



Via Certified Mail - Return Receipt Requested

December 13 2016

Working Interest Owners  
Listed on Attached Exhibit "A"

RE Well Proposal - Populus Fed 4H  
W/2 W/2 of Sec. 29 T25S R27E  
SHL 210 FNL & 990 FWL Section 29 (or at a legal location in Unit D)  
BHL 50 FSL & 660 FWL Section 29 (or at a legal location in Unit M)  
Eddy County New Mexico

Dear Sir or Madam,

COG Operating LLC ("COG") as Operator hereby proposes the drilling of the above referenced horizontal well. The Populus Fed #4H will be drilled to a depth to test the 2<sup>nd</sup> Bone Spring Sand formation at total measured depth of approximately 11 800. The surface location is proposed at a legal location in Unit D of Section 29 with a bottom hole location at a legal location in Unit M of Section 29 and the dedicated project area being the W/2 W/2 of Sec. 29 T25S R27E Eddy County New Mexico.

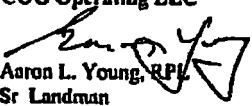
Included herewith is an Authority for Expenditure ("AFE") in the gross amount of \$4 928 696 being the total estimated cost to drill and complete this well. COG anticipates to spud the captioned well around March 2017.

COG is proposing to drill this well under the terms of that modified 1989 A.A.P.L. Form 610 Model Form Operating Agreement dated May 28<sup>th</sup> 2015 by and between COG Operating LLC as Operator and Myco Industries Inc. et al as Non-Operators and to revise the Contract Area to include all of Section 29 depth limited. Please find enclosed a revised Exhibit "A" dated December 12 2016 to replace and supersede the original Exhibit "A" an updated page 1 and a new Memorandum of Operating Agreement and Financing Statement to reflect the expanded Contract Area. The Operating Agreement has the following general terms.

- 100%/300% Non-consenting penalty
- \$7 000/\$700 Drilling and Producing Rate
- COG named as Operator

Please indicate your participation election and your agreement to expand the Contract Area of the JOA, reflected on the revised Exhibit "A" in the spaces provided below and return this letter along with an executed AFE and a copy of your geological well requirements to the corporate address attention Aaron Young. Should you have any questions, please do not hesitate to contact me at 432 221-0343 or by email at ayoung@concho.com.

Sincerely  
COG Operating LLC

  
Aaron L. Young, RPL  
Sr. Landman

Enclosures

Corporate Address: One Concho Center 600 West Illinois Avenue Midland, Texas 79701 phone 432 683 7443 fax 432 683 7441

BEFORE THE OIL CONSERVATION DIVISION  
Santa Fe New Mexico  
Exhibit No. 5  
Submitted by  
COG OPERATING LLC  
Hearing Date April 13, 2017

December 13 2016  
Populus Fed #4H  
Page No 2

\_\_\_\_\_ I/We hereby elect to participate in the drilling of the Populus Fed #4H

\_\_\_\_\_ I/We hereby elect not to participate in the drilling and completion of the Populus Fed #4H

Company \_\_\_\_\_

By \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

I hereby acknowledge receipt and approval of the revised Exhibit A dated December 12 2016 expanding the Contract Area of the Operating Agreement dated May 28<sup>th</sup> 2015 by and between COG Operating LLC as Operator and Myco Industries Inc et al as Non-Operators, and associated page changes.

Company \_\_\_\_\_

By \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

December 13, 2016  
Populus Fed #4H  
Page No. 3

**EXHIBIT "A"**  
**Working Interest Owners**

**COG Operating LLC**  
**Concho Oil & Gas LLC**  
One Concho Center  
600 W. Illinois Ave  
Midland, TX 79701  
Attention: Aaron Young

**OXY Y-1 Company**  
P O Box 4294  
Houston, TX 77210-4294  
Attention: Permian Land Manager NM

**EOG A Resources, Inc.**  
105 South 4<sup>th</sup> Street  
Artesia, NM 88211-0840  
Attn: Janet Richardson

**EOG M Resources, Inc.**  
PO Box 840  
Artesia, NM 88210-2118  
Attn: Hannah Palomun

**COG OPERATING LLC  
AUTHORITY FOR EXPENDITURE  
DRILLING**

|                  |                                |                           |                             |
|------------------|--------------------------------|---------------------------|-----------------------------|
| <b>WELL NAME</b> | <b>POPULUS FEDERAL #4H</b>     | <b>PROSPECT NAME</b>      | <b>ATLAS 2527 (717054)</b>  |
| <b>BH#</b>       | <b>210' FM. &amp; 660' FWL</b> | <b>STATE &amp; COUNTY</b> | <b>New Mexico, Eddy</b>     |
| <b>BH#</b>       | <b>80' FSL &amp; 660' FWL</b>  | <b>OBJECTIVE</b>          | <b>DRILL &amp; COMPLETE</b> |
| <b>FORMATION</b> | <b>DBSS/2ND BSS</b>            | <b>DEPTH</b>              | <b>11,800</b>               |
| <b>LEGAL</b>     | <b>25-253 27E</b>              | <b>TVD</b>                | <b>7,400</b>                |

|                                        |     | <b>Drill Rig Release(D)</b> | <b>Completion(C)</b> | <b>Tank Btry Consol(TB)</b> | <b>Person Equipment(PE)</b> | <b>TOTAL</b>     |
|----------------------------------------|-----|-----------------------------|----------------------|-----------------------------|-----------------------------|------------------|
| <b>INTANGIBLE COSTS</b>                |     |                             |                      |                             |                             |                  |
| Title/Curcho/Powder                    | 201 | 1,000                       |                      |                             |                             | 11,000           |
| Insurance                              | 202 | 4,000                       | 302                  |                             |                             | 4,000            |
| Concepts/Right of Way                  | 203 | 5,000                       | 303                  | 351                         |                             | 5,000            |
| Survey/Block Location                  | 204 | 8,000                       |                      | 302                         |                             | 8,000            |
| Location/Post Road Expense             | 205 | 80,000                      | 305                  | 25,000                      | 305                         | 117,000          |
| Drilling / Completion Overhead         | 206 | 4,800                       | 306                  |                             |                             | 4,800            |
| Turnkey Contract                       | 207 | 0                           | 307                  |                             |                             | 0                |
| Footage Contract                       | 208 | 0                           | 308                  |                             |                             | 0                |
| Daywork Contract                       | 209 | 248,000                     | 309                  |                             |                             | 248,000          |
| Directional Drilling Services          | 210 | 120,000                     | 310                  |                             |                             | 120,000          |
| Fluid & Power                          | 211 | 37,000                      | 311                  | 8,000                       | 307                         | 42,000           |
| Water                                  | 212 | 33,000                      | 312                  | 311,000                     | 308                         | 344,000          |
| Sits                                   | 213 | 43,000                      | 313                  | 2,000                       | 309                         | 45,000           |
| Mud & Chemicals                        | 214 | 75,000                      | 314                  | 12,750                      | 370                         | 87,750           |
| Old Barn Test                          | 215 | 0                           | 315                  |                             |                             | 0                |
| Coring & Analysis                      | 216 | 0                           |                      |                             |                             | 0                |
| Concrete Surface                       | 217 | 14,250                      |                      |                             |                             | 14,250           |
| Concrete Intermediate                  | 218 | 21,750                      |                      |                             |                             | 21,750           |
| Concrete 2nd Intermediate/Production   | 219 | 71,250                      |                      |                             |                             | 71,250           |
| Concrete Squares & Other (Midway Play) | 220 | 0                           |                      |                             | 371                         | 0                |
| Plant Equipment & Construction         | 221 | 9,700                       |                      |                             |                             | 9,700            |
| Casing Crews & Equipment               | 222 | 23,000                      |                      |                             |                             | 23,000           |
| Flashing Tools & Service               | 223 | 0                           | 303                  |                             | 372                         | 0                |
| Geology/Engineering                    | 224 | 0                           | 304                  | 308                         |                             | 0                |
| Concrete Labor                         | 225 | 6,500                       | 325                  | 40,000                      | 37                          | 111,500          |
| Company Supervision                    | 226 | 20,000                      | 326                  | 30,000                      | 376                         | 50,000           |
| Contract Supervision                   | 227 | 40,000                      | 327                  | 83,000                      | 378                         | 113,000          |
| Testing Casing/Tubing                  | 228 | 30,000                      | 328                  | 10,000                      | 377                         | 30,000           |
| Mud Logging Unit                       | 229 | 6,000                       | 329                  |                             |                             | 6,000            |
| Logging                                | 230 | 0                           |                      |                             | 379                         | 0                |
| Perforating/Wireline Services          | 231 | 4,000                       | 331                  | 10,000                      | 379                         | 100,000          |
| Structural/Tracing                     |     |                             | 332                  | 219,000                     | 380                         | 1,219,000        |
| Completion Unit                        |     |                             | 333                  | 35,500                      | 381                         | 42,500           |
| Swelling Unit                          |     |                             | 334                  |                             | 382                         | 0                |
| Refract-Surface                        | 235 | 70,000                      | 335                  | 107,000                     | 383                         | 263,000          |
| Refract-Surface                        | 236 | 70,000                      | 336                  |                             | 384                         | 70,000           |
| Trucking/Formation Modification        | 237 | 70,000                      | 337                  | 40,000                      | 385                         | 115,000          |
| Wellbore Services                      | 238 | 3,000                       | 338                  | 5,000                       | 386                         | 8,000            |
| Water Disposal                         | 239 | 0                           | 339                  | 34,000                      | 387                         | 104,000          |
| Plug to Abandon                        | 240 | 0                           | 340                  |                             |                             | 0                |
| Seismic Analysis                       | 241 | 0                           | 341                  |                             |                             | 0                |
| Miscellaneous                          | 242 | 0                           | 342                  |                             | 389                         | 0                |
| Contingency                            | 243 | 25,000                      | 343                  | 183,001                     | 390                         | 188,001          |
| Class of Lease & Environmental         | 244 | 63,000                      | 344                  | 5,000                       | 390                         | 68,000           |
| Cut Tying                              |     |                             | 345                  |                             |                             | 0                |
| Flareback Crews & Equip                |     |                             | 347                  | 127,000                     |                             | 127,000          |
| Offset Directional rig                 | 340 | 0                           | 348                  | 100,000                     |                             | 100,000          |
| <b>TOTAL INTANGIBLES</b>               |     | <b>1,343,650</b>            | <b>2,954,051</b>     | <b>160,000</b>              | <b>23,000</b>               | <b>3,020,701</b> |

