



COG OPERATING LLC

Fascinator Federal Com #601H, #602H, #603H, 604H
Fascinator Federal Com #701H, #702H, #703H
Fascinator Federal Com #704H, #705H, #706H

Section 30 & 31 T24S-R35E
Lea County, New Mexico



**BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING JULY 26, 2018**

Case No. 16219 & 16220



WELL NAME:	FASCINATOR FED COM 604H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 3600 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 450 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,500
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

TANGIBLE COSTS											
Surface Casing	401		73,000						73,000		
Intermediate Casing	402		421,000						421,000		
Production Casing/Liner	403		433,000						433,000		
Tubing				504		47,300		530	10,000	57,300	
Wellhead Equipment	405		75,000	505		22,000		531	3,000	100,000	
Pumping Unit						0		506	98,000	98,000	
Prime Mover						0		507		0	
Rods						0		508	65,000	65,000	
Pumps-Sub Surface (BH)				509				532	5,500	5,500	
Tanks							510	35,800		35,800	
Flowlines							511	85,000		85,000	
Heater Treater/Separator							512	159,465		159,465	
Electrical System							513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414		0	514		66,000			534	2,000	68,000
Couplings/Fittings/Valves	415		0				515	76,000			76,000
Dehydration							517				0
Injection Plant/CO2 Equipment							518				0
Pumps-Surface							521	6,250			6,250
Instrumentation/SCADA/POC							522		529	7,000	7,000
Miscellaneous	419		0	519			523		535	3,000	3,000
Contingency	420		0	520			524		536		0
Meters/LACT							525	29,150			29,150
Flares/Combusters/Emission							526	15,000			15,000
Gas Lift/Compression				527		15,000	516	75,000	528		90,000
TOTAL TANGIBLES			1,002,000			150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS			4,508,400			7,382,000		779,665		245,000	12,915,065

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

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 604H	PROSPECT NAME:	BULLDOG 717008
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LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

		Drlg - Rig		Completion(C)		Tank Btty		Pmpg		TOTAL
INTANGIBLE COSTS		Release(D)				Constrctn(TB)		Equipment(PEQ)		
Title/Curative/Permit	201	11,000								11,000
Insurance	202	4,000	302							4,000
Damages/Right of Way	203	5,000	303		351					5,000
Survey/Stake Location	204	6,000			352					6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366			161,000
Drilling / Completion Overhead	206	11,100	306							11,100
Turnkey Contract	207	0	307	1,397,000						1,397,000
Footage Contract	208	0	308	781,000						781,000
Daywork Contract	209	820,000	309	1,177,000						1,997,000
Directional Drilling Services	210	398,000	310	150,000						548,000
Fuel & Power	211	211,000	311	5,000	354		367			216,000
Water	212	60,000	312	855,000			368			915,000
Bits	213	133,200	313	4,500			369			137,700
Mud & Chemicals	214	275,000	314	25,000			370			300,000
Drill Stem Test	215	0	315							0
Coring & Analysis	216	0								0
Cement Surface	217	28,000								28,000
Cement Intermediate	218	75,000								75,000
Cement 2nd Intermediate/Production	219	115,000								115,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371			0
Float Equipment & Centralizers	221	45,000								45,000
Casing Crews & Equipment	222	60,000								60,000
Fishing Tools & Service	223	0	323				372			0
Geologic/Engineering	224	0	324		355		373			0
Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500		92,200
Company Supervision	226	66,600	326	15,000	357		375			81,600
Contract Supervision	227	124,000	327	204,000	358		376	5,000		333,000
Testing Casing/Tubing	228	20,000	328	10,000			377			30,000
Mud Logging Unit	229	52,000	329							52,000
Logging	230	0					378			0
Perforating/Wireline Services	231	4,000	331	515,000			379			519,000
Stimulation/Treating			332	397,000			380			397,000
Completion Unit			333	138,000			381	10,000		148,000
Swabbing Unit			334				382			0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000		507,000
Rentals-Subsurface	236	150,000	336	55,000			384			205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000		143,000
Welding Services	238	4,000	338	5,000	361		386			9,000
Water Disposal	239	0	339	60,000	362	135,000	387			195,000
Plug to Abandon	240	0	340							0
Seismic Analysis	241	0	341							0
Miscellaneous	242	0	342				389			0
Contingency	243	63,000	343	250,000	363		390			313,000
Closed Loop & Environmental	244	330,000	344	5,000	364		388			335,000
Coil Tubing			346	462,000						462,000
Flowback Crews & Equip			347	325,000						325,000
Offset Directional/Frac	248	0	348	48,000						48,000
TOTAL INTANGIBLES		3,506,400		7,231,700		238,000		31,500		11,007,600

TANGIBLE COSTS										
Surface Casing	401	73,000								73,000
Intermediate Casing	402	421,000								421,000
Production Casing/Liner	403	433,000								433,000
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Wellhead Equipment	405	75,000	505	22,000			531	3,000		100,000
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Rods				0			508	65,000		65,000
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Dehydration					517					0
Injection Plant/CO2 Equipment					518					0
Pumps-Surface					521	6,250				6,250
Instrumentation/SCADA/POC					522		529	7,000		7,000
Miscellaneous	419	0	519		523		535	3,000		3,000
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TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000		12,915,065

% of Total Well Cost

35%

57%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

We approve:

% Working Interest

By: PWS

Company: Marathon Oil Permian LLC

By:

Printed Name:

Title:

Date:

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COG OPERATING LLC
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Bits	213	133,200	313	4,500			369			137,700
Mud & Chemicals	214	275,000	314	25,000			370			300,000
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Coring & Analysis	216	0								0
Cement Surface	217	28,000								28,000
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Completion Unit			333	138,000			381	10,000		148,000
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% of Total Well Cost

35%

57%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve: % Working Interest

By: PWS

Company: Oxy USA Inc.

By:

Printed Name:

Title:

Date:

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DRILLING

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LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

INTANGIBLE COSTS		Drig - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpg Equipment(PEQ)	TOTAL
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Insurance	202	4,000	302			4,000
Damages/Right of Way	203	5,000	303	351		5,000
Survey/Stake Location	204	6,000		352		6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000
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Company Supervision	226	66,600	326	15,000	357	374
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Mud Logging Unit	229	52,000	329			376
Logging	230	0				5,000
Perforating/Wireline Services	231	4,000	331	515,000		377
Stimulation/Treating			332	397,000		378
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Plug to Abandon	240	0	340			384
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% of Total Well Cost	35%	57%	6%	2%
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COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve:
% Working Interest

By: PWS

Company: Advance Energy Partners, LLC
By:

Printed Name:
Title:
Date:

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DRILLING			
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Intermediate Casing	402	421,000								421,000
Production Casing/Liner	403	433,000								433,000
Tubing			504	47,300			530	10,000		57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000		100,000
Pumping Unit				0			506	98,000		98,000
Prime Mover				0			507			0
Rods				0			508	65,000		65,000
Pumps-Sub Surface (BH)			509				532	5,500		5,500
Tanks					510	35,800				35,800
Flowlines					511	85,000				85,000
Heater Treater/Separator					512	159,465				159,465
Electrical System					513	60,000	533	20,000		80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000		68,000
Couplings/Fittings/Valves	415	0			515	76,000				76,000
Dehydration					517					0
Injection Plant/CO2 Equipment					518					0
Pumps-Surface					521	6,250				6,250
Instrumentation/SCADA/POC					522		529	7,000		7,000
Miscellaneous	419	0	519		523		535	3,000		3,000
Contingency	420	0	520		524		536			0
Meters/LACT					525	29,150				29,150
Flares/Combusters/Emission					526	15,000				15,000
Gas Lift/Compression			527	15,000	516	75,000	528			90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500		1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000		12,915,065

	% of Total Well Cost	35%	57%	6%	2%
COG Operating LLC					
<hr/>		<u>Date Prepared: 3/27/2018 for proposal</u>			
		COG Operating LLC			
We approve:					
<hr/> % Working Interest		<u>By: PWS</u>			
Company: Scratch Properties, LLC					
<u>By:</u>					
<hr/>					
<u>Printed Name:</u>					
<u>Title:</u>					
<u>Date:</u>					
<hr/>		This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.			

COG OPERATING LLC					
AUTHORITY FOR EXPENDITURE					
DRILLING					
WELL NAME: FASCINATOR FED COM 604H			PROSPECT NAME: BULLDOG 717008		
SHL: 210 FNL & 3600 FWL			STATE & COUNTY: New Mexico, Lea		
BHL: 200 FSL & 450 FWL			OBJECTIVE: DRILL AND COMPLETE		
FORMATION: WOLFBONE POOL			DEPTH: 22,500		
LEGAL: SEC 30-31 T24S-R35E			TVD: 12,649		

INTANGIBLE COSTS		Drlg - Rig Release(D)		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)		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		6,000				352			6,000
Location/Pits/Road Expense	205		120,000	305	10,000	353	31,000	366		161,000
Drilling / Completion Overhead	206		11,100	306						11,100
Turnkey Contract	207		0	307	1,397,000					1,397,000
Footage Contract	208		0	308	781,000					781,000
Daywork Contract	209		820,000	309	1,177,000					1,997,000
Directional Drilling Services	210		398,000	310	150,000					548,000
Fuel & Power	211		211,000	311	5,000	354		367		216,000
Water	212		60,000	312	855,000			368		915,000
Bits	213		133,200	313	4,500			369		137,700
Mud & Chemicals	214		275,000	314	25,000			370		300,000
Drill Stem Test	215		0	315						0
Coring & Analysis	216		0							0
Cement Surface	217		28,000							28,000
Cement Intermediate	218		75,000							75,000
Cement 2nd Intermediate/Production	219		115,000							115,000
Cement Squeeze & Other (Kickoff Plug)	220		0					371		0
Float Equipment & Centralizers	221		45,000							45,000
Casing Crews & Equipment	222		60,000							60,000
Fishing Tools & Service	223		0	323				372		0
Geologic/Engineering	224		0	324		355		373		0
Contract Labor	225		5,500	325	8,200	356	72,000	374	6,500	92,200
Company Supervision	226		66,600	326	15,000	357		375		81,600
Contract Supervision	227		124,000	327	204,000	358		376	5,000	333,000
Testing Casing/Tubing	228		20,000	328	10,000			377		30,000
Mud Logging Unit	229		52,000	329						52,000
Logging	230		0					378		0
Perforating/Wireline Services	231		4,000	331	515,000			379		519,000
Stimulation/Treating				332	397,000			380		397,000
Completion Unit				333	138,000			381	10,000	148,000
Swabbing Unit				334				382		0
Rentals-Surface	235		190,000	335	310,000	359		383	7,000	507,000
Rentals-Subsurface	236		150,000	336	55,000			384		205,000
Trucking/Forklift/Rig Mobilization	237		120,000	337	20,000	360		385	3,000	143,000
Welding Services	238		4,000	338	5,000	361		386		9,000
Water Disposal	239		0	339	60,000	362	135,000	387		195,000
Plug to Abandon	240		0	340						0
Seismic Analysis	241		0	341						0
Miscellaneous	242		0	342				389		0
Contingency	243		63,000	343	250,000	363		390		313,000
Closed Loop & Environmental	244		330,000	344	5,000	364		388		335,000
Coil Tubing				346	462,000					462,000
Flowback Crews & Equip				347	325,000					325,000
Offset Directional/Frac	248		0	348	48,000					48,000
TOTAL INTANGIBLES			3,506,400		7,231,700		238,000		31,500	11,007,600

