Nr	nthing	1172340 0 04765813834844	643 349 (-3%*#=#=#E666#A)0ft	atitude:	nen analogian (john) Analogia	32° 46' 5 738 N
1		+E/-W	0 00 1	t Ea	sting:		597,080.0)0 ft	Longitude:		104° 1' 3.020 W
Pos	ition Uncer	tainty	0.00 f	t W	eilhead Elev	vation:		ft	Ground Level:		3,541.00 ft
We	llbore	Sand Ta	nk/7 Fed?#3H	2				and a state of	an a	-	
Ma	jnetics A	Mode	IGRF2000	Sampli 12	eiDate / 227 //31/2004	No Declin	ation 277 8.82		pAngle 42 14 (;) 11 14 60 86	a field	Strength 1, 22 and ni) 49,725
Des	inner alle	CAL Original.	Plan	,		1. 15	<u>م</u>			24.1 M 1 . 2 4 . 19 . 1	Level a state of the
AUG	dit Notes:		9. A 26 A CAR A AND AND A CARACTER AND A	****	n an	sette de la companya de la companya La companya de la comp	L'I IDIZ DU ALTINIS	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	ana an	376589279632-98869793 	nt 7% werde jake die "Die 7% w. F. J.C.
Ver	sion:			Phas	ie: f	PROTOTYPE	Е Т	ie On Dept	h:	0 00	
Vér	tical Section		Contraction of the second s	h:From(T	VD)	A+N/SX → ((1))		EJ.W	S (ASA ∣D N	rection 7	
L				8,060 00		0.00	l	0.00		178.01	
Personal Action	n(Sections easured Depth 1 C In ((t))	clination A C(c)	zimuth (c)	ertical? Depth ((ft)	N/S ((i)	- E/W - E/W - (n)	Dogleg Ratel (/100tt)	CBulld Rate	Rate (/100m)	() () () ()	and the second
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 0	00 D.00	0 00	
	7,433 00	0 00	0 01	7,433.00	0 00	0.00	0.00	0 0	00 0.00	0.01	
	8,173.75	88.00	178.02	7,915.00	-465.18	16.08	11.88	3 11	88 0.00	178.02	
	8,174.07	88.00	178 01 178 01	7,915.01	-465.50	16 09	3.00	0- C	90 -2.86	0.00	
	12,322.50	66.00 88.00	178.01	5,050 VV 8 060 00	-4,008 90 -4,609 00	160.00	0.00	ט ט. ר ר	00 0.00 87 -∩.87	0.00	BHL (Sand Tank 7
	12,022.00	00.00	110.01	3,000.00		100 00	J.Ui	J 2	ur -0.0/	0.00	

.