|                               |     | <b>Drill Rig Release(D)</b> | <b>Completion(C)</b> | <b>Tank Btry Consol(TB)</b> | <b>Person Equipment(PE)</b> | <b>TOTAL</b>     |
|-------------------------------|-----|-----------------------------|----------------------|-----------------------------|-----------------------------|------------------|
| <b>TANGIBLE COSTS</b>         |     |                             |                      |                             |                             |                  |
| Surface Casing                | 401 | 8,000                       |                      |                             |                             | 8,000            |
| Intermediate Casing           | 402 | 44,000                      |                      |                             |                             | 44,000           |
| Production Casing/Unit        | 403 | 132,000                     |                      |                             |                             | 132,000          |
| Tubing                        |     |                             | 304                  | 35,000                      | 630                         | 35,000           |
| Wellhead Equipment            | 405 | 25,000                      | 605                  | 12,000                      | 631                         | 42,000           |
| Pumping Unit                  |     |                             |                      |                             | 602                         | 87,173           |
| Prime Mover                   |     |                             |                      |                             | 607                         | 0                |
| Rigs                          |     |                             |                      |                             | 603                         | 35,000           |
| Quero-Sub Surface (SH)        |     |                             | 600                  |                             | 630                         | 8,000            |
| Tools                         |     |                             |                      | 610                         |                             | 0                |
| Flareback                     |     |                             |                      | 611                         | 69,000                      | 105,000          |
| Master Tractor/Generator      |     |                             |                      | 612                         | 90,000                      | 90,000           |
| Electrical System             |     |                             |                      | 613                         | 60,000                      | 60,000           |
| Production/Anchors/Support    | 414 | 0                           | 61                   | 5,000                       | 634                         | 5,000            |
| Completion/Flareback/Chase    | 415 | 0                           |                      | 615                         | 140,000                     | 140,000          |
| Subsidence                    |     |                             |                      | 617                         |                             | 0                |
| Injection Prod/CO2 Equipment  |     |                             |                      | 618                         |                             | 0                |
| Pumps-Surface                 |     |                             |                      | 621                         | 25,000                      | 25,000           |
| Instrumentation/SCADA/POC     |     |                             |                      | 622                         | 4,000                       | 4,000            |
| Miscellaneous                 | 10  | 0                           | 619                  | 33,500                      | 625                         | 33,500           |
| Contingency                   | 420 | 0                           | 620                  |                             | 626                         | 0                |
| Motors/FACT                   |     |                             |                      | 625                         | 30,000                      | 30,000           |
| Flareback/Combustion/Emission |     |                             |                      | 626                         | 30,000                      | 30,000           |
| Gas Lift/Compression          |     |                             | 627                  | 75,000                      | 628                         | 65,000           |
| <b>TOTAL TANGIBLES</b>        |     | <b>310,000</b>              | <b>62,000</b>        | <b>508,502</b>              | <b>137,173</b>              | <b>977,775</b>   |
| <b>TOTAL WELL COSTS</b>       |     | <b>1,653,650</b>            | <b>2,954,051</b>     | <b>748,502</b>              | <b>180,173</b>              | <b>4,826,826</b> |

COG Operating LLC % of Total Well Cost

Date Prepared: 10/11/16

COG Operating LLC

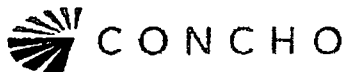
We approve: % Working Interest

By: TRAVIS HEWMAN/DAVID LAFFORTUNE NO

Company: By:

Printed Name: For: Date:

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



Via Certified Mail – Return Receipt Requested

December 13 2016

OXY Y-1 Company  
P O Box 4294  
Houston, TX 77210-4294  
Attention: Permian Land Manager – NM

RE Well Proposal & Proposed Joint Operating Agreement – Populus Fed 4H  
W/2 W/2 of Sec 29, T25S–R27E  
SHL 210 FNL & 990' FWL Section 29 (or at a legal location in Unit D)  
BHL 50 FSL & 660' FWL Section 29 (or at a legal location in Unit M)  
Eddy County New Mexico

Dear Sir or Madam

COG Operating LLC ("COG") hereby proposes the drilling of the above referenced horizontal well. The Populus Fed #4H will be drilled to a depth to test the 2<sup>nd</sup> Bone Spring Sand formation at total measured depth of approximately 11,800'. The surface location is proposed at a legal location in Unit D of Section 29 with a bottom hole location at a legal location in Unit M of Section 29 and the dedicated project area being the W/2 W/2 of Sec 29, T25S–R27E, Eddy County New Mexico.

Included herewith is an Authority for Expenditure ("AFE") in the gross amount of \$4,928,696 being the total estimated cost to drill and complete this well. COG anticipates to spud the captioned well around March of 2017.

COG is proposing to drill this well under the terms of that modified 1989 A.A.P.L. Form 610 Model Form Operating Agreement dated May 28<sup>th</sup> 2015 by and between COG Operating LLC, as Operator and Myco Industries, Inc., et al, as Non-Operators (the "JOA") enclosed for your review along with a revised Exhibit A dated December 12 2016 expanding the Contract Area. OXY Y-1 Company has yet to execute the JOA, therefore a Ratification and Joinder of Joint Operating Agreement will be sent under separate letterhead. The JOA has the following general terms:

- 100%/300% Non-consenting penalty
- \$7,000/\$700 Drilling and Producing Rate
- COG named as Operator

Please indicate your participation election in the space provided below and return this letter, along with an executed AFE and a copy of your geological well requirements to the corporate address, attention Aaron Young. Should you have any questions please do not hesitate to contact me at 432-221-0343 or by email at [ayoung@concho.com](mailto:ayoung@concho.com)

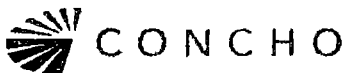
Sincerely  
COG Operating LLC

  
Aaron L. Young, RPL  
Sr. Landman

Enclosures

CORPORATE ADDRESS  
One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701  
PHONE 432-683-7443 | FAX 432-683-7441

LOCAL ADDRESS  
Concho West | 2208 Main Street | Artesia, New Mexico 88210  
PHONE 575-748-6940 | FAX 575-746-2096



December 13 2016  
Populus Fed #4H  
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\_\_\_\_\_ I/We hereby elect to participate in the drilling of the Populus Fed #4H

\_\_\_\_\_ I/We hereby elect not to participate in the drilling and completion of the Populus Fed #4H

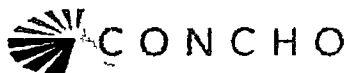
Company \_\_\_\_\_

By \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_



December 13 2016  
Populus Fed #4H  
Page No 3

**EXHIBIT "A"**  
**Working Interest Owners**

**COG Operating LLC**  
**Concho Oil & Gas LLC**  
**One Concho Center**  
**600 W Illinois Ave**  
**Midland, TX 79701**  
**Attention Aaron Young**

**OXY Y-1 Company**  
**P O Box 4294**  
**Houston, TX 77210-4294**  
**Attention Permian Land Manager - NM**

**EOG A Resources, Inc**  
**105 South 4<sup>th</sup> Street**  
**Artesia, NM 88211-0840**  
**Attn Janet Richardson**

**EOG M Resources, Inc**  
**PO Box 840**  
**Artesia, NM 88210-2118**  
**Attn Hannah Palomin**

**CORPORATE ADDRESS**

**One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701**  
**PHONE 432.683 7443 | FAX 432.683 7441**

**LOCAL ADDRESS**

**Concho West | 2208 Main Street | Artesia New Mexico 88210**  
**PHONE 575-748 6940 | FAX 575-746 2096**

**COO OPERATING LLC  
AUTHORITY FOR EXPENDITURE  
DRILLING**

|                   |                               |                            |                             |
|-------------------|-------------------------------|----------------------------|-----------------------------|
| <b>WELL NAME:</b> | <b>POPULUS FEDERAL 24H</b>    | <b>PROSPECT NAME:</b>      | <b>ATLAS 2527 (717054)</b>  |
| <b>SH-L:</b>      | <b>210 FSL &amp; 880 FWL</b>  | <b>STATE &amp; COUNTY:</b> | <b>New Mexico, Eddy</b>     |
| <b>SH-L:</b>      | <b>50' FSL &amp; 880' FWL</b> | <b>OBJECTIVE:</b>          | <b>DRILL &amp; COMPLETE</b> |
| <b>FORMATION:</b> | <b>D855/2ND BSS</b>           | <b>DEPTH:</b>              | <b>11,500</b>               |
| <b>LEGAL:</b>     | <b>29-23S-27E</b>             | <b>TVD:</b>                | <b>7,400</b>                |

