

**STATE OF NEW MEXICO  
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES  
OIL CONSERVATION DIVISION**

**APPLICATION OF GREAT WESTERN DRILLING LTD.  
FOR A NON-STANDARD OIL SPACING AND  
PRORATION UNIT AND COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO**

**CASE NOS. 15875-15876  
consolidated**

**APPLICATION OF CHISOLM ENERGY OPERATING, LLC  
FOR A NON-STANDARD SPACING AND  
PRORATION UNIT AND COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO**

**CASE NOS. 15865-15868  
consolidated**

**GREAT WESTERN/ADVANCE  
EXHIBIT BINDER**

## **Great Western/Advance exhibit list**

### **Great Western Land**

- Exhibit 1: C-102s
- Exhibit 2: Ownership breakdown
- Exhibit 3: Area development plat
- Exhibit 4: Great Western's well proposal letters
- Exhibit 5: Great Western's AFEs
- Exhibit 6: Chisholm's well proposals and AFEs
- Exhibit 7: Great Western/Advance letter agreement

### **Great Western Geology**

- Exhibit 8: Second Bone Spring structure map
- Exhibit 9: Geologic cross-section
- Exhibit 10: Second Bone Spring sand net isopach
- Exhibit 11: Third Bone Spring sand net isopach

### **Advance Land**

- Exhibit 12: Map with roads

### **Advance Engineer**

- Exhibit 13: PowerPoint



**DISTRICT I**1025 N. French Dr., Hobbs, NM 88240  
Phone (505) 993-6181 Fax: (505) 593-0720**DISTRICT II**811 S. First St., Artesia, NM 88210  
Phone (505) 748-1263 Fax: (505) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-6170**DISTRICT IV**1226 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3460 Fax: (505) 476-3462State of New Mexico  
Energy, Minerals and Natural Resources DepartmentForm C-102  
Revised August 1, 2011Submit one copy to appropriate  
District Office**OIL CONSERVATION DIVISION**  
1226 South St. Francis Dr.  
Santa Fe, New Mexico 87505**WELL LOCATION AND ACREAGE DEDICATION PLAT**☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name GRAMA RIDGE EAST 34 STATE 2BS	Well Number 9H
OGRID No.	Operator Name GREAT WESTERN DRILLING COMPANY	Elevation 3626'

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
P	34	21 S	34 E		275	SOUTH	1220	EAST	LEA

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
A	34	21 S	34 E		330	NORTH	460	EAST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N: 525857.6 E: 808809.9 (NAD 83)	N: 525883.7 E: 811449.7 (NAD 83)	<b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32.441790 Long - W 103.450673 NMSPCE- N 525574.6 E 813633.8 (NAD-83)	N: 525908.9 E: 814090.9 (NAD 83)	<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
N: 523215.0 E: 808832.6 (NAD 83)	N: 523268.7 E: 814113.1 (NAD 83)	<b>LANDING POINT</b> 330 FSL & 460 FEL Lat - N 32.429082 Long - W 103.450668 NMSPCE- N 520951.4 E 813673.5 (NAD-83)	N: 523268.7 E: 814113.1 (NAD 83)	Signature _____ Date _____ Printed Name _____ Email Address _____
<b>NMOCD CASE Nos. 15865-15868, 15875 and 15876</b> <b>Great Western/Advance</b> <b>Exhibit No. 1A</b> <b>December 13, 2017</b>				<b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
N: 520508.2 E: 808855.9 (NAD 83)	N: 520597.5 E: 811496.6 (NAD 83)	<b>SURFACE LOCATION</b> Lat - N 32.428926 Long - W 103.453086 NMSPCE- N 520888.3 E 812927.9 (NAD-83)	N: 520626.5 E: 814136.3 (NAD 83)	<b>DATE SURVEYED</b> MAY 11, 2017 <b>SIGNATURE</b> [Signature] <b>PROFESSIONAL SURVEYOR</b> 7977 <b>CERTIFICATE NO.</b> 7977 <b>SCALE:</b> 1" = 2000' <b>WO Num.:</b> 32926



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State of New Mexico  
Energy, Minerals and Natural Resources Department

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Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
	GRAMA RIDGE EAST 34 STATE 3BS	2H
OGRID No.	Operator Name	Elevation
	GREAT WESTERN DRILLING COMPANY	3715'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
D	34	21 S	34 E		275	NORTH	870	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
M	34	21 S	34 E		330	SOUTH	460	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>N: 525857.8 E: 809809.9 (NAD 83)</p> <p>870' SL 414' L.P.</p>	<p>N: 525883.7 E: 811449.7 (NAD 83)</p> <p><b>SURFACE LOCATION</b> Lat - N 32.441912' Long - W 103.463488' NMSPCE- N 525591.3 E 809682.2 (NAD-83)</p>	<p>N: 525908.9 E: 814090.9 (NAD 83)</p>	<p><b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>Email Address _____</p>
<p>N: 523215.0 E: 808832.6 (NAD 83)</p> <p>4630.0'</p>	<p><b>LANDING POINT</b> 330 FNL &amp; 460 FWL Lat - N 32.441772 Long - W 103.464810 NMSPCE- N 525532.4 E 809272.6 (NAD-83)</p>	<p>N: 523265.7 E: 814113.1 (NAD 83)</p>	<p><b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date Surveyed _____</p> <p>Signature _____ Professional Surveyor</p> <p>Certified _____ 7977</p> <p>0' 1000' 2000' 3000' 4000'</p> <p>SCALE: 1" = 2000'</p> <p>WQ Num.: 32919</p>
<p>N: 520565.2 E: 808555.9 (NAD 83)</p> <p>460' L.P.</p>	<p><b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32.429048 Long - W 103.464801 NMSPCE- N 520903.2 E 809312.9 (NAD-83)</p>	<p>N: 520597.5 E: 811496.8 (NAD 83)</p>	

NMOCD CASE Nos. 15865-15868, 15875 and 15876  
Great Western/Advance  
Exhibit No. 1B  
December 13, 2017

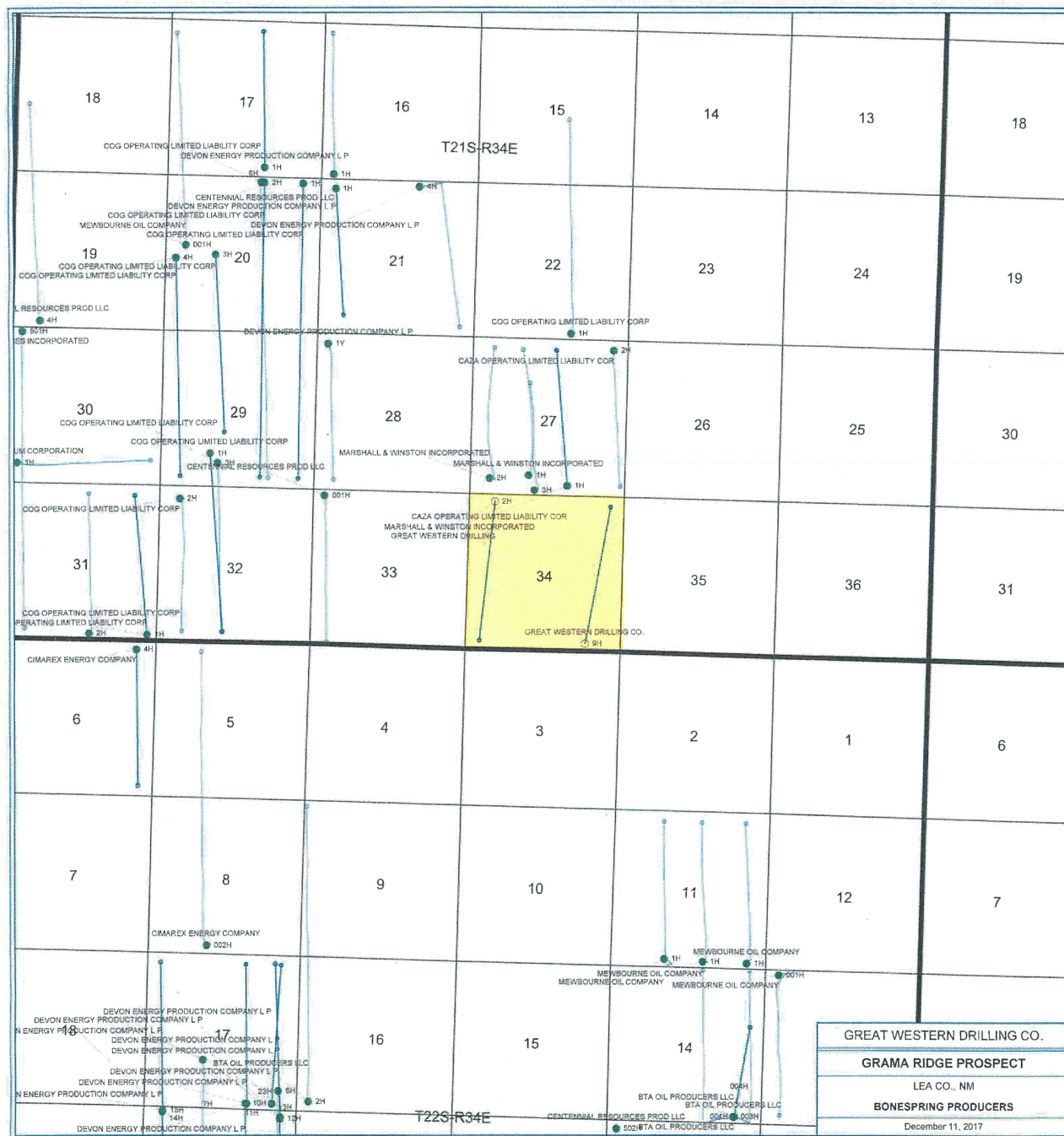
## EXHIBIT 2

Working Interest Ownership within 160 Well Units (Project Areas) for:

Grama Ridge East 34 State Bone Spring Unit described as the E/2 E/2 of Section 34, T21S-R34E, Lea County, New Mexico for the Grama Ridge East 31 State 2 BS Well.

Grama Ridge East 34 State Bone Spring Unit described as the W/2 W/2 of Section 34, T21S-R34E, Lea County, New Mexico for the Grama Ridge East 31 State 3BS Well

Chisholm Energy Operating, LLC.	5.109125%
Eau Rouge, LLC	37.500000%
Great Western Drilling Ltd.	43.750000%
Continental Land & Fur Co., Inc.	16.406250%
Timothy R. MacDonald	0.015875%







**GREAT WESTERN DRILLING COMPANY**  
Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

October 3, 2017

ADDRESSEE LIST ATTACHED

CERTIFIED RETURN RECEIPT REQUESTED

RE: Grama Ridge "34" State 3BS #002 well  
Section 34, T20S-R34E, Lea Co., NM

Gentlemen,

Great Western Drilling Ltd. proposes to drill the Grama Ridge "34" State 3BS #002 well as a 3<sup>rd</sup> Bone Spring formation test to be located in Section 34, T20S-R34E, Lea County, NM, at a surface location of 275' FNL and 870' FWL and a bottomhole of 330' FSL and 460' FWL of Section 34, T21S-R34E. The well will be drilled to a TVD of 12,070' including a pilot hole in the 3<sup>rd</sup> Bone Spring objective formation and a total measured depth of 17,700'. A plat of the location and an AFE (cost estimate) for drilling and completing the well are enclosed for your review.

Great Western is requesting that you sign the enclosed Operating Agreement designating Great Western as Operator of the proposed well and the Contract Area under the Operating Agreement described as Section 34, T21S-R34E, limited to the Bone Spring formation. The Operating Agreement provides for a 100/300% non-consent penalty, overhead rates of \$8,000 for drilling wells and \$800 for producing wells which shall cover the costs of company personnel including engineering, geological, land and administrative personnel assigned to work the contract area unless they are physically located on the contract area.

Our information indicates that you own the interest shown on Exhibit "A" to the enclosed Operating Agreement. If you elect to participate in drilling this well, indicate your election by checking the appropriate blank below, signing the extra signature page to the Operating Agreement and returning a copy of the signed letter and the signature page to Great Western at the address on this letterhead or to the email address of the undersigned: [cmuire@gwdc.com](mailto:cmuire@gwdc.com). Please contact the undersigned if you have any question about this proposal or as may concern the prior proposal to drill this same location made by Chisholm Energy Operating, L.L.C.

Yours truly,  
Great Western Drilling Ltd.

