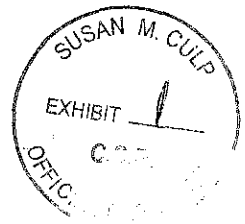


DEC 19 2016



**AUTHORITY FOR EXPENDITURE  
DRILLING AND COMPLETION**



Operator <u>HighMark Energy Operating</u>	Well Number <u>TBD</u>	Date <u>12/1/2016</u>
Well Name <u>Revana 1-7H</u>	API Number <u>35-011-XXXX</u>	A/E Number <u>TBD</u>
Operator WI <u>TBD</u>	County / State <u>7-17N-11W Blaine County, OK</u>	

PROJECT: Drill, complete, and equip 1 mile horizontal Mississippi well w/multi-stage cemented plug & perf completion. +/- 9,600' TVD; +/- 14,450' MD; +/- 4,550' lateral length. 2,200+ lb/ft.

INTANGIBLE COSTS		Drilling - 8153	Completion - 8155	Total
100	Location, Roads & Survey	\$ 145,000	\$ 8,000	\$ 153,000
110	Surface Damages & Right of Way	25,000		\$ 25,000
120	Rig Move	200,000		\$ 200,000
140	Rig Cost - Dairwork / Workover Rig	481,000	33,000	\$ 514,000
150	Col ol It		145,000	\$ 145,000
160	Power	82,000		\$ 82,000
165	g Water / ic Water & Transfer	20,000	123,000	\$ 143,000
170	ole Rentals	192,000	30,000	\$ 222,000
175	ine	5,000		\$ 5,000
180	ng / Cased Hole Logging		5,000	\$ 5,000
185	Directional Drilling Services	157,000		\$ 157,000
190	Surface Equipment Rental	112,000	95,000	\$ 208,000
195	Field Office and Communications	38,000	13,000	\$ 51,000
200	Cor...t Service - Engineering & Geology	56,000	6,000	\$ 62,000
210	Tubular Inspection	6,000	3,000	\$ 9,000
220	nsi tation	15,000	8,000	\$ 23,000
240	ns ... services			\$ -
250	M	300,000	50,000	\$ 350,000
255	Mu lne	23,000		\$ 23,000
260	F at	12,000		\$ 12,000
270	Cement alment	128,000		\$ 128,000
280	osin crews	57,000		\$ 57,000
290	mt on		1,600,000	\$ 1,600,000
295	Pumping Services			\$ 50,000
300	Acidizing			\$ 8,000
315	Flowback & Well Testing		60,000	\$ 65,000
320	Mud Disposal / Salt Water Disposal	166,000	83,000	\$ 249,000
325	Environmental, Health & Safety	5,000	4,000	\$ 9,000
340	Perforating & Wireline Services		135,000	\$ 135,000
350	Wellsite Supervision	115,000	52,000	\$ 167,000
360	Other Labor	34,000	5,000	\$ 39,000
370	Surface Facility & Pipeline Installation Labor		50,000	\$ 50,000
700	Legal Expenses & Title	33,000		\$ 33,000
800	Other Expenses	7,000	2,000	\$ 9,000
850	Overhead	16,000	7,000	\$ 23,000
851	Insurance - Control of Well			\$ -
854	Contingency	122,000	129,000	\$ 251,000
	<b>TOTAL INTANGIBLE</b>	<b>2,553,000</b>	<b>2,710,000</b>	<b>5,263,000</b>
TANGIBLE COSTS		Drilling - 8154	Completion - 8156	Total
100	Surface Casing	39,000		\$ 39,000
105	Intermediate Casing	202,000		\$ 202,000
115	Production Casing	285,000		\$ 285,000
120	Wellhead	18,000	32,000	\$ 50,000
110	Tubing		45,000	\$ 45,000
130	Downhole Equipment	16,000	10,000	\$ 26,000
135	Artificial Lift Equipment		12,000	\$ 12,000
140	Trucking	10,000	10,000	\$ 20,000
150	Conductor	12,000		\$ 12,000
160	Surface Facilities		231,000	\$ 231,000
170	Valves & Fittings		25,000	\$ 25,000
180	Flowlines		25,000	\$ 25,000
800	Other			\$ -
	<b>TOTAL INTANGIBLE</b>	<b>582,000</b>	<b>390,000</b>	<b>972,000</b>
	<b>TOTAL A/E COSTS</b>	<b>\$ 3,135,000</b>	<b>\$ 3,100,000</b>	<b>\$ 6,235,000</b>

It is recognized that the amounts herein are estimates only and approval of this authorization shall extend to the actual costs incurred in conducting the operation specified whether more or less than that herein set out.

<b>HighMark Approval</b>	
VP Operations <u>Brandon Junker</u>	Date <u>12/1/16</u>
COO <u>Stephan Pugh</u>	Date _____

<b>Partner Approval</b>	
Signature _____	Company _____
Printed Name _____	Date _____
Title/Position _____	Phone #/Email _____
We _____ do _____ DO NOT elect to be covered by HighMark Energy Operating, LLC's Well Control Insurance. (please initial)	

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