|                                          |     | <b>Drill Rig Release(R)</b> | <b>Completion(C)</b> | <b>Tank Btry Constrn(TB)</b> | <b>Pump Equipment(PEQ)</b> | <b>TOTAL</b>     |
|------------------------------------------|-----|-----------------------------|----------------------|------------------------------|----------------------------|------------------|
| <b>INTANGIBLE COSTS</b>                  |     |                             |                      |                              |                            | <b>11,000</b>    |
| Total/Contract/Permit                    | 301 | 11,000                      |                      |                              |                            | 11,000           |
| Insurance                                | 302 | 4,000                       |                      |                              |                            | 4,000            |
| Demolition/Right of Way                  | 303 | 4,000                       |                      |                              |                            | 4,000            |
| Survey/Title Location                    | 304 | 8,000                       |                      |                              |                            | 8,000            |
| Location/Title/Record Expense            | 305 | 80,000                      | 12,000               |                              |                            | 117,200          |
| Drilling / Completion Overhead           | 306 | 4,000                       |                      |                              |                            | 4,000            |
| Turnkey Contract                         | 307 | 0                           |                      |                              |                            | 0                |
| Footage Contract                         | 308 | 0                           |                      |                              |                            | 0                |
| Daywork Contract                         | 309 | 248,000                     |                      |                              |                            | 248,000          |
| Directional Drilling Services            | 310 | 130,000                     |                      |                              |                            | 130,000          |
| Fuel & Power                             | 311 | 37,000                      |                      |                              |                            | 37,000           |
| Water                                    | 312 | 33,000                      | 31,000               |                              |                            | 64,000           |
| Gas                                      | 313 | 43,000                      | 2,000                |                              |                            | 45,000           |
| Mud & Chemicals                          | 314 | 78,000                      | 12,750               |                              |                            | 90,750           |
| Drill Stem Test                          | 315 | 0                           |                      |                              |                            | 0                |
| Coring & Analysis                        | 316 | 0                           |                      |                              |                            | 0                |
| Concrete Surface                         | 317 | 14,250                      |                      |                              |                            | 14,250           |
| Concrete Intermediate                    | 318 | 23,750                      |                      |                              |                            | 23,750           |
| Concrete 2nd Intermediate/Production     | 319 | 71,250                      |                      |                              |                            | 71,250           |
| Concrete Squealer & Other (Pickoff Plug) | 320 | 0                           |                      |                              |                            | 0                |
| Fluid Equipment & Construction           | 321 | 0,700                       |                      |                              |                            | 0,700            |
| Casing Crows & Equipment                 | 322 | 21,000                      |                      |                              |                            | 21,000           |
| Fishing Tools & Service                  | 323 | 0                           |                      |                              |                            | 0                |
| Geological/Engineering                   | 324 | 0                           |                      |                              |                            | 0                |
| Cardinal Labor                           | 325 | 0,500                       | 40,000               |                              |                            | 40,500           |
| Company Supervision                      | 326 | 70,000                      | 30,000               |                              |                            | 100,000          |
| Contract Supervision                     | 327 | 40,000                      | 65,000               |                              |                            | 105,000          |
| Testing Casing/Tubing                    | 328 | 20,000                      | 10,000               |                              |                            | 30,000           |
| Mud Logging Unit                         | 329 | 8,000                       |                      |                              |                            | 8,000            |
| Logging                                  | 330 | 0                           |                      |                              |                            | 0                |
| Performance/Wellbore Services            | 331 | 4,000                       | 63,000               |                              |                            | 67,000           |
| Simulation/Training                      | 332 | 0                           | 1,318,000            |                              |                            | 1,318,000        |
| Completion Unit                          | 333 | 0                           | 35,500               |                              |                            | 35,500           |
| Sealing Unit                             | 334 | 0                           | 0                    |                              |                            | 0                |
| Refracts Surface                         | 335 | 70,000                      | 187,000              |                              |                            | 257,000          |
| Refracts Subsurface                      | 336 | 70,000                      | 330                  |                              |                            | 70,330           |
| Top/Low/Flow/Logging Modification        | 337 | 70,000                      | 40,000               |                              |                            | 110,000          |
| Wellbore Services                        | 338 | 3,000                       | 5,000                |                              |                            | 8,000            |
| Water Disposal                           | 339 | 0                           | 38,000               |                              |                            | 38,000           |
| Plug to Abandon                          | 340 | 0                           | 0                    |                              |                            | 0                |
| Scientific Analysis                      | 341 | 0                           | 0                    |                              |                            | 0                |
| Mechanisms                               | 342 | 0                           | 0                    |                              |                            | 0                |
| Contingency                              | 343 | 25,000                      | 163,000              |                              |                            | 188,000          |
| Closed Loop & Environmental              | 344 | 83,000                      | 9,000                |                              |                            | 92,000           |
| Cut Tubing                               | 345 | 0                           | 0                    |                              |                            | 0                |
| Flareback Cement & Equip                 | 346 | 0                           | 27,000               |                              |                            | 27,000           |
| Global Drilling/Fire                     | 347 | 0                           | 100,000              |                              |                            | 100,000          |
| <b>TOTAL INTANGIBLES</b>                 |     | <b>1,343,850</b>            | <b>2,504,001</b>     | <b>100,000</b>               | <b>23,000</b>              | <b>3,970,851</b> |

|                               |     |                  |                  |                |                |                  |
|-------------------------------|-----|------------------|------------------|----------------|----------------|------------------|
| <b>TANGIBLE COSTS</b>         |     |                  |                  |                |                | <b>8,000</b>     |
| Surface Casing                | 401 | 8,000            |                  |                |                | 8,000            |
| Intermediate Casing           | 402 | 44,000           |                  |                |                | 44,000           |
| Production Casing/Liner       | 403 | 132,000          |                  |                |                | 132,000          |
| Tubing                        | 404 | 35,000           |                  |                |                | 35,000           |
| Wellhead Equipment            | 405 | 25,000           | 12,000           |                |                | 37,000           |
| Pumping Unit                  | 406 | 0                | 0                |                |                | 0                |
| Flow Meter                    | 407 | 0                | 0                |                |                | 0                |
| Roofs                         | 408 | 0                | 0                |                |                | 0                |
| Pumps/Sub Surface (D-4)       | 409 | 0                | 0                |                |                | 0                |
| Tanks                         | 410 | 0                | 0                |                |                | 0                |
| Flareback                     | 411 | 0                | 0                |                |                | 0                |
| Master Treatment/Seperator    | 412 | 0                | 0                |                |                | 0                |
| Electrical System             | 413 | 0                | 0                |                |                | 0                |
| Packers/Anchors/Stopers       | 414 | 0                | 0                |                |                | 0                |
| Couplings/Flanges/Valves      | 415 | 0                | 0                |                |                | 0                |
| Dehydration                   | 416 | 0                | 0                |                |                | 0                |
| Injection Pumps/CO2 Equipment | 417 | 0                | 0                |                |                | 0                |
| Pumps-Surface                 | 418 | 0                | 0                |                |                | 0                |
| Instrumentation/SCADA/POC     | 419 | 0                | 0                |                |                | 0                |
| Mechanisms                    | 420 | 0                | 0                |                |                | 0                |
| Contingency                   | 421 | 0                | 0                |                |                | 0                |
| Motor/ACT                     | 422 | 0                | 0                |                |                | 0                |
| Flare/Combustion/Exhaust      | 423 | 0                | 0                |                |                | 0                |
| Gas Lift/Compression          | 424 | 0                | 0                |                |                | 0                |
| <b>TOTAL TANGIBLES</b>        |     | <b>310,000</b>   | <b>62,000</b>    | <b>600,000</b> | <b>137,173</b> | <b>1,009,173</b> |
| <b>TOTAL WELL COSTS</b>       |     | <b>1,653,850</b> | <b>2,566,001</b> | <b>748,000</b> | <b>60,173</b>  | <b>4,928,024</b> |

% of Total Well Cost

39%

52%

15%

3%

COO Operating LLC

Date Prepared:

08/31/10

COO Operating LLC

We approve:

% Working Interest

By: TRAVIS NEWMAKIN LAFORTUNE

RG

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**

|                  |                           |                           |                  |                       |
|------------------|---------------------------|---------------------------|------------------|-----------------------|
| <b>WELL NAME</b> | Populus Fed #4H           | <b>PROSPECT NAME</b>      | #717054          | <b>SL WC no PH 1M</b> |
| <b>SHL</b>       | SEC 29: 210 FNL & 990 FWL | <b>STATE &amp; COUNTY</b> | New Mexico, Eddy |                       |
| <b>BHL</b>       | SEC 29: 60 FSL & 660 FWL  | <b>OBJECTIVE</b>          | Drill & Complete |                       |
| <b>FORMATION</b> | 28S                       | <b>DEPTH</b>              | 11,800           |                       |
| <b>LEGAL</b>     | 29-253-27E                | <b>TVD</b>                | 7,364            |                       |