•

•

Planning Report

Database : EDM Company : EOG -	Midland (3)	iba)	an a	Leccal Co TVD₁Refe	ordinate/Refer	ence:/c. W	ell-Sand Tank ELL @ 3560.(7 Fed #3H: Oft (Óriginal W	vell Élev) /ell Élev)
Site: Sand T Well: Sand T	Fank 7 Fed #3F			North Ref	erence of a literation Met	den Gr hod: We Mi	id . nimum Curvat	túre	
Wellbore / Sand T Design: And Origina	ank 7 Fed #3H Il Plan								
Planned Survey		n en aran en a En aran en aran e				ALL AND AND A ALL AND A	and the second second	and the second second	
Contraction of the second seco	lination, a Az	muth CF	Vertical Depth	GN/S200	te/wasts	rtical//:	Dogleg - A. Rate (* 25	Build	Aurnio a costar Rate, Mate
		门边主要	4 (ft)	ð(ft) 924 sa		(ft) - (f) - (f)	?/100ft)	/100ft) = 4-1	(1100ft))) (1.10ft)
0 00	0.00	0 00	0.00	0 00	0.00	0.00	0 00	0.00	0.00
200.00	0.00	0.01	200.00	0.00	0.00	0.00	0 00	0.00	0 00
300 00	0.00	0 01	300.00	0 00	0.00	0.00	0 00	0.00	0.00
400 00	0.00	0.01	400.00	0 00	0 00	0.00	0 00	0.00	0.00
500.00 600.00	0.00	0 01	500.00 600.00	0.00	0 00	0 00	0.00	0.00	0.00
700.00	0.00	0.01	700.00	0 00	0.00	0.00	0.00	0 00	0.00
800 00	0.00	0.01	800.00	0 00	0.00	0.00	0 00	0 00	0.00
900.00	0.00	0 01	900.00	0.00	0.00	0.00	0.00	0.00	000
1,000 00	0.00	0.01	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.01	1,200.00	0.00	0.00	0.00	0 00	0.00	0.00
1,300.00	0 00	0 01	1,300.00	0.00	0.00	0.00	0 00	0 00	0.00
1,400.00	0 00	0 01	1,400 00	0.00	0.00	0.00	0.00	0.00	0 00
1,500.00	0.00	0.01	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.01	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.01	1,800.00	0 00	0 00	0.00	0.00	0.00	0.00
1,900.00	0 00	0.01	1,900.00	0 00	0.00	0.00	0.00	0.00	0.00
2,000.00	0 00	0.01	2,000.00	0 00	0 00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.01	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.01	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.01	2,400.00	0 00	0.00	0.00	0 00	0 00	0.00
2,500.00	0 00	0.01	2,500.00	0 00	0.00	0.00	0 00	0.00	0.00
2,600.00	0.00	0 01	2,600.00	0.00	0.00	0.00	0.00	0 00	0 00
2,700.00	0 00	0.01	2,700.00	0.00	0.00	0.00	0.00	0.00	000 1
2,900.00	0.00	0.01	2,900.00	0 00	0.00	0.00	0 00	0.00	0.00
3,000.00	0.00	0.01	3,000 00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0 00	0.01	3,100 00	0 00	0.00	0.00	0.00	0.00	0 00
3,200.00	0.00	0.01	3,200 00 3 300 00	0 00 0 00	0.00	0.00	0.00	0 00	0 00
3,400.00	0.00	0.01	3,400 00	0 00	0.00	0.00	0.00	0 00	0 00
3,500 00	0.00	D 01	3,500 00	0 00	0.00	0.00	0.00	0 00	0 00
3,600 00	0.00	0.01	3,600.00	0.00	0 00	0 00	0.00	0.00	0 00
3,700.00	0.00	0 01	3,700.00	0.00	0,00 0,00	0.00	0.00	0.00	0.00
3,900 00	0.00	0.01	3,900.00	0.00	0 00	0.00	0 00	0.00	0 00
4,000.00	0.00	0.01	4,000.00	0.00	0.00	0 00	0 00	0 00	0.00
4,100.00	0.00	0.01	4,100.00	0.00	0.00	0 00	0.00	0.00	0.00
4,200.00	0.00	0.01	4,200 00 4 300 00	0.00	0.00	000	0.00	0.00	0.00
4,400.00	0 00	0.01	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500 00	0.00	0.01	4,500.00	0 00	0.00	0.00	0.00	0.00	0 00
4,600.00	0.00	0.01	4,600.00	0 00	0.00	0.00	0.00	0.00	0 00
4,700 00	0.00	0 01	4,700 00	0 00	0.00	0.00	0.00	0.00	0 00
4,900.00	0.00	0.01	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5 000 00	0.00	0.01	5 000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0 01	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.01	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.01	5,300.00	0.00	0.00	0.00	0.00	0 00	0.00

10/22/2007 5:02:56PM

•

÷.

