COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	Halberd 27 State Com 1H	PROSPECT NAME: Spruce	SWF
SHL:	1003' FSL & 65' FWL,UL:M(Sec 26)	STATE & COUNTY: New Mexico, Eddy	
BHL:	976' FSL & 330' FWL,UL:M (Sec 27)	OBJECTIVE:	Yeso Horizontal
FORMATION:	Yeso	DEPTH:	8,935
LEGAL:	SW/4SW/4 Sec 28, T17S-R28E	TVD:	3,925

INTANGIBLE COSTS		BCP		ACP	TOTAL
Title/Curative/Permit	201	11,000			11,000
Insurance	202	4,000	302	0	4,000
Damages/Right of Way	203	12,000	303	0	12,000
Survey/Stake Location	204	3,000	304	0	3,000
Location/Pits/Road Expense	205	60,000	305	9,000	69,000
Drilling / Completion Overhead	206	4,000	306	7,000	11,000
Turnkey Contract	207		307		0
Footage Contract	208		308		0
Daywork Contract (0 days f/spud-rls @ $0)	209	144,000	309	0	144,000
Directional Drilling Services (0 dir days @ $0)	210	78,000	310		78,000
Fuel & Power	211	15,000	311	1,000	16,000
Water	212	30,000	312	127,000	157,000
Bits	213	41,856	313	5,000	46,856
Mud & Chemicals	214	31,000	314	0	31,000
Drill Stem Test	215		315	0	0
Coring & Analysis	216				0
Cement Surface	217	12,000			12,000
Cement Intermediate	218	10,000			10,000
Cement 2nd Intermediate/Production	218	0	319	45,000	45,000
Cement Squeeze & Other (Kickoff Plug)	220		320	0	0
Float Equipment & Centralizers	221	2,700	321	7,000	9,700
Casing Crews & Equipment	222	6,480	322	9,000	15,480
Fishing Tools & Service	223		323		0
Geologic/Engineering	224		324		0
Contract Labor	225	4,250	325	18,000	22,250
Company Supervision	226		326	7,000	7,000
Contract Supervision	227	19,000	327	56,000	75,000
Testing Casing/Tubing	228	2,490	328	4,000	6,490
Mud Logging Unit	229	18,000	329		18,000
Logging	230	18,560	330		18,560
Perforating/Wireline Services	231	1,500	331	115,000	116,500
Stimulation/Treating			332	777,000	777,000
Completion Unit			333	41,000	41,000
Swabbing Unit			334		0
Rentals-Surface	235	36,000	335	170,000	206,000
Rentals-Subsurface	236	43,000	336	16,000	59,000
Trucking/Forklift/Rig Mobilization	237	40,000	337	57,000	97,000
Welding Services	238	4,750	338	1,000	5,750
Water Disposal	239	0	339	8,000	8,000
Plug to Abandon	240	0	340	0	0
Seismic Analysis	241	0	341	0	0
Closed Loop & Environmental	244	55,000	344	0	55,000
Miscellaneous	242	0	342	0	0
Contingency 2%	243	15,414	343	46,000	61,414
TOTAL INTANGIBLES		721,000		1,526,000	2,247,000

TANGIBLE COSTS		BCP		ACP	TOTAL
Surface Casing (13 3/8" 54.5# J55 STC)	401	10,000			10,000
Intermediate Casing (9 5/8" 40# J55 LTC)	402	18,000	503	0	18,000
Production Casing (7" 29# & 5 1/2" 17# L80)			503	131,000	131,000
Tubing			504	18,000	18,000
Wellhead Equipment	405	8,900	505	22,000	30,900
Pumping Unit			506	64,000	64,000
Prime Mover			507	0	0
Rods			508	15,000	15,000
Pumps			509	50,000	50,000
Tanks			510	15,000	15,000
Flowlines			511	20,000	20,000
Heater Treater/Separator			512	51,000	51,000
Electrical System			513	28,000	28,000
Packers/Anchors/Hangers	414	0	514	2,000	2,000
Couplings/Fittings/Valves	415	500	515	16,000	16,500
Gas Compressors/Meters			516	3,000	3,000
Dehydrator			517		0
Injection Plant/CO2 Equipment			518		0
Miscellaneous	419	500	519	10,000	10,500
Contingency	420	100	520	0	100
TOTAL TANGIBLES		38,000		445,000	483,000
TOTAL WELL COSTS		759,000		1,971,000	2,730,000

COG Operating LLC

By: Carl Bird/Paul Figel

Date Prepared: 2-25-16 BJM 2/26/16

COG Operating LLC

By: ______________________

We approve:
_____% Working Interest

Company: ______________________
By: ______________________

Printed Name: ______________________
Title: ______________________
Date: ______________________

This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

BEFORE THE OIL CONVERSATION DIVISION
Santa Fe, New Mexico
Exhibit No. 6
Submitted by: **COG OPERATING LLC**
Hearing Date: August 4, 2016

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	Halberd 27 State Com 21H	PROSPECT NAME: Spruce	SWF
SHL:	1150' FSL & 65' FWL,UL:M(Sec 26)	STATE & COUNTY: New Mexico, Eddy	
BHL:	972' FSL & 330' FWL,UL:M (Sec 27)	OBJECTIVE: Yeso Horizontal	
FORMATION:	Yeso	DEPTH: 9,460	
LEGAL:	SW/4SW/4 Sec 26, T17S-R28E	TVD: 4,450	

INTANGIBLE COSTS		BCP		ACP	TOTAL
Title/Curative/Permit	201	11,000			11,000
Insurance	202	4,000	302	0	4,000
Damages/Right of Way	203	12,000	303	0	12,000
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