|                                        |     | Drill Rig<br>Release(D) | Completion(C)   | Tank Bivy<br>Construc(TB) | Procs<br>Equipment(PEQ) | TOTAL            |
|----------------------------------------|-----|-------------------------|-----------------|---------------------------|-------------------------|------------------|
| <b>INTANGIBLE COSTS</b>                |     |                         |                 |                           |                         |                  |
| Title/Cursive/Permit                   | 201 | 11 000                  |                 |                           |                         | 1 000            |
| Insurance                              | 202 | 000                     | 303             |                           |                         | 000              |
| Damages/Right of Way                   | 203 | 0 000                   | 303             | 351                       |                         | 0 000            |
| Survey/State Location                  | 204 | 0 000                   |                 | 352                       |                         | 0 000            |
| Location/Post-Read Expense             | 205 | 120 000                 | 300             | 12 200                    | 353                     | 234 352          |
| Drilling / Completion Overhead         | 206 | 0 000                   | 300             |                           |                         | 0 000            |
| Turnkey Contract                       | 207 | 0                       | 307             |                           |                         | 0                |
| Footage Contract                       | 208 | 0                       | 300             |                           |                         | 0                |
| Daywork Contract                       | 209 | 75 000                  | 300             |                           |                         | 375 000          |
| Directional Drilling Service           | 210 | 153 000                 | 310             |                           |                         | 153 000          |
| Fuel & Power                           | 211 | 54 000                  | 311             | 0 000                     | 367                     | 54 000           |
| Water                                  | 212 | 35 000                  | 312             | 294 000                   | 365                     | 329 000          |
| Silt                                   | 213 | 57 000                  | 313             | 2 000                     | 369                     | 59 000           |
| Mud & Chemicals                        | 214 | 50 000                  | 314             | 17 750                    | 370                     | 67 750           |
| Drill Stem Test                        | 215 | 0                       | 315             |                           |                         | 0                |
| Coring & Analysis                      | 216 | 0                       |                 |                           |                         | 0                |
| Cement Surface                         | 217 | 1 250                   |                 |                           |                         | 1 250            |
| Cement Intermediate                    | 218 | 23 750                  |                 |                           |                         | 23 750           |
| Cement 2nd Intermediate/Production     | 219 | 75 000                  |                 |                           |                         | 75 000           |
| Cement Squeezes & Other (Kickoff Plug) | 220 | 0                       |                 |                           | 371                     | 0                |
| Float Equipment & Centralizers         | 221 | 7 700                   |                 |                           |                         | 7 700            |
| Casing Crows & Equipment               | 222 | 25 000                  |                 |                           |                         | 25 000           |
| Fishing Tools & Service                | 223 | 0                       | 323             |                           | 372                     | 0                |
| Geologic/Engineering                   | 224 | 0                       | 324             |                           | 373                     | 0                |
| Contract Labor                         | 225 | 0 500                   | 325             | 40 000                    | 356                     | 40 500           |
| Company Supervision                    | 226 | 4 400                   | 326             | 15 000                    | 357                     | 19 400           |
| Contract Supervision                   | 227 | 72 000                  | 327             | 80 000                    | 358                     | 152 000          |
| Testing Casing/Tubing                  | 228 | 30 000                  | 328             | 0 000                     | 377                     | 30 000           |
| Mud Logging Unit                       | 229 | 27 000                  | 329             |                           |                         | 27 000           |
| Loggers                                | 230 | 0                       |                 |                           | 378                     | 0                |
| Perforating/Wireline Services          | 231 | 000                     | 331             | 80 000                    | 379                     | 80 000           |
| Simulation/Testing                     |     |                         | 332             | 1 257 300                 | 380                     | 1 257 300        |
| Completion Unit                        |     |                         | 333             | 60 000                    | 381                     | 60 000           |
| Swabbing Unit                          |     |                         | 334             |                           | 382                     | 0                |
| Rentals-Surface                        | 235 | 120 000                 | 335             | 0 000                     | 359                     | 307 000          |
| Rentals-Subsurface                     | 236 | 03 000                  | 336             |                           | 364                     | 63 000           |
| Trucking/Fuel/Reg Mobilization         | 237 | 20 000                  | 337             | 40 000                    | 360                     | 60 000           |
| Welding Services                       | 238 | 3 500                   | 338             | 0 000                     | 361                     | 3 500            |
| Water Disposal                         | 239 | 0                       | 339             | 60 000                    | 362                     | 60 000           |
| Plug to Abandon                        | 240 | 0                       | 340             |                           | 363                     | 0                |
| Geologic Analysis                      | 241 | 0                       | 341             |                           | 364                     | 0                |
| Miscellaneous                          | 242 | 0                       | 342             |                           | 365                     | 0                |
| Contingency                            | 243 | 000                     | 343             | 163 000                   | 366                     | 163 000          |
| Closed Loop & Environmental            | 244 | 50 000                  | 344             | 0 000                     | 367                     | 50 000           |
| Coil Tubing                            |     |                         | 345             |                           |                         | 0                |
| Flowback Crows & Equip                 |     |                         | 346             | 27 000                    |                         | 27 000           |
| Offset Directional/Frac                | 245 | 0                       | 346             |                           |                         | 0                |
| <b>TOTAL INTANGIBLES</b>               |     | <b>1 820 000</b>        | <b>2 79 84</b>  | <b>370 152</b>            | <b>0</b>                | <b>4 475 033</b> |
| <b>TANGIBLE COSTS</b>                  |     |                         |                 |                           |                         |                  |
| Surface Casing                         | 401 | 1 000                   |                 |                           |                         | 10 000           |
| Intermediate Casing                    | 402 | 43 000                  |                 |                           |                         | 40 000           |
| Production Casing/Liner                | 403 | 160 000                 |                 |                           |                         | 60 000           |
| Tubing                                 |     |                         | 504             | 35 000                    | 530                     | 35 000           |
| Wellhead Equipment                     | 405 | 20 000                  | 505             | 12 000                    | 531                     | 32 000           |
| Pumping Unit                           |     |                         |                 |                           | 532                     | 0                |
| Prime Mover                            |     |                         |                 |                           | 533                     | 0                |
| Rail                                   |     |                         |                 |                           | 534                     | 0                |
| Pumps-Sub Surface (BH)                 |     |                         | 500             |                           | 535                     | 0                |
| Tanks                                  |     |                         |                 | 37 300                    |                         | 37 300           |
| Flowlines                              |     |                         |                 | 40 000                    |                         | 40 000           |
| Heater Treater/Separator               |     |                         |                 | 47 000                    |                         | 47 000           |
| Electrical System                      |     |                         |                 | 32 500                    | 536                     | 32 500           |
| Packers/Anchors/Hangers                |     | 72 000                  | 514             | 0 000                     | 537                     | 72 000           |
| Couplings/Fittings/Valves              | 15  | 0                       |                 | 10 000                    | 538                     | 10 000           |
| Dehydration                            |     |                         |                 |                           | 539                     | 0                |
| Injection Plant/CO2 Equipment          |     |                         |                 |                           | 540                     | 0                |
| Pumps-Surface                          |     |                         |                 | 12 500                    |                         | 12 500           |
| Instrumentation/SCADA/POC              |     |                         |                 | 0                         | 541                     | 0                |
| Miscellaneous                          | 419 | 0 0 0                   |                 |                           | 542                     | 0                |
| Contingency                            | 420 | 0 520                   |                 |                           | 543                     | 0                |
| Meters/AGT                             |     |                         |                 | 30 000                    |                         | 30 000           |
| Flare/Combustors/Emission              |     |                         |                 | 42 500                    |                         | 42 500           |
| Gas Lab/Compressors                    |     |                         | 527             | 0 000                     | 544                     | 0                |
| <b>TOTAL TANGIBLES</b>                 |     | <b>307 000</b>          | <b>82 000</b>   | <b>377 500</b>            | <b>0</b>                | <b>74 500</b>    |
| <b>TOTAL WELL COSTS</b>                |     | <b>1 831 000</b>        | <b>2 537 84</b> | <b>74 652</b>             | <b>0</b>                | <b>5 218 033</b> |

COG Operating LLC % of Total Well Cost

Date Prepared 7/31/17

COG Operating LLC

W approve  
% Working Interest

By TRM (DRLO) IV KL

Company  
By

Printed Name  
Title  
Date

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

**COG OPERATING LLC  
AUTHORITY FOR EXPENDITURE  
DRILLING**

|                  |                                      |                           |                           |                       |
|------------------|--------------------------------------|---------------------------|---------------------------|-----------------------|
| <b>WELL NAME</b> | <b>Populus Fed 64H</b>               | <b>PROSPECT NAME</b>      | <b>#717054</b>            | <b>SL WC no PH 1M</b> |
| <b>SHL</b>       | <b>SEC 29- 210 FNL &amp; 990 FWL</b> | <b>STATE &amp; COUNTY</b> | <b>New Mexico, Eddy</b>   |                       |
| <b>BHL</b>       | <b>SEC 29- 50 FSL &amp; 660 FWL</b>  | <b>OBJECTIVE</b>          | <b>DRI &amp; Complete</b> |                       |
| <b>FORMATION</b> | <b>2BS</b>                           | <b>DEPTH:</b>             | <b>11,800</b>             |                       |
| <b>LEGAL</b>     | <b>29-26S-27E</b>                    | <b>TVD:</b>               | <b>7,364</b>              |                       |

| <b>INTANGIBLE COSTS</b>               | <b>Drill Rig<br/>Release(0)</b> | <b>Completion(C)</b> | <b>Tank Bivy<br/>Construction(TB)</b> | <b>Prime<br/>Equipment(PEQ)</b> | <b>TOTAL</b>    |
|---------------------------------------|---------------------------------|----------------------|---------------------------------------|---------------------------------|-----------------|
| Tide/Curb/Permit                      | 201                             | 0.00                 |                                       |                                 | 1.00            |
| Insurance                             | 202                             | 4.00                 |                                       |                                 | 4.00            |
| Damages/Rough of W y                  | 203                             | 5.00                 |                                       |                                 | 5.00            |
| Survey/State Location                 | 204                             | 6.00                 |                                       |                                 | 6.00            |
| Location/Plot/Road Expense            | 205                             | 20.00                | 2.20                                  |                                 | 22.20           |
| Drilling / Completion Overhead        | 206                             | 6.00                 |                                       |                                 | 6.00            |
| Turnkey Contract                      | 207                             | 0.00                 |                                       |                                 | 0.00            |
| Footage Contract                      | 208                             | 0.00                 |                                       |                                 | 0.00            |
| Daywork Contract                      | 209                             | 375.00               |                                       |                                 | 375.00          |
| Directional Drilling Service          | 210                             | 153.00               |                                       |                                 | 153.00          |
| Fuel & Power                          | 211                             | 54.00                | 5.00                                  |                                 | 59.00           |
| Water                                 | 212                             | 35.00                | 440.00                                |                                 | 475.00          |
| Mud                                   | 213                             | 57.00                | 2.00                                  |                                 | 59.00           |
| Mud & Chemicals                       | 214                             | 50.00                | 12.75                                 |                                 | 62.75           |
| DRI Start Test                        | 215                             | 0.00                 |                                       |                                 | 0.00            |
| Coring & Analysis                     | 216                             | 0.00                 |                                       |                                 | 0.00            |
| Cement Surface                        | 217                             | 250.00               |                                       |                                 | 250.00          |
| Cement Intermediate                   | 218                             | 23.75                |                                       |                                 | 23.75           |
| Cement 2nd Intermediate/Production    | 219                             | 75.00                |                                       |                                 | 75.00           |
| Cement Squeeze & Other (Kickoff Plug) | 220                             | 0.00                 |                                       |                                 | 0.00            |
| Float Equipment & Consumables         | 221                             | 7.70                 |                                       |                                 | 7.70            |
| Casing Crews & Equipment              | 222                             | 23.00                |                                       |                                 | 23.00           |
| Fishing Tools & Service               | 223                             | 0.00                 |                                       |                                 | 0.00            |
| Geology/Engineering                   | 224                             | 0.00                 |                                       |                                 | 0.00            |
| Contract Labor                        | 225                             | 6.50                 | 40.00                                 |                                 | 46.50           |
| Company Supervision                   | 226                             | 4.00                 | 15.00                                 |                                 | 19.00           |
| Contract Supervision                  | 227                             | 72.00                | 90.00                                 |                                 | 162.00          |
| Testing Casing/Tubing                 | 228                             | 30.00                | 1.00                                  |                                 | 31.00           |
| Mud Logging Unit                      | 229                             | 27.00                |                                       |                                 | 27.00           |
| Loggers                               | 230                             | 0.00                 |                                       |                                 | 0.00            |
| Perforating/Wireline Services         | 231                             | 4.00                 | 180.00                                |                                 | 184.00          |
| Stimulation/Treatment                 | 232                             | 600.00               |                                       |                                 | 600.00          |
| Completion Unit                       | 233                             | 60.00                |                                       |                                 | 60.00           |
| Swabbing Unit                         | 234                             | 0.00                 |                                       |                                 | 0.00            |
| Rentals-Surface                       | 235                             | 20.00                | 187.00                                |                                 | 207.00          |
| Rentals-Subsurface                    | 236                             | 81.00                |                                       |                                 | 81.00           |
| Trucking/Perforating Rig Mobilization | 237                             | 120.00               | 40.00                                 |                                 | 160.00          |
| Working Services                      | 238                             | 500.00               | 5.00                                  |                                 | 505.00          |
| Water Disposal                        | 239                             | 0.00                 | 50.00                                 |                                 | 50.00           |
| Plug to Abandon                       | 240                             | 0.00                 |                                       |                                 | 0.00            |
| Seismic Analysis                      | 241                             | 0.00                 |                                       |                                 | 0.00            |
| Miscellaneous                         | 242                             | 0.00                 |                                       |                                 | 0.00            |
| Contingency                           | 243                             | 30.00                | 63.00                                 |                                 | 93.00           |
| Closed Loop & Environmental           | 244                             | 50.00                | 5.00                                  |                                 | 55.00           |
| Well Tubing                           | 245                             | 0.00                 |                                       |                                 | 0.00            |
| Flowback Crews & Equip                | 246                             | 0.00                 | 27.00                                 |                                 | 27.00           |
| Office Directional/Trac               | 247                             | 0.00                 |                                       |                                 | 0.00            |
| <b>TOTAL INTANGIBLES</b>              | <b>629.00</b>                   | <b>660.50</b>        | <b>370.15</b>                         | <b>0.00</b>                     | <b>5,059.73</b> |