F. Carter Muire  
Land Manager

The undersigned elects \_\_\_\_\_ to participate, \_\_\_\_\_ to NOT participate in drilling the above proposed Grama Ridge "34" State 3BS #002 well.

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

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

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

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

## Great Western Drilling Ltd

## Authority for Expenditure

Well: GRAMA RIDGE EAST 34 STATE 3BS #002H

Date: 09/25/17

County: LEA State: NM

FR#

Location: SL 275 EN1 &amp; 870 FWL, BH1 350 FSL &amp; 160 FWL, SEC 34, T21S-R34H Depth: 12070 TVD / 17700 MD

AFF#

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
LANDMAN & LEGAL		\$18,000	101	\$0	301	\$18,000
LOCATION & ROAD DAMAGES		\$10,000	102	\$0	302	\$10,000
LOCATION PITS & ROAD EXP		\$98,000	103	\$98,000	303	\$196,000
ROG STABILIZATION/DEMOLITION		\$160,000	106	\$0	326	\$160,000
DRILLING - DAYWORK		\$340,000	104	\$65,000	304	\$405,000
BITS & REAMERS		\$55,000	107	\$5,000	325	\$60,000
FUEL & POWER		\$110,000	108	\$18,000	305	\$128,000
WATER PURCHASED		\$46,000	108	\$140,000	305	\$186,000
MUD & CHEMICALS		\$110,000	109	\$10,000	306	\$120,000
CEMENT & CEMENT SERVICES		\$36,000	110	\$98,000	308	\$134,000
FLOAT EQUIP & CENTRALIZERS		\$30,000	110	\$16,000	308	\$46,000
CASING CREWS & EQUIPMENT		\$18,000	124	\$8,000	320	\$26,000
LOGGING		\$0	111	\$0	319	\$0
MUD LOGGING UNIT		\$20,000	113	\$0	309	\$20,000
RENTALS		\$320,000	118	\$172,000	311	\$492,000
THICKENING CASING		\$5,000	127	\$3,000	323	\$8,000
SAFETY SUPPLIES & EQUIPMENT RENTAL		\$10,000	127	\$5,000	323	\$15,000
COMPLETION / COILED TUBING UNIT		\$10,000	N/A	\$490,000	307	\$500,000
WIRELINE SERVICES		\$0	123	\$60,000	319	\$60,000
STIMULATION / TREATING		\$0	124	\$2,200,000	317	\$2,200,000
TRUCKING		\$387,000	119	\$145,000	315	\$532,000
ROUSTABOUT-CONTRACT		\$12,000	124	\$25,000	320	\$37,000
ELECTRICAL WORK		\$0	N/A	\$15,000	329	\$15,000
DRILLING OVERHEAD - BCP - ACP		\$5,000	125	\$5,000	321	\$10,000
CONTRACT SUPERVISION		\$60,000	124	\$42,000	320	\$102,000
INSURANCE		\$8,000	127	\$4,000	323	\$12,000
MISC / CONTINGENCIES		\$60,000	127	\$100,000	323	\$160,000
Total Intangibles		\$ 1,928,000		\$ 3,724,000		\$ 5,652,000

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
SURFACE CASING	850' 14.38"	\$68,000	204	\$0	N/A	\$68,000
INTERMEDIATE CASING	5740' 9.58"	\$169,000				\$169,000
PRODUCTION CASING	12700' 5.12"	\$0	N/A	\$340,000	402	\$340,000
TUBING	17000' 2.78"	\$0	N/A	\$55,000	404	\$55,000
WELLHEAD EQUIPMENT		\$12,000	204	\$8,000	403	\$20,000
LINER HANGER & PACKER COMPLETION		\$0	N/A	\$290,000	106	\$290,000
PUMPING EQUIPMENT		\$0	N/A	\$105,000	108	\$105,000
COUPLINGS & FITTINGS		\$0	206	\$30,000	113	\$30,000
VALVES, FLOWLINES		\$0	204	\$30,000	N/A	\$30,000
SURFACE EQUIPMENT		\$0	N/A	\$205,000	114	\$205,000
ELECTRICAL SYSTEM		\$0	N/A	\$15,000	115	\$15,000
TRUCKING EQUIPMENT		\$0	207	\$15,000	117	\$15,000
MISC / CONTINGENCIES		\$12,000	207	\$50,000	117	\$62,000
Total Tangibles		\$ 261,000		\$ 1,212,000		\$ 1,473,000
Total Well Cost		\$ 2,189,000		\$ 4,936,000		\$ 7,125,000

Prepared By: C. BILLINGSLEY

Partner: Operator: Great Western Drilling Ltd

All Partners % Interest

GWDC % Interest

Approved By

Approved By

Name &amp; Title

Name &amp; Title

Dennis Hendrix - Vice President

Date

Date: October 3, 2017



DISTRICT I  
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Form C-102  
Revised August 1, 2011

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1226 South St. Francis Dr.  
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name GRAMA RIDGE EAST 34 STATE 3BS	Well Number 2H
OGRID No.	Operator Name GREAT WESTERN DRILLING COMPANY	Elevation 3715'


Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
D	34	21 S	34 E		275	NORTH	870	WEST	LEA

Bottom Hole Location If Different From Surface

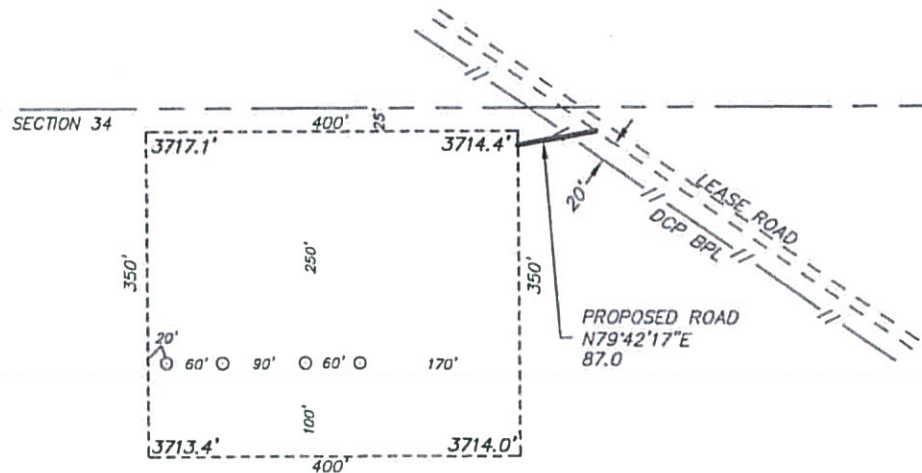
UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
M	34	21 S	34 E		330	SOUTH	460	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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N: 525857.8 E: 808805.9 (NAD 83)	SL 275 L.P. 414'	N: 525883.7 E: 811449.7 (NAD 83)	N: 525906.9 E: 814090.9 (NAD 83)	<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date _____  Printed Name _____  Email Address _____
		<b>SURFACE LOCATION</b> Lat - N 32.441912' Long - W 103.463488' NMSPC- N 525591.3 E 809682.2 (NAD-83)		
		<b>LANDING POINT</b> 330 FNL & 460 FWL Lat - N 32.441772 Long - W 103.464810 NMSPC- N 525532.4 E 809272.6 (NAD-83)		<b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  Date Surveyed _____ Signature & Seal of Professional Surveyor 
N: 523215.0 E: 808832.8 (NAD 83)	4630.0'		N: 523268.7 E: 814113.1 (NAD 83)	Certified by Gary L. Jones 7977 Professional Surveyor
N: 520568.2 E: 809855.9 (NAD 83)	460' B.H.	<b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32.429048 Long - W 103.464801 NMSPC- N 520903.2 E 809312.9 (NAD-83)	N: 520826.5 E: 814136.3 (NAD 83)	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 32919



SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



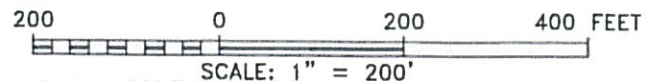
GREAT WESTERN DRILLING COMPANY  
GRAMA RIDGE EAST 34 STATE 3BS 2H  
ELEV. - 3715'

Lat - N 32.441912°  
Long - W 103.463488°  
NMSPCE- N 525591.3  
E 809682.2  
(NAD-83)

Directions to Location:

ON STATE HIGHWAY 176, 0.2 MILES EAST OF MILE  
MARKER 19GO SOUTH ON LEASE ROAD 4.2 MILES,  
THEN WEST 1.0 MILES ON LEASE ROAD TO  
PROPOSED ROAD TO PROPOSED PAD.

EUNICE, NM IS ±18 MILES TO THE EAST OF LOCATION.



**GREAT WESTERN DRILLING COMPANY**

REF: GRAMA RIDGE EAST 34 STATE 3BS 2H / WELL PAD TOPO

THE GRAMA RIDGE EAST 34 STATE 3BS 2H LOCATED 275' FROM

THE NORTH LINE AND 870' FROM THE WEST LINE OF

SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 [basinsurveys.com](http://basinsurveys.com)

W.O. Number: 32919

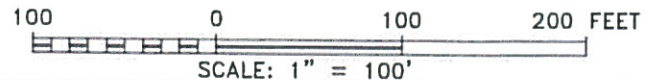
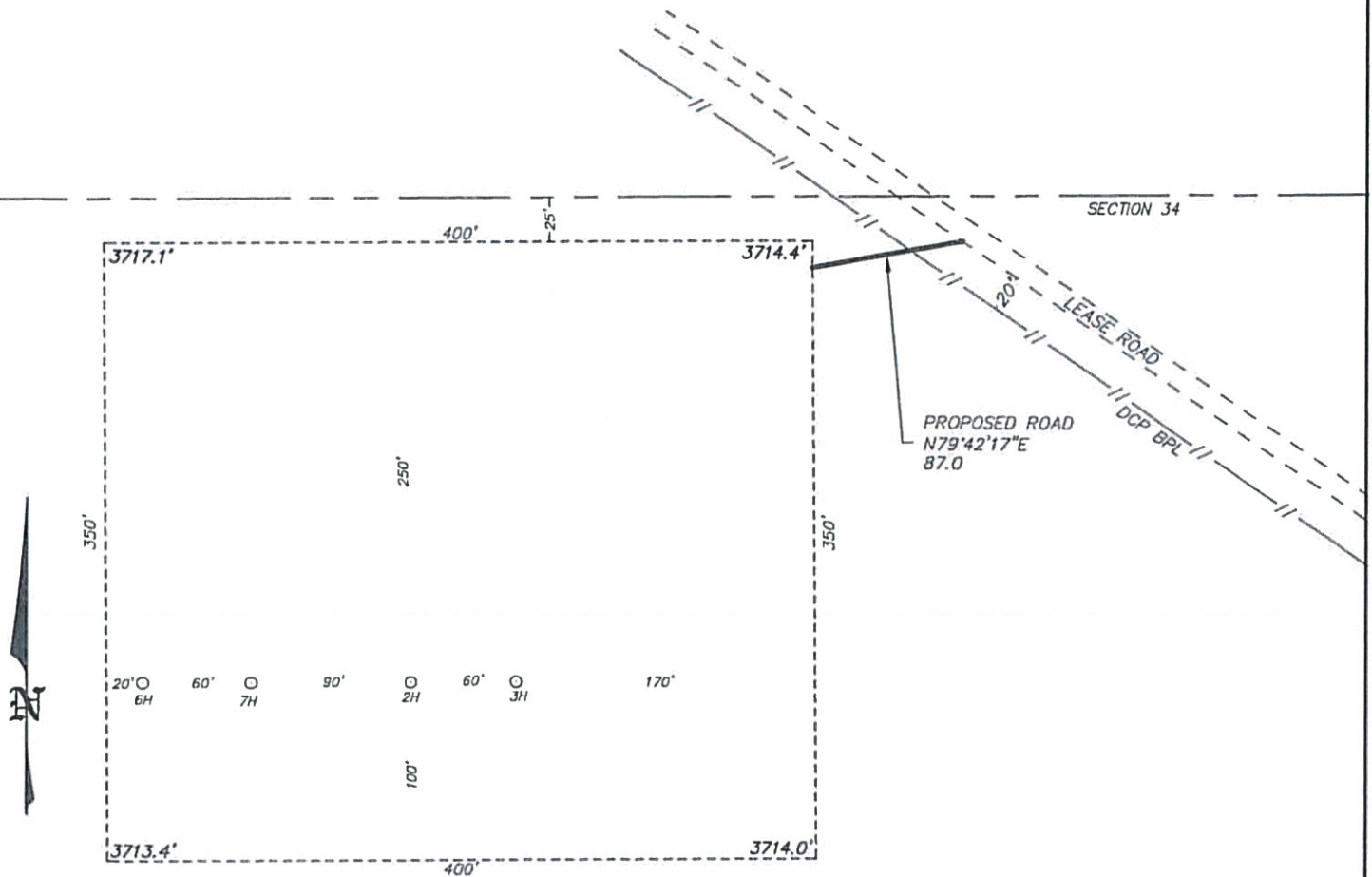
Drawn By: J GOAD