COMPASS 2003.16 Build 42

Planning Report

Database (* 2000) Company (* 2000) Project 2000, Sand 1 Site (* 2000) Sand 1	Midland (3) Fank (Bone Sp Fank 7 Fed #3	Dring) H		LocallCo TVD/Refe MDIRefer North Re	ordinate Rel rence di ence di tra terence di tra	ierence o W W W N W W N W W W N W W	/ell,Sand Tank /ELL:@ 3560.(/ELL:@ 3560.(/id.	7 Fed #3H Doft (Original W Doft (Original W	Veli Elev) Veli Elev)
Wellbore Sand T Design 774 Origina	Tank 7 Fed #3 at Plan	H man Harson a	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Survey c				uie The summer and se	
Planned Survey			Vertical			Vertical		Build Constant	Viturnitas vit
Augus Depth Sering (ff)	Lination C A	zimutn; ; ; ; ; (i); ; ; ; ; ; ; ; ; ;	NDepth ⁷⁴ A(ft)	N-N-S-A-F C(ft)S, Sec	+ <u>E</u> .w.u.+ + (0):5	Section (1)	Rate() (?/100ft)	Rate (1) (2)	(Rate)219 300 (2/100ft)
5,400 00	0.00	0 01	5,400.00	0.00	0.00	0.00	0.00	0.00	0 00
5,500.00	0.00	0 01	5,500.00	0.00	0.00	0 00	0.00	0.00	0.00
5,600.00	0.00	0 01	5,600.00	0.00	0 00	0 00	0 00	0 00	0.00
5,700.00	0 00	0.01	5,700.00	0.00	0.00	0 00	0 00	0.00	0.00
5,800.00	0.00	0.01	5,800.00	0.00	0 00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.01	5,900.00	0.00	0.00	0.00	0.00	0.00	000
6,000 00	0.00	0.01	6,000 00	0.00	0.00	0.00	0.00	0 00	0.00
6,100 00	0 00	0 01	6,100 00	0.00	0.00	0.00	0.00	0.00	0.00 ,
6,200.00	0 00	0.01	6,200.00	0.00	0.00	0.00	0.00	0.00	0 00 '
6,300.00	0 00	0 01	6,300.00	0.00	0.00	0.00	0.00	0 00	0.00
6,400.00	0.00	0.01	6,400 00	0.00	0.00	0.00	0.00	0 00	0.00
6.500.00	0.00	0.01	6.500.00	0 00	0 00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.01	6 600 00	0 00	0 00	0.00	0.00	0 00	0.00
6,700.00	0.00	0.01	6,700.00	0.00	0 00	0 00	0.00	0.00	0 00
6,800.00	0.00	0 01	6,800.00	0.00	0.00	0 00	0 00	0.00	0 00
6,900.00	0.00	0.01	6,900.00	0 00	0.00	0.00	0 00	0.00	0.00
7 000 00	0.00	0.01	7 000 00	0.00	0.00	0.00	0.00	0.00	0.00
7 100 00	0.00	0.01	7 100 00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.01	7.200.00	0.00	0.00	0.00	0 00	0.00	0.00
7.300.00	0.00	0.01	7,300.00	0 00	0.00	0.00	0.00	0.00	0.00
7,400 00	0 00	0.01	7,400.00	0.00	0.00	0.00	0 00	0.00	0.00
7 433 00	0.00	0.01	7 422 00	0.00	0.00	0.00	0.00	0.00	0.00