| <b>TANGIBLE COSTS</b>         | <b>Drill Rig<br/>Release(0)</b> | <b>Completion(C)</b> | <b>Tank Bivy<br/>Construction(TB)</b> | <b>Prime<br/>Equipment(PEQ)</b> | <b>TOTAL</b>   |
|-------------------------------|---------------------------------|----------------------|---------------------------------------|---------------------------------|----------------|
| Surface Casing                | 401                             | 0.00                 |                                       |                                 | 10.00          |
| Intermediate Casing           | 402                             | 40.00                |                                       |                                 | 40.00          |
| Production Casing/Liner       | 403                             | 60.00                |                                       |                                 | 100.00         |
| Tubing                        | 404                             | 35.00                |                                       |                                 | 35.00          |
| Wellhead Equipment            | 405                             | 20.00                | 2.00                                  |                                 | 22.00          |
| Pumping Unit                  | 406                             | 0.00                 |                                       |                                 | 0.00           |
| Prime Mover                   | 407                             | 0.00                 |                                       |                                 | 0.00           |
| Rod                           | 408                             | 0.00                 |                                       |                                 | 0.00           |
| Pumps-Sub Surface BH          | 409                             | 0.00                 |                                       |                                 | 0.00           |
| Tank                          | 410                             | 0.00                 | 37.50                                 |                                 | 37.50          |
| Pipelines                     | 411                             | 0.00                 | 40.00                                 |                                 | 40.00          |
| Heater Treater/Separator      | 412                             | 0.00                 | 7.50                                  |                                 | 7.50           |
| Electrical System             | 413                             | 0.00                 | 32.50                                 |                                 | 32.50          |
| Packoffs/Anchors/Hangers      | 414                             | 72.00                | 0.00                                  |                                 | 72.00          |
| Couplings/Fittings/Valve      | 415                             | 0.00                 | 110.00                                |                                 | 110.00         |
| Dehydration                   | 416                             | 0.00                 |                                       |                                 | 0.00           |
| Injection Plant/CO2 Equipment | 417                             | 0.00                 |                                       |                                 | 0.00           |
| Pumps-Surface                 | 418                             | 0.00                 | 12.50                                 |                                 | 12.50          |
| Instrumentation/SCADA/POC     | 419                             | 0.00                 |                                       |                                 | 0.00           |
| Miscellaneous                 | 420                             | 0.00                 |                                       |                                 | 0.00           |
| Contingency                   | 421                             | 0.00                 |                                       |                                 | 0.00           |
| Materials/ACT                 | 422                             | 0.00                 |                                       |                                 | 0.00           |
| Flare/Combustion/Emission     | 423                             | 0.00                 | 30.00                                 |                                 | 30.00          |
| Gas Lift/Compression          | 424                             | 0.00                 | 42.50                                 |                                 | 42.50          |
| <b>TOTAL TANGIBLES</b>        | <b>302.00</b>                   | <b>62.00</b>         | <b>377.50</b>                         | <b>0.00</b>                     | <b>741.50</b>  |
| <b>TOTAL WELL COSTS</b>       | <b>1,931.00</b>                 | <b>3,22.50</b>       | <b>7,765.7</b>                        | <b>0.00</b>                     | <b>5,60.73</b> |

COG Operating LLC      % of Total Well Cost      33%      84%      13%      0%

Date Prepared      7/31/2

COG Operating LLC

We approve      % Working Interest      By      TRN (DRLO)      IV      AL

Company      \_\_\_\_\_

By      \_\_\_\_\_

Printed Name      \_\_\_\_\_

Title      \_\_\_\_\_

Date      \_\_\_\_\_

This AFE 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 | Popula Fed 84H           | PROSPECT NAME  | 6717054          | BL WC no PH 1M |
| SHL       | SEC 29 210 FNL & 990 FWL | STATE & COUNTY | New Mexico, Eddy |                |
| BHL       | SEC 29 50 FSL & 660 FWL  | OBJECTIVE      | Oil & Complete   |                |
| FORMATION | 28S                      | DEPTH          | 11,800           |                |
| LEGAL     | 29-255-27E               | TVD            | 7,384            |                |

|                                     |     | Drill Rig<br>Release of<br>(D) | Complete<br>on (C) | Tank Bldg<br>Construct<br>on (B) | Propp<br>Expenditure<br>on (P) | TOTAL           |
|-------------------------------------|-----|--------------------------------|--------------------|----------------------------------|--------------------------------|-----------------|
| <b>INTANGIBLE COSTS</b>             |     |                                |                    |                                  |                                |                 |
| Title/Lease/Patent                  | 302 | 0.00                           |                    |                                  |                                | 0.00            |
| Insurance                           | 302 | 0.00                           | 302                |                                  |                                | 0.00            |
| Damages/Right of Way                | 302 | 0.00                           |                    | 301                              |                                | 0.00            |
| Survey/Gravel Location              | 304 | 0.00                           |                    | 302                              |                                | 0.00            |
| Location/Post Road Expense          | 309 | 20.00                          | 305                | 303                              |                                | 20.00           |
| Drilling Completion Overhead        | 306 | 0.00                           |                    |                                  |                                | 0.00            |
| Turnkey Contract                    | 307 |                                | 307                |                                  |                                | 0.00            |
| Fracture Contract                   | 308 | 0.00                           | 308                |                                  |                                | 0.00            |
| Drilldown Contract                  | 309 | 375.00                         | 309                |                                  |                                | 375.00          |
| Directional Drilling Services       | 210 | 50.00                          | 310                |                                  |                                | 50.00           |
| Fuel & Gas                          | 211 | 84.00                          | 311                | 354                              | 307                            | 84.00           |
| Water                               | 212 | 34.00                          | 312                |                                  | 308                            | 34.00           |
| Bar                                 | 213 | 87.00                          | 313                |                                  | 309                            | 87.00           |
| Mud & Chemicals                     | 214 | 60.00                          | 314                |                                  | 370                            | 60.00           |
| Drill Bits                          | 215 |                                | 315                |                                  |                                | 0.00            |
| Coring & Analysis                   | 316 | 0.00                           |                    |                                  |                                | 0.00            |
| Cement Surface                      | 317 | 250.00                         |                    |                                  |                                | 250.00          |
| Cement Intermediate                 | 318 | 20.00                          |                    |                                  |                                | 20.00           |
| Cement 2nd Intermediate/Production  | 319 | 75.00                          |                    |                                  |                                | 75.00           |
| Cement Spacers & Other (Pilot Plug) | 320 | 0.00                           |                    |                                  |                                | 0.00            |
| Fluid Equipment Contractors         | 321 | 7.00                           |                    |                                  |                                | 7.00            |
| Casing Casing Equipment             | 322 | 25.00                          |                    |                                  |                                | 25.00           |
| Fishing Tools & Service             | 323 | 0.00                           | 323                |                                  | 371                            | 0.00            |
| Geologic Engineering                | 324 | 0.00                           | 324                |                                  | 372                            | 0.00            |
| Contract Labor                      | 325 | 0.00                           | 325                |                                  | 373                            | 0.00            |
| Company Supervision                 | 326 | 400.00                         | 326                |                                  | 374                            | 400.00          |
| Contract Supervision                | 327 | 72.00                          | 327                |                                  | 375                            | 72.00           |
| Testing Casing/Tubing               | 328 | 30.00                          | 328                |                                  | 376                            | 30.00           |
| Mud Logging Unit                    | 329 | 27.00                          | 329                |                                  | 377                            | 27.00           |
| Logging                             | 330 | 0.00                           |                    |                                  | 378                            | 0.00            |
| Performance/Well Services           | 331 | 0.00                           | 331                |                                  | 379                            | 0.00            |
| Shut-in/Tubing                      | 332 | 0.00                           | 332                |                                  | 380                            | 0.00            |
| Completion Unit                     | 333 | 0.00                           | 333                |                                  | 381                            | 0.00            |
| Swabbing Unit                       | 334 | 0.00                           | 334                |                                  | 382                            | 0.00            |
| Rentals-Surface                     | 335 | 120.00                         | 335                | 359                              |                                | 120.00          |
| Rentals-Subsurface                  | 336 | 0.00                           | 336                |                                  | 383                            | 0.00            |
| Trucking/Trucking Modification      | 337 | 20.00                          | 337                |                                  | 384                            | 20.00           |
| Wellbore Services                   | 338 | 0.00                           | 338                |                                  | 385                            | 0.00            |
| Water Disposal                      | 339 | 0.00                           | 339                |                                  | 386                            | 0.00            |
| Plug to Abandon                     | 340 | 0.00                           | 340                |                                  | 387                            | 0.00            |
| Seismic Analysis                    | 341 | 0.00                           | 341                |                                  | 388                            | 0.00            |
| Miscellaneous                       | 342 | 0.00                           | 342                |                                  | 389                            | 0.00            |
| Contingency                         | 343 | 30.00                          | 343                |                                  | 390                            | 30.00           |
| Closed Loop Environmental           | 344 | 0.00                           | 344                |                                  | 391                            | 0.00            |
| Coal Mining                         | 345 | 0.00                           | 345                |                                  | 392                            | 0.00            |
| Flareback Crew                      | 346 | 0.00                           | 346                |                                  | 393                            | 0.00            |
| Other Drilling Costs                | 347 | 0.00                           | 347                |                                  | 394                            | 0.00            |
| <b>TOTAL INTANGIBLE</b>             |     | <b>1,020.00</b>                | <b>3,000.00</b>    | <b>370.00</b>                    |                                | <b>4,390.00</b> |