TANGIBLE COSTS										
Surface Casing	401		73,000							73,000
Intermediate Casing	402		421,000							421,000
Production Casing/Liner	403		433,000							433,000
Tubing				504	47,300			530	10,000	57,300
Wellhead Equipment	405		75,000	505	22,000			531	3,000	100,000
Pumping Unit					0			506	98,000	98,000
Prime Mover					0			507		0
Rods					0			508	65,000	65,000
Pumps-Sub Surface (BH)				509				532	5,500	5,500
Tanks						510	35,800			35,800
Flowlines						511	85,000			85,000
Heater Treater/Separator						512	159,465			159,465
Electrical System						513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414		0	514	66,000			534	2,000	68,000
Couplings/Fittings/Valves	415		0			515	76,000			76,000
Dehydration						517				0
Injection Plant/CO2 Equipment						518				0
Pumps-Surface						521	6,250			6,250
Instrumentation/SCADA/POC						522		529	7,000	7,000
Miscellaneous	419		0	519		523		535	3,000	3,000
Contingency	420		0	520		524		536		0
Meters/LACT						525	29,150			29,150
Flares/Combusters/Emission						526	15,000			15,000
Gas Lift/Compression				527	15,000	516	75,000	528		90,000
TOTAL TANGIBLES			1,002,000		150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS			4,508,400		7,382,000		779,665		245,000	12,915,065

	% of Total Well Cost	35%	57%	6%	2%
COG Operating LLC					
		Date Prepared: 3/27/2018 for proposal			
		COG Operating LLC			
We approve:					
% Working Interest		By: PWS			
Company: Energen Resources Corporation					
By:					
Printed Name:					
Title:					
Date:		This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.			

COG OPERATING LLC					
AUTHORITY FOR EXPENDITURE					
DRILLING					
WELL NAME: FASCINATOR FED COM 604H			PROSPECT NAME: BULLDOG 717008		
SHL: 210 FNL & 3600 FWL			STATE & COUNTY: New Mexico, Lea		
BHL: 200 FSL & 450 FWL			OBJECTIVE: DRILL AND COMPLETE		
FORMATION: WOLFBONE POOL			DEPTH: 22,500		
LEGAL: SEC 30-31 T24S-R35E			TVD: 12,649		

INTANGIBLE COSTS		Drig - Rig		Completion(C)		Tank Btty		Pmpg		TOTAL	
		Release(D)				Constrctn(TB)		Equipment(PEQ)			
Title/Curative/Permit	201	11,000									11,000
Insurance	202	4,000	302								4,000
Damages/Right of Way	203	5,000	303		351						5,000
Survey/Stake Location	204	6,000			352						6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366				161,000
Drilling / Completion Overhead	206	11,100	306								11,100
Turnkey Contract	207	0	307	1,397,000							1,397,000
Footage Contract	208	0	308	781,000							781,000
Daywork Contract	209	820,000	309	1,177,000							1,997,000
Directional Drilling Services	210	398,000	310	150,000							548,000
Fuel & Power	211	211,000	311	5,000	354		367				216,000
Water	212	60,000	312	855,000			368				915,000
Bits	213	133,200	313	4,500			369				137,700
Mud & Chemicals	214	275,000	314	25,000			370				300,000
Drill Stem Test	215	0	315								0
Coring & Analysis	216	0									0
Cement Surface	217	28,000									28,000
Cement Intermediate	218	75,000									75,000
Cement 2nd Intermediate/Production	219	115,000									115,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371				0
Float Equipment & Centralizers	221	45,000									45,000
Casing Crews & Equipment	222	60,000									60,000
Fishing Tools & Service	223	0	323				372				0
Geologic/Engineering	224	0	324		355		373				0
Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500			92,200
Company Supervision	226	66,600	326	15,000	357		375				81,600
Contract Supervision	227	124,000	327	204,000	358		376	5,000			333,000
Testing Casing/Tubing	228	20,000	328	10,000			377				30,000
Mud Logging Unit	229	52,000	329								52,000
Logging	230	0					378				0
Perforating/Wireline Services	231	4,000	331	515,000			379				519,000
Stimulation/Treating			332	397,000			380				397,000
Completion Unit			333	138,000			381	10,000			148,000
Swabbing Unit			334				382				0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000			507,000
Rentals-Subsurface	236	150,000	336	55,000			384				205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000			143,000
Welding Services	238	4,000	338	5,000	361		386				9,000
Water Disposal	239	0	339	60,000	362	135,000	387				195,000
Plug to Abandon	240	0	340								0
Seismic Analysis	241	0	341								0
Miscellaneous	242	0	342								0
Contingency	243	63,000	343	250,000	363		389				313,000
Closed Loop & Environmental	244	330,000	344	5,000	364		388				335,000
Coil Tubing			346	462,000							462,000
Flowback Crews & Equip			347	325,000							325,000
Offset Directional/Frac	248	0	348	48,000							48,000
TOTAL INTANGIBLES		3,506,400		7,231,700		238,000		31,500			11,007,600

TANGIBLE COSTS									
Surface Casing	401	73,000							73,000
Intermediate Casing	402	421,000							421,000
Production Casing/Liner	403	433,000							433,000
Tubing			504	47,300			530	10,000	57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000	100,000
Pumping Unit				0			506	98,000	98,000
Prime Mover				0			507		0
Rods				0			508	65,000	65,000
Pumps-Sub Surface (BH)			509				532	5,500	5,500
Tanks					510	35,800			35,800
Flowlines					511	85,000			85,000
Heater Treater/Separator					512	159,465			159,465
Electrical System					513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000	68,000
Couplings/Fittings/Valves	415	0			515	76,000			76,000
Dehydration					517				0
Injection Plant/CO2 Equipment					518				0
Pumps-Surface					521	6,250			6,250
Instrumentation/SCADA/POC					522		529	7,000	7,000
Miscellaneous	419	0	519		523		535	3,000	3,000
Contingency	420	0	520		524		536		0
Meters/LACT					525	29,150			29,150
Flares/Combusters/Emission					526	15,000			15,000
Gas Lift/Compression			527	15,000	516	75,000	528		90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000	12,915,065

	% of Total Well Cost	35%	57%	6%	2%
COG Operating LLC					
<hr/>		<u>Date Prepared: 3/27/2018 for proposal</u>			
We approve:		COG Operating LLC			
<hr/> _____% Working Interest		<u>By: PWS</u>			
Company: Energex, LLC					
<u>By:</u>					
<u>Printed Name:</u>					
<u>Title:</u>					
<u>Date:</u>		This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.			

COG OPERATING LLC					
AUTHORITY FOR EXPENDITURE					
DRILLING					
WELL NAME: FASCINATOR FED COM 604H			PROSPECT NAME: BULLDOG 717008		
SHL: 210 FNL & 3600 FWL			STATE & COUNTY: New Mexico, Lea		
BHL: 200 FSL & 450 FWL			OBJECTIVE: DRILL AND COMPLETE		
FORMATION: WOLFBONE POOL			DEPTH: 22,500		
LEGAL: SEC 30-31 T24S-R35E			TVD: 12,649		

INTANGIBLE COSTS		Drig - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpg Equipment(PEQ)	TOTAL
Title/Curative/Permit	201	11,000				11,000
Insurance	202	4,000	302			4,000
Damages/Right of Way	203	5,000	303	351		5,000
Survey/Stake Location	204	6,000		352		6,000
Location/Pits/Road Expense	205	120,000	305 10,000	353 31,000	366	161,000
Drilling / Completion Overhead	206	11,100	306			11,100
Turnkey Contract	207	0	307 1,397,000			1,397,000
Footage Contract	208	0	308 781,000			781,000
Daywork Contract	209	820,000	309 1,177,000			1,997,000
Directional Drilling Services	210	398,000	310 150,000			548,000
Fuel & Power	211	211,000	311 5,000	354	367	216,000
Water	212	60,000	312 855,000		368	915,000
Bits	213	133,200	313 4,500		369	137,700
Mud & Chemicals	214	275,000	314 25,000		370	300,000
Drill Stem Test	215	0	315			0
Coring & Analysis	216	0				0
Cement Surface	217	28,000				28,000
Cement Intermediate	218	75,000				75,000
Cement 2nd Intermediate/Production	219	115,000				115,000
Cement Squeeze & Other (Kickoff Plug)	220	0			371	0
Float Equipment & Centralizers	221	45,000				45,000
Casing Crews & Equipment	222	60,000				60,000
Fishing Tools & Service	223	0	323		372	0
Geologic/Engineering	224	0	324	355	373	0
Contract Labor	225	5,500	325 8,200	356 72,000	374 6,500	92,200
Company Supervision	226	66,600	326 15,000	357	375	81,600
Contract Supervision	227	124,000	327 204,000	358	376 5,000	333,000
Testing Casing/Tubing	228	20,000	328 10,000		377	30,000
Mud Logging Unit	229	52,000	329			52,000
Logging	230	0			378	0
Perforating/Wireline Services	231	4,000	331 515,000		379	519,000
Stimulation/Treating			332 397,000		380	397,000
Completion Unit			333 138,000		381 10,000	148,000
Swabbing Unit			334		382	0
Rentals-Surface	235	190,000	335 310,000	359	383 7,000	507,000
Rentals-Subsurface	236	150,000	336 55,000		384	205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337 20,000	360	385 3,000	143,000
Welding Services	238	4,000	338 5,000	361	386	9,000
Water Disposal	239	0	339 60,000	362 135,000	387	195,000
Plug to Abandon	240	0	340			0
Seismic Analysis	241	0	341			0
Miscellaneous	242	0	342		389	0
Contingency	243	63,000	343 250,000	363	390	313,000
Closed Loop & Environmental	244	330,000	344 5,000	364	388	335,000
Coil Tubing			346 462,000			462,000
Flowback Crews & Equip			347 325,000			325,000
Offset Directional/Frac	248	0	348 48,000			48,000
TOTAL INTANGIBLES		3,506,400	7,231,700	238,000	31,500	11,007,600