7,433.00	7 96	178.02	7,433.00	0.00	0.00	4 65	11 99	11 99	0.00
7,000,00	10.84	178.02	7 506 68	-4.04	0.10	29.63	11.00	11.88	0.00
7 700 00	31 72	178.02	7 686 57	-71 99	2 49	72 04	11.88	11.88	0.00
7,800.00	43 60	178 02	7,765,59	132 95	4 60	133 02	11.88	11.88	0 00
7,000 00		170 00		102.00		100.02	11.00	11,00	0.00
7,900.00	55.48	178.02	7,830.37	-208.85	7.22	208.97	11 88	11.88	0.00
8,000.00	07.30	178.02	7,87813	-296.45	10.25	296.63	11.88	11.88	0.00
9 173 76	7524	170.02	7,900.01	-392.01	13.35	J92.24	11.00	11.00	0.00
8 174 07	88.00	178.01	7,915.00	-465.50	16.00	405.40	3.00	.0.00	-2.86
0,114.01	00.00		7,515.01	-400.00	10.05	405.70	5.00	-0.50	-2.00
8,200.00	88.00	178.01	7,915 92	-491.40	16.99	491.70	0.00	0 00	0.00
8,300.00	88 00	178.01	7,919 41	-591 28	20.46	591.63	0.00	0.00	0.00
8,400.00	89.00	178.01	7,922.91	-091.16	23.93	691.57 701.51	0.00	0.00	0.00
8,500.00	88.00	178.01	7,920.40	-890.92	27.40	791.01 801.45	0.00	0.00	0.00
0,000.00	00.00	170.01	1,52,5,50	-000.02	55.67			0.00	0.00
8,700.00	88.00	178.01	7,933 39	-990 80	34.34	991.39	0.00	0.00	0.00
8,800 00	88.00	178.01	7,936.89	-1,090.67	37.81	1,091.33	0.00	0.00	0.00
8,900 00	88.00	170.01	7,940.30	-1,190.55	41.27	1,191.27	0.00	0.00	0.00
9 100 00	88.00	178.01	7 94 7 37	-1,290,43	44.74	1 301 15	0.00	0.00	0.00
0,100.00	00.00		7,047.07	-1,000 01	40 21	1,001 10	0.00	0.00	0.00
9,200.00	88.00	1/8.01	7,950 87	-1,490,19	51 68	1,491.08	0 00	0.00	0.00
9,300.00	00 88	178.01	7,954.36	-1,590.07	55.15	1,591.02	0.00	0.00	0.00
9,400.00	00 UU 99 00	179.01	7 061 25	-1,009.95	20.02	1,090.90	0.00	0.00	0.00
9,000.00 9,000.00	88 00	178.01	7 064 05	-1,703.03	02.U9 25 52	1,190.90	0.00	0.00	0.00
5,000.00	00 00	110 01	7,504.00	-1,003.70	00.00	1,080.04	0.00	0.00	0.00
9,700.00	88.00	178.01	7,968.34	-1,989.58	69.03	1,990.78	0 00	0.00	0 00
9,800.00	88.00	178.01	7,971.84	-2,089.46	72.49	2,090 72	0.00	0 00	0.00
9,900.00	88 00	178.01	7,975.33	-2,189.34	75.96	2,190.66	0 00	0.00	0.00
10,000.00	88.00	178.01	7,978.83	-2,289.22	79.43	2,290 60	0.00	0 00	0 00
10,100.00	88.00	178 01	7,982.32	-2,389.10	82.90	2,390 54	0.00	0 00	0 00
10,200.00	88.00	178.01	7,985.82	-2,488.98	86.37	2,490.47	0.00	0.00	0.00
10,300.00	88.00	178.01	7,989 31	-2,588.85	89.84	2,590 41	0.00	0.00	0.00

