

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME: Sombbrero Federal Com 4H	PROSPECT NAME: Bulldog 2434 (717040)
SHL: 460' FSL & 380' FWL Sec. 13-24S-34E	STATE & COUNTY: New Mexico, Lea
BHL: 2310' FSL & 380' FWL Sec. 12-24S-34E	OBJECTIVE: Drill & Complete
FORMATION: UAYLN.	DEPTH: 16,400
LEGAL: W/2W/2 Sec 13 & W/2SW4 Sec 12-24S-34E	TVD: 9,451 PHTD 12,600

INTANGIBLE COSTS		BCP	ACP	TOTAL
Title/Curative/Permit	201	11,000		11,000
Insurance	202	4,000	302	4,000
Damages/Right of Way	203	5,000	303	5,000
Survey/Stake Location	204	7,000	304	7,000
Location/Pits/Road Expense	205	80,000	25,000	105,000
Drilling / Completion Overhead	208	8,000	308	8,000
Turnkey Contract	207	0	307	0
Footage Contract	208	0	308	0
Daywork Contract	209	950,000	309	950,000
Directional Drilling Services	210	239,000	310	239,000
Fuel & Power	211	138,000	311	148,000
Water	212	54,000	312	384,000
Bits	213	82,000	313	88,500
Mud & Chemicals	214	175,000	314	200,000
Drill Stem Test	215	0	315	0
Coring & Analysis	216	30,000		30,000
Cement Surface	217	20,000		20,000
Cement Intermediate	218	40,000		40,000
Cement 2nd Intermediate/Production	218	80,000	318	215,000
Cement Squeeze & Other (Kickoff Plug)	220	45,000	320	45,000
Float Equipment & Centralizers	221	10,000	321	35,000
Casing Crews & Equipment	222	30,000	322	54,000
Fishing Tools & Service	223	0	323	0
Geologic/Engineering	224	0	324	0
Contract Labor	225	8,000	325	208,000
Company Supervision	228	0	328	0
Contract Supervision	227	159,000	327	229,000
Testing Casing/Tubing	228	10,000	328	20,000
Mud Logging Unit	229	54,000	329	54,000
Logging	230	250,000	330	250,000
Perforating/Wireline Services	231	8,000	331	188,000
Stimulation/Treating		0	332	4,000,000
Completion Unit		0	333	125,000
Swabbing Unit		0	334	0
Rentals-Surface	235	180,000	335	455,000
Rentals-Subsurface	236	235,000	336	290,000
Trucking/Forklift/Rig Mobilization	237	125,000	337	150,000
Welding Services	238	4,000	338	9,000
Water Disposal	239	0	339	195,000
Plug to Abandon	240	0	340	0
Seismic Analysis	241	0	341	0
Closed Loop & Environmental	244	180,000	344	185,000
Miscellaneous	242	0	342	0
Contingency	243	69,000	343	119,000
TOTAL INTANGIBLES		3,268,000	5,773,500	9,041,500

TANGIBLE COSTS				
Surface Casing	401	31,000		31,000
Intermediate Casing	402	205,000	503	205,000
Production Casing		0	503	280,000
Tubing		0	504	85,000
Wellhead Equipment	405	30,000	505	50,000
Pumping Unit		0	506	115,000
Prime Mover		0	507	0
Rods		0	508	55,000
Pumps		0	509	35,000
Tanks		0	510	100,000
Flowlines		0	511	50,000
Heater Treater/Separator		0	512	80,000
Electrical System		0	513	0
Packers/Anchors/Hangers	414	0	514	9,000
Couplings/Fittings/Valves	415	0	515	200,000
Gas Compressors/Meters		0	516	8,100
Dehydrator		0	517	0
Injection Plan/CO2 Equipment		0	518	0
Miscellaneous	419	0	519	0
Contingency	420	0	520	50,000
TOTAL TANGIBLES		288,000	1,047,100	1,313,100
TOTAL WELL COSTS		3,534,000	6,820,600	10,354,600

COG Operating LLC

Date Prepared: 8/3/15

COG Operating LLC

We approve:
_____% Working Interest

By: Travis Newman (Drilling)

Company: OXY USA, INC.
By: _____

Printed Name: _____
Title: _____
Date: _____

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

OCD Case No. 15417
**COG OPERATING
Exhibit #4**