



October 13, 2016

To: **Tonkin Mineral Interests, LLC**
1524 Park Ave SW
Albuquerque, NM 87104

Re: **Well Proposal – Columbus Fee #24H**
Section 34: W/2E/2 - T25S-R33E
SHL: 210' FNL / 2210' FEL (or a legal location in Unit B)
Section 3: W/2E/2 - T26S-R33E
BHL: 50' FSL / 2310' FEL (or a legal location in Unit O)
Lea County, New Mexico

Dear Tonkin Mineral Interests, LLC:

COG Operating LLC (COG), as Operator, proposes to drill the Columbus Fee #24H horizontal well at the above-captioned location as approved by the governing regulatory agency to a TVD of approximately 12,443' and a MD of 23,720' to test the **Wolfcamp Formation** ("Operation"). The total cost of the Operation is estimated to be \$12,055,251.00 and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

Please indicate your participation election in the space provided below, sign and return a copy of this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements. A self-addressed, postage paid envelope is enclosed for your convenience.

If you do not wish to participate in the Operation, COG would like to lease your minerals at the terms previously delivered.

If you have any questions, please do not hesitate to contact the undersigned at 432-818-2214 or bcason@concho.com.

Respectfully,

Bryce Cason
Landman

_____ I/We hereby elect to participate in the Columbus Fee #24H.

_____ I/We hereby elect not to participate in the Columbus Fee #24H.

Company or
Individual Name: Tonkin Mineral Interests, LLC

By: _____

Name: _____

Title: _____

Date: _____

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 5 – Case Nos. 15609
Submitted by: COG Operating LLC
Hearing Date: January 5, 2017

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME:	COLUMBUS FEE #24H	PROSPECT NAME:	BULLDOG 2533 (717043)
SHL:	SEC 34- 210' FNL & 2210' FEL	STATE & COUNTY:	New Mexico, Lea
BHL:	SEC 3- 50' FSL & 2310' FEL	OBJECTIVE:	DRILL & COMPLETE
FORMATION:	WOLFCAMP	DEPTH:	23,720
LEGAL:	34-25S-33E	TVD:	12,443
	3-26S-33E		

		Drig - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpg Equipment(PEQ)	TOTAL
INTANGIBLE COSTS						
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	6,000		351		6,000
Location/Pits/Road Expense	205	130,000	203,648	353	85,000	418,648
Drilling / Completion Overhead	206	9,900	306			9,900
Turnkey Contract	207	0	307			0
Footage Contract	208	0	308			0
Daywork Contract	209	585,000	309			585,000
Directional Drilling Services	210	229,000	310			229,000
Fuel & Power	211	77,000	311	5,000	354	82,000
Water	212	86,833	312	867,000	368	933,833
Bits	213	114,000	313	4,500	369	118,500
Mud & Chemicals	214	140,000	314	25,000	370	165,000
Drill Stem Test	215	0	315			0
Coring & Analysis	216	0				0
Cement Surface	217	28,000				28,000
Cement Intermediate	218	40,000				40,000
Cement 2nd Intermediate/Production	219	80,000				80,000
Cement Squeeze & Other (Kickoff Plug)	220	55,000			371	55,000
Float Equipment & Centralizers	221	17,800				17,800
Casing Crews & Equipment	222	50,000				50,000
Fishing Tools & Service	223	0	323		372	0
Geologic/Engineering	224	0	324	355		0
Contract Labor	225	5,500	325	8,200	356	103,700
Company Supervision	226	58,400	326	30,000	357	89,400
Contract Supervision	227	98,000	327	85,000	358	188,000
Testing Casing/Tubing	228	20,000	328	10,000	377	30,000
Mud Logging Unit	229	37,000	329			37,000
Logging	230	0			378	0
Perforating/Wireline Services	231	4,000	331	393,000		397,000
Stimulation/Treating			332	3,364,000		3,364,000
Completion Unit			333	138,000		145,000
Swabbing Unit			334		7,000	0
Rentals-Surface	235	150,000	335	315,000	359	511,000
Rentals-Subsurface	236	140,000	336	75,000	364	215,000
Trucking/Forklift/Rtg Mobilization	237	140,000	337	20,000	360	165,000
Welding Services	238	4,000	338	5,000	361	9,000
Water Disposal	239	0	339	150,000	362	619,000
Plug to Abandon	240	0	340			0
Seismic Analysis	241	0	341			0
Miscellaneous	242	0	342		389	0
Contingency	243	47,000	343	125,000	363	172,000
Closed Loop & Environmental	244	198,000	344	5,000	364	203,000
Coil Tubing			346	750,000		750,000
Flowback Crews & Equip			347	98,000		98,000
Offset Directional/Frac	248	0	348			0
TOTAL INTANGIBLES		2,571,433	6,676,348	644,000	23,000	9,914,781
TANGIBLE COSTS						
Surface Casing	401	45,000				45,000
Intermediate Casing	402	418,000				418,000
Production Casing/Liner	403	388,000				388,000
Tubing			504	43,000	530	43,000
Wellhead Equipment	405	65,000	505	20,000	531	88,000
Pumping Unit				0	506	100,470
Prime Mover				0	507	0
Rods				0	508	45,000
Pumps-Sub Surface (BH)			509		532	8,000
Tanks				90,000		90,000
Flowlines				80,000		80,000
Heater Treater/Separator				180,000		180,000
Electrical System				80,000	533	80,000
Packers/Anchors/Hangers	414	0	514	8,000	534	8,000
Couplings/Fittings/Valves	415	0		260,000		260,000
Dehydration					517	0
Injection Plant/CO2 Equipment					518	0
Pumps-Surface				60,000		60,000
Instrumentation/SCADA/POC					522	4,000
Miscellaneous	419	0	519		529	0
Contingency	420	0	520		535	0
Meters/LACT				75,000		75,000
Flares/Combustors/Emission				110,000		110,000
Gas Lift/Compression			527	15,000	516	60,000
TOTAL TANGIBLES		915,000	84,000	980,000	160,470	2,140,470
TOTAL WELL COSTS		3,486,433	6,760,348	1,624,000	183,470	12,055,251

COG Operating LLC

% of Total Well Cost

29%

56%

13%

2%

Date Prepared: 5/3/16

COG Operating LLC

We approve:
% Working Interest

By: DWD KG

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.