10/22/2007 5:02:56PM

.

COMPASS 2003.16 Build 42

,

Planning Report

											and the second
Novy files	FDI	M	12.7 A 440 - 74	2.47 246 (KG2.2, 473 ASE 1772		L'ocali C	A Viel A na C	terence #	Vell Sand Tank	7 Fed #3H	P.S. Capture Concernant
100010000	E C	C Mid	i liand (3)	:		ATVD PO	8-5- W1 (* - 3-4)	TOWNER WE	NË11: 6 3560 Ó	ນີ້ ໄດ້ແຕ່ທັງ ອີ	الأرماع الأمر
Compan		of Topl	(Danà S	(nona)			P. A MARE NY A			nii (Onginai v Nii (Ônginai V	
Project	odi odi		C (Done 3	ihunia)	, , [,]	ENIL: ROI	Herence	KAKE .	VELE (0) 5500 0		
Site: Tub	serve Sar	no i ank	(,/ ⊢ea #	31	: • •	NorthR	eterence.	1944 A 1949			
Well:X	Sar Sar	ng, l'auk	(/ Fed #	зн		Survey	Calculation	ethod: 1937 h	Annimum Curvati	ire	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Wellbor	a kang Sar	id Tanl	(7 Fed #	3H			a start with	and the second second			
Design.	Original Chief	ginal Pl	an .			AT A LOC		1.1.1.5. A.	ې د د کې م کې د مواد د د		
103 <u>16</u> 2312 822	and the Kindshire and	N273-8833	AND STATES AND	CALL CONTRACTOR CONT	a de la companya de Na companya de la comp		CHARACTER , DAVID AND THE SECOND		andre later i verse for andere andere Service of the service of the service		a ana ang ang ang ang ang ang ang ang an
Planned	Survey	XX-					1	and so and the		. i.	
1948 I. 194	Same as any	(金) 御竹		A. 194 A. 194 A.		DIMENT A		13165101515		S. C. ALARA	12.63 15 15 20 16
ALC: N	leasured C	Ser.		STATES AND	Vertical			Vertical 1	Dogleg	Build A.S.	STURNES W
	Depth Sat	Inclin	ation	Azimi their	POenth? sy	+N/1S+-R0	HEIWING	Section 2:4	Rate	Rate	Rate
AN AS	in Maree	110	S. Inter	The states	(ft)#15/	SPACE VERY AND	(ff)563 a	A (ft) The	9(?/100ft)3(% (/100ft)	("/100ft) (************************************
		COR.	6.3350A		Sile Kinen Des	a share a second a	Alian CARVER N			iaan an ing si	
	10,400.00		88.00	178.01	7,992.81	-2,688.73	93.31	2,690.35	0.00	0.00	0,00
ļ ·	10,500 00		88.00	178 01	7,996.30	-2,788.61	96 78	2,790.29	0.00	0 00	0.00
'	10,600.00		88.00	178 01	7,999 80	-2,888.49	100.25	2,890 23	0.00	0.00	0.00
	10,700.00		88.00	178 01	8,003 29	-2,988 37	103.71	2,990.17	0.00	0.00	0.00
j -	10,800.00		88.00	178 01	8,006.79	-3,088.25	107 18	3,090.11	0 00	0.00	0.00
1	10,900.00		88.00	178.01	8,010.28	-3,188.13	110 65	3,190 05	0.00	0 00	0.00
	11,000.00		88.00	178.01	8,013 78	-3,288.01	114.12	3,289.99	0.00	0.00	0.00
	11,100.00		88.00	178.01	8 017 27	-3,387.88	117.59	3,389.92	0.00	0 00	0 00
	11 200 00		88.00	178.01	8 020 77	-3 487 76	121.06	3 489 86	0.00	0.00	0.00
	11 300 00		88.00	178 01	8 024 26	-3 587 64	124.53	3.589.80	0.00	0.00	0.00
	11 400 00		88.00	178.01	8.027.76	-3.687 52	128.00	3.689.74	0.00	0.00	0 00
	11.500.00		88.00	178.01	8.031.25	-3.787.40	131.47	3,789,68	0 00	0.00	0.00
	11.600.00		88 00	178.01	8.034.75	-3.887.28	134.93	3,889 62	0.00	0.00	0 00
	44 700 00		00.00	470.04	0.000.04	2 007 40	100.40	2 000 50	0.00	0.00	0.00
	11,700.00		88 00	178.01	8,038.24	-3,967.10	130.40	3,909.00	0.00	0.00	0.00
	11,600,00		00.UU 22.00	179.01	0,041.74	-4,057,03	141.07	4,009.50	0.00	0.00	0.00
	12,000,00		88 00	178.01	8 045.25	-4,100 91	140.04	4 289 37	0.00	0.00	0.00
	12,000 00		88.00	178.01	8 052 22	-4 386 67	152.28	4 389 31	0.00	0.00	0.00
	12,100.00		00.00	170.01	0,002 22	-4,500.07	152.20	4,000.01	0.00	0.00	0.00
1	12,200.00		88.00	178.01	8,055.72	-4,486.55	155 75	4,489.25	0.00	0.00	0.00
	12,300.00		88.00	178.01	8,059 21	-4,586.43	159.22	4,589 19	0.00	0.00	0.00
	12,322.50		88.00	178.01	8,060.00	-4,608 90	160.00	4,011,08	0.00	0.00	0.00
	12,322.60		88.00	178.01	8,060.00	-4,609.00	160.00	4,011.78	3.00	2.87	-0.07
	BHL; (Şand	Tank 7	7 #3H)						· · · ·		
L				·	······································						
Tarnete	CALCENS AL	د هند به منه	145-15-15-15-15-15-15-15-15-15-15-15-15-15	1	موتو بد والد سیا مسلم ا		ه به استنظر کمکر کرد است کر	مة من مع من ما مع من ما منا الموا مع من م		Control With the second state	
Sector Sec	1 1 K - M	ERT	19 A 40	e e inter a	17 Y P 3 - 2 1		THE COMPANY	CORRECT			the second
Target N	lame & rate	11.2	Self-	34 A A A	der some				LAUGHE		
12 million	niss target	S Dip	Angle	Dio Dir T	/D. 90% A +N/	SV. SILE	/a Northi	nos comencias	tings 20 centre	1.10.0	AND A REAL OF
Sha	Der A	1 Beer	5 3 2	ACLE IN	iii a sharin	in the second	CASE (ft)	Contraction of the	DELET STREET	- 10 A T	
PL-CART	A 1961 C 34	L. C. S.	1.2.49	ALLA CEPEL	SACE Des		1.54 A			utuuei	ALCONDITIONS AND
BHL (Sa	nd Tank 7 #	#3	0.00	0.00 8,00	50.00 -4,60	9.00 160	.00 638,7	40.00 597	7,240.00 32° 4	15' 20 126 N	104° 1' 1.308 W
- pla	n hits target	t									
- Po	int										
L								<u> </u>			