|                               |     |                 |                 |                 |  |                  |
|-------------------------------|-----|-----------------|-----------------|-----------------|--|------------------|
| <b>TANGIBLE COSTS</b>         |     |                 |                 |                 |  |                  |
| Surface Casing                | 401 | 0.00            |                 |                 |  | 0.00             |
| Intermediate Casing           | 402 | 40.00           |                 |                 |  | 40.00            |
| Production Casing/Liner       | 403 | 100.00          |                 |                 |  | 100.00           |
| Tubing                        | 404 | 35.00           |                 |                 |  | 35.00            |
| Wellhead Equipment            | 405 | 20.00           |                 |                 |  | 20.00            |
| Pumping Unit                  | 406 | 0.00            |                 |                 |  | 0.00             |
| Frame Motor                   | 407 | 0.00            |                 |                 |  | 0.00             |
| Rods                          | 408 | 0.00            |                 |                 |  | 0.00             |
| Pump-Sub Surface (Bldg)       | 409 | 0.00            |                 |                 |  | 0.00             |
| Flare                         | 410 | 0.00            |                 |                 |  | 0.00             |
| Flareback                     | 411 | 0.00            |                 |                 |  | 0.00             |
| Master Water Separator        | 412 | 0.00            |                 |                 |  | 0.00             |
| Electrical System             | 413 | 32.00           |                 |                 |  | 32.00            |
| Pad/Land/Access/Managers      | 414 | 72.00           |                 |                 |  | 72.00            |
| Coupling/Flange/Valves        | 415 | 0.00            |                 |                 |  | 0.00             |
| Dehydration                   | 416 | 0.00            |                 |                 |  | 0.00             |
| Injection Pumps/CO2 Equipment | 417 | 0.00            |                 |                 |  | 0.00             |
| Pumps-Surface                 | 418 | 0.00            |                 |                 |  | 0.00             |
| Instrumentation/SCADA/PLC     | 419 | 0.00            |                 |                 |  | 0.00             |
| Miscellaneous                 | 420 | 0.00            |                 |                 |  | 0.00             |
| Contingency                   | 421 | 0.00            |                 |                 |  | 0.00             |
| Materials/LAC                 | 422 | 0.00            |                 |                 |  | 0.00             |
| Flare/Combustion/Emission     | 423 | 0.00            |                 |                 |  | 0.00             |
| Gas LFL/Compression           | 424 | 0.00            |                 |                 |  | 0.00             |
| <b>TOTAL TANGIBLE</b>         |     | <b>202.00</b>   | <b>3,225.00</b> | <b>7,054.00</b> |  | <b>10,481.00</b> |
| <b>TOTAL WELL COST</b>        |     | <b>1,222.00</b> | <b>6,225.00</b> | <b>7,424.00</b> |  | <b>14,871.00</b> |

% of Total Well Cost: 33% 64% 13% 0%

COG Operating LLC

Date Prepared: 2/22/11

COG Operating LLC

We approve: \_\_\_\_\_

By: TRN (DR, C) IV AL

Company: \_\_\_\_\_

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

This AFE 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 | Populu Fed 84H           | PROSPECT NAME  | #717054          | S4 WC | PH 1M |
| SHL       | SEC 29 210 FNL 6 990 FWL | STATE & COUNTY | New Mexico, Eddy |       |       |
| BHL       | SEC 29 50 FSL 6 000 FWL  | OBJECTIVE      | Drill & Complete |       |       |
| FORMATION | 28S                      | DEPTH          | 11,600           |       |       |
| LEGAL     | 29-25S-27E               | TVD            | 7,384            |       |       |