TANGIBLE COSTS						
Surface Casing	401	73,000				73,000
Intermediate Casing	402	421,000				421,000
Production Casing/Liner	403	433,000				433,000
Tubing			504 47,300		530 10,000	57,300
Wellhead Equipment	405	75,000	505 22,000		531 3,000	100,000
Pumping Unit			0		506 98,000	98,000
Prime Mover			0		507	0
Rods			0		508 65,000	65,000
Pumps-Sub Surface (BH)			509		532 5,500	5,500
Tanks				510 35,800		35,800
Flowlines				511 85,000		85,000
Heater Treater/Separator				512 159,465		159,465
Electrical System				513 60,000	533 20,000	80,000
Packers/Anchors/Hangers	414	0	514 66,000		534 2,000	68,000
Couplings/Fittings/Valves	415	0		515 76,000		76,000
Dehydration				517		0
Injection Plant/CO2 Equipment				518		0
Pumps-Surface				521 6,250		6,250
Instrumentation/SCADA/POC				522	529 7,000	7,000
Miscellaneous	419	0	519	523	535 3,000	3,000
Contingency	420	0	520	524	536	0
Meters/LACT				525 29,150		29,150
Flares/Combusters/Emission				526 15,000		15,000
Gas Lift/Compression			527 15,000	516 75,000	528	90,000
TOTAL TANGIBLES		1,002,000	150,300	541,665	213,500	1,907,465
TOTAL WELL COSTS		4,508,400	7,382,000	779,665	245,000	12,915,065

% of Total Well Cost		35%	57%	6%	2%
COG Operating LLC		Date Prepared: 3/27/2018 for proposal			
We approve:		COG Operating LLC			
% Working Interest		By: PWS			
Company: Chevron U. S. A. 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.			

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 604H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 3600 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 450 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,500
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

INTANGIBLE COSTS		Drig - Rig		Tank Btty		Pmpg			
		Release(D)	Completion(C)	Constrctn(TB)	Equipment(PEQ)	TOTAL			
Title/Curative/Permit	201	11,000				11,000			
Insurance	202	4,000	302			4,000			
Damages/Right of Way	203	5,000	303	351		5,000			
Survey/Stake Location	204	6,000		352		6,000			
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366		161,000
Drilling / Completion Overhead	206	11,100	306						11,100
Turnkey Contract	207	0	307	1,397,000		1,397,000			
Footage Contract	208	0	308	781,000		781,000			
Daywork Contract	209	820,000	309	1,177,000		1,997,000			
Directional Drilling Services	210	398,000	310	150,000		548,000			
Fuel & Power	211	211,000	311	5,000	354		367		216,000
Water	212	60,000	312	855,000			368		915,000
Bits	213	133,200	313	4,500			369		137,700
Mud & Chemicals	214	275,000	314	25,000			370		300,000
Drill Stem Test	215	0	315						0
Coring & Analysis	216	0							0
Cement Surface	217	28,000							28,000
Cement Intermediate	218	75,000							75,000
Cement 2nd Intermediate/Production	219	115,000							115,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371		0
Float Equipment & Centralizers	221	45,000							45,000
Casing Crews & Equipment	222	60,000							60,000
Fishing Tools & Service	223	0	323				372		0
Geologic/Engineering	224	0	324	355			373		0
Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500	92,200
Company Supervision	226	66,600	326	15,000	357		375		81,600
Contract Supervision	227	124,000	327	204,000	358		376	5,000	333,000
Testing Casing/Tubing	228	20,000	328	10,000			377		30,000
Mud Logging Unit	229	52,000	329						52,000
Logging	230	0					378		0
Perforating/Wireline Services	231	4,000	331	515,000			379		519,000
Stimulation/Treating			332	397,000			380		397,000
Completion Unit			333	138,000			381	10,000	148,000
Swabbing Unit			334				382		0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000	507,000
Rentals-Subsurface	236	150,000	336	55,000			384		205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000	143,000
Welding Services	238	4,000	338	5,000	361		386		9,000
Water Disposal	239	0	339	60,000	362	135,000	387		195,000
Plug to Abandon	240	0	340						0
Seismic Analysis	241	0	341						0
Miscellaneous	242	0	342				389		0
Contingency	243	63,000	343	250,000	363		390		313,000
Closed Loop & Environmental	244	330,000	344	5,000	364		388		335,000
Coil Tubing			346	462,000					462,000
Flowback Crews & Equip			347	325,000					325,000
Offset Directional/Frac	248	0	348	48,000					48,000
TOTAL INTANGIBLES		3,506,400		7,231,700		238,000		31,500	11,007,600
TANGIBLE COSTS									
Surface Casing	401	73,000							73,000
Intermediate Casing	402	421,000							421,000
Production Casing/Liner	403	433,000							433,000
Tubing			504	47,300			530	10,000	57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000	100,000
Pumping Unit				0			506	98,000	98,000
Prime Mover				0			507		0
Rods				0			508	65,000	65,000
Pumps-Sub Surface (BH)			509				532	5,500	5,500
Tanks					510	35,800			35,800
Flowlines					511	85,000			85,000
Heater Treater/Separator					512	159,465			159,465
Electrical System					513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000	68,000
Couplings/Fittings/Valves	415	0			515	76,000			76,000
Dehydration					517				0
Injection Plant/CO2 Equipment					518				0
Pumps-Surface					521	6,250			6,250
Instrumentation/SCADA/POC					522		529	7,000	7,000
Miscellaneous	419	0	519		523		535	3,000	3,000
Contingency	420	0	520		524		536		0
Meters/LACT					525	29,150			29,150
Flares/Combusters/Emission					526	15,000			15,000
Gas Lift/Compression			527	15,000	516	75,000	528		90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000	12,915,065

% of Total Well Cost	35%	57%	6%	2%
COG Operating LLC				

Date Prepared:3/27/2018 for proposal

COG Operating LLC

We approve:
_____% Working Interest

By: PWS

Burlington Resources Oil and Gas
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.

COG OPERATING LLC			
AUTHORITY FOR EXPENDITURE			
DRILLING			
WELL NAME: FASCINATOR FED COM 604H		PROSPECT NAME: BULLDOG 717008	
SHL:	210 FNL & 3600 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 450 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,500
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

INTANGIBLE COSTS		Drig - Rig		Completion(C)		Tank Btty		Pmpg		TOTAL
		Release(D)				Constrctn(TB)		Equipment(PEQ)		
Title/Curative/Permit	201	11,000								11,000
Insurance	202	4,000	302							4,000
Damages/Right of Way	203	5,000	303		351					5,000
Survey/Stake Location	204	6,000			352					6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366			161,000
Drilling / Completion Overhead	206	11,100	306							11,100
Turnkey Contract	207	0	307	1,397,000						1,397,000
Footage Contract	208	0	308	781,000						781,000
Daywork Contract	209	820,000	309	1,177,000						1,997,000
Directional Drilling Services	210	398,000	310	150,000						548,000
Fuel & Power	211	211,000	311	5,000	354		367			216,000
Water	212	60,000	312	855,000			368			915,000
Bits	213	133,200	313	4,500			369			137,700
Mud & Chemicals	214	275,000	314	25,000			370			300,000
Drill Stem Test	215	0	315							0
Coring & Analysis	216	0								0
Cement Surface	217	28,000								28,000
Cement Intermediate	218	75,000								75,000
Cement 2nd Intermediate/Production	219	115,000								115,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371			0
Float Equipment & Centralizers	221	45,000								45,000
Casing Crews & Equipment	222	60,000								60,000
Fishing Tools & Service	223	0	323				372			0
Geologic/Engineering	224	0	324		355		373			0
Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500		92,200
Company Supervision	226	66,600	326	15,000	357		375			81,600
Contract Supervision	227	124,000	327	204,000	358		376	5,000		333,000
Testing Casing/Tubing	228	20,000	328	10,000			377			30,000
Mud Logging Unit	229	52,000	329							52,000
Logging	230	0					378			0
Perforating/Wireline Services	231	4,000	331	515,000			379			519,000
Stimulation/Treating			332	397,000			380			397,000
Completion Unit			333	138,000			381	10,000		148,000
Swabbing Unit			334				382			0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000		507,000
Rentals-Subsurface	236	150,000	336	55,000			384			205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000		143,000
Welding Services	238	4,000	338	5,000	361		386			9,000
Water Disposal	239	0	339	60,000	362	135,000	387			195,000
Plug to Abandon	240	0	340							0
Seismic Analysis	241	0	341							0
Miscellaneous	242	0	342				389			0
Contingency	243	63,000	343	250,000	363		390			313,000
Closed Loop & Environmental	244	330,000	344	5,000	364		388			335,000
Coil Tubing			346	462,000						462,000
Flowback Crews & Equip			347	325,000						325,000
Offset Directional/Frac	248	0	348	48,000						48,000
TOTAL INTANGIBLES		3,506,400		7,231,700		238,000		31,500		11,007,600

TANGIBLE COSTS										
Surface Casing	401	73,000								73,000
Intermediate Casing	402	421,000								421,000
Production Casing/Liner	403	433,000								433,000
Tubing			504	47,300			530	10,000		57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000		100,000
Pumping Unit				0			506	98,000		98,000
Prime Mover				0			507			0
Rods				0			508	65,000		65,000
Pumps-Sub Surface (BH)			509				532	5,500		5,500
Tanks					510	35,800				35,800
Flowlines					511	85,000				85,000
Heater Treater/Separator					512	159,465				159,465
Electrical System					513	60,000	533	20,000		80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000		68,000
Couplings/Fittings/Valves	415	0			515	76,000				76,000
Dehydration					517					0
Injection Plant/CO2 Equipment					518					0
Pumps-Surface					521	6,250				6,250
Instrumentation/SCADA/POC					522		529	7,000		7,000
Miscellaneous	419	0	519		523		535	3,000		3,000
Contingency	420	0	520		524		536			0
Meters/LACT					525	29,150				29,150
Flares/Combusters/Emission					526	15,000				15,000
Gas Lift/Compression			527	15,000	516	75,000	528			90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500		1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000		12,915,065

% of Total Well Cost		35%	57%	6%	2%
COG Operating LLC		Date Prepared: 3/27/2018 for proposal			
		COG Operating LLC			
We approve:		By: PWS			
% Working Interest					
Company: L. W. Kirby					
By:					
Printed Name:					
Title:					
Date:					
		This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.			