10/22/2007 5:02:56PM

.

٠.

· . · · .

ŧ

5.

ŝ

COMPASS 2003.16 Build 42



SURFACE USE PLAN OF OPERATION

SHL: 330' FNL & 510' FWL, Unit D, Section 7, T18S-R30E, N.M.P.M., Eddy, NM BHL: 330' FSL & 660' FWL, Unit M, Section 7, T18S-R30E, N.M.P.M., Eddy, NM

1. EXISTING ROADS:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Lynn Bezner, RPL 7920.
- b. All roads into the location are depicted on Exhibit 2 & 2a.
- c. <u>Directions to Locations:</u> Beginning in Loco Hills, NM, From Jct. Of Hwy 82 & Co. Road 216, Go South 3.4 miles to a point +/-510' west of the location.

2. NEW OR RECONSTRUCTED ACCESS ROAD:

- a. The well site layout, Exhibit 2a shows the layout. The proposed access road, begins on CR 216 and trends ESE to the E Side of the well pad for a distance of 282 feet. (See 1c above for driving directions).
- b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent soil erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattleguards, gates or fence cuts will be required. No turnouts are planned.

3. LOCATION OF EXISTING WELLS:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

- a. In the event the well is found to be productive, the Sand Tank 7 Fed No. 3H tank battery would be utilized and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
- b. As a proposed oil well, we will contact Central Valley Electric Coop to provide electrical service to the well.
- c. All flow lines will adhere to API standards.
- d. Refer to b above.
- e. If the well is productive, rehabilitation plans are as follows:
 - i. The reserve pit will be back filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
 - ii. The original topsoil from the well site will be returned to the location. The drill site will be contoured as close as possible to the original state.

5. LOCATION AND TYPE OF WATER SUPPLY:

This location will be drilled using a combination of water mud systems (outlined in the drilling program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using existing and proposed roads shown in Exhibit 2 & 2a. On occasion, water will be obtained from existing water wells. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If poly pipeline is used to transport fresh water to the location, proper authorization will be secured by the contractor.

6. CONSTRUCTION MATERIALS

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by roads, if available.

