API NUMBER: 083 24275

Oil & Gas

Horizontal Hole

OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)

Approval Date: 03/14/2014
Expiration Date: 09/14/2014

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 18	BN Rge: 2W	County: LOGAN					
SPOT LOCATION: NW NE NW	NW FEET FROM	QUARTER: FROM N	ORTH FROM	WES	т		
	SECTION L	INES:	75	800			
Lease Name: LOESCH		Well No: 1	-31H		Well will be	e 175 feet from nea	arest unit or lease boundary.
Operator STEPHENS PRODUC Name:	TION CO		Telephone:	4797834	191	OTC/OCC Number	: 23030 0
STEPHENS PRODUCTION (623 GARRISON AVE FORT SMITH,	CO AR 72902-	2407			PAULA J LOESCH 11226 E SKELETON FAIRMOUNT	ROAD OK	73736
Formation(s) (Permit Valid for	Listed Formations	Only): Depth			Name	De	ppth
1 MISSISSIPPIAN		5420		6			
3				7			
4				9			
5				10			
Spacing Orders: 615668	Orders: 615668 Location Exception Or		ders:			Increased Density Orders:	
Pending CD Numbers: 201401133 201401132						Special Orders:	
Total Depth: 11000 Ground	Elevation: 955	Surface Ca	asing: 500		Depti	h to base of Treatable Wa	ater-Bearing FM: 250
Under Federal Jurisdiction: No		Fresh Water Si	upply Well Drille	d: No		Surface Water	er used to Drill: No
PIT 1 INFORMATION		Approved Method for disposal of Drilling Fluids:					
Type of Pit System: ON SITE		A. Evaporation/dewater and backfilling of reserve pit.					

Pit Location Formation: GARBER

Liner not required for Category: 2Pit Location is BED AQUIFER

Type of Mud System: WATER BASED Chlorides Max: 5000 Average: 3000

Within 1 mile of municipal water well? N

Wellhead Protection Area?

Category of Pit: 2

Is depth to top of ground water greater than 10ft below base of pit? Y

is located in a Hydrologically Sensitive Area.

HORIZONTAL HOLE 1

Sec 31 Twp 18N Rge 2W County LOGAN

Spot Location of End Point: SE SE SW SW

Feet From: SOUTH 1/4 Section Line: 50
Feet From: WEST 1/4 Section Line: 1000

Depth of Deviation: 5000
Radius of Turn: 600
Direction: 180
Total Length: 5000

Measured Total Depth: 11000

True Vertical Depth: 5780

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

PENDING CD - 201401132 3/14/2014 - G30 - 31-18N-2W

X615668 MSSP 2 WELLS

NO OP. NAMED

REC 3/10/14 (M.PORTER)

PENDING CD - 201401133 3/14/2014 - G30 - 31-18N-2W

X615668 MSSP

COMP. INT. NCT 150 FNL/FSL, NCT 660 FWL

NO OP. NAMED

REC 3/10/14 (M.PORTER)

SPACING - 615668 3/14/2014 - G30 - (640 HOR) 31-18N-2W

DEL 365227 WDFD, HNTN

EST MSRH

EXT 613443 MSSP, WDFD

POE TO BHL (MSSP, MSRH) NCT 660' FB POE TO BHL (WDFD) NCT 330' FB