Date: 5-9-2017

Survey Date: 5-2-2017

Sheet 1 of 1 Sheets

SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



**GREAT WESTERN DRILLING COMPANY**

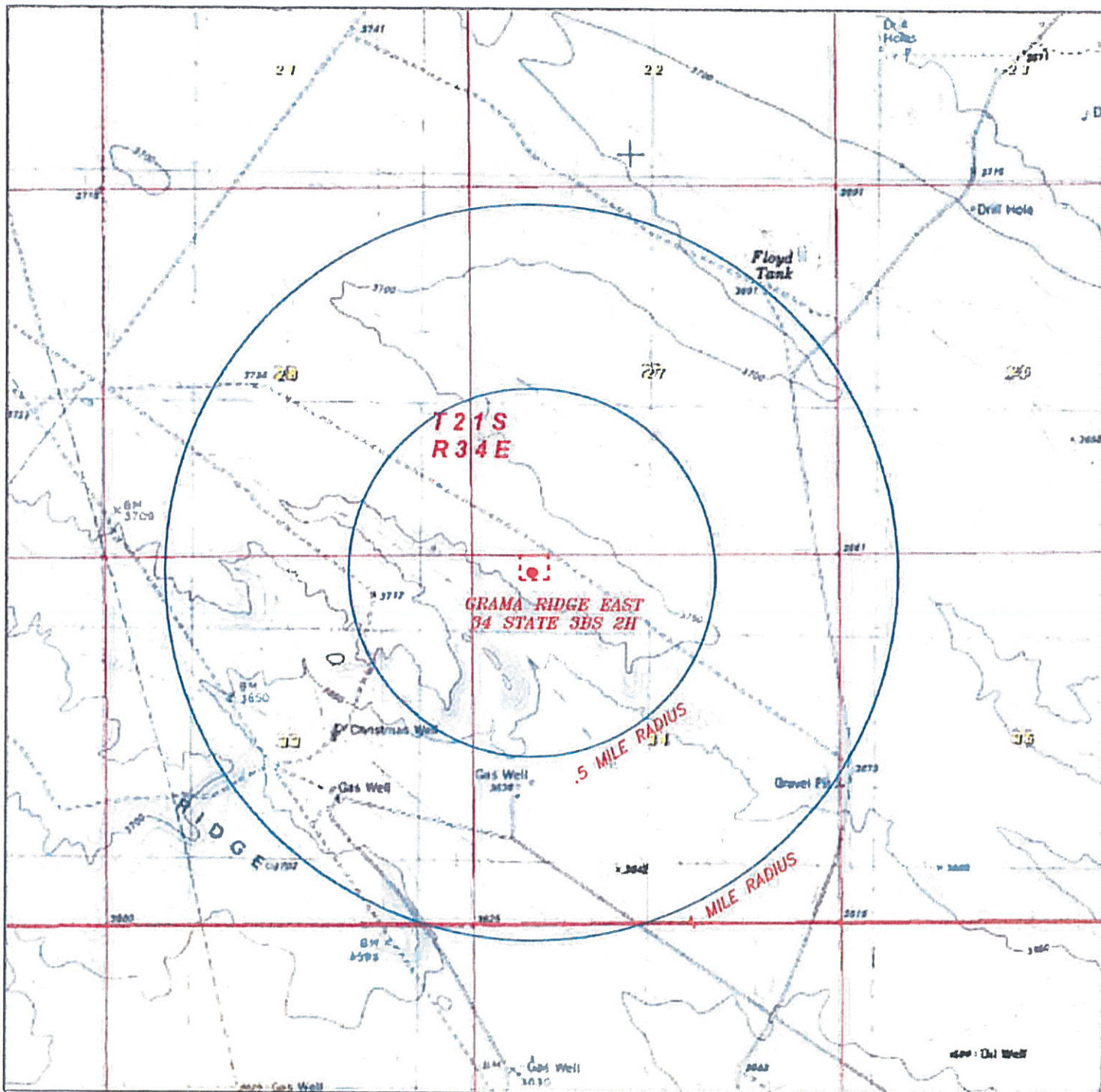
REF: GRAMA RIDGE EAST 34 STATE 3BS 2H / WELL PAD TOPO

THE GRAMA RIDGE EAST 34 STATE 3BS 2H LOCATED 275' FROM  
THE NORTH LINE AND 870' FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.

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(575) 393-7316 - Office  
(575) 392-2206 - Fax  
basinsurveys.com





## GRAMA RIDGE EAST 34 STATE 3BS 2H

Located 275' FNL and 870' FWL  
 Section 34, Township 21 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.

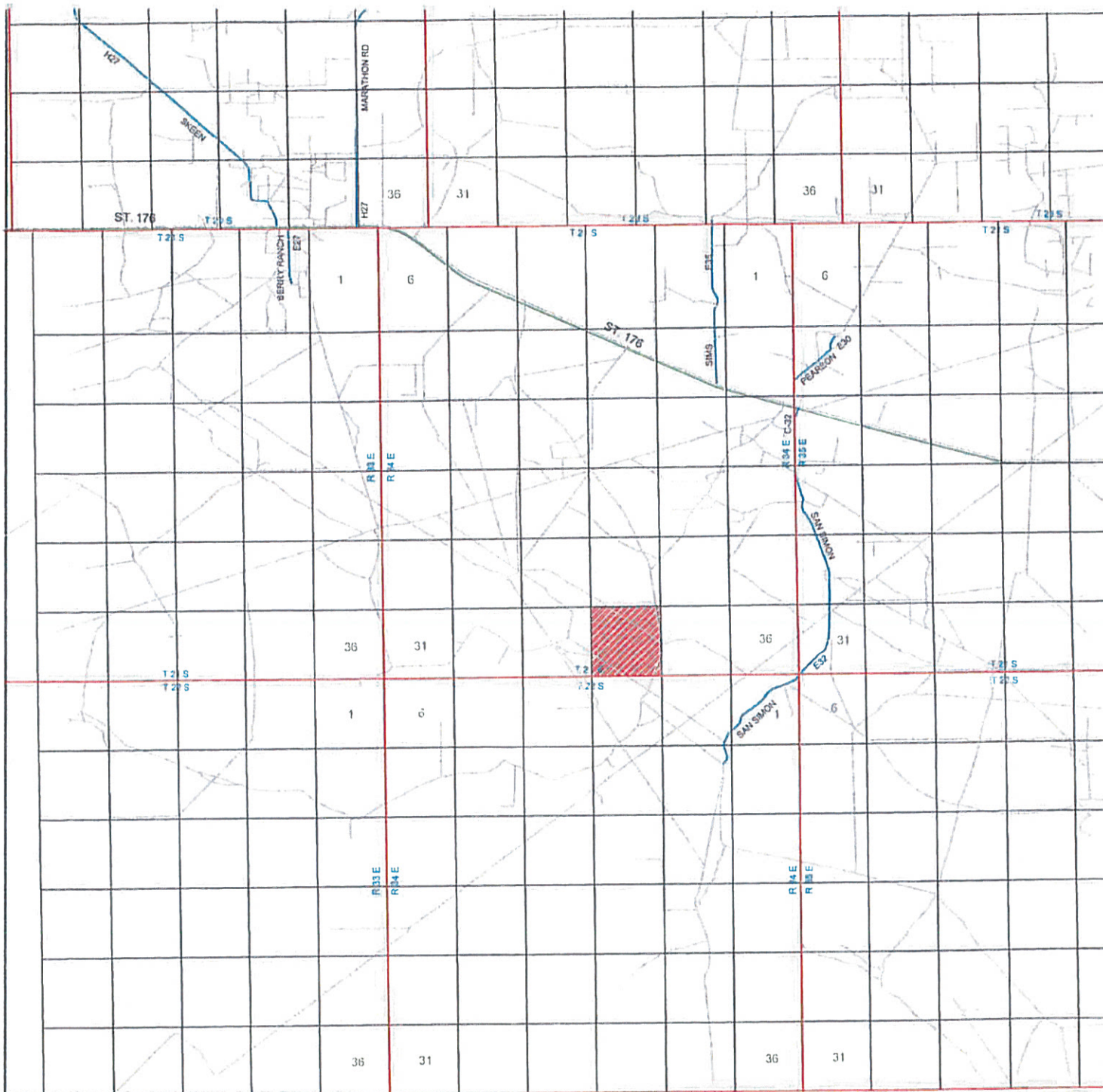
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 basinsurveys.com

0' 1000' 2000' 3000' 4000'  
 SCALE: 1" = 2000'  
 W.O. Number: JG 32919  
 Survey Date: 5-2-2017  
 YELLOW TINT -- USA LAND  
 BLUE TINT -- STATE LAND  
 NATURAL COLOR -- FEE LAND

**GREAT**  
**WESTERN**  
**DRILLING**  
**COMPANY**





## GRAMA RIDGE EAST 34 STATE 3BS 2H

Located 275' FNL and 870' FWL  
 Section 34, Township 21 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



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 basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI  
 SCALE: 1" = 2 MILES

W.O. Number: JG 32919

Survey Date: 5-2-2017

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND

**GREAT  
 WESTERN  
 DRILLING  
 COMPANY**





## GRAMA RIDGE EAST 34 STATE 3BS 2H

Located 275' FNL and 870' FWL  
 Section 34, Township 21 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
[basinsurveys.com](http://basinsurveys.com)

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: JG 32919

Survey Date: 5-2-2017

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



GREAT  
 WESTERN  
 DRILLING  
 COMPANY





**GREAT WESTERN DRILLING COMPANY**

Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

October 3, 2017

ADDRESSEE LIST ATTACHED

CERTIFIED RETURN RECEIPT REQUESTED

RE: Grama Ridge "34" State 2BS #009H well  
Section 34, T20S-R34E, Lea Co., NM

Gentlemen,

Great Western Drilling Ltd. proposes to drill the Grama Ridge "34" State 2BS #009H well as a 2<sup>nd</sup> Bone Spring formation test to be located in Section 34, T20S-R34E, Lea County, NM at a surface location of 275' FSL and 1220' FEL and a bottomhole of 330' FNL and 460' FEL of Section 34, T21S-R34E. The well will be drilled to a TVD of 10,275' into the 3<sup>rd</sup> Bone Spring objective formation and a total measured depth of 14,650'. A plat of the location and an AFE (cost estimate) for drilling and completing the well are enclosed for your review.

Great Western is requesting that you sign the enclosed Operating Agreement designating Great Western as Operator of the proposed well and the Contract Area under the Operating Agreement described as Section 34, T21S-R34E, limited to the Bone Spring formation. The Operating Agreement provides for a 100/300% non-consent penalty, overhead rates of \$8,000 for drilling wells and \$800 for producing wells which shall cover the costs of company personnel including engineering, geological, land and administrative personnel assigned to work the contract area unless they are physically located on the contract area.

Our information indicates that you own the interest shown on Exhibit "A" to the enclosed Operating Agreement. If you elect to participate in drilling this well, indicate your election by checking the appropriate blank below, signing the extra signature page to the Operating Agreement and returning a copy of the signed letter and the signature page to Great Western at the address on this letterhead or to the email address of the undersigned: [cmuire@gwdc.com](mailto:cmuire@gwdc.com). Please contact the undersigned if you have any question about this proposal or as may concern the prior proposal to drill this same location made by Chisholm Energy Operating, L.L.C.

Yours truly,  
Great Western Drilling Ltd.

F. Carter Muire  
Land Manager

The undersigned elects \_\_\_\_\_ to participate, \_\_\_\_\_ to NOT participate in drilling the above proposed Grama Ridge "34" State 2BS #009H well.