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME: FASCINATOR FED COM 604H

PROSPECT NAME: BULLDOG 717008

SHL: 210 FNL & 3600 FWL

STATE & COUNTY: New Mexico, Lea

BHL: 200 FSL & 450 FWL

OBJECTIVE: DRILL AND COMPLETE

FORMATION: WOLFBONE POOL

DEPTH: 22,500

LEGAL: SEC 30-31 T24S-R35E

TVD: 12,649

		Drig - Rig		Completion(C)	Tank Btty		Pmpg	
INTANGIBLE COSTS		Release(D)			Constrctn(TB)		Equipment(PEQ)	TOTAL
Title/Curative/Permit	201	11,000						11,000
Insurance	202	4,000	302					4,000
Damages/Right of Way	203	5,000	303		351			5,000
Survey/Stake Location	204	6,000			352			6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366	161,000
Drilling / Completion Overhead	206	11,100	306					11,100
Turnkey Contract	207	0	307	1,397,000				1,397,000
Footage Contract	208	0	308	781,000				781,000
Daywork Contract	209	820,000	309	1,177,000				1,997,000
Directional Drilling Services	210	398,000	310	150,000				548,000
Fuel & Power	211	211,000	311	5,000	354		367	216,000
Water	212	60,000	312	855,000			368	915,000
Bits	213	133,200	313	4,500			369	137,700
Mud & Chemicals	214	275,000	314	25,000			370	300,000
Drill Stem Test	215	0	315					0
Coring & Analysis	216	0						0
Cement Surface	217	28,000						28,000
Cement Intermediate	218	75,000						75,000
Cement 2nd Intermediate/Production	219	115,000						115,000
Cement Squeeze & Other (Kickoff Plug)	220	0				371		0
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Testing Casing/Tubing	228	20,000	328	10,000			377	30,000
Mud Logging Unit	229	52,000	329					52,000
Logging	230	0					378	0
Perforating/Wireline Services	231	4,000	331	515,000			379	519,000
Stimulation/Treating			332	397,000			380	397,000
Completion Unit			333	138,000			381	148,000
Swabbing Unit			334				382	0
Rentals-Surface	235	190,000	335	310,000	359		383	507,000
Rentals-Subsurface	236	150,000	336	55,000			384	205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	143,000
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Water Disposal	239	0	339	60,000	362	135,000	387	195,000
Plug to Abandon	240	0	340					0
Seismic Analysis	241	0	341					0
Miscellaneous	242	0	342				389	0
Contingency	243	63,000	343	250,000	363		390	313,000
Closed Loop & Environmental	244	330,000	344	5,000	364		388	335,000
Coil Tubing			346	462,000				462,000
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TOTAL INTANGIBLES		3,506,400		7,231,700		238,000	31,500	11,007,600
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Pumping Unit				0			506	98,000
Prime Mover				0			507	0
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Tanks					510	35,800		35,800
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Electrical System					513	60,000	533	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	68,000
Couplings/Fittings/Valves	415	0			515	76,000		76,000
Dehydration					517			0
Injection Plant/CO2 Equipment					518			0
Pumps-Surface					521	6,250		6,250
Instrumentation/SCADA/POC					522		529	7,000
Miscellaneous	419	0	519		523		535	3,000
Contingency	420	0	520		524		536	0
Meters/LACT					525	29,150		29,150
Flares/Combusters/Emission					526	15,000		15,000
Gas Lift/Compression			527	15,000	516	75,000	528	90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665	213,500	1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665	245,000	12,915,065

% of Total Well Cost

35%

57%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve:

% Working Interest

By: PWS

Company: Barney L. Alsobrook

By:

Printed Name:

Title:

Date:

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

WELL NAME:	FASCINATOR FED COM 604H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 3600 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 450 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,500
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,649

TANGIBLE COSTS									
Surface Casing	401	73,000							73,000
Intermediate Casing	402	421,000							421,000
Production Casing/Liner	403	433,000							433,000
Tubing			504	47,300			530	10,000	57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000	100,000
Pumping Unit				0			506	98,000	98,000
Prime Mover				0			507		0
Rods				0			508	65,000	65,000
Pumps-Sub Surface (BH)			509				532	5,500	5,500
Tanks					510	35,800			35,800
Flowlines					511	85,000			85,000
Heater Treater/Separator					512	159,465			159,465
Electrical System					513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000	68,000
Couplings/Fittings/Valves	415	0			515	76,000			76,000
Dehydration					517				0
Injection Plant/CO2 Equipment					518				0
Pumps-Surface					521	6,250			6,250
Instrumentation/SCADA/POC					522		529	7,000	7,000
Miscellaneous	419	0	519				535	3,000	3,000
Contingency	420	0	520				536		0
Meters/LACT					525	29,150			29,150
Flares/Combusters/Emission					526	15,000			15,000
Gas Lift/Compression			527	15,000	516	75,000	528		90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS		4,508,400		7,382,000		779,665		245,000	12,915,065

Date Prepared: 3/27/2018 for proposal

Company: Flatland Mineral Fund, LP
By: _____

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

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5342

Marathon Oil Permian LLC
5555 San Felipe St.
Houston, Texas 77056

Re: Well Proposal – Fascinator Federal Com 701H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 2160' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 2310' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 701H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,761' and a MD of approximately 22,500' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: E/2W/2 - T24S-R35E and Sec 31: E/2W/2 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG proposes to acquire your interest via term assignment. It has the following general provisions:

- 3 year primary term
- Delivering a 75% NRI, proportionately reduced
- \$2,000 per net acre bonus consideration

The Term Assignment offer expires 5 p.m., Central Time, June 13, 2018, and it is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 17
Submitted by: **COG OPERATING LLC**
Hearing Date: July 26, 2018
Case Nos. 16219 & 16220

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 701H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 701H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5465

Chevron U. S. A. Inc.
1400 Smith Street
Houston, TX 77002

Re: Well Proposal – Fascinator Federal Com 701H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 2160' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 2310' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 701H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,761' and a MD of approximately 22,500' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: E/2W/2 - T24S-R35E and Sec 31: E/2W/2 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG would like to lease your minerals under the following general terms:

- Bonus of \$2,000 /Net Mineral Acre
- 3 Year Primary Term
- 25% Royalty Interest

The Lease offer is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 701H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 701H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME: **FASCINATOR FED COM 701H**

SHL: 210 FNL & 2160 FWL

BHL: 200 FSL & 2310 FWL

LEGAL: SEC 30-31 T24S-R35E

PROSPECT NAME: BULLDOG 717008

STATE & COUNTY: New Mexico, Lea

OBJECTIVE: DRILL AND COMPLETE

DEPTH:	22,500
TVD:	12,761

INTANGIBLE COSTS		Drig - Rig		Completion(C)	Tank Btty		Pmpg	TOTAL
		Release(D)			Constrctn(TB)		Equipment(PEQ)	
Title/Curative/Permit	201	11,000						11,000
Insurance	202	4,000	302					4,000
Damages/Right of Way	203	5,000	303		351			5,000
Survey/Stake Location	204	6,000			352			6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366	161,000
Drilling / Completion Overhead	206	13,800	306					13,800
Turnkey Contract	207	0	307	1,397,000				1,397,000
Footage Contract	208	0	308	781,000				781,000
Daywork Contract	209	1,000,000	309	1,177,000				2,177,000
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Bits	213	133,200	313	4,500			369	137,700
Mud & Chemicals	214	275,000	314	25,000			370	300,000
Drill Stem Test	215	0	315					0
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Mud Logging Unit	229	52,000	329					52,000
Logging	230	0					378	0
Perforating/Wireline Services	231	4,000	331	515,000			379	519,000
Stimulation/Treating			332	397,000			380	397,000
Completion Unit			333	138,000			381	148,000
Swabbing Unit			334				382	0
Rentals-Surface	235	190,000	335	310,000	359		383	507,000
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Welding Services	238	4,000	338	5,000	361		386	9,000
Water Disposal	239	0	339	60,000	362	135,000	387	195,000
Plug to Abandon	240	0	340					0
Seismic Analysis	241	0	341					0
Miscellaneous	242	0	342				389	0
Contingency	243	68,700	343	250,000	363		390	318,700
Closed Loop & Environmental	244	330,000	344	5,000	364		388	335,000
Coil Tubing			346	462,000				462,000
Flowback Crews & Equip			347	325,000				325,000
Offset Directional/Frac	248	0	348	48,000				48,000
TOTAL INTANGIBLES		3,790,000		7,231,700		238,000	31,500	11,291,200
TANGIBLE COSTS								
Surface Casing	401	73,000						73,000
Intermediate Casing	402	421,000						421,000
Production Casing/Liner	403	433,000						433,000
Tubing			504	47,300			530	57,300
Wellhead Equipment	405	75,000	505	22,000			531	100,000
Pumping Unit				0			506	98,000
Prime Mover				0			507	0
Rods				0			508	65,000
Pumps-Sub Surface (BH)			509				532	5,500
Tanks					510	35,800		35,800
Flowlines					511	85,000		85,000
Heater Treater/Separator					512	159,465		159,465
Electrical System					513	60,000	533	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000
Couplings/Fittings/Valves	415	0			515	76,000		76,000
Dehydration					517			0
Injection Plant/CO2 Equipment					518			0
Pumps-Surface					521	6,250		6,250
Instrumentation/SCADA/POC					522		529	7,000
Miscellaneous	419	0	519		523		535	3,000
Contingency	420	0	520		524		536	0
Meters/LACT					525	29,150		29,150
Flares/Combusters/Emission					526	15,000		15,000
Gas Lift/Compression			527	15,000	516	75,000	528	90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665	213,500	1,907,465
TOTAL WELL COSTS		4,792,000		7,382,000		779,665	245,000	13,198,665

% of Total Well Cost

36%

56%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

By: PWS

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.