7. METHODS OF HANDLING WASTE MATERIALS

- a. Drill cuttings will be disposed of in the reserve pit.
- b. All trash, junk, and other waste material will be contained in trash cages or trash bins to prevent scattering. When a job is completed, all contents will be removed and disposed of in an approved landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. If necessary, a porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
- f. Disposal of fluids to be transported by the following companies:
 - i. RGB TRUCKING
 - ii. LOBO TRUCKING
 - iii. I & W TRUCKING
 - iv. CRANE HOT OIL & TRANSPORT

v. _____

8. ANCILLARY FACILITIES:

a. No airstrip, campsite, or other facilities will be built.

9. WELL SITE LAYOUT:

- a. Exhibit 4 shows the proposed well site layout with dimensions of the pad layout.
- b. Exhibit 5 shows proposed location of reserve and sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits and the reserve pits will be lined.
- d. If needed, the reserve pit is to be line with polyethylene. The pit liner will be 12 mils thick. Pit liner will extend a minimum of two feet (2') over the reserve pit's dykes where the liner will be anchored down.
- e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down after the pit contents have dried. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR SURFACE RECLAMATION:

- a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. The pit will be closed per OCD compliance regulations.
- b. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and the location leveled, weather permitting, within 120 days after abandonment.
- c. The location and road will be rehabilitated as recommended by the BLM.
- d. The reserve pit will be fenced on three side throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.
- e. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to

operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. SURFACE OWNERSHIP

The surface is owned by the Bureau of Land Management (BLM). The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The proposed road routes and surface location will be restored as directed by the BLM.

12. OTHER INFORMATION:

- a. The area surrounding the well is grassland. The topsoil is sandy in nature. The vegetation is moderately sparse with native prairie grass, some mesquite bushes, cactus and shinnery oak. No wildlife was observed but it is likely that deer, rabbits coyotes, and rodents transverse the area.
- b. There are not dwellings within 2 miles of location.
- c. There is no permanent or live water within 1 miles of the location.
- d. A Cultural Resources Examination was completed on 7/22/2005 by Boone Archaeological Services and submitted to the BLM office in Carlsbad, New Mexico.

13. BOND COVERAGE:

a. Bond Coverage is Nationwide; Bond No. NM 2308

COMPANY REPRESENTATIVES:

Representatives responsible for ensuring compliance of the surface use plan are listed below:

Permitting & Land

Mr. Donny G. Glanton Senior Lease Operations ROW Representative EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702 (432) 686-3642 Office (432) 770-0602 Cell

Drilling

Operations

Mr. Jason LaGrega Division Drilling Engineer EOG Resources, Inc. P.O. Box 2267 Midland, TX 79702 (432) 686-3633 Office (432) 894-1217 Cell Mr. Howard Kemp Production Manager EOG Resources, Inc P.O. Box 2267 Midland, TX 79702 (432) 686-3704 Office (432) 634-1001 Cell

OPERATOR CERTIFICATION

I hereby certify that I. or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations of 18 U.S.C. 1001 for the filing of false statements. Executed this 24^{16} day of 0.406 cm, 2007.

Name: Donny G. Glanton
Position: Sr. Lease Operations ROW Representative
Address: P.O. BOX 2267 Midland, TX 79705
Telephone: 432-686-3642
Field Representative (if not above signatory):
Address (if different from above):
Telephone (if different from above):
E-mail (optional): <u>donny_glanton@eogresources.com</u>

Jun J. Mitte

. •

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

- Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Bone Spring formation. Hydrogen Sulfide has been measured from150-380 ppm in gas streams.
- 2. 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.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

- 1. The 11-3/4 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 385 feet and cemented to the surface. Fresh water mud to be used to setting depth.
 - a. 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.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

- c. 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.
- d. If cement falls back, remedial action will be done prior to drilling out that string.

Possible water flows in the Salado Group and Premier member of the Grayburg formation.

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a-d above. Casing should be set just above the San Andres dolomite at approximately 3300' although this formation could be as deep as 3450'.

If the Capitan Reef is encountered, the mud must be changed to fresh water mud.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. 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.

C. PRESSURE CONTROL

- 1. 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.
- 2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. 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.

d. 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.

.

.,

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 111907