|                                    | Drig Rig<br>Released<br>(D) | Compl<br>on(C) | Tank Bty<br>Const<br>(TB) | Prup<br>Equipm<br>nd(PAQ) | TOTAL   |
|------------------------------------|-----------------------------|----------------|---------------------------|---------------------------|---------|
| <b>INTANGIBLE COSTS</b>            |                             |                |                           |                           |         |
| Time/Drilling/Prod                 | 201                         | 000            |                           |                           | 000     |
| Insurance                          | 202                         | 000            |                           |                           | 000     |
| Damages/Rights of Way              | 203                         | 0 000          |                           |                           | 000     |
| Survey/Title & Location            | 204                         | 000            |                           |                           | 0 000   |
| Location/Title/Road Expense        | 205                         | 20 000         | 200                       | 353                       | 234 554 |
| Drilling Completion Overhead       | 206                         | 0 000          |                           |                           | 0 000   |
| Turnkey Contract                   | 207                         |                |                           |                           |         |
| Fasttag Contract                   | 208                         | 0              |                           |                           |         |
| Daytag Contract                    | 209                         | 375 000        |                           |                           | 75 000  |
| Directional Drilling Services      | 210                         | 53 000         |                           |                           | 53 000  |
| incl power                         | 2                           | 54 000         | 3                         | 354                       | 50 000  |
| Water                              | 2 2                         | 35 000         | 313                       | 445 000                   | 48 000  |
| Gas                                | 2 3                         | 67 000         | 313                       | 3 800                     | 60 000  |
| Mud Chemicals                      | 21                          | 60 000         | 3                         | 750                       | 62 750  |
| Drill Bits & Bit                   | 215                         |                | 3 3                       |                           | 0       |
| Drilling Analysis                  | 2 8                         |                |                           |                           | 0       |
| Cement Surface                     | 217                         | 4 250          |                           |                           | 250     |
| Cement Interlocks                  | 218                         | 23 750         |                           |                           | 23 750  |
| Cement 2nd Intermediate/Production | 219                         | 75 000         |                           |                           | 75 000  |
| Cement Squeeze Other (Mudoff Plug) | 220                         |                |                           | 37                        |         |
| Fluid Separator Contractors        | 221                         | 7 700          |                           |                           | 7 700   |
| Casing Crews Equipment             | 222                         | 25 000         |                           |                           | 25 000  |
| sheng cde Service                  | 223                         |                | 323                       |                           | 0       |
| Casing/Logging/Engineering         | 22                          |                | 32                        |                           | 73      |
| Connect Job                        | 226                         | 6 500          | 325                       | 40 000                    | 354     |
| Campsite Supervision               | 220                         | 400            | 320                       | 5 000                     | 317     |
| Covered Supervision                | 227                         | 72 000         | 327                       | 80 000                    | 316     |
| Testing Casing/Tubing              | 228                         | 80 000         | 330                       | 10 000                    | 377     |
| Mud Logging Unit                   | 229                         | 27 000         | 330                       |                           | 377     |
| Logging                            | 230                         |                |                           | 78                        |         |
| Production/Drilling Services       | 23                          | 000            | 33                        | 180 000                   | 378     |
| Production/Drilling                | 231                         | 000 000        | 333                       | 600 000                   | 300     |
| Completion Unit                    | 232                         | 00 000         | 333                       |                           | 33      |
| completion Unit                    | 233                         |                | 334                       |                           | 382     |
| completion Unit                    | 234                         |                | 335                       |                           | 383     |
| completion Unit                    | 235                         | 20 000         | 335                       | 187 000                   | 350     |
| completion Unit                    | 236                         | 60 000         | 336                       |                           | 384     |
| completion Unit                    | 237                         | 20 000         | 337                       | 40 000                    | 385     |
| completion Unit                    | 238                         | 500            | 338                       | 000                       | 386     |
| completion Unit                    | 239                         | 0              | 339                       | 60 000                    | 387     |
| completion Unit                    | 240                         | 0              | 340                       |                           | 388     |
| completion Unit                    | 241                         | 0              | 341                       |                           | 389     |
| completion Unit                    | 242                         | 0              | 342                       |                           | 390     |
| completion Unit                    | 243                         | 35 000         | 343                       | 103 03                    | 303     |
| completion Unit                    | 244                         | 60 000         | 344                       | 000                       | 304     |
| completion Unit                    | 245                         | 0              | 345                       |                           | 305     |
| completion Unit                    | 246                         | 0              | 346                       |                           | 306     |
| completion Unit                    | 247                         | 0              | 347                       |                           | 307     |
| completion Unit                    | 248                         | 0              | 348                       |                           | 308     |
| completion Unit                    | 249                         | 0              | 349                       |                           | 309     |
| completion Unit                    | 250                         | 0              | 350                       |                           | 310     |
| completion Unit                    | 251                         | 0              | 351                       |                           | 311     |
| completion Unit                    | 252                         | 0              | 352                       |                           | 312     |
| completion Unit                    | 253                         | 0              | 353                       |                           | 313     |
| completion Unit                    | 254                         | 0              | 354                       |                           | 314     |
| completion Unit                    | 255                         | 0              | 355                       |                           | 315     |
| completion Unit                    | 256                         | 0              | 356                       |                           | 316     |
| completion Unit                    | 257                         | 0              | 357                       |                           | 317     |
| completion Unit                    | 258                         | 0              | 358                       |                           | 318     |
| completion Unit                    | 259                         | 0              | 359                       |                           | 319     |
| completion Unit                    | 260                         | 0              | 360                       |                           | 320     |
| completion Unit                    | 261                         | 0              | 361                       |                           | 321     |
| completion Unit                    | 262                         | 0              | 362                       |                           | 322     |
| completion Unit                    | 263                         | 0              | 363                       |                           | 323     |
| completion Unit                    | 264                         | 0              | 364                       |                           | 324     |
| completion Unit                    | 265                         | 0              | 365                       |                           | 325     |
| completion Unit                    | 266                         | 0              | 366                       |                           | 326     |
| completion Unit                    | 267                         | 0              | 367                       |                           | 327     |
| completion Unit                    | 268                         | 0              | 368                       |                           | 328     |
| completion Unit                    | 269                         | 0              | 369                       |                           | 329     |
| completion Unit                    | 270                         | 0              | 370                       |                           | 330     |
| completion Unit                    | 271                         | 0              | 371                       |                           | 331     |
| completion Unit                    | 272                         | 0              | 372                       |                           | 332     |
| completion Unit                    | 273                         | 0              | 373                       |                           | 333     |
| completion Unit                    | 274                         | 0              | 374                       |                           | 334     |
| completion Unit                    | 275                         | 0              | 375                       |                           | 335     |
| completion Unit                    | 276                         | 0              | 376                       |                           | 336     |
| completion Unit                    | 277                         | 0              | 377                       |                           | 337     |
| completion Unit                    | 278                         | 0              | 378                       |                           | 338     |
| completion Unit                    | 279                         | 0              | 379                       |                           | 339     |
| completion Unit                    | 280                         | 0              | 380                       |                           | 340     |
| completion Unit                    | 281                         | 0              | 381                       |                           | 341     |
| completion Unit                    | 282                         | 0              | 382                       |                           | 342     |
| completion Unit                    | 283                         | 0              | 383                       |                           | 343     |
| completion Unit                    | 284                         | 0              | 384                       |                           | 344     |
| completion Unit                    | 285                         | 0              | 385                       |                           | 345     |
| completion Unit                    | 286                         | 0              | 386                       |                           | 346     |
| completion Unit                    | 287                         | 0              | 387                       |                           | 347     |
| completion Unit                    | 288                         | 0              | 388                       |                           | 348     |
| completion Unit                    | 289                         | 0              | 389                       |                           | 349     |
| completion Unit                    | 290                         | 0              | 390                       |                           | 350     |
| completion Unit                    | 291                         | 0              | 391                       |                           | 351     |
| completion Unit                    | 292                         | 0              | 392                       |                           | 352     |
| completion Unit                    | 293                         | 0              | 393                       |                           | 353     |
| completion Unit                    | 294                         | 0              | 394                       |                           | 354     |
| completion Unit                    | 295                         | 0              | 395                       |                           | 355     |
| completion Unit                    | 296                         | 0              | 396                       |                           | 356     |
| completion Unit                    | 297                         | 0              | 397                       |                           | 357     |
| completion Unit                    | 298                         | 0              | 398                       |                           | 358     |
| completion Unit                    | 299                         | 0              | 399                       |                           | 359     |
| completion Unit                    | 300                         | 0              | 400                       |                           | 360     |
| completion Unit                    | 301                         | 0              | 401                       |                           | 361     |
| completion Unit                    | 302                         | 0              | 402                       |                           | 362     |
| completion Unit                    | 303                         | 0              | 403                       |                           | 363     |
| completion Unit                    | 304                         | 0              | 404                       |                           | 364     |
| completion Unit                    | 305                         | 0              | 405                       |                           | 365     |
| completion Unit                    | 306                         | 0              | 406                       |                           | 366     |
| completion Unit                    | 307                         | 0              | 407                       |                           | 367     |
| completion Unit                    | 308                         | 0              | 408                       |                           | 368     |
| completion Unit                    | 309                         | 0              | 409                       |                           | 369     |
| completion Unit                    | 310                         | 0              | 410                       |                           | 370     |
| completion Unit                    | 311                         | 0              | 411                       |                           | 371     |
| completion Unit                    | 312                         | 0              | 412                       |                           | 372     |
| completion Unit                    | 313                         | 0              | 413                       |                           | 373     |
| completion Unit                    | 314                         | 0              | 414                       |                           | 374     |
| completion Unit                    | 315                         | 0              | 415                       |                           | 375     |
| completion Unit                    | 316                         | 0              | 416                       |                           | 376     |
| completion Unit                    | 317                         | 0              | 417                       |                           | 377     |
| completion Unit                    | 318                         | 0              | 418                       |                           | 378     |
| completion Unit                    | 319                         | 0              | 419                       |                           | 379     |
| completion Unit                    | 320                         | 0              | 420                       |                           | 380     |
| completion Unit                    | 321                         | 0              | 421                       |                           | 381     |
| completion Unit                    | 322                         | 0              | 422                       |                           | 382     |
| completion Unit                    | 323                         | 0              | 423                       |                           | 383     |
| completion Unit                    | 324                         | 0              | 424                       |                           | 384     |
| completion Unit                    | 325                         | 0              | 425                       |                           | 385     |
| completion Unit                    | 326                         | 0              | 426                       |                           | 386     |
| completion Unit                    | 327                         | 0              | 427                       |                           | 387     |
| completion Unit                    | 328                         | 0              | 428                       |                           | 388     |
| completion Unit                    | 329                         | 0              | 429                       |                           | 389     |
| completion Unit                    | 330                         | 0              | 430                       |                           | 390     |
| completion Unit                    | 331                         | 0              | 431                       |                           | 391     |
| completion Unit                    | 332                         | 0              | 432                       |                           | 392     |
| completion Unit                    | 333                         | 0              | 433                       |                           | 393     |
| completion Unit                    | 334                         | 0              | 434                       |                           | 394     |
| completion Unit                    | 335                         | 0              | 435                       |                           | 395     |
| completion Unit                    | 336                         | 0              | 436                       |                           | 396     |
| completion Unit                    | 337                         | 0              | 437                       |                           | 397     |
| completion Unit                    | 338                         | 0              | 438                       |                           | 398     |
| completion Unit                    | 339                         | 0              | 439                       |                           | 399     |
| completion Unit                    | 340                         | 0              | 440                       |                           | 400     |
| completion Unit                    | 341                         | 0              | 441                       |                           | 401     |
| completion Unit                    | 342                         | 0              | 442                       |                           | 402     |
| completion Unit                    | 343                         | 0              | 443                       |                           | 403     |
| completion Unit                    | 344                         | 0              | 444                       |                           | 404     |
| completion Unit                    | 345                         | 0              | 445                       |                           | 405     |
| completion Unit                    | 346                         | 0              | 446                       |                           | 406     |
| completion Unit                    | 347                         | 0              | 447                       |                           | 407     |
| completion Unit                    | 348                         | 0              | 448                       |                           | 408     |
| completion Unit                    | 349                         | 0              | 449                       |                           | 409     |
| completion Unit                    | 350                         | 0              | 450                       |                           | 410     |
| completion Unit                    | 351                         | 0              | 451                       |                           | 411     |
| completion Unit                    | 352                         | 0              | 452                       |                           | 412     |
| completion Unit                    | 353                         | 0              | 453                       |                           | 413     |
| completion Unit                    | 354                         | 0              | 454                       |                           | 414     |
| completion Unit                    | 355                         | 0              | 455                       |                           | 415     |
| completion Unit                    | 356                         | 0              | 456                       |                           | 416     |
| completion Unit                    | 357                         | 0              | 457                       |                           | 417     |
| completion Unit                    | 358                         | 0              | 458                       |                           | 418     |
| completion Unit                    | 359                         | 0              | 459                       |                           | 419     |
| completion Unit                    | 360                         | 0              | 460                       |                           | 420     |
| completion Unit                    | 361                         | 0              | 461                       |                           | 421     |
| completion Unit                    | 362                         | 0              | 462                       |                           | 422     |
| completion Unit                    | 363                         | 0              | 463                       |                           | 423     |
| completion Unit                    | 364                         | 0              | 464                       |                           | 424     |
| completion Unit                    | 365                         | 0              | 465                       |                           | 425     |
| completion Unit                    | 366                         | 0              | 466                       |                           | 426     |
| completion Unit                    | 367                         | 0              | 467                       |                           | 427     |
| completion Unit                    | 368                         | 0              | 468                       |                           | 428     |
| completion Unit                    | 369                         | 0              | 469                       |                           | 429     |
| completion Unit                    | 370                         | 0              | 470                       |                           | 430     |
| completion Unit                    | 371                         | 0              | 471                       |                           | 431     |
| completion Unit                    | 372                         | 0              | 472                       |                           | 432     |
| completion Unit                    | 373                         | 0              | 473                       |                           | 433     |
| completion Unit                    | 374                         | 0              | 474                       |                           | 434     |
| completion Unit                    | 375                         | 0              | 475                       |                           | 435     |
| completion Unit                    | 376                         | 0              | 476                       |                           | 436     |
| completion Unit                    | 377                         | 0              | 477                       |                           | 437     |
| completion Unit                    | 378                         | 0              | 478                       |                           | 438     |
| completion Unit                    | 379                         | 0              | 479                       |                           | 439     |
| completion Unit                    | 380                         | 0              | 480                       |                           | 440     |
| completion Unit                    | 381                         | 0              | 481                       |                           | 441     |
| completion Unit                    | 382                         | 0              | 482                       |                           | 442     |
| completion Unit                    | 383                         | 0              | 483                       |                           | 443     |
| completion Unit                    | 384                         | 0              | 484                       |                           | 444     |
| completion Unit                    | 385                         | 0              | 485                       |                           | 445     |
| completion Unit                    | 386                         | 0              | 486                       |                           | 446     |
| completion Unit                    | 387                         | 0              | 487                       |                           | 447     |
| completion Unit                    | 388                         | 0              | 488                       |                           | 448     |
| completion Unit                    | 389                         | 0              | 489                       |                           | 449     |
| completion Unit                    | 390                         | 0              | 490                       |                           | 450     |
| completion Unit                    | 391                         | 0              | 491                       |                           | 451     |
| completion Unit                    | 392                         | 0              | 492                       |                           | 452     |
| completion Unit                    | 393                         | 0              | 493                       |                           | 453     |
| completion Unit                    | 394                         | 0              | 494                       |                           | 454     |
| completion Unit                    | 395                         | 0              | 495                       |                           | 455     |
| completion Unit                    | 396                         | 0              | 496                       |                           | 456     |
| completion Unit                    | 397                         | 0              | 497                       |                           | 457     |
| completion Unit                    | 398                         | 0              | 498                       |                           | 458     |
| completion Unit                    | 399                         | 0              | 499                       |                           | 459     |
| completion Unit                    | 400                         | 0              | 500                       |                           | 460     |
| completion Unit                    | 401                         | 0              | 501                       |                           | 461     |
| completion Unit                    | 402                         | 0              | 502                       |                           | 462     |
| completion Unit                    | 403                         | 0              | 503                       |                           | 463     |
| completion Unit                    | 404                         | 0              | 504                       |                           | 464     |
| completion Unit                    | 405                         | 0              | 505                       |                           | 465     |
| completion Unit                    | 406                         | 0              | 506                       |                           | 466     |
| completion Unit                    | 407                         | 0              | 507                       |                           | 467     |
| completion Unit                    | 408                         | 0              | 508                       |                           | 468     |
| completion Unit                    | 409                         | 0              | 509                       |                           | 469     |
| completion Unit                    | 410                         | 0              | 510                       |                           | 470     |
| completion Unit                    | 411                         | 0              | 511                       |                           | 471     |
| completion Unit                    | 412                         | 0              | 512                       |                           | 472     |
| completion Unit                    | 413                         | 0              | 513                       |                           | 473     |
| completion Unit                    | 414                         | 0              | 514                       |                           | 474     |
| completion Unit                    | 415                         | 0              | 515                       |                           | 475     |
| completion Unit                    | 416                         | 0              | 516                       |                           | 476     |
| completion Unit                    | 417                         | 0              | 517                       |                           | 477     |
| completion Unit                    | 418                         | 0              | 518                       |                           | 478     |
| completion Unit                    | 419                         | 0              | 519                       |                           | 479     |
| completion Unit                    | 420                         | 0              | 520                       |                           | 480     |
| completion Unit                    | 421                         | 0              | 521                       |                           | 481     |
| completion Unit                    | 422                         | 0              | 522                       |                           | 482     |
| completion Unit                    | 423                         | 0              | 523                       |                           | 483     |
| completion Unit                    | 424                         | 0              | 524                       |                           | 484     |
| completion Unit                    | 425                         | 0              | 525                       |                           | 485     |
| completion Unit                    | 426                         | 0              | 526                       |                           | 486     |
| completion Unit                    | 427                         | 0              | 527                       |                           | 487     |
| completion Unit                    | 428                         | 0              | 528                       |                           | 488     |
| completion Unit                    | 429                         | 0              | 529                       |                           | 489     |
| completion Unit                    | 430                         | 0              | 530                       |                           | 490     |
| completion Unit                    | 431                         | 0              | 531                       |                           | 491     |
| completion Unit                    | 432                         | 0              | 532                       |                           | 492     |
| completion Unit                    | 433                         | 0              | 533                       |                           | 493     |
| completion Unit                    | 434                         | 0              | 534                       |                           | 494     |
| completion Unit                    | 435                         | 0              | 535                       |                           | 495     |
| completion Unit                    | 436                         | 0              | 536                       |                           | 496     |
| completion Unit                    | 437                         | 0              | 537                       |                           | 49      |