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

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

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

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

## Great Western Drilling Ltd

## Authority for Expenditure

Well: GRAMA RIDGE EAST 34 STATE 2BS #009H

Date: 09/25/17

County: TEA

State: NM

ER#

Location: SE 275' ESE &amp; 1220' EEL; BHL 330' ENE &amp; 160' EEL; SEC 34; T21S-R3-M Depth: 10275' EVD 14650' MD

AFE#

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
LANDMAN & LEGAL		\$18,000	101	\$0	301	\$18,000
LOCATION & ROAD DAMAGES		\$10,000	102	\$0	302	\$10,000
LOCATION, PITS & ROAD EXP		\$98,000	103	\$98,000	303	\$196,000
REG. MOBILIZATION/DEMOLITION		\$160,000	106	\$0	326	\$160,000
DRILLING - DAYWORK		\$270,000	105	\$55,000	304	\$325,000
BITS & REAMERS		\$55,000	107	\$5,000	325	\$60,000
FLUID & POWER		\$90,000	108	\$15,000	305	\$105,000
WATER PURCHASED		\$38,000	109	\$115,000	305	\$153,000
MUD & CHEMICALS		\$90,000	109	\$8,000	306	\$98,000
CEMENT & CEMENT SERVICES		\$30,000	110	\$80,000	308	\$110,000
FLOAT EQUIP & CENTRALIZERS		\$30,000	110	\$16,000	308	\$46,000
CASING CREWS & EQUIPMENT		\$15,000	121	\$6,000	320	\$21,000
LOGGING		\$0	111	\$0	319	\$0
MUD LOGGING UNIT		\$14,000	113	\$0	309	\$14,000
RENTALS		\$264,000	118	\$142,000	314	\$406,000
TESTING CASING		\$5,000	127	\$3,000	323	\$8,000
SAFETY SUPPLIES & EQUIP RENTAL		\$10,000	127	\$5,000	323	\$15,000
COMPLETION / COILED TUB UNIT		\$7,000	N/A	\$405,000	307	\$412,000
WIRELINE SERVICES		\$0	123	\$50,000	319	\$50,000
STIMULATION / TREATING		\$0	121	\$1,800,000	317	\$1,800,000
TRUCKING		\$320,000	119	\$120,000	315	\$440,000
ROUNDTABOUT CONTRACT		\$12,000	124	\$25,000	320	\$37,000
ELECTRICAL WORK		\$0	N/A	\$15,000	320	\$15,000
DRILLING OVERHEAD - BCP / ACP		\$5,000	125	\$5,000	321	\$10,000
CONTRACT SUPERVISION		\$50,000	124	\$35,000	320	\$85,000
INSURANCE		\$6,500	127	\$2,500	321	\$9,000
MISC / CONTINGENCIES		\$47,000	127	\$80,000	323	\$127,000
Total Intangibles		\$ 1,644,500		\$ 3,085,500		\$ 4,730,000

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
SURFACE CASING	859' 13.68"	\$68,000	201	\$0	N/A	\$68,000
INTERMEDIATE CASING	5750' 9.58"	\$169,000				\$169,000
PRODUCTION CASING	14650' 5.12"	\$0	N/A	\$275,000	402	\$275,000
TUBING	10900' 2.78"	\$0	N/A	\$44,000	404	\$44,000
WELL HEAD EQUIPMENT		\$12,000	201	\$8,000	403	\$20,000
INNER HANGER & PACKER COMPLETION		\$0	N/A	\$235,000	406	\$235,000
PUMPING EQUIPMENT		\$0	N/A	\$105,000	408	\$105,000
COUPLINGS & FITTINGS		\$0	206	\$30,000	415	\$30,000
VALVES, FLOWLINES		\$0	201	\$30,000	N/A	\$30,000
SURFACE EQUIPMENT		\$0	N/A	\$205,000	414	\$205,000
ELECTRICAL SYSTEM		\$0	N/A	\$15,000	415	\$15,000
TRUCKING EQUIPMENT		\$0	207	\$15,000	417	\$15,000
MISC / CONTINGENCIES		\$12,000	207	\$50,000	417	\$62,000
Total Tangibles		\$ 261,000		\$ 1,081,000		\$ 1,342,000
Total Well Cost		\$ 1,905,500		\$ 4,166,500		\$ 6,072,000

Prepared By: C. BILLINGSLEY

Partner

Operator: Great Western Drilling Ltd

All Partners % Interest

GWDC % Interest

Approved By:

Approved By:

Name &amp; Title

Name &amp; Title: Dennis Hendrix, Vice President

Date

Date: October 3, 2017



**DISTRICT I**1025 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6181 Fax: (575) 393-9720**DISTRICT II**811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax: (575) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 394-6178 Fax: (505) 394-6170**DISTRICT IV**1226 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3400 Fax: (505) 476-3402State of New Mexico  
Energy, Minerals and Natural Resources DepartmentForm C-102  
Revised August 1, 2011Submit one copy to appropriate  
District Office**OIL CONSERVATION DIVISION**1226 South St. Francis Dr.  
Santa Fe, New Mexico 87505**WELL LOCATION AND ACREAGE DEDICATION PLAT**☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name GRAMA RIDGE EAST 34 STATE 2BS	Well Number 9H
OGRID No.	Operator Name GREAT WESTERN DRILLING COMPANY	Elevation 3626'

**Surface Location**



UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
P	34	21 S	34 E		275	SOUTH	1220	EAST	LEA

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
A	34	21 S	34 E		330	NORTH	460	EAST	LEA

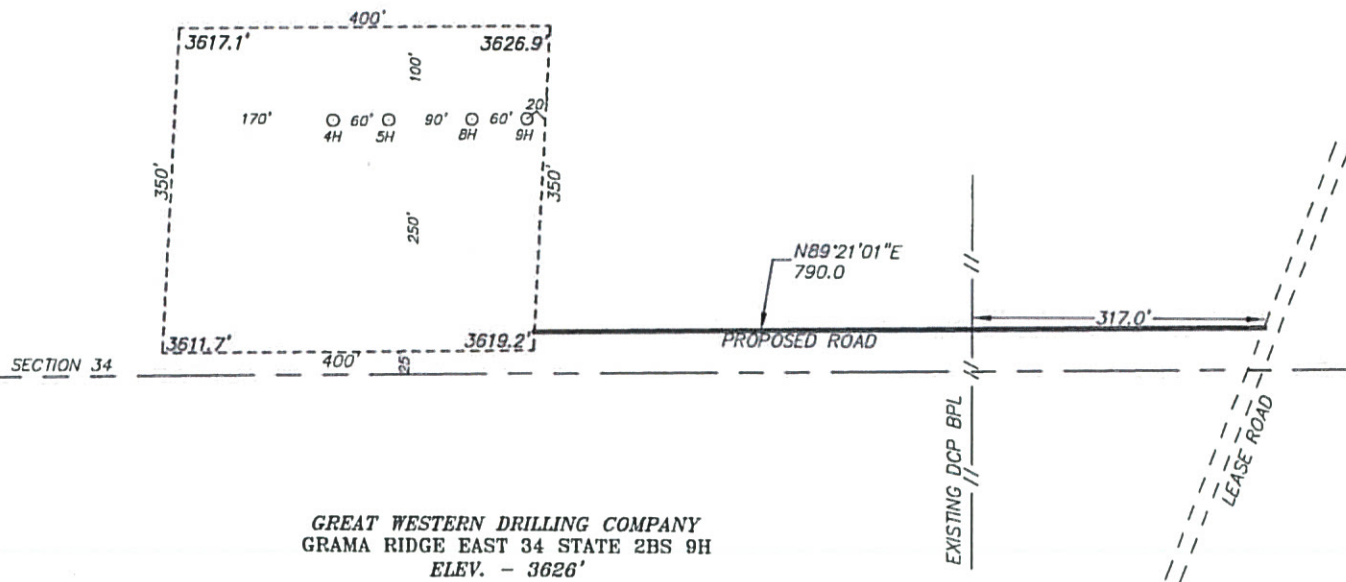
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
-----------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N: 525857.8 E: 808809.9 (NAD 83)	N: 525883.7 E: 811449.7 (NAD 83)	<b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32.441790 Long - W 103.450673 NMSPCE- N 525574.6 E 813633.8 (NAD-83)	N: 525908.9 E: 814090.9 (NAD 83)	<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date _____  Printed Name _____  Email Address _____
N: 523215.0 E: 808832.6 (NAD 83)	N: 523268.7 E: 814113.1 (NAD 83)	<b>LANDING POINT</b> 330 FSL & 460 FEL Lat - N 32.429082 Long - W 103.450668 NMSPCE- N 520951.4 E 813673.5 (NAD-83)	N: 523268.7 E: 814113.1 (NAD 83)	<b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.  Date Surveyed _____ Signature & Seal of Professional Surveyor 
N: 520588.2 E: 808855.0 (NAD 83)	N: 520597.5 E: 811496.6 (NAD 83)	<b>SURFACE LOCATION</b> Lat - N 32.428926 Long - W 103.453086 NMSPCE- N 520888.3 E 812927.9 (NAD-83)	N: 520526.5 E: 814136.3 (NAD 83)	Date Surveyed _____ Signature & Seal of Professional Surveyor 

Scale: 1" = 2000'  
WO Num.: 32926

SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



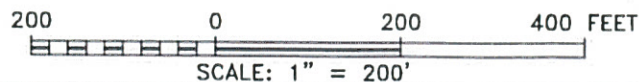
GREAT WESTERN DRILLING COMPANY  
GRAMA RIDGE EAST 34 STATE 2BS 9H  
ELEV. - 3626'  
Lat - N 32.428926  
Long - W 103.453086  
NMSPCE- N 520888.3  
E 812927.9  
(NAD-83)



EUNICE, NM IS ±17 MILES TO THE EAST OF LOCATION.

Directions to Location:

ON STATE HIGHWAY 176, 0.2 MILES EAST OF MILE  
MARKER 19 GO SOUTH ON LEASE ROAD 4.6 MILES  
TO PROPOSED ROAD.



**GREAT WESTERN DRILLING COMPANY**

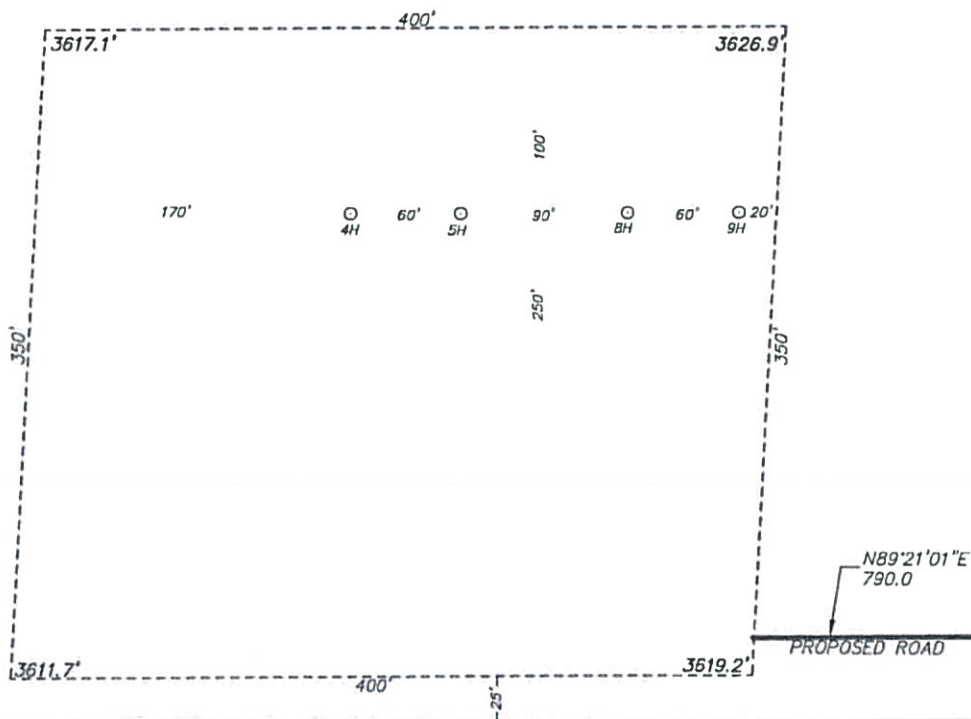
REF: GRAMA RIDGE EAST 34 STATE 2BS 9H / WELL PAD TOPO

THE GRAMA RIDGE EAST 34 STATE 2BS 9H LOCATED 275' FROM  
THE SOUTH LINE AND 1220' FROM THE EAST LINE OF  
SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.