COG OPERATING LLC

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5342

Marathon Oil Permian LLC
5555 San Felipe St.
Houston, Texas 77056

Re: Well Proposal – Fascinator Federal Com 702H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 2100' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 1930' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 702H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,862' and a MD of approximately 22,600' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: E/2W/2 - T24S-R35E and Sec 31: E/2W/2 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG proposes to acquire your interest via term assignment. It has the following general provisions:

- 3 year primary term
- Delivering a 75% NRI, proportionately reduced
- \$2,000 per net acre bonus consideration

The Term Assignment offer expires 5 p.m., Central Time, June 13, 2018, and it is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 18
Submitted by: **COG OPERATING LLC**
Hearing Date: July 26, 2018
Case Nos. 16219 & 16220

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 702H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 702H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5465

Chevron U. S. A. Inc.
1400 Smith Street
Houston, TX 77002

Re: Well Proposal – Fascinator Federal Com 702H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 2100' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 1930' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 702H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,862' and a MD of approximately 22,600' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: E/2W/2 - T24S-R35E and Sec 31: E/2W/2 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG would like to lease your minerals under the following general terms:

- Bonus of \$2,000 /Net Mineral Acre
- 3 Year Primary Term
- 25% Royalty Interest

The Lease offer is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 702H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 702H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 702H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 2100 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1930 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,600
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,862

INTANGIBLE COSTS		Drlq - Rig		Tank Btty		Pmpq		TOTAL	
		Release(D)	Completion(C)	Constrctn(TB)	Equipment(PEQ)				
Title/Curative/Permit	201	11,000							11,000
Insurance	202	4,000	302						4,000
Damages/Right of Way	203	5,000	303	351					5,000
Survey/Stake Location	204	6,000		352					6,000
Location/Pits/Road Expense	205	120,000	305	353	31,000	366			161,000
Drilling / Completion Overhead	206	13,800	306						13,800
Turnkey Contract	207	0	307						1,397,000
Footage Contract	208	0	308						781,000
Daywork Contract	209	1,000,000	309						2,177,000
Directional Drilling Services	210	398,000	310						548,000
Fuel & Power	211	263,000	311	354		367			268,000
Water	212	60,000	312			368			915,000
Bits	213	133,200	313			369			137,700
Mud & Chemicals	214	275,000	314			370			300,000
Drill Stem Test	215	0	315						0
Coring & Analysis	216	0							0
Cement Surface	217	28,000							28,000
Cement Intermediate	218	75,000							75,000
Cement 2nd Intermediate/Production	219	115,000							115,000
Cement Squeeze & Other (Kickoff Plug)	220	0				371			0
Float Equipment & Centralizers	221	45,000							45,000
Casing Crews & Equipment	222	60,000							60,000
Fishing Tools & Service	223	0	323			372			0
Geologic/Engineering	224	0	324	355		373			0
Contract Labor	225	5,500	325	356	72,000	374	6,500		92,200
Company Supervision	226	82,800	326	357		375			97,800
Contract Supervision	227	151,000	327	358		376	5,000		360,000
Testing Casing/Tubing	228	20,000	328			377			30,000
Mud Logging Unit	229	52,000	329						52,000
Logging	230	0				378			0
Perforating/Wireline Services	231	4,000	331			379			519,000
Stimulation/Treating			332			380			397,000
Completion Unit			333			381	10,000		148,000
Swabbing Unit			334			382			0
Rentals-Surface	235	190,000	335	359		383	7,000		507,000
Rentals-Subsurface	236	150,000	336			384			205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	360		385	3,000		143,000
Welding Services	238	4,000	338	361		386			9,000
Water Disposal	239	0	339	362	135,000	387			195,000
Plug to Abandon	240	0	340						0
Seismic Analysis	241	0	341						0
Miscellaneous	242	0	342			389			0
Contingency	243	68,700	343	363		390			318,700
Closed Loop & Environmental	244	330,000	344	364		388			335,000
Coil Tubing			346						462,000
Flowback Crews & Equip			347						325,000
Offset Directional/Frac	248	0	348						48,000
TOTAL INTANGIBLES		3,790,000			238,000		31,500		11,291,200

TANGIBLE COSTS									
Surface Casing	401	73,000							73,000
Intermediate Casing	402	421,000							421,000
Production Casing/Liner	403	433,000							433,000
Tubing			504	47,300			530	10,000	57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000	100,000
Pumping Unit				0			506	98,000	98,000
Prime Mover				0			507		0
Rods				0			508	65,000	65,000
Pumps-Sub Surface (BH)			509				532	5,500	5,500
Tanks					510	35,800			35,800
Flowlines					511	85,000			85,000
Heater Treater/Separator					512	159,465			159,465
Electrical System					513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000	68,000
Couplings/Fittings/Valves	415	0			515	76,000			76,000
Dehydration					517				0
Injection Plant/CO2 Equipment					518				0
Pumps-Surface					521	6,250			6,250
Instrumentation/SCADA/POC					522		529	7,000	7,000
Miscellaneous	419	0	519		523		535	3,000	3,000
Contingency	420	0	520		524		536		0
Meters/LACT					525	29,150			29,150
Flares/Combusters/Emission					526	15,000			15,000
Gas Lift/Compression			527	15,000	516	75,000	528		90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS		4,792,000		7,382,000		779,665		245,000	13,198,665

	% of Total Well Cost	36%	56%	6%	2%
COG Operating LLC		Date Prepared: 3/27/2018 for proposal			
We approve:		COG Operating LLC			
% Working Interest		By: PWS			
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.			

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5342

Marathon Oil Permian LLC
5555 San Felipe St.
Houston, Texas 77056

Re: Well Proposal – Fascinator Federal Com 703H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 1510' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 1510' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 703H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,764' and a MD of approximately 22,600' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: E/2W/2 - T24S-R35E and Sec 31: E/2W/2 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
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- \$2,000 per net acre bonus consideration

The Term Assignment offer expires 5 p.m., Central Time, June 13, 2018, and it is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 19
Submitted by: **COG OPERATING LLC**
Hearing Date: July 26, 2018
Case Nos. 16219 & 16220

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 703H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 703H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5465

Chevron U. S. A. Inc.
1400 Smith Street
Houston, TX 77002

Re: Well Proposal – Fascinator Federal Com 703H
Sec 30: E/2W/2 - T24S-R35E
Sec 31: E/2W/2 - T24S-R35E
SHL: 210' FNL/ 1510' FWL, or a legal location in Sec 30 (Unit C)
BHL: 200' FSL/ 1510' FWL, or a legal location in Sec 31 (Unit N)
Lea County, New Mexico

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The Lease offer is subject to the approval of COG's management and verification of title.

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Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 703H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 703H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 703H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 1510 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1510 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,600
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,764

		Drig - Rig		Completion(C)		Tank Btty		Pmpg		TOTAL
INTANGIBLE COSTS		Release(D)				Constrctn(TB)		Equipment(PEQ)		
Title/Curative/Permit	201	11,000								11,000
Insurance	202	4,000	302							4,000
Damages/Right of Way	203	5,000	303		351					5,000
Survey/Stake Location	204	6,000			352					6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366			161,000
Drilling / Completion Overhead	206	13,800	306							13,800
Turnkey Contract	207	0	307	1,397,000						1,397,000
Footage Contract	208	0	308	781,000						781,000
Daywork Contract	209	1,000,000	309	1,177,000						2,177,000
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Cement Intermediate	218	75,000								75,000
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Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500		92,200
Company Supervision	226	82,800	326	15,000	357		375			97,800
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Testing Casing/Tubing	228	20,000	328	10,000			377			30,000
Mud Logging Unit	229	52,000	329							52,000
Logging	230	0					378			0
Perforating/Wireline Services	231	4,000	331	515,000			379			519,000
Stimulation/Treating			332	397,000			380			397,000
Completion Unit			333	138,000			381	10,000		148,000
Swabbing Unit			334				382			0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000		507,000
Rentals-Subsurface	236	150,000	336	55,000			384			205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000		143,000
Welding Services	238	4,000	338	5,000	361		386			9,000
Water Disposal	239	0	339	60,000	362	135,000	387			195,000
Plug to Abandon	240	0	340							0
Seismic Analysis	241	0	341							0
Miscellaneous	242	0	342				389			0
Contingency	243	68,700	343	250,000	363		390			318,700
Closed Loop & Environmental	244	330,000	344	5,000	364		388			335,000
Coil Tubing			346	462,000						462,000
Flowback Crews & Equip			347	325,000						325,000
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TOTAL INTANGIBLES		3,790,000		7,231,700		238,000		31,500		11,291,200
TANGIBLE COSTS										
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Intermediate Casing	402	421,000								421,000
Production Casing/Liner	403	433,000								433,000
Tubing			504	47,300			530	10,000		57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000		100,000
Pumping Unit				0			506	98,000		98,000
Prime Mover				0			507			0
Rods				0			508	65,000		65,000
Pumps-Sub Surface (BH)			509				532	5,500		5,500
Tanks					510	35,800				35,800
Flowlines					511	85,000				85,000
Heater Treater/Separator					512	159,465				159,465
Electrical System					513	60,000	533	20,000		80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000		68,000
Couplings/Fittings/Valves	415	0			515	76,000				76,000
Dehydration					517					0
Injection Plant/CO2 Equipment					518					0
Pumps-Surface					521	6,250				6,250
Instrumentation/SCADA/POC					522		529	7,000		7,000
Miscellaneous	419	0	519		523		535	3,000		3,000
Contingency	420	0	520		524		536			0
Meters/LACT					525	29,150				29,150
Flares/Combusters/Emission					526	15,000				15,000
Gas Lift/Compression			527	15,000	516	75,000	528			90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500		1,907,465
TOTAL WELL COSTS		4,792,000		7,382,000		779,665		245,000		13,198,665

% of Total Well Cost		36%	56%	6%	2%
COG Operating LLC		Date Prepared: 3/27/2018 for proposal			
We approve:		COG Operating LLC			
% Working Interest		By: PWS			
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.			



