COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

Cost Estimate

WELL NAME:	**Resolver Federal Com #1H**	PROSPECT NAME:	Bulldog 2332 / 717112
SHL:	190' FNL & 380' FWL (Unit D)	STATE & COUNTY:	New Mexico, Lea
BHL:	330' FSL & 380' FWL (Unit M)	OBJECTIVE:	Drill & Complete
FORMATION:	Bone Spring	DEPTH:	14,300'
LEGAL:	W/2W/2 Sec. 12, T23S-R32E	TVD:	9,776'

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	305	20,000	100,000
Drilling / Completion Overhead	206	8,000	306		8,000
Turnkey Contract	207	0	307		0
Footage Contract	208	0	308		0
Daywork Contract	209	290,000	309		290,000
Directional Drilling Services	210	112,000	310		112,000
Fuel & Power	211	44,000	311	8,500	52,500
Water	212	45,000	312	396,000	441,000
Bits	213	55,000	313	3,000	58,000
Mud & Chemicals	214	42,000	314	8,500	50,500
Drill Stem Test	215	0	315		0
Coring & Analysis	216	0			0
Cement Surface	217	28,000			28,000
Cement Intermediate	218	38,000			38,000
Cement 2nd Intermediate/Production	218	0	319	100,000	100,000
Cement Squeeze & Other (Kickoff Plug)	220	0	320	0	0
Float Equipment & Centralizers	221	5,000	321	9,000	14,000
Casing Crews & Equipment	222	15,000	322	15,000	30,000
Fishing Tools & Service	223	0	323		0
Geologic/Engineering	224	0	324		0
Contract Labor	225	8,000	325	176,500	184,500
Company Supervision	226	0	326		0
Contract Supervision	227	30,000	327	70,000	100,000
Testing Casing/Tubing	228	10,000	328	10,000	20,000
Mud Logging Unit	229	16,000	329		16,000
Logging	230	0	330		0
Perforating/Wireline Services	231	6,000	331	200,800	206,800
Stimulation/Treating		0	332	1,600,000	1,600,000
Completion Unit		0	333	42,500	42,500
Swabbing Unit		0	334		0
Rentals-Surface	235	70,000	335	175,000	245,000
Rentals-Subsurface	236	77,000	336	22,500	99,500
Trucking/Forklift/Rig Mobilization	237	115,000	337	45,000	160,000
Welding Services	238	4,000	338	5,000	9,000
Water Disposal	239	0	339	360,000	360,000
Plug to Abandon	240	0	340		0
Seismic Analysis	241	0	341		0
Closed Loop & Environmental	244	128,000	344	5,000	133,000
Miscellaneous	242	0	342		0
Contingency	243	26,000	343	50,000	76,000
TOTAL INTANGIBLES		1,279,000		3,322,300	4,601,300

TANGIBLE COSTS		BCP		ACP	TOTAL
Surface Casing	401	38,000			38,000
Intermediate Casing	402	148,000	503		148,000
Production Casing		0	503	212,000	212,000
Tubing		0	504	60,000	60,000
Wellhead Equipment	405	30,000	505	15,000	45,000
Pumping Unit		0	506	103,500	103,500
Prime Mover		0	507		0
Rods		0	508	50,000	50,000
Pumps		0	509	31,500	31,500
Tanks		0	510	90,000	90,000
Flowlines		0	511	45,000	45,000
Heater Treater/Separator		0	512	58,500	58,500
Electrical System		0	513		0
Packers/Anchors/Hangers	414	0	514	9,000	9,000
Couplings/Fittings/Valves	415	0	515	202,500	202,500
Gas Compressors/Meters		0	516	7,290	7,290
Dehydrator		0	517		0
Injection Plant/CO2 Equipment		0	518		0
Miscellaneous	419	0	519		0
Contingency	420	0	520	50,000	50,000
TOTAL TANGIBLES		214,000		934,290	1,148,290
TOTAL WELL COSTS		1,493,000		4,256,590	5,749,590

COG Operating LLC

Date Prepared: 7/30/15

COG Operating LLC

By: Travis Newman (Drlg)

We approve:
_____% Working Interest

Company: ConocoPhillips 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.

OCD Case No. 15380

COG OPERATING
Exhibit #5