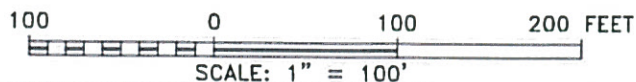
**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basin-surveys.com

SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



SECTION 34



**GREAT WESTERN DRILLING COMPANY**

REF: GRAMA RIDGE EAST 34 STATE 2BS 9H / WELL PAD TOPO

THE GRAMA RIDGE EAST 34 STATE 2BS 9H LOCATED 275' FROM  
THE SOUTH LINE AND 1220' FROM THE EAST LINE OF  
SECTION 34, TOWNSHIP 21 SOUTH, RANGE 34 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.



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1120 N. West County Rd.  
Hobbs, New Mexico 88241  
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basinsurveys.com

W.O. Number: 32926

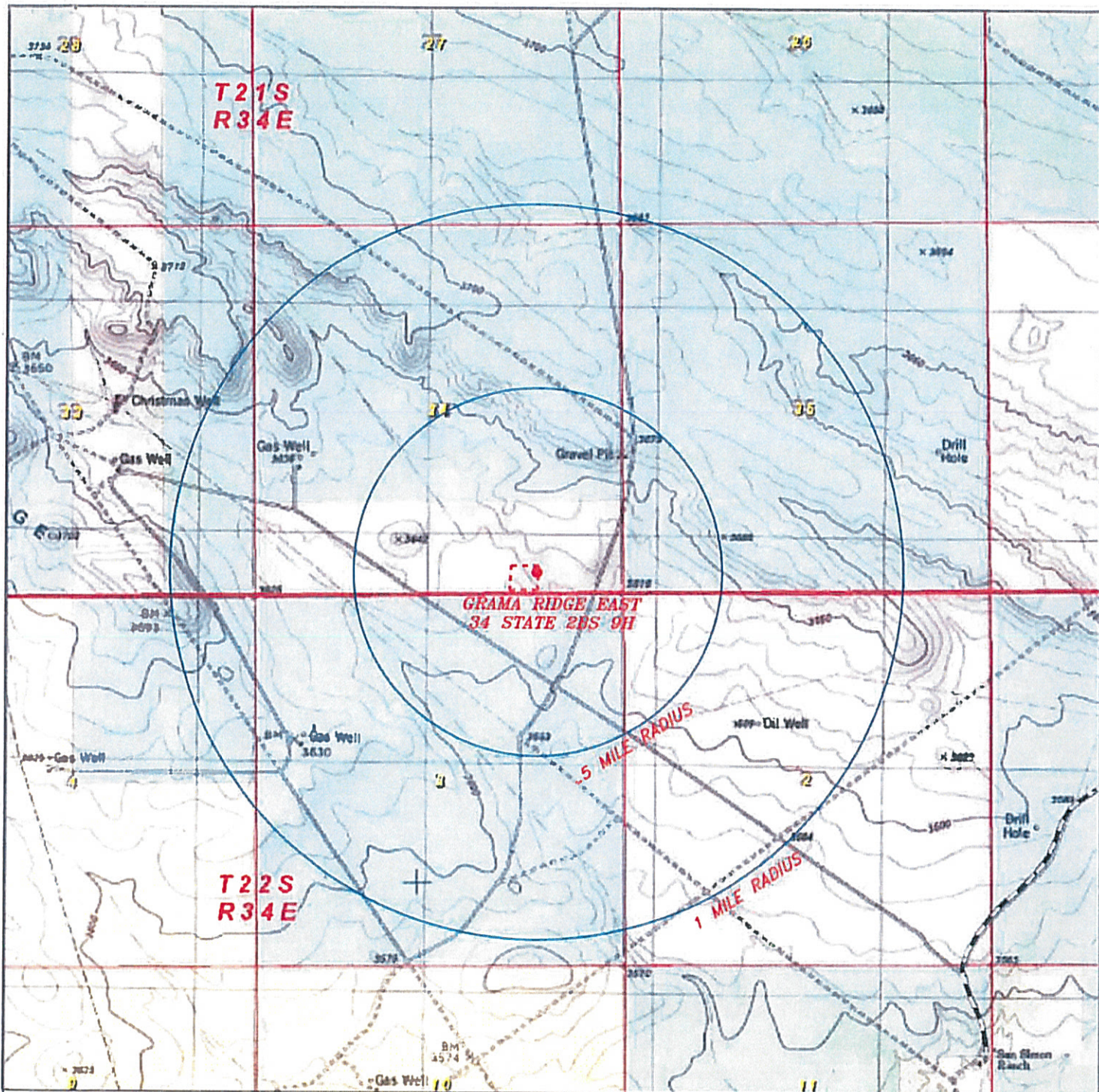
Drawn By: J GOAD

Date: 5-11-2017

Survey Date: 5-2-2017

Sheet 1 of 1 Sheets





## GRAMA RIDGE EAST 34 STATE 2BS 9H

Located 275' FSL and 1220' FEL  
Section 34, Township 21 South, Range 34 East,  
N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(575) 393-7316 - Office  
(575) 392-2206 - Fax  
basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: JG 32926

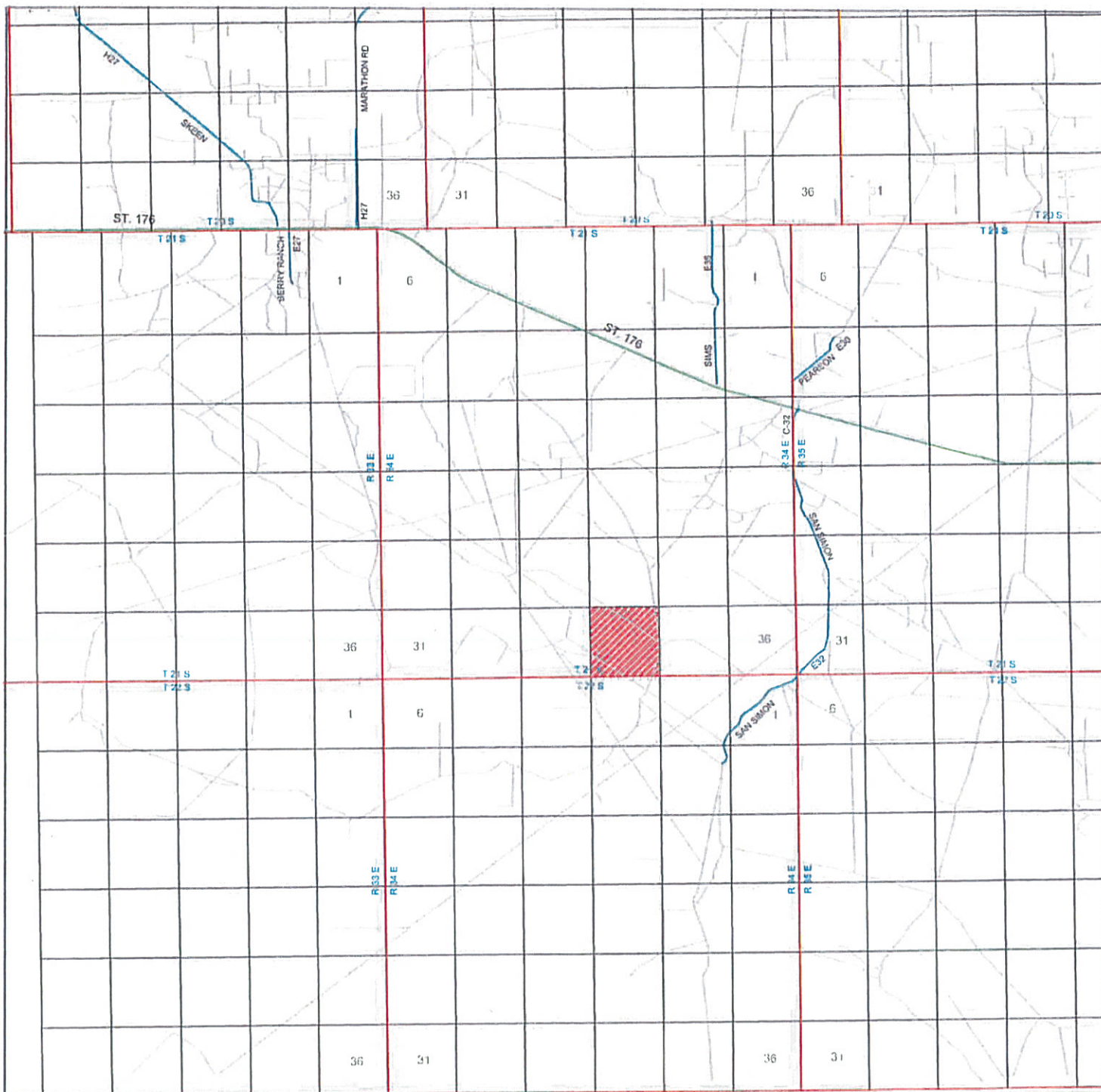
Survey Date: 5-2-2017

YELLOW TINT -- USA LAND  
BLUE TINT -- STATE LAND  
NATURAL COLOR -- FEE LAND



**GREAT  
WESTERN  
DRILLING  
COMPANY**





## GRAMA RIDGE EAST 34 STATE 2BS 9H

Located 275' FSL and 1220' FEL  
 Section 34, Township 21 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
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 Hobbs, New Mexico 88241  
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[basinsurveys.com](http://basinsurveys.com)

0 1 MI 2 MI 3 MI 4 MI  
 SCALE: 1" = 2 MILES

W.O. Number: JG 32926

Survey Date: 5-2-2017

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



GREAT  
 WESTERN  
 DRILLING  
 COMPANY





## GRAMA RIDGE EAST 34 STATE 2BS 9H

Located 275' FSL and 1220' FEL  
 Section 34, Township 21 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
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[basinsurveys.com](http://basinsurveys.com)

0' 1000' 2000' 3000' 4000'  
 SCALE: 1" = 2000'

W.O. Number: JG 32926

Survey Date: 5-2-2017

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



GREAT  
 WESTERN  
 DRILLING  
 COMPANY





**GREAT WESTERN DRILLING COMPANY**

Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

October 19, 2017

ADDRESSEE LIST ATTACHED

RE: Grama Ridge "34" State 2BS #009H well proposal dated October 3, 2017  
Grama Ridge "34" State 3BS #002H well proposal dated October 3, 2017  
Section 34, T21S-R34E, Lea Co., NM

Gentlemen,

By letters dated October 3, 2017 Great Western Drilling Ltd. proposed to drill the above referenced wells to be located in the above Section 34 of T21S-R34E, Lea Co., NM. Some of the locations referred in the letter did not properly state the township which is now correctly stated in the attached correction well proposals enclosed with this letter. Also included are three pages to the proposed Joint Operating Agreement which now properly reference the correct township for the contract area and location of the initial well to be located in Section 34, T21S-R24E. Please insert the corrected pages into you copy of the proposed Joint Operating Agreement. We apologize for any inconvenience this over sight may have caused. If you have questions or concerns in the matter, please contact the undersigned.

Yours truly,  
Great Western Drilling Ltd.

F. Carter Muire  
Land Manager

ADDRESSEE LIST

Chisholm Energy Operating, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Eau Rouge, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Continental Land & Fur Co., Inc.  
4 Greenspoint Plaza  
16945 Northchase Dr., Ste. 1500  
Houston, Texas 77060

Timothy R. MacDonald  
3017 Avenue O  
Galveston, Texas 77550





GREAT WESTERN DRILLING COMPANY  
Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

October 19, 2017

**CORRECTION OF LOCATION** for Well  
proposal originally dated October 3, 2017 to  
reference T21S-R34E as highlighted in yellow

ADDRESSEE LIST ATTACHED

RE: Grama Ridge "34" State 2BS #009H well  
Section 34, T21S-R34E, Lea Co., NM

Gentlemen,

Great Western Drilling Ltd. proposes to drill the Grama Ridge "34" State 2BS #009H well as a 2<sup>nd</sup> Bone Spring formation test to be located in Section 34, T21S-R34E, Lea County, NM at a surface location of 275' FSL and 1220' FEL and a bottomhole of 330' FNL and 460' FEL of Section 34, T21S-R34E. The well will be drilled to a TVD of 10,275' into the 3<sup>rd</sup> Bone Spring objective formation and a total measured depth of 14,650'. A plat of the location and an AFE (cost estimate) for drilling and completing the well are enclosed for your review.