April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5403

Energex, LLC
4425 98th St., Ste. 200
Lubbock, TX 79424

Re: Well Proposal – Fascinator Federal Com 704H
Sec 30: Lots 1-4 - T24S-R35E
Sec 31: Lots 1-4 - T24S-R35E
SHL: 210' FNL/ 980' FWL, or a legal location in Sec 30 (Lot 1)
BHL: 200' FSL/ 1130' FWL, or a legal location in Sec 31 (Lot 4)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 704H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,889' and a MD of approximately 22,700' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: Lots 1-4 - T24S-R35E and Sec 31: Lots 1-4 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG proposes to acquire your interest via term assignment. It has the following general provisions:

- 3 year primary term
- Delivering a 75% NRI, proportionately reduced
- \$2,000 per net acre bonus consideration

The Term Assignment offer expires 5 p.m., Central Time, June 13, 2018, and it is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 704H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 704H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____



April 13, 2018

US Certified Mail No. 91 7199 9991 7038 7698 1519

Burlington Resources Oil and Gas Company, LP
REAL PROPERTY ADMINISTRATION
PO BOX 7500
Bartlesville, OK 74005

Re: Well Proposal – Fascinator Federal Com 704H
Sec 30: Lots 1-4 - T24S-R35E
Sec 31: Lots 1-4 - T24S-R35E
SHL: 210' FNL/ 980' FWL, or a legal location in Sec 30 (Lot 1)
BHL: 200' FSL/ 1130' FWL, or a legal location in Sec 31 (Lot 4)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 704H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,889' and a MD of approximately 22,700' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: Lots 1-4 - T24S-R35E and Sec 31: Lots 1-4 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG would like to lease your minerals under the following general terms:

- Bonus of \$2,000 /Net Mineral Acre
- 3 Year Primary Term
- 25% Royalty Interest

The Lease offer is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 704H.

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Company: _____

By: _____

Name: _____

Title: _____

Date: _____

WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,700
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,889

	% of Total Well Cost	36%	56%	6%	2%
COG Operating LLC					
<hr/>		<u>Date Prepared: 3/27/2018 for proposal</u>			
We approve:		COG Operating LLC			
<u> </u> % Working Interest		<u>By: PWS</u>			
<hr/>					
Company:					
<u>By:</u>					
<hr/>					
Printed Name:					
<u>Title:</u>					
<u>Date:</u>		This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.			

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
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FORMATION:	WOLFBONE POOL	DEPTH:	22,700
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,889

INTANGIBLE COSTS		Drig - Rig Release(D)		Completion(C)		Tank Btty Constrctn(TB)		Pmpg Equipment(PEQ)		TOTAL
Title/Curative/Permit	201	11,000								11,000
Insurance	202	4,000	302							4,000
Damages/Right of Way	203	5,000	303		351					5,000
Survey/Stake Location	204	6,000			352					6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000	366			161,000
Drilling / Completion Overhead	206	13,800	306							13,800
Turnkey Contract	207	0	307	1,397,000						1,397,000
Footage Contract	208	0	308	781,000						781,000
Daywork Contract	209	1,000,000	309	1,177,000						2,177,000
Directional Drilling Services	210	398,000	310	150,000						548,000
Fuel & Power	211	263,000	311	5,000	354		367			268,000
Water	212	60,000	312	855,000			368			915,000
Bits	213	133,200	313	4,500			369			137,700
Mud & Chemicals	214	275,000	314	25,000			370			300,000
Drill Stem Test	215	0	315							0
Coring & Analysis	216	0								0
Cement Surface	217	28,000								28,000
Cement Intermediate	218	75,000								75,000
Cement 2nd Intermediate/Production	219	115,000								115,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371			0
Float Equipment & Centralizers	221	45,000								45,000
Casing Crews & Equipment	222	60,000								60,000
Fishing Tools & Service	223	0	323				372			0
Geologic/Engineering	224	0	324		355		373			0
Contract Labor	225	5,500	325	8,200	356	72,000	374	6,500		92,200
Company Supervision	226	82,800	326	15,000	357		375			97,800
Contract Supervision	227	151,000	327	204,000	358		376	5,000		360,000
Testing Casing/Tubing	228	20,000	328	10,000			377			30,000
Mud Logging Unit	229	52,000	329							52,000
Logging	230	0					378			0
Perforating/Wireline Services	231	4,000	331	515,000			379			519,000
Stimulation/Treating			332	397,000			380			397,000
Completion Unit			333	138,000			381	10,000		148,000
Swabbing Unit			334				382			0
Rentals-Surface	235	190,000	335	310,000	359		383	7,000		507,000
Rentals-Subsurface	236	150,000	336	55,000			384			205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360		385	3,000		143,000
Welding Services	238	4,000	338	5,000	361		386			9,000
Water Disposal	239	0	339	60,000	362	135,000	387			195,000
Plug to Abandon	240	0	340							0
Seismic Analysis	241	0	341							0
Miscellaneous	242	0	342				389			0
Contingency	243	68,700	343	250,000	363		390			318,700
Closed Loop & Environmental	244	330,000	344	5,000	364		388			335,000
Coil Tubing			346	462,000						462,000
Flowback Crews & Equip			347	325,000						325,000
Offset Directional/Frac	248	0	348	48,000						48,000
TOTAL INTANGIBLES		3,790,000		7,231,700		238,000		31,500		11,291,200

TANGIBLE COSTS										
Surface Casing	401	73,000								73,000
Intermediate Casing	402	421,000								421,000
Production Casing/Liner	403	433,000								433,000
Tubing			504	47,300			530	10,000		57,300
Wellhead Equipment	405	75,000	505	22,000			531	3,000		100,000
Pumping Unit				0			506	98,000		98,000
Prime Mover				0			507			0
Rods				0			508	65,000		65,000
Pumps-Sub Surface (BH)			509				532	5,500		5,500
Tanks					510	35,800				35,800
Flowlines					511	85,000				85,000
Heater Treater/Separator					512	159,465				159,465
Electrical System					513	60,000	533	20,000		80,000
Packers/Anchors/Hangers	414	0	514	66,000			534	2,000		68,000
Couplings/Fittings/Valves	415	0			515	76,000				76,000
Dehydration					517					0
Injection Plant/CO2 Equipment					518					0
Pumps-Surface					521	6,250				6,250
Instrumentation/SCADA/POC					522		529	7,000		7,000
Miscellaneous	419	0	519		523		535	3,000		3,000
Contingency	420	0	520		524		536			0
Meters/LACT					525	29,150				29,150
Flares/Combusters/Emission					526	15,000				15,000
Gas Lift/Compression			527	15,000	516	75,000	528			90,000
TOTAL TANGIBLES		1,002,000		150,300		541,665		213,500		1,907,465
TOTAL WELL COSTS		4,792,000		7,382,000		779,665		245,000		13,198,665

% of Total Well Cost	36%	56%	6%	2%
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COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve: % Working Interest By: PWS

Company: Marathon Oil Permian LLC

By:

Printed Name:

Title:

Date:

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

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,700
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,889

INTANGIBLE COSTS		Drig - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpq Equipment(PEQ)	TOTAL
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Survey/Stake Location	204	6,000		352		6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	31,000
366	206	13,800	306			161,000
Drilling / Completion Overhead						13,800
Turkey Contract	207	0	307	1,397,000		1,397,000
Footage Contract	208	0	308	781,000		781,000
Daywork Contract	209	1,000,000	309	1,177,000		2,177,000
Directional Drilling Services	210	398,000	310	150,000		548,000
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Mud & Chemicals	214	275,000	314	25,000	369	137,700
Drill Stem Test	215	0	315		370	300,000
Coring & Analysis	216	0				0
Cement Surface	217	28,000				0
Cement Intermediate	218	75,000				28,000
Cement 2nd Intermediate/Production	219	115,000				75,000
Cement Squeeze & Other (Kickoff Plug)	220	0			371	115,000
Float Equipment & Centralizers	221	45,000				0
Casing Crews & Equipment	222	60,000				45,000
Fishing Tools & Service	223	0	323		372	60,000
Geologic/Engineering	224	0	324	355	373	0
Contract Labor	225	5,500	325	8,200	356	72,000
Company Supervision	226	82,800	326	15,000	357	374
Contract Supervision	227	151,000	327	204,000	358	375
Testing Casing/Tubing	228	20,000	328	10,000		376
Mud Logging Unit	229	52,000	329			5,000
Logging	230	0				377
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Water Disposal	239	0	339	60,000	362	135,000
Plug to Abandon	240	0	340			387
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						31,500
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TANGIBLE COSTS						
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Production Casing/Liner	403	433,000				433,000
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Wellhead Equipment	405	75,000	505	22,000		100,000
Pumping Unit				0	530	3,000
Prime Mover				0	506	98,000
Rods				0	507	0
Pumps-Sub Surface (BH)			509		508	65,000
Tanks					532	5,500
Flowlines				510	35,800	35,800
Heater Treater/Separator				511	85,000	85,000
Electrical System				512	159,465	159,465
Packers/Anchors/Hangers	414	0	514	66,000	513	60,000
Couplings/Fittings/Valves	415	0			533	20,000
Dehydration					534	2,000
Injection Plant/CO2 Equipment					515	76,000
Pumps-Surface					517	0
Instrumentation/SCADA/POC					518	0
Miscellaneous	419	0	519		521	6,250
Contingency	420	0	520		522	
Meters/LACT					529	7,000
Flares/Combusters/Emission					535	3,000
Gas Lift/Compression			527	15,000	516	75,000
TOTAL TANGIBLES		1,002,000		150,300		213,500
TOTAL WELL COSTS		4,792,000		7,382,000		779,665
						245,000
						13,198,665

% of Total Well Cost

36%

56%

6%

2%

COG Operating LLC

Date Prepared:3/27/2018 for proposal

COG Operating LLC

We approve:

% Working Interest

By: PWS

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.

