API NUMBER: 009 21896 Drizontal Hole Oil & Gas	OKLAHOMA CORPOR OIL & GAS CONSEF P.O. BO OKLAHOMA CITY (Rule 165	Approval Date: Expiration Date:	07/10/2013 01/10/2014		
	PERMIT 1	<u>FO DRILL</u>			
WELL LOCATION: Sec: 19 Twp: 12N Rge: 22W					
SPOT LOCATION: S2 S2 SE SE	RECTION LINER:	ROM EAST			
Lease Name: THOMAS	Well No: 1-19H	660 Well	will be 300 feet from neare	st unit or lease boundary.	
Operator APACHE CORPORATION Name:		e: 9184914900	OTC/OCC Number:	6778 0	
APACHE CORPORATION 6120 S YALE AVE STE 1500		ARNOLD GENE	E THOMAS BRIAR CHASE ST.		
TULSA, OK	74136-4224	OKLAHOMA CI		OK 73170	
1 COTTAGE GROVE 2 3 4 5	10210	6 7 8 9 10			
Spacing Orders: 122217	Location Exception Orders:		Increased Density Orders:		
Pending CD Numbers: 201304316			Special Orders:		
Total Depth: 15200 Ground Elevation: 193	5 Surface Casing: 3	80	Depth to base of Treatable Wate	r-Bearing FM: 330	
Under Federal Jurisdiction: No	Fresh Water Supply Well I	Drilled: No	Surface Water u	used to Drill: No	
PIT 1 INFORMATION		Approved Method for disposal	of Drilling Fluids:		
Type of Pit System: ON SITE		A. Evaporation/dewater and I	packfilling of reserve pit.		
Type of Mud System: WATER BASED Chlorides Max: 25000 Average: 5000		D. One time land application H. SEE MEMO	(REQUIRES PERMIT)	PERMIT NO: 12-2354	
Is depth to top of ground water greater than 10ft below base Within 1 mile of municipal water well? N Wellhead Protection Area? N	e of pit? Y				
Pit is located in a Hydrologically Sensitive Area. Category of Pit: 1B					
Liner required for Category: 1B					
Pit Location is BED AQUIFER					

PIT 2 INFORMATION Type of Pit System: ON SITE Type of Mud System: OIL BASED Chlorides Max: 300000 Average: 200000 Is depth to top of ground water greater than 10ft below base of pit? Y Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: 3 Liner required for Category: 3

Pit Location is BED AQUIFER Pit Location Formation: CLOUD CHIEF

## HORIZONTAL HOLE 1

Sec	19	Twp	12N	Rge	22W	County	BECKHAM
Spot I	Locatior	n of En	d Point	: N2	2 N2	NE	NE
Feet I	From:	NOF	RTH	1/4 Se	ction Lin	e: 20	0
Feet I	From:	EAS	т	1/4 Se	ction Lin	ie: 66	60
Depth of Deviation: 9732							
Radius of Turn: 573							
Direction: 1							
Total Length: 4802							
Measured Total Depth: 15200							
True Vertical Depth: 10230							
End Point Location from Lease,							
Unit, or Property Line: 200							

Notes:	
Category	Description
MEMO	7/9/2013 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201304316	7/10/2013 - G30 - 19-12N-22W X122217 CGGV SHL NCT 50 FSL, NCT 50 FEL 1ST PERF NCT 300 FSL, NCT 500 FEL LAST PERF NCT 300 FNL, NCT 500 FEL NO OP. NAMED REC 7/9/13 (JOHNSON)
SPACING - 122217	7/10/2013 - G30 - (640) 19-12N-22W EST CGGV, OTHERS
WATERSHED STRUCTURE	7/9/2013 - G71 - WELL WITHIN 1/2 MILE OF AN OKLAHOMA CONSERVATION COMMISSION WATERSHED STRUCTURE. CONTACT THE LOCAL CONSERVATION DISTRICT OFFICE AT (580) 928-9950 PRIOR TO DRILLING