Great Western is requesting that you sign the enclosed Operating Agreement designating Great Western as Operator of the proposed well and the Contract Area under the Operating Agreement described as Section 34, T21S-R34E, limited to the Bone Spring formation. The Operating Agreement provides for a 100/300% non-consent penalty, overhead rates of \$8,000 for drilling wells and \$800 for producing wells which shall cover the costs of company personnel including engineering, geological, land and administrative personnel assigned to work the contract area unless they are physically located on the contract area.

Our information indicates that you own the interest shown on Exhibit "A" to the enclosed Operating Agreement. If you elect to participate in drilling this well, indicate your election by checking the appropriate blank below, signing the extra signature page to the Operating Agreement and returning a copy of the signed letter and the signature page to Great Western at the address on this letterhead or to the email address of the undersigned: [cmuire@gwdc.com](mailto:cmuire@gwdc.com). Please contact the undersigned if you have any question about this proposal or as may concern the prior proposal to drill this same location made by Chisholm Energy Operating, L.L.C.

Yours truly,  
Great Western Drilling Ltd.

F. Carter Muire  
Land Manager

The undersigned elects \_\_\_\_\_ to participate, \_\_\_\_\_ to NOT participate in drilling the above proposed Grama Ridge "34" State 2BS #009H well.

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

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

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

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

ADDRESSEE LIST

Chisholm Energy Operating, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Eau Rouge, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Continental Land & Fur Co., Inc.  
4 Greenspoint Plaza  
16945 Northchase Dr., Ste. 1500  
Houston, Texas 77060

Timothy R. MacDonald  
3017 Avenue O  
Galveston, Texas 77550



GREAT WESTERN DRILLING COMPANY  
Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

October 19, 2017

**CORRECTION OF LOCATION** for Well  
proposal originally dated October 3, 2017 to  
reference T21S-R34E as highlighted in  
yellow.

ADDRESSEE LIST ATTACHED

RE: Grama Ridge "34" State 3BS #002 well  
Section 34, T21S-R34E, Lea Co., NM

Gentlemen,

Great Western Drilling Ltd. proposes to drill the Grama Ridge "34" State 3BS #002 well as a 3<sup>rd</sup> Bone Spring formation test to be located in Section 34, T21S-R34E, Lea County, NM, at a Surface location of 275' FNL and 870' FWL and a bottomhole of 330' FSL and 460' FWL of Section 34, T21S-R34E. The well will be drilled to a TVD of 12,070' including a pilot hole in the 3<sup>rd</sup> Bone Spring objective formation and a total measured depth of 17,700'. A plat of the location and an AFE (cost estimate) for drilling and completing the well are enclosed for your review.

Great Western is requesting that you sign the enclosed Operating Agreement designating Great Western as Operator of the proposed well and the Contract Area under the Operating Agreement described as Section 34, T21S-R34E, limited to the Bone Spring formation. The Operating Agreement provides for a 100/300% non-consent penalty, overhead rates of \$8,000 for drilling wells and \$800 for producing wells which shall cover the costs of company personnel including engineering, geological, land and administrative personnel assigned to work the contract area unless they are physically located on the contract area.

Our information indicates that you own the interest shown on Exhibit "A" to the enclosed Operating Agreement. If you elect to participate in drilling this well, indicate your election by checking the appropriate blank below, signing the extra signature page to the Operating Agreement and returning a copy of the signed letter and the signature page to Great Western at the address on this letterhead or to the email address of the undersigned: [cmuire@gwdc.com](mailto:cmuire@gwdc.com). Please contact the undersigned if you have any question about this proposal or as may concern the prior proposal to drill this same location made by Chisholm Energy Operating, L.L.C.

Yours truly,  
Great Western Drilling Ltd.

F. Carter Muire  
Land Manager

The undersigned elects \_\_\_\_\_ to participate, \_\_\_\_\_ to NOT participate in drilling the above proposed Grama Ridge "34" State 3BS #002 well.

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

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

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

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



ADDRESSEE LIST

Chisholm Energy Operating, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Eau Rouge, LLC  
801 Cherry St., Ste. 1200, Unit 20  
Fort Worth, Texas 76102

Continental Land & Fur Co., Inc.  
4 Greenspoint Plaza  
16945 Northchase Dr., Ste. 1500  
Houston, Texas 77060

Timothy R. MacDonald  
3017 Avenue O  
Galveston, Texas 77550

Well: GRAMA RIDGE EAST 34 STATE 3BS #002H

Date: 09/25/17

County: LEA

State: NM

ER#

Location: SL 275 FSL &amp; 870 FWL, BHL 350 FSL &amp; 160 FWL, SEC 34, 121S-R34H Depth: 13070 FWD / 17700 MD

AFF#

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
LANDMAN & LEGAL		\$18,000	101	\$0	301	\$18,000
LOCATION & ROAD DAMAGES		\$10,000	102	\$0	302	\$10,000
LOCATION PITS & ROAD EXP		\$98,000	103	\$98,000	303	\$196,000
RIG MOBILIZATION/DEMOBILIZATION		\$160,000	106	\$0	326	\$160,000
DRILLING - DAYWORK		\$340,000	105	\$65,000	304	\$405,000
BITS & REAMERS		\$55,000	107	\$5,000	325	\$60,000
FLUE & POWER		\$110,000	108	\$18,000	305	\$128,000
WATER PURCHASED		\$46,000	108	\$140,000	305	\$186,000
MUD & CHEMICALS		\$110,000	109	\$10,000	306	\$120,000
CEMENT & CEMENT SERVICES		\$36,000	110	\$98,000	308	\$134,000
FLOAT EQUIP & CENTRALIZERS		\$30,000	110	\$16,000	308	\$46,000
CASING CREWS & EQUIPMENT		\$18,000	124	\$8,000	320	\$26,000
LOGGING		\$0	111	\$0	319	\$0
MULTI LOGGING UNIT		\$20,000	113	\$0	309	\$20,000
RENTALS		\$320,000	118	\$172,000	311	\$492,000
FINISHING CASING		\$5,000	127	\$3,000	323	\$8,000
SAFETY SUPPLIES & EQUIP RENTAL		\$10,000	127	\$5,000	323	\$15,000
COMPLETION / COILED TUB UNIT		\$10,000	N/A	\$490,000	307	\$500,000
WIRELINE SERVICES		\$0	123	\$60,000	319	\$60,000
STIMULATION/TREATING		\$0	121	\$2,200,000	317	\$2,200,000
TRUCKING		\$387,000	119	\$145,000	315	\$532,000
ROU/STABOUL CONTRACT		\$12,000	121	\$25,000	320	\$37,000
ELECTRICAL WORK		\$0	N/A	\$15,000	325	\$15,000
DRILLING OVERHEAD - BCP - ACP		\$5,000	125	\$5,000	321	\$10,000
CONTRACT SUPERVISION		\$60,000	124	\$42,000	320	\$102,000
INSURANCE		\$8,000	127	\$4,000	323	\$12,000
MISC CONTINGENCIES		\$60,000	127	\$100,000	323	\$160,000
<b>Total Intangibles</b>		<b>\$ 1,928,000</b>		<b>\$ 3,724,000</b>		<b>\$ 5,652,000</b>

JOB Billing Description	Description	Cost to Casing Point - BCP	BCP	Cost to Completion - ACP	ACP	Total
SURFACE CASING	850' 13.30"	\$68,000	201	\$0	N/A	\$68,000
INTERMEDIATE CASING	5740' 9.58"	\$169,000				\$169,000
PRODUCTION CASING	17700' 5.12"	\$0	N/A	\$340,000	402	\$340,000
TUBING	17000' 9.78"	\$0	N/A	\$55,000	404	\$55,000
WELLHEAD EQUIPMENT		\$12,000	204	\$8,000	403	\$20,000
LINER HANGER & PACKER COMPLETION		\$0	N/A	\$290,000	406	\$290,000
PUMPING EQUIPMENT		\$0	N/A	\$105,000	408	\$105,000
C COUPLINGS & FITTINGS		\$0	206	\$30,000	413	\$30,000
VALVES, FLOWLINES		\$0	204	\$30,000	N/A	\$30,000
SURFACE EQUIPMENT		\$0	N/A	\$205,000	414	\$205,000
ELECTRICAL SYSTEM		\$0	N/A	\$15,000	415	\$15,000
TRUCKING-EQUIPMENT		\$0	207	\$15,000	417	\$15,000
MISC CONTINGENCIES		\$12,000	207	\$50,000	417	\$62,000
<b>Total Tangibles</b>		<b>\$ 264,000</b>		<b>\$ 1,212,000</b>		<b>\$ 1,473,000</b>
<b>Total Well Cost</b>		<b>\$ 2,189,000</b>		<b>\$ 4,936,000</b>		<b>\$ 7,125,000</b>

Partner

All Partners % Interest

Approved By

Name &amp; Title

Prepared By

Operator

GWDC % Interest

Approved By

Name &amp; Title

Date

C. BILLINGSLEY

Great Western Drilling Ltd

Dennis Hendrix - Vice President

October 3, 2017

NMOCD CASE Nos. 15865-15868, 15875  
and 15876

Great Western/Advance

Exhibit No. 5

December 13, 2017



## Authority for Expenditure

Well : GRAMA RIDGE EAST 34 STATE 2BS #009H

Date : 09/25/17

County : IFA

State : NM

ER#

Location : SE 27S E8L&amp;1220' ELL : BH 1330' ENL&amp;460' EEL SEC 34 121S-R3-H Depth : 10375' EVD : 14650' MD

AFF#

## JIB Billing Description

## Description

Cost to Casing Point - BCP BCP

Cost to Completion - ACP ACP

## Total

LANDMAN & LEGAL		\$18,000	101	\$0	301	\$18,000
LOCATION & ROAD DAMAGES		\$10,000	102	\$0	302	\$10,000
LOCATION, PITS & ROAD EXP		\$98,000	103	\$98,000	303	\$196,000
RIG MOBILIZATION/DEMOLITION		\$160,000	106	\$0	326	\$160,000
DRILLING - DAYWORK		\$270,000	105	\$55,000	304	\$325,000
BITS & REAMERS		\$55,000	107	\$5,000	325	\$60,000
FUEL & POWER		\$90,000	108	\$15,000	305	\$105,000
WATER PURCHASED		\$38,000	108	\$115,000	305	\$153,000
MUD & CHEMICALS		\$90,000	109	\$8,000	306	\$98,000
CEMENT & CEMENT SERVICES		\$30,000	110	\$80,000	308	\$110,000
FLOAT EQUIP & CENTRALIZERS		\$30,000	110	\$16,000	308	\$46,000
CASING CREWS & EQUIPMENT		\$15,000	121	\$6,000	320	\$21,000
LOGGING		\$0	111	\$0	319	\$0
MUD LOGGING UNIT		\$14,000	113	\$0	309	\$14,000
RENTALS		\$264,000	118	\$142,000	314	\$406,000
TESTING CASING		\$5,000	127	\$3,000	323	\$8,000
SAFETY SUPPLIES & EQUIPMENT		\$10,000	127	\$5,000	323	\$15,000
COMPLETION - COILED TUBING UNIT		\$7,000	N/A	\$105,000	307	\$412,000
WIRELINE SERVICES		\$0	123	\$50,000	319	\$50,000
STIMULATION/TREATING		\$0	124	\$1,800,000	317	\$1,800,000
TRUCKING		\$320,000	119	\$120,000	315	\$440,000
ROUSTABOUT-CONTRACT		\$12,000	124	\$25,000	329	\$37,000
ELECTRICAL WORK		\$0	N/A	\$15,000	329	\$15,000
DRILLING OVERHEAD - BCP / ACP		\$5,000	125	\$5,000	321	\$10,000
CONTRACT SUPERVISION		\$50,000	124	\$35,000	329	\$85,000
INSURANCE		\$6,500	127	\$2,500	321	\$9,000
MISC - CONTINGENCIES		\$47,000	127	\$80,000	323	\$127,000
Total Intangibles		\$ 1,644,500		\$ 3,085,500		\$ 4,730,000

## JIB Billing Description

## Description

Cost to Casing Point - BCP BCP

Cost to Completion - ACP ACP

## Total

SURFACE CASING	850' 13.5"	\$68,000	201	\$0	N/A	\$68,000
INTERMEDIATE CASING	5750' 9.5"	\$169,000				\$169,000
PRODUCTION CASING	11650' 12"	\$0	N/A	\$275,000	402	\$275,000
TUBING	19000' 2.75"	\$0	N/A	\$44,000	404	\$44,000
WELL HEAD EQUIPMENT		\$12,000	201	\$8,000	403	\$20,000
LINER HANGER & PACKER COMPLETION		\$0	N/A	\$235,000	406	\$235,000
PUMPING EQUIPMENT		\$0	N/A	\$105,000	408	\$105,000
COUPLINGS & FITTINGS		\$0	206	\$30,000	415	\$30,000
VALVES, FLOWLINES		\$0	201	\$30,000	N/A	\$30,000
SURFACE EQUIPMENT		\$0	N/A	\$205,000	414	\$205,000
ELECTRICAL SYSTEM		\$0	N/A	\$15,000	415	\$15,000
TRUCKING-EQUIPMENT		\$0	207	\$15,000	417	\$15,000
MISC - CONTINGENCIES		\$12,000	207	\$50,000	417	\$62,000
Total Tangibles		\$ 261,000		\$ 1,081,000		\$ 1,342,000
Total Well Cost		\$ 1,905,500		\$ 4,166,500		\$ 6,072,000

Prepared By

C. BILLINGSLEY

Partner

Operator

Great Western Drilling Ltd

All Partners % Interest

GWDC % Interest

Approved By

Approved By

Name &amp; Title

Name &amp; Title : Dennis Hendrix, Vice President

Date

Date : October 3, 2017





July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 3BS 5H  
API # 30-025-43828  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 3BS 5H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit O with a bottom hole at a legal location in Unit A (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 16,155'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,254,311, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lshelton@chisholmenergy.com](mailto:lshelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/I/We hereby elect to participate in the Grama Ridge 34 State 3BS 5H.