COG OPERATING LLC			
AUTHORITY FOR EXPENDITURE			
DRILLING			
WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
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Pumping Unit				0			506	98,000	98,000
Prime Mover				0			507		0
Rods				0			508	65,000	65,000
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Contingency	420	0	520		524		536		0
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TOTAL WELL COSTS		4,792,000		7,382,000		779,665		245,000	13,198,665

COG Operating LLC

Printed Name: _____
Title: _____
Date: _____

BY: PVVS

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COG OPERATING LLC AUTHORITY FOR EXPENDITURE DRILLING			
WELL NAME: FASCINATOR FED COM 704H		PROSPECT NAME: BULLDOG 717008	
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
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2%

By: PWS

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Couplings/Fittings/Valves	415	0		515	76,000	76,000
Dehydration				517		0
Injection Plant/CO2 Equipment				518		0
Pumps-Surface				521	6,250	6,250
Instrumentation/SCADA/POC				522		7,000
Miscellaneous	419	0	519	523	535	3,000
Contingency	420	0	520	524	536	0
Meters/LACT				525	29,150	29,150
Flares/Combusters/Emission				526	15,000	15,000
Gas Lift/Compression			527	15,000	516	75,000
TOTAL TANGIBLES		1,002,000		150,300		213,500
TOTAL WELL COSTS		4,792,000		7,382,000		779,665
						245,000
						13,198,665

% of Total Well Cost

36%

56%

6%

2%

COG Operating LLC

Date Prepared:

3/27/2018 for proposal

COG Operating LLC

We approve:

% Working Interest

By: PWS

Company:

Energren Resources Corporation

By:

Printed Name:

Title:

Date:

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

COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,700
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,889

INTANGIBLE COSTS		Drlg - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpg Equipment(PEQ)	TOTAL
Title/Curative/Permit	201	11,000				11,000
Insurance	202	4,000	302			4,000
Damages/Right of Way	203	5,000	303	351		5,000
Survey/Stake Location	204	6,000		352		6,000
Location/Pits/Road Expense	205	120,000	305 10,000	353 31,000	366	161,000
Drilling / Completion Overhead	206	13,800	306			13,800
Turnkey Contract	207	0	307 1,397,000			1,397,000
Footage Contract	208	0	308 781,000			781,000
Daywork Contract	209	1,000,000	309 1,177,000			2,177,000
Directional Drilling Services	210	398,000	310 150,000			548,000
Fuel & Power	211	263,000	311 5,000	354	367	268,000
Water	212	60,000	312 855,000		368	915,000
Bits	213	133,200	313 4,500		369	137,700
Mud & Chemicals	214	275,000	314 25,000		370	300,000
Drill Stem Test	215	0	315			0
Coring & Analysis	216	0				0
Cement Surface	217	28,000				28,000
Cement Intermediate	218	75,000				75,000
Cement 2nd Intermediate/Production	219	115,000				115,000
Cement Squeeze & Other (Kickoff Plug)	220	0			371	0
Float Equipment & Centralizers	221	45,000				45,000
Casing Crews & Equipment	222	60,000				60,000
Fishing Tools & Service	223	0	323		372	0
Geologic/Engineering	224	0	324	355	373	0
Contract Labor	225	5,500	325 8,200	356 72,000	374 6,500	92,200
Company Supervision	226	82,800	326 15,000	357	375	97,800
Contract Supervision	227	151,000	327 204,000	358	376 5,000	360,000
Testing Casing/Tubing	228	20,000	328 10,000		377	30,000
Mud Logging Unit	229	52,000	329			52,000
Logging	230	0			378	0
Perforating/Wireline Services	231	4,000	331 515,000		379	519,000
Stimulation/Treating			332 397,000		380	397,000
Completion Unit			333 138,000		381 10,000	148,000
Swabbing Unit			334		382	0
Rentals-Surface	235	190,000	335 310,000	359	383 7,000	507,000
Rentals-Subsurface	236	150,000	336 55,000		384	205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337 20,000	360	385 3,000	143,000
Welding Services	238	4,000	338 5,000	361	386	9,000
Water Disposal	239	0	339 60,000	362 135,000	387	195,000
Plug to Abandon	240	0	340			0
Seismic Analysis	241	0	341			0
Miscellaneous	242	0	342		389	0
Contingency	243	68,700	343 250,000	363	390	318,700
Closed Loop & Environmental	244	330,000	344 5,000	364	388	335,000
Coil Tubing			346 462,000			462,000
Flowback Crews & Equip			347 325,000			325,000
Offset Directional/Frac	248	0	348 48,000			48,000
TOTAL INTANGIBLES		3,790,000	7,231,700	238,000	31,500	11,291,200

TANGIBLE COSTS						
Surface Casing	401	73,000				73,000
Intermediate Casing	402	421,000				421,000
Production Casing/Liner	403	433,000				433,000
Tubing			504 47,300		530 10,000	57,300
Wellhead Equipment	405	75,000	505 22,000		531 3,000	100,000
Pumping Unit			0		506 98,000	98,000
Prime Mover			0		507	0
Rods			0		508 65,000	65,000
Pumps-Sub Surface (BH)			509		532 5,500	5,500
Tanks				510 35,800		35,800
Flowlines				511 85,000		85,000
Heater Treater/Separator				512 159,465		159,465
Electrical System				513 60,000	533 20,000	80,000
Packers/Anchors/Hangers	414	0	514 66,000		534 2,000	68,000
Couplings/Fittings/Valves	415	0		515 76,000		76,000
Dehydration				517		0
Injection Plant/CO2 Equipment				518		0
Pumps-Surface				521 6,250		6,250
Instrumentation/SCADA/POC				522	529 7,000	7,000
Miscellaneous	419	0	519	523	535 3,000	3,000
Contingency	420	0	520	524	536	0
Meters/LACT				525 29,150		29,150
Flares/Combusters/Emission				526 15,000		15,000
Gas Lift/Compression			527 15,000	516 75,000	528	90,000
TOTAL TANGIBLES		1,002,000	150,300	541,665	213,500	1,907,465
TOTAL WELL COSTS		4,792,000	7,382,000	779,665	245,000	13,198,665

% of Total Well Cost

36%

56%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve: % Working Interest

By: PWS

Company: Energex, LLC

By:

Printed Name:

Title:

Date:

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COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME: FASCINATOR FED COM 704H

SHL: 210 FNL & 980 FWL

BHL: 200 FSL & 1130 FWL

FORMATION: WOLFBONE POOL

LEGAL: SEC 30-31 T24S-R35E

PROSPECT NAME: BULLDOG 717008

STATE & COUNTY: New Mexico, Lea

OBJECTIVE: DRILL AND COMPLETE

DEPTH: 22,700

TVD: 12,889

INTANGIBLE COSTS		Drig - Rig Release(D)	Completion(C)	Tank Btty Constrctn(TB)	Pmpg Equipment(PEQ)	TOTAL
Title/Curative/Permit	201	11,000				11,000
Insurance	202	4,000	302			4,000
Damages/Right of Way	203	5,000	303	351		5,000
Survey/Stake Location	204	6,000		352		6,000
Location/Pits/Road Expense	205	120,000	305 10,000	353 31,000	366	161,000
Drilling / Completion Overhead	206	13,800	306			13,800
Turnkey Contract	207	0	307 1,397,000			1,397,000
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Daywork Contract	209	1,000,000	309 1,177,000			2,177,000
Directional Drilling Services	210	398,000	310 150,000			548,000
Fuel & Power	211	263,000	311 5,000	354	367	268,000
Water	212	60,000	312 855,000		368	915,000
Bits	213	133,200	313 4,500		369	137,700
Mud & Chemicals	214	275,000	314 25,000		370	300,000
Drill Stem Test	215	0	315			0
Coring & Analysis	216	0				0
Cement Surface	217	28,000				28,000
Cement Intermediate	218	75,000				75,000
Cement 2nd Intermediate/Production	219	115,000				115,000
Cement Squeeze & Other (Kickoff Plug)	220	0				0
Float Equipment & Centralizers	221	45,000			371	45,000
Casing Crews & Equipment	222	60,000				60,000
Fishing Tools & Service	223	0	323		372	0
Geologic/Engineering	224	0	324	355	373	0
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Logging	230	0			378	0
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Stimulation/Treating			332 397,000		380	397,000
Completion Unit			333 138,000		381 10,000	148,000
Swabbing Unit			334		382	0
Rentals-Surface	235	190,000	335 310,000	359	383 7,000	507,000
Rentals-Subsurface	236	150,000	336 55,000		384	205,000
Trucking/Forklift/Rig Mobilization	237	120,000	337 20,000	360	385 3,000	143,000
Welding Services	238	4,000	338 5,000	361	386	9,000
Water Disposal	239	0	339 60,000	362 135,000	387	195,000
Plug to Abandon	240	0	340			0
Seismic Analysis	241	0	341			0
Miscellaneous	242	0	342		389	0
Contingency	243	68,700	343 250,000	363	390	318,700
Closed Loop & Environmental	244	330,000	344 5,000	364	388	335,000
Coil Tubing			346 462,000			462,000
Flowback Crews & Equip			347 325,000			325,000
Offset Directional/Frac	248	0	348 48,000			48,000
TOTAL INTANGIBLES		3,790,000	7,231,700	238,000	31,500	11,291,200

TANGIBLE COSTS						
Surface Casing	401	73,000				73,000
Intermediate Casing	402	421,000				421,000
Production Casing/Liner	403	433,000				433,000
Tubing			504 47,300		530 10,000	57,300
Wellhead Equipment	405	75,000	505 22,000		531 3,000	100,000
Pumping Unit			0		506 98,000	98,000
Prime Mover			0		507	0
Rods			0		508 65,000	65,000
Pumps-Sub Surface (BH)			509		532 5,500	5,500
Tanks				510 35,800		35,800
Flowlines				511 85,000		85,000
Heater Treater/Separator				512 159,465		159,465
Electrical System				513 60,000	533 20,000	80,000
Packers/Anchors/Hangers	414	0	514 66,000		534 2,000	68,000
Couplings/Fittings/Valves	415	0		515 76,000		76,000
Dehydration				517		0
Injection Plant/CO2 Equipment				518		0
Pumps-Surface				521 6,250		6,250
Instrumentation/SCADA/POC				522	529 7,000	7,000
Miscellaneous	419	0	519	523	535 3,000	3,000
Contingency	420	0	520	524	536	0
Meters/LACT				525 29,150		29,150
Flares/Combusters/Emission				526 15,000		15,000
Gas Lift/Compression			527 15,000	516 75,000	528	90,000
TOTAL TANGIBLES		1,002,000	150,300	541,665	213,500	1,907,465
TOTAL WELL COSTS		4,792,000	7,382,000	779,665	245,000	13,198,665

COG Operating LLC

% of Total Well Cost

36%

56%

6%

2%

Date Prepared: 3/27/2018 for proposal

We approve:

% Working Interest

By: PWS

Company: Chevron U. S. A. 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.

