

**COG OPERATING LLC
AUTHORITY FOR EXPENDITURE
DRILLING**

WELL NAME: Patton 5 Fee #8H	PROSPECT NAME: Lakewood
Surf. 380' FSL, 330' FWL, Section 5	COUNTY & STATE: Eddy Co. NM
BHL. 380' FSL, 330' FEL, Section 5	OBJECTIVE: 7,300' MD, (2750' TVD) Paddock Test
T19S, R26E (Pilot Hole TD 4500')	

INTANGIBLE COSTS		BCP		ACP		TOTAL
Title/Curative/Permit	201	10,000				10,000
Insurance	202	22,000	302			22,000
Damages/Right of Way	203	15,000	303			15,000
Survey/Stake Location	204	3,000	304			3,000
Location/Pits/Road Expense	205	40,000	305	15,000		55,000
Drilling / Completion Overhead	206	5,000	306	1,000		6,000
Turnkey Contract	207		307			0
Footage Contract	208		308			0
Daywork Contract 17:1 @ \$13500/day	209	229,500	309	13,500		243,000
Directional Drilling Services	210	300,000	310			300,000
Fuel & Power	211	65,000	311	23,000		88,000
Water	212	20,000	312	60,000		80,000
Bits	213	35,000	313	1,000		36,000
Mud & Chemicals	214	30,000	314			30,000
Drill Stem Test	215		315			0
Coring & Analysis	216					0
Cement Surface	217	25,000				25,000
Cement Intermediate	218					0
Cement Production 5-1/2"	218		319	65,000		65,000
Cement Squeeze & Other (Kickoff Plug)	220	80,000	320			80,000
Float Equipment & Centralizers	221	7,000	321	18,000		25,000
Casing Crews & Equipment	222	5,000	322	12,000		17,000
Fishing Tools & Service	223		323			0
Geologic/Engineering	224	10,000	324	1,000		11,000
Contract Labor	225	10,000	325	21,000		31,000
Company Supervision	226	2,000	326	2,000		4,000
Contract Supervision	227	25,000	327	2,000		27,000
Testing Casing/Tubing	228	4,000	328	12,000		16,000
Mud Logging Unit	229	15,000	329			15,000
Logging	230	45,000	330			45,000
Perforating/Wireline Services	231	3,500	331	40,000		43,500
Stimulation/Treating			332	900,000		900,000
Completion Unit			333	24,000		24,000
Swabbing Unit			334			0
Rentals-Surface	235	30,000	335	75,000		105,000
Rentals-Subsurface	236	50,000	336	10,000		60,000
Trucking/Forklift/Rig Mobilization	237	45,000	337	20,000		65,000
Welding Services	238	5,000	338	2,500		7,500
Water Disposal	239		339	15,000		15,000
Plug to Abandon	240		340			0
Seismic Analysis	241		341			
Closed Loop & Environmental	244	75,000	344			75,000
Miscellaneous	242	5,000	342	1,000		6,000
Contingency	243	122,000	343	134,000		256,000
TOTAL INTANGIBLES		1,338,000		1,468,000		2,806,000
TANGIBLE COSTS						
Surface Casing 1000' 8 5/8" 32#	401	26,500				26,500
Intermediate Casing	402		503			0
Production Casing/Liner 4900'-5 1/2" & 2400' 7"			503	150,500		150,500
Tubing 2600' 2 7/8"			504	19,000		19,000
Wellhead Equipment	405	8,000	505	12,000		20,000
Pumping Unit			506	40,000		40,000
Prime Mover			507	20,000		20,000
Rods			508			0
Pumps			509	10,000		10,000
Tanks			510	27,825		27,825
Flowlines			511	5,000		5,000
Heater Treater/Separator			512	48,500		48,500
Electrical System			513	2,500		2,500
Packers/Anchors/Hangers	414		514			0
Couplings/Fittings/Valves	415	2,500	515	45,250		47,750
Gas Compressors/Meters			516	4,000		4,000
Dehydrator			517			0
Injection Plant/CO2 Equipment			518			0
Miscellaneous	419	1,000	519	21,000		22,000
Contingency	420	4,000	520	41,425		45,425
TOTAL TANGIBLES		42,000		447,000		489,000
TOTAL WELL COSTS		1,380,000		1,915,000		3,295,000

COG Operating LLC

By: J. Coffman / C. Bird / C. Elliott

Date Prepared: 10/18/2011

We approve:
_____% Working Interest

Company:

By:

Printed Name:

Title:

Date:

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. 4
Submitted by:
COG OPERATING, LLC
Hearing Date: January 5, 2012

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