Via Certified Mail - Return Receipt Requested

March 8 2017

RE. Amendment to Populus Operating Agreement  
Dated May 28, 2015  
Section 29  
Township 25 South Range 27 East  
Eddy County New Mexico

Dear Sir or Madam.

Reference is hereby made to Well Proposals dated December 13 2016 and December 20 2016 Under said letters, COG Operating LLC proposed to drill the Populus Fed 2H and 4H under Joint Operating Agreement dated May 28<sup>th</sup> 2015 (the "JOA"), by and between COG Operating LLC as Operator and Myco Industries Inc. et al, as Non-Operators and expand the JOA's Contract Area.

Enclosed please find a revised Exhibit "A" dated March 7 2017 that will expand the Contract Area to cover the W/2 and W/2 E/2 of Section 29 and replace and supersede the original Exhibit "A" Also enclosed are an updated page 1 and a new Memorandum of Operating Agreement and Financing Statement.

Please indicate your agreement to expand the Contract Area of the JOA, reflected on the revised Exhibit "A" in the spaces provided below and return this amendment, along with an executed Memorandum of Operating Agreement and Financing Statement, to the corporate address, attention Vincent Cuccerre Should you have any questions, please do not hesitate to contact me at 432-685 2589 or by email at [vcuccerre@concho.com](mailto:vcuccerre@concho.com).

Sincerely  
COG Operating LLC

Vincent E. Cuccerre  
Landman

I hereby acknowledge receipt and approval of the revised Exhibit "A" dated March 7 2017 expanding the Contract Area of the Operating Agreement dated May 28<sup>th</sup> 2015 by and between COG Operating LLC as Operator and EOG M Resources, Inc., as successor to Myco Industries Inc., et al, as Non-Operators and associated page changes

Company: \_\_\_\_\_

By: \_\_\_\_\_

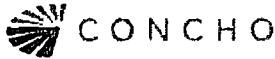
Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**CORPORATE ADDRESS**  
One Concho Center | 800 West Illinois Avenue | Midland, Texas 79701  
PHONE 432.683.7443 | FAX 432.683.7441

**LOCAL ADDRESS**  
Concho West | 2208 Main Street | Artesia, New Mexico 88210  
PHONE 575-748.6940 | FAX 575-748.3096



Via Certified Mail - Return Receipt Requested

March 21 2017

RE Ratification of Operating Agreement, Revised Exhibit "A" to Operating Agreement  
Section 29  
Township 25 South Range 27 East  
Eddy County New Mexico

Dear Sir or Madam

Reference is hereby made to Well Proposals dated December 13, 2016 and December 20 2016 Under said letters COG Operating LLC proposed to drill the Populus Fed 2H and 4H and expand the Contract Area of the Joint Operating Agreement dated May 28<sup>th</sup> 2015 (the "JOA") by and between COG Operating LLC as Operator and Myco Industries Inc., et al as Non-Operators

Enclosed please find a revised Exhibit "A" dated March 8 2017 that will expand the Contract Area to cover the W/2 and W/2 E/2 of Section 29 and replace and supersede the original Exhibit A Also enclosed are an updated page 1 and a new Memorandum of Operating Agreement and Financing Statement

Also please find enclosed an updated Ratification of Operating Agreement to reflect the revised Exhibit "A" Furthermore please execute in the space provided below to reflect your agreement to the Revised Exhibit "A" and return this amendment, along with an executed Ratification of Operating Agreement and the Memorandum of Operating Agreement and Financing Statement, to the corporate address attention Vincent Cuccerre.

Should you have any questions, please do not hesitate to contact me at 432-685-2589 or by email at [vcuccerre@concho.com](mailto:vcuccerre@concho.com).

Sincerely  
COG Operating LLC

Vincent E Cuccerre  
Landman

I hereby acknowledge receipt and approval of the revised Exhibit A dated March 8 2017 expanding the Contract Area of the Operating Agreement dated May 28<sup>th</sup> 2015 by and between COG Operating LLC as Operator and EOG M Resources Inc as successor to Myco Industries, Inc et al as Non-Operators, and associated page changes

Company \_\_\_\_\_

By \_\_\_\_\_

Name. \_\_\_\_\_

Title. \_\_\_\_\_

Date: \_\_\_\_\_

**CORPORATE ADDRESS**  
One Concho Center | 600 West Illinois Avenue | Midland, Texas 79701  
PHONE 432.683.7443 | FAX 432.683.7441

**LOCAL ADDRESS**  
Concho West | 2208 Main Street | Artesia, New Mexico 88210  
PHONE 575.748.6940 | FAX 575.746.3096



April 6 2017

**WORKING INTEREST OWNERS  
LISTED ON ATTACHED EXHIBIT "A"**

Re     Operating Agreement  
        Populus Fed Com 2H and 4H  
        W/2 W/2 and W/2 E/2 Section 29  
        T25S R27E  
        Eddy County, New Mexico

Dear Sir or Madam

COG Operating LLC ("COG") sent out well proposals for the Populus Fed Com 2H and Populus Fed Com 4H wells on December 20, 2016 and has received EOG's elections to participate respectively in each. Enclosed for your review and execution is the modified A A P L Form 610 - 1989 Model Form Operating Agreement covering the below described contract area under which the respective wells will be drilled.

W/2 W/2 and W/2 E/2 Section 29 T25S-R27E Eddy County New Mexico

It has the following general provisions

- 100% / 300% / 300% Non consenting penalty
- \$7,000/\$700 Drilling and Producing rate
- COG named as Operator

Please return the executed Operating Agreement along with an executed Memorandum of Operating Agreement and Financing Statement, to the corporate address, attention Vincent Cuccerre

Should you have any questions please do not hesitate to contact me at 432 685 2589 or at [vcuccerre@concho.com](mailto:vcuccerre@concho.com)

Sincerely

COG Operating LLC

A handwritten signature in cursive script, appearing to read "Vincent Cuccerre".

Vincent Cuccerre  
Landman

**April 6, 2017**  
**Page 2**

**EXHIBIT "A"**  
**WORKING INTEREST OWNERS**

**COG Operating LLC**  
**600 W Illinois Ave**  
**Midland TX 79701**  
**Attn Delaware Basin West Land Lead**

**OXY Y-1 Company**  
**5 Greenway Plaza Suite 110**  
**Houston, TX 77046**  
**Attn Permian Land Manager**

**EOG A Resources, Inc**  
**5509 Champions Dr**  
**Midland, TX 79706**  
**Attn Charles Moran**

**EOG M Resources Inc**  
**5509 Champions Dr**  
**Midland TX 79706**  
**Attn Charles Moran**