COG OPERATING LLC AUTHORITY FOR EXPENDITURE DRILLING			
WELL NAME: FASCINATOR FED COM 704H		PROSPECT NAME:	BULLDOG 717008
SHL:	210 FNL & 980 FWL	STATE & COUNTY:	New Mexico, Lea
BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
FORMATION:	WOLFBONE POOL	DEPTH:	22,700
LEGAL:	SEC 30-31 T24S-R35E	TVD:	12,889

TANGIBLE COSTS											
Surface Casing	401		73,000						73,000		
Intermediate Casing	402		421,000						421,000		
Production Casing/Liner	403		433,000						433,000		
Tubing				504		47,300		530	10,000	57,300	
Wellhead Equipment	405		75,000	505		22,000		531	3,000	100,000	
Pumping Unit						0		506	98,000	98,000	
Prime Mover						0		507		0	
Rods						0		508	65,000	65,000	
Pumps-Sub Surface (BH)				509				532	5,500	5,500	
Tanks							510	35,800		35,800	
Flowlines							511	85,000		85,000	
Heater Treater/Separator							512	159,465		159,465	
Electrical System							513	60,000	533	20,000	80,000
Packers/Anchors/Hangers	414	0		514		66,000			534	2,000	68,000
Couplings/Fittings/Valves	415	0					515	76,000			76,000
Dehydration							517				0
Injection Plant/CO2 Equipment							518				0
Pumps-Surface							521	6,250			6,250
Instrumentation/SCADA/POC							522		529	7,000	7,000
Miscellaneous	419	0		519			523		535	3,000	3,000
Contingency	420	0		520			524		536		0
Meters/LACT							525	29,150			29,150
Flares/Combusters/Emission							526	15,000			15,000
Gas Lift/Compression				527		15,000	516	75,000	528		90,000
TOTAL TANGIBLES			1,002,000			150,300		541,665		213,500	1,907,465
TOTAL WELL COSTS			4,792,000			7,382,000		779,665		245,000	13,198,665

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WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
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TANGIBLE COSTS											
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TOTAL TANGIBLES			1,002,000			150,300		541,665	213,500		1,907,465
TOTAL WELL COSTS			4,792,000			7,382,000		779,665	245,000		13,198,665

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COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

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% of Total Well Cost	36%	56%	6%	2%
COG Operating LLC				

Date Prepared: 3/27/2018 for proposal

We approve:
% Working Interest

By: PWS

Company: Barney L. Alsobrook

By:

Printed Name:

Title:

Date:

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COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING

WELL NAME:	FASCINATOR FED COM 704H	PROSPECT NAME:	BULLDOG 717008
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BHL:	200 FSL & 1130 FWL	OBJECTIVE:	DRILL AND COMPLETE
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Cement Surface	217	28,000				0
Cement Intermediate	218	75,000				28,000
Cement 2nd Intermediate/Production	219	115,000				75,000
Cement Squeeze & Other (Kickoff Plug)	220	0			371	115,000
Float Equipment & Centralizers	221	45,000				0
Casing Crews & Equipment	222	60,000				45,000
Fishing Tools & Service	223	0	323		372	60,000
Geologic/Engineering	224	0	324	355	373	0
Contract Labor	225	5,500	325	8,200	356	72,000
Company Supervision	226	82,800	326	15,000	357	374
Contract Supervision	227	151,000	327	204,000	358	375
Testing Casing/Tubing	228	20,000	328	10,000		376
Mud Logging Unit	229	52,000	329			5,000
Logging	230	0				30,000
Perforating/Wireline Services	231	4,000	331	515,000		52,000
Stimulation/Treating			332	397,000		0
Completion Unit			333	138,000		379
Swabbing Unit			334			380
Rentals-Surface	235	190,000	335	310,000	359	381
Rentals-Subsurface	236	150,000	336	55,000		10,000
Trucking/Forklift/Rig Mobilization	237	120,000	337	20,000	360	382
Welding Services	238	4,000	338	5,000	361	383
Water Disposal	239	0	339	60,000	362	7,000
Plug to Abandon	240	0	340			3,000
Seismic Analysis	241	0	341			
Miscellaneous	242	0	342		389	
Contingency	243	68,700	343	250,000	363	390
Closed Loop & Environmental	244	330,000	344	5,000	364	388
Coil Tubing			346	462,000		
Flowback Crews & Equip			347	325,000		
Offset Directional/Frac	248	0	348	48,000		
TOTAL INTANGIBLES		3,790,000		7,231,700		238,000
						31,500
						11,291,200

TANGIBLE COSTS						
Surface Casing	401	73,000				73,000
Intermediate Casing	402	421,000				421,000
Production Casing/Liner	403	433,000				433,000
Tubing			504	47,300	530	57,300
Wellhead Equipment	405	75,000	505	22,000	531	100,000
Pumping Unit				0	506	98,000
Prime Mover				0	507	0
Rods				0	508	65,000
Pumps-Sub Surface (BH)			509		532	5,500
Tanks				510		35,800
Flowlines				511		85,000
Heater Treater/Separator				512		159,465
Electrical System				513	60,000	80,000
Packers/Anchors/Hangers	414	0	514	66,000	534	2,000
Couplings/Fittings/Valves	415	0		515		76,000
Dehydration				517		0
Injection Plant/CO2 Equipment				518		0
Pumps-Surface				521	6,250	6,250
Instrumentation/SCADA/POC				522		7,000
Miscellaneous	419	0	519		523	3,000
Contingency	420	0	520		524	0
Meters/LACT				525	29,150	29,150
Flares/Combusters/Emission				526	15,000	15,000
Gas Lift/Compression			527	15,000	516	75,000
TOTAL TANGIBLES		1,002,000		150,300		541,665
TOTAL WELL COSTS		4,792,000		7,382,000		779,665
						213,500
						1,907,465
						13,198,665

% of Total Well Cost

36%

56%

6%

2%

COG Operating LLC

Date Prepared: 3/27/2018 for proposal

COG Operating LLC

We approve:

% Working Interest

By: PWS

Company: Flatland Mineral Fund, LP

By:

Printed Name:

Title:

Date:

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

April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5342

Marathon Oil Permian LLC
5555 San Felipe St.
Houston, Texas 77056

Re: Well Proposal – Fascinator Federal Com 705H
Sec 30: Lots 1-4 - T24S-R35E
Sec 31: Lots 1-4 - T24S-R35E
SHL: 210' FNL/ 920' FWL, or a legal location in Sec 30 (Lot 1)
BHL: 200' FSL/ 710' FWL, or a legal location in Sec 31 (Lot 4)
Lea County, New Mexico

Dear Sir/Madam:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Fascinator Federal Com 705H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 12,790' and a MD of approximately 22,600' to test the Wolfbone Pool ("Operation"). The total cost of the Operation is estimated to be \$13,198,665, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: Lots 1-4 - T24S-R35E and Sec 31: Lots 1-4 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG proposes to acquire your interest via term assignment. It has the following general provisions:

- 3 year primary term
- Delivering a 75% NRI, proportionately reduced
- \$2,000 per net acre bonus consideration

The Term Assignment offer expires 5 p.m., Central Time, June 13, 2018, and it is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 21
Submitted by: **COG OPERATING LLC**
Hearing Date: July 26, 2018
Case Nos. 16219 & 16220

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 705H.
_____ I/We hereby elect not to participate in the Fascinator Federal Com 705H.

Company: _____

By: _____
Name: _____
Title: _____
Date: _____



April 13, 2018

US Certified Mail No. 91 7199 9991 7038 1571 5052

The Estate of Barney L. Alsobrook, deceased
1405 E 17th
Odessa, TX 79761

Re: Well Proposal – Fascinator Federal Com 705H
Sec 30: Lots 1-4 - T24S-R35E
Sec 31: Lots 1-4 - T24S-R35E
SHL: 210' FNL/ 920' FWL, or a legal location in Sec 30 (Lot 1)
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COG is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Sec 30: Lots 1-4 - T24S-R35E and Sec 31: Lots 1-4 - T24S-R35E. It has the following general provisions:

- 100/300 Non-Consenting Penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG Operating LLC named as Operator

Please indicate your election in the space provided below, sign and return 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, COG would like to lease your minerals under the following general terms:

- Bonus of \$2,000 /Net Mineral Acre
- 3 Year Primary Term
- 25% Royalty Interest

The Lease offer is subject to the approval of COG's management and verification of title.

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please contact the undersigned at (432) 685-2588 Mflanagan@concho.com.

Respectfully,

Megan L. Tipton

Megan Tipton
Landman

_____ I/We hereby elect to participate in the Fascinator Federal Com 705H.

_____ I/We hereby elect not to participate in the Fascinator Federal Com 705H.

Company: _____

By: _____

Name: _____

Title: _____

Date: _____