

**AUTHORITY FOR EXPENDITURE
BASIN ENGINEERING**

1117 NW 24th Street
Oklahoma City, Oklahoma 73106
(405) 228-0808 FAX: (405) 228-0909

Well Name:	Whitetail 18-06-01 #1H	Operator:	Staghorn Petroleum, LLC	
Legal:	Section 1-18N-6W	TD & Formation:	7500' TVD Miss.	
County, State:	Kingfisher County, OK	Date Prepared:	7/1/2016	
Scope of Work:	Drill, Complete & Equip a 13,000' Horizontal Oil Well			
DESCRIPTION OF EXPENDITURE		GROSS COST ESTIMATE		
INTANGIBLES		DRY	COMPLETE	TOTAL
Damages, Permits, Staking, Enviro. Study, Drig. Title Opinion		\$ 35,000		\$ 35,000
Location, Roads, Pits, Pit Liners, Restoration		100,000	10,000	\$ 110,000
MIRU/RDMO		60,000		\$ 60,000
Daywork Drilling:		261,000	29,000	\$ 290,000
Fuel & Power		21,600	6,500	\$ 28,100
Water		2,000	70,000	\$ 72,000
Mud & Chemicals		62,000		\$ 62,000
Bits		32,000		\$ 32,000
Downhole Tools: Reamers, Stabilizers, Shock Sub		5,000		\$ 5,000
Other Rentals: Solids, BOPE, DP/DC, Frac Tanks, Quarters, CT		75,000	220,000	\$ 295,000
Cementing Equipment & Services		45,000	35,000	\$ 80,000
Mudlogging		20,000		\$ 20,000
Openhole & Casedhole Logging/Perforating/Composite Plugs		35,000	170,000	\$ 205,000
Contract Services: Csg Crews, Inspection, Welding, Wtr Transfer		20,000	65,000	\$ 85,000
Directional Drilling Equipment & Services		115,000		\$ 115,000
Closed System Equipment & Soil Farming		50,000	10,000	\$ 60,000
Transportation		6,000	6,000	\$ 12,000
Stimulation			1,350,000	\$ 1,350,000
Completion Rig:			36,000	\$ 36,000
Wellsite Supervision:		52,500	36,000	\$ 88,500
Overhead		5,400	4,500	\$ 9,900
Contingency	5%	50,100	102,400	\$ 152,500
TOTAL INTANGIBLE COSTS		\$ 1,052,600	\$ 2,150,400	\$ 3,203,000
TANGIBLES				
Conductor Casing:	20" pre-set	7,500		\$ 7,500
Surface Casing:	9.625", 36#, J55, LTC @ 350'	5,400		\$ 5,400
Intermediate Casing:	7", 29#, P110, LTC @ 8000'	132,800		\$ 132,800
Liner w/ TB Credit:	4.5", 11.6#, P110, LTC @ 7500-13,000		45,400	\$ 45,400
Tubing:	2.875", 6.5#, N80, EUE @ 7500'		31,500	\$ 31,500
Wellhead Equipment		10,500	12,500	\$ 23,000
Subsurface Equipment			52,000	\$ 52,000
Surface Pumping Equipment				
Sucker Rods				
Storage Tanks			60,000	\$ 60,000
Heater Treater/Separator/Gun Barrel			39,000	\$ 39,000
Valves & Fittings			20,000	\$ 20,000
Electrical System				
Flowlines			17,000	\$ 17,000
Installation Costs			25,000	\$ 25,000
Non-Controllable Equipment				
Contingency	5%	7,800	15,100	\$ 22,900
TOTAL TANGIBLE COSTS		\$ 164,000	\$ 317,500	\$ 481,500
TOTAL WELL COSTS		\$ 1,216,600	\$ 2,467,900	\$ 3,684,500

This represents a close estimate of projected costs. Actual costs may vary.

PARTNER APPROVAL By: _____
Company: _____

Title: _____
Date: _____

CD 201601512

JUL 20 2016