\_\_\_\_\_/I/We hereby elect NOT to participate in the Grama Ridge 34 State 3BS 5H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well: Grama Ridge 34 State 3BS 5H  
 Field: 3rd Bone Spring  
 County, State: Lea, NM  
 BHL: Horizontal  
 Proposed TD: 16,155 MD 11,335 TVD  
 Normal Pressure? Yes

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$455,000		\$455,000
8500-115	Fuel/Power	\$104,000		\$104,000
8500-125	Equipment Rental	\$145,940		\$145,940
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$51,800		\$51,800
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$239,500		\$239,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$1,100		\$1,100
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$28,000		\$28,000
8500-270	Camp Expenses	\$46,400		\$46,400
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,490,115</b>		<b>\$1,490,115</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$205,976	\$205,976
8530-510	Tubing		\$51,008	\$51,008
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOCD CASE Nos. 15865-15868, 15875  
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 Great Western/Advance  
 Exhibit No. 6  
 December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			<b>\$613,384</b>	<b>\$613,384</b>
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			<b>\$1,902,400</b>	<b>\$1,902,400</b>
	<b>TOTAL WELL COST</b>			<b>\$1,738,528</b>	<b>\$2,515,784</b>
					<b>\$4,254,311</b>

Estimate is for a 16.155' MD horizontal 3rd Bone Spring well in Lea County, NM. This AFE assumes 23 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~10,700' MD). From there, a curve will be built to 90° in the 3rd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110. BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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



July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 2BS 7H  
API # 30-025-43822  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 3BS 7H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit D with a bottom hole at a legal location in Unit N (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 15,275'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,146,651, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to lshelton@chisholmenergy.com

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_ I/We hereby elect to participate in the Grama Ridge 34 State 2BS 7H.

\_\_\_\_ I/We hereby elect NOT to participate in the Grama Ridge 34 State 2BS 7H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876**

**Great Western/Advance  
Exhibit No. 6  
December 13, 2017**

Address: Chisholm Energy Operating, LLC 801 Cherry Street Suite 1200 Unit 20 Fort Worth, TX 76102





### Statement of Estimated Well Cost (100%)

Well: Grama Ridge 34 State 2BS 7H  
 Field: 2nd Bone Spring  
 County, State: Lea, NM  
 BHL: Horizontal  
 Proposed TD: 15,275 MD 10,455 TVD  
 Normal Pressure? Yes

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$420,000		\$420,000
8500-115	Fuel/Power	\$96,000		\$96,000
8500-125	Equipment Rental	\$135,660		\$135,660
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$48,100		\$48,100
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$206,500		\$206,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$2,200		\$2,200
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$27,500		\$27,500
8500-270	Camp Expenses	\$43,300		\$43,300
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,397,635</b>		<b>\$1,397,635</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$194,756	\$194,756
8530-510	Tubing		\$47,048	\$47,048
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOCD CASE Nos. 15865-15868, 15875  
and 15876

Great Western/Advance

Exhibit No. 6

December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			\$598,204	\$598,204
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			\$1,902,400	\$1,902,400
	<b>TOTAL WELL COST</b>			\$1,646,048	\$2,500,604
				\$4,146,651	

Estimate is for a 15,275' MD horizontal 2nd Bone Spring well in Lea County, NM. This AFE assumes 22 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~9,800' MD). From there, a curve will be built to 90° in the 2nd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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





July 26, 2017

VIA CERTIFIED MAIL

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 2BS 6H  
API # 30-025-43821  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 2BS 6H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit D with a bottom hole at a legal location in Unit M (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 15,275'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,146,651, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lshelton@chisholmenergy.com](mailto:lshelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/We hereby elect to participate in the Grama Ridge 34 State 2BS 6H.

\_\_\_\_\_/We hereby elect NOT to participate in the Grama Ridge 34 State 2BS 6H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well	Grama Ridge 34 State 2BS 6H	
Field	2nd Bone Spring	
County, State:	Lea, NM	
BHL:	Horizontal	
Proposed TD:	15,275 MD	10,455 TVD
Normal Pressure?	Yes	

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drlg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$420,000		\$420,000
8500-115	Fuel/Power	\$96,000		\$96,000
8500-125	Equipment Rental	\$135,660		\$135,660
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$48,100		\$48,100
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$206,500		\$206,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$2,200		\$2,200
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$27,500		\$27,500
8500-270	Camp Expenses	\$43,300		\$43,300
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,397,635</b>		<b>\$1,397,635</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$194,756	\$194,756
8530-510	Tubing		\$47,048	\$47,048
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOC CASE Nos. 15865-15868, 15875  
and 15876

Great Western/Advance

Exhibit No. 6

December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			<b>\$598,204</b>	<b>\$598,204</b>
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			<b>\$1,902,400</b>	<b>\$1,902,400</b>
	<b>TOTAL WELL COST</b>			<b>\$1,646,048</b>	<b>\$2,500,604</b>
					<b>\$4,146,651</b>

Estimate is for a 15,275' MD horizontal 2nd Bone Spring well in Lea County, NM. This AFE assumes 22 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~9,800' MD). From there, a curve will be built to 90° in the 2nd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110. BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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



July 26, 2017

VIA CERTIFIED MAIL

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 3BS 4H  
API #30-025-43827  
Section 34; T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 3BS 4H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit O with a bottom hole at a legal location in Unit B (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 16,155'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,301,811, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to lshelton@chisholmenenergy.com

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/I/We hereby elect to participate in the Grama Ridge 34 State 3BS 4H.

\_\_\_\_\_/I/We hereby elect NOT to participate in the Grama Ridge 34 State 3BS 4H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well: Grama Ridge 34 State 3BS 4H  
 Field: 3rd Bone Spring  
 County, State: Lea, NM  
 BHL: Horizontal  
 Proposed TD: 16,155 MD 11,335 TVD  
 Normal Pressure? Yes

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drlg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$455,000		\$455,000
8500-115	Fuel/Power	\$104,000		\$104,000
8500-125	Equipment Rental	\$145,940		\$145,940
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$51,800		\$51,800
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$239,500		\$239,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$1,100		\$1,100
8500-220	Mud Logging	\$30,000		\$30,000
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$17,500		\$17,500
8500-265	Water	\$28,000		\$28,000
8500-270	Camp Expenses	\$46,400		\$46,400
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,537,615</b>		<b>\$1,537,615</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$205,976	\$205,976
8530-510	Tubing		\$51,008	\$51,008
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOC CASE Nos. 15865-15868, 15875  
 and 15876  
 Great Western/Advance  
 Exhibit No. 6  
 December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			<b>\$613,384</b>	<b>\$613,384</b>
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			<b>\$1,902,400</b>	<b>\$1,902,400</b>
	<b>TOTAL WELL COST</b>			<b>\$1,786,028</b>	<b>\$2,515,784</b>
					<b>\$4,301,811</b>

Estimate is for a 16.155' MD horizontal 3rd Bone Spring well in Lea County, NM. This AFE assumes 23 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~10,700' MD). From there, a curve will be built to 90° in the 3rd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017





July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 3BS 3H  
API #30-025-43826  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 3BS 3H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit D with a bottom hole at a legal location in Unit N (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 16,155'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,254,311, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lshelton@chisholmenergy.com](mailto:lshelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/We hereby elect to participate in the Grama Ridge 34 State 3BS 3H.

\_\_\_\_\_/We hereby elect NOT to participate in the Grama Ridge 34 State 3BS 3H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well: Grama Ridge 34 State 3BS 3H  
 Field: 3rd Bone Spring  
 County, State: Lea, NM  
 BHL: Horizontal  
 Proposed TD: 16,155 MD 11,335 TVD  
 Normal Pressure? Yes

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$455,000		\$455,000
8500-115	Fuel/Power	\$104,000		\$104,000
8500-125	Equipment Rental	\$145,940		\$145,940
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$51,800		\$51,800
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$239,500		\$239,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$1,100		\$1,100
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$28,000		\$28,000
8500-270	Camp Expenses	\$46,400		\$46,400
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,490,115</b>		<b>\$1,490,115</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$205,976	\$205,976
8530-510	Tubing		\$51,008	\$51,008
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOC CASE Nos. 15865-15868, 15875 and 15876

Great Western/Advance

Exhibit No. 6

December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			<b>\$613,384</b>	<b>\$613,384</b>
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			<b>\$1,902,400</b>	<b>\$1,902,400</b>
	<b>TOTAL WELL COST</b>			<b>\$1,738,528</b>	<b>\$2,515,784</b>
					<b>\$4,254,311</b>
<p>Estimate is for a 16,155' MD horizontal 3rd Bone Spring well in Lea County, NM. This AFE assumes 23 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~10,700' MD). From there, a curve will be built to 90° in the 3rd Bone Spring and drilled to TD (approx. 4,621' VS &amp; 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&amp;P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.</p>					

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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



July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 2BS 6H  
API # 30-025-43821  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 2BS 6H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit D with a bottom hole at a legal location in Unit M (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 15,275'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,146,651, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lshelton@chisholmenergy.com](mailto:lshelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/I/We hereby elect to participate in the Grama Ridge 34 State 2BS 6H.

\_\_\_\_\_/I/We hereby elect NOT to participate in the Grama Ridge 34 State 2BS 6H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well	Grama Ridge 34 State 2BS 6H	
Field	2nd Bone Spring	
County, State:	Lea, NM	
BHL:	Horizontal	
Proposed TD:	15,275 MD	10,455 TVD
Normal Pressure?	Yes	

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$420,000		\$420,000
8500-115	Fuel/Power	\$96,000		\$96,000
8500-125	Equipment Rental	\$135,660		\$135,660
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$48,100		\$48,100
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$206,500		\$206,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$2,200		\$2,200
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$27,500		\$27,500
8500-270	Camp Expenses	\$43,300		\$43,300
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,397,635</b>		<b>\$1,397,635</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$194,756	\$194,756
8530-510	Tubing		\$47,048	\$47,048
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	

NMOCD CASE Nos. 15865-15868, 15875 and 15876

Great Western/Advance

Exhibit No. 6

December 13, 2017



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			\$598,204	\$598,204
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			\$1,902,400	\$1,902,400
	<b>TOTAL WELL COST</b>			\$1,646,048	\$2,500,604
				\$4,146,651	

Estimate is for a 15,275' MD horizontal 2nd Bone Spring well in Lea County, NM. This AFE assumes 22 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~9,800' MD). From there, a curve will be built to 90° in the 2nd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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





July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 2B5 9H  
API # 30-025-43824  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 2B5 9H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit P with a bottom hole at a legal location in Unit A (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 15,275'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,146,651, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lskelton@chisholmenergy.com](mailto:lskelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/I/We hereby elect to participate in the Grama Ridge 34 State 2B5 9H.

\_\_\_\_\_/I/We hereby elect NOT to participate in the Grama Ridge 34 State 2B5 9H.

Company: Great Western Drilling Co

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





# Statement of Estimated Well Cost (100%)

Well	Grama Ridge 34 State 2BS 9H	
Field	2nd Bone Spring	
County, State:	Lea, NM	
BHL:	Horizontal	
Proposed TD:	15,275 MD	10,455 TVD
Normal Pressure?	Yes	

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$420,000		\$420,000
8500-115	Fuel/Power	\$96,000		\$96,000
8500-125	Equipment Rental	\$135,660		\$135,660
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$48,100		\$48,100
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$206,500		\$206,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$2,200		\$2,200
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$27,500		\$27,500
8500-270	Camp Expenses	\$43,300		\$43,300
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,397,635</b>		<b>\$1,397,635</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$194,756	\$194,756
8530-510	Tubing		\$47,048	\$47,048
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	



8530-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - TANGIBLES</b>			\$598,204	\$598,204
	<b>COMPLETION COSTS: INTANGIBLES</b>				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	<b>TOTAL COMPLETION COST - INTANGIBLES</b>			\$1,902,400	\$1,902,400
	<b>TOTAL WELL COST</b>			\$1,646,048	\$2,500,604
				\$4,146,651	

Estimate is for a 15,275' MD horizontal 2nd Bone Spring well in Lea County, NM. This AFE assumes 22 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~9,800' MD). From there, a curve will be built to 90° in the 2nd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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



July 26, 2017

**VIA CERTIFIED MAIL**

Great Western Drilling Company  
Attn: Land Department  
P.O. Box 1659  
Midland, TX 79702

RE: Grama Ridge 34 State 2BS 8H  
API # 30-025-43823  
Section 34: T21S-R34E  
Lea County, New Mexico

To whom it may concern,

Chisholm Energy Operating, LLC ("Chisholm") hereby proposes the drilling of the Grama Ridge 34 State 3BS 8H in Section 34, Township 20 South, Range 34 East, Lea County, New Mexico. The surface location for this well is proposed at a legal location in Unit P with a bottom hole at a legal location in Unit B (see attached plat for further detail). The well will have a targeted interval in the Bone Spring formation to a Measured Depth of approximately 15,275'. Included herewith is our Authority for Expenditure ("AFE") in the gross amount of \$4,146,651, being the total estimated cost to drill and complete said well.

Chisholm is proposing to drill this well under the terms of the modified 1989 AAPL form of Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers Section 34, Township 20 South, Range 34 East, limited to the Bone Spring Formation. It has the following general provisions:

- 100/300 Non-consenting penalty
- \$10,000/\$1,000 Drilling and Production rate
- Chisholm Energy Operating, LLC named as Operator

Great Western Drilling Company will own an approximate 43.75% working interest in the well, subject to title verification. Please indicate your participation election in the space provided below, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements, to my attention at the letterhead address. You may also email your response to [lshelton@chisholmenergy.com](mailto:lshelton@chisholmenergy.com)

Should you have any questions, please do not hesitate to contact myself at 817-953-0359.

Very truly yours,

Chisholm Energy Operating, LLC

Luke Shelton  
Senior Landman

\_\_\_\_\_/We hereby elect to participate in the Grama Ridge 34 State 2BS 8H.

\_\_\_\_\_/We hereby elect NOT to participate in the Grama Ridge 34 State 2BS 8H.

Company: **Great Western Drilling Co**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 6  
December 13, 2017**





### Statement of Estimated Well Cost (100%)

Well	Grama Ridge 34 State 2BS 8H	
Field	2nd Bone Spring	
County, State:	Lea, NM	
BHL:	Horizontal	
Proposed TD:	15,275 MD	10,455 TVD
Normal Pressure?	Yes	

		BCP	ACP	TOTAL
<b>COSTS TO CASING POINT: TANGIBLES</b>				
8510-400	Conductor Casing or Drive Pipe	\$15,000		\$15,000
8510-405	Surface Casing	\$57,535		\$57,535
8510-410	Intermediate Casing/Drilg Liner	\$134,328		\$134,328
8510-415	Wellhead Equipment - Surface & MLS	\$10,500		\$10,500
8510-420	Other Sub-Surface Equipment	\$0		
8510-425	Cementing Equipment	\$31,050		\$31,050
8510-600	Nonoperated	\$0		
8510-700	Impairment	\$0		
8510-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - TANGIBLES</b>	<b>\$248,413</b>		<b>\$248,413</b>
<b>COSTS TO CASING POINT: INTANGIBLES</b>				
8500-100	Roads/Location	\$20,000		\$20,000
8500-105	Drilling Turnkey	\$0		
8500-110	Drilling Daywork	\$420,000		\$420,000
8500-115	Fuel/Power	\$96,000		\$96,000
8500-125	Equipment Rental	\$135,660		\$135,660
8500-130	Legal Fees	\$0		
8500-135	Bonds, Permits and Inspection	\$50,000		\$50,000
8500-155	Mud and Chemicals	\$60,000		\$60,000
8500-160	Cementing Services	\$29,000		\$29,000
8500-170	Supervision/Consulting	\$48,100		\$48,100
8500-175	Casing and Other Tangible Crew	\$24,000		\$24,000
8500-180	Damages/Penalties	\$0		
8500-185	Coring and Analysis	\$0		
8500-190	Cuttings/Fluids Disposal	\$125,000		\$125,000
8500-195	Directional Drilling Services	\$206,500		\$206,500
8500-200	Drill Bits	\$51,000		\$51,000
8500-210	Surface Damages/ROW	\$0		
8500-215	Contract Labor and Services	\$2,200		\$2,200
8500-220	Mud Logging	\$0		
8500-235	Reclamation	\$0		
8500-240	Rig Mobilization/Demob	\$59,375		\$59,375
8500-245	Fishing Tools and Services	\$0		
8500-250	Testing-Drill Stem/Production	\$0		
8500-260	Wireline Services	\$0		
8500-265	Water	\$27,500		\$27,500
8500-270	Camp Expenses	\$43,300		\$43,300
8500-285	Contingencies	\$0		
8500-290	Environmental	\$0		
8500-300	Overhead	\$0		
8500-350	Insurance	\$0		
8500-600	Nonoperated	\$0		
8500-700	Impairment	\$0		
8500-999	Accruals	\$0		
	<b>TOTAL COST TO CASING POINT - INTANGIBLES</b>	<b>\$1,397,635</b>		<b>\$1,397,635</b>
<b>COMPLETION COSTS: TANGIBLES</b>				
8530-415	Wellhead		\$21,900	\$21,900
8530-420	Subsurface Equipment		\$15,000	\$15,000
8530-500	Production Casing		\$194,756	\$194,756
8530-510	Tubing		\$47,048	\$47,048
8530-515	Rods		\$0	
8530-525	Artificial Lift Equipment		\$25,000	\$25,000
8530-530	Gas Metering Equipment		\$48,000	\$48,000
8530-535	LACT Unit		\$0	
8530-540	Production Facilities and Flowlines		\$120,000	\$120,000
8530-545	Pumping Unit		\$0	
8530-550	Separator, Heater, Treater		\$75,000	\$75,000
8530-555	Tank Battery		\$30,000	\$30,000
8530-560	Vapor Recovery Unit		\$0	
8530-590	Other Misc Equipment		\$21,500	\$21,500
8530-600	Nonoperated		\$0	
8530-700	Impairment		\$0	



8530-999	Accruals			\$0	
	TOTAL COMPLETION COST - TANGIBLES			\$598,204	\$598,204
	COMPLETION COSTS: INTANGIBLES				
8520-100	Roads/Location			\$0	
8520-120	Perforating Services			\$70,000	\$70,000
8520-125	Equipment Rental			\$193,000	\$193,000
8520-135	Bonds, Permits and Inspection			\$0	
8520-145	Completion Unit			\$20,000	\$20,000
8520-150	Frac Plugs			\$30,000	\$30,000
8520-155	Mud and Chemicals			\$90,000	\$90,000
8520-160	Cementing Services			\$70,000	\$70,000
8520-165	Acidizing and Fracturing			\$860,000	\$860,000
8520-170	Supervision/Consulting			\$42,000	\$42,000
8520-175	Casing and Other Tangible Crew			\$15,000	\$15,000
8520-190	Cuttings/Fluids Disposal			\$60,000	\$60,000
8520-200	Drill Bits			\$3,000	\$3,000
8520-210	Surface Damages/ROW			\$0	
8520-215	Contract Labor and Services			\$5,000	\$5,000
8520-230	Pump/Vacuum Trucks			\$20,000	\$20,000
8520-235	Reclamation			\$0	
8520-245	Fishing Tools and Services			\$0	
8520-250	Well Testing			\$84,000	\$84,000
8520-255	Trucking and Hauling			\$0	
8520-260	Wireline Services			\$5,000	\$5,000
8520-270	Camp Expenses			\$6,000	\$6,000
8520-275	Coiled Tubing Services			\$54,400	\$54,400
8520-280	Frac Water			\$275,000	\$275,000
8520-285	Contingencies			\$0	
8520-290	Environmental			\$0	
8520-300	Overhead			\$0	
8520-350	Insurance			\$0	
8520-600	Nonoperated			\$0	
8520-700	Impairment			\$0	
8520-999	Accruals			\$0	
	TOTAL COMPLETION COST - INTANGIBLES			\$1,902,400	\$1,902,400
	TOTAL WELL COST			\$1,646,048	\$2,500,604
				\$4,146,651	

Estimate is for a 15,275' MD horizontal 2nd Bone Spring well in Lea County, NM. This AFE assumes 22 days to drill. The rig will move in and set a surface string at ~1820'. Intermediate casing will be set at ~5,700' with a stage tool and ACP. An 8-3/4" hole will be drilled to KOP (~9,800' MD). From there, a curve will be built to 90° in the 2nd Bone Spring and drilled to TD (approx. 4,621' VS & 4,000' LL). The well will be completed with 5-1/2", 17#, P-110, BTC production casing cemented through the lateral and up to 500' inside intermediate casing. The well will be completed with 20 stages (210'/stage) using the P&P completion technique. The completion will use a 315K pound per stage slickwater design resulting in a lateral treatment of 1,500 #/ft.

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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

Approved by: \_\_\_\_\_

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





**GREAT WESTERN DRILLING COMPANY**

Post Office Box 1659 • Midland, Texas 79702 • 432/682-5241

December 11, 2017

Advance Energy Partners, LLC  
11490 Westheimer Road  
Suite 950,  
Houston, Texas 77077  
Attn: Mr. David Scott

RE: Letter Purchase Offer dated December 6, 2017  
Section 34, T21S-R34E  
Lea County, New Mexico

Gentlemen,

Great Western Drilling Ltd. ("GWD") has received your offer letter dated December 6, 2017 including certain terms and conditions for the purchase of all of GWD's rights, title and interest in and to 280 net oil and gas leasehold acres in the above referenced Section. Great Western Drilling Ltd. hereby accepts the offer and terms and conditions contained in the referenced letter of December 6, 2017.

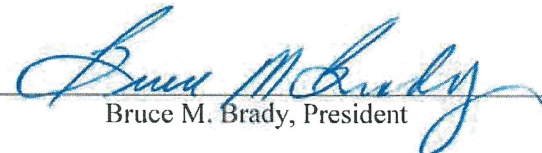
Please contact Carter Muire at the address and phone number on this letterhead to beginning the process of conducting your due diligence and preparation of the closing documents.

Yours truly,  
Great Western Drilling Ltd.

  
F. Carter Muire  
Land Manager

Great Western Drilling Ltd. hereby accepts the offer and the terms and conditions of the above referenced letter dated December 6, 2017 from Advance Energy Partners, LLC concerning the purchase of all of GWD's rights, title and interest in and to the oil and gas leases within the above described lands.

Great Western Drilling Ltd.

By:   
Bruce M. Brady, President

NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 7  
December 13, 2017



11490 Westheimer Road, Suite 950, Houston, Texas 77077 • Phone 832-672-4700 • Fax 832-672-4609

December 6, 2017

Great Western Drilling, Ltd.  
P.O. Box 1659  
700 West Louisiana Street  
Midland, Texas 79702

Attn: Mr. Carter Muire, CPL

Re: Purchase Offer, Lea County, New Mexico

Dear Mr. Muire,

Advance Energy Partners, LLC ("Advance") is pleased to present the following offer to acquire all of Great Western Drilling, Ltd.'s or its related entities ("Great Western") right, title and interest in and to approximately 280.00 net leasehold acres of land within Lea County, New Mexico; being all of those lands, wells and Assets owned by Great Western within the lands identified on Exhibit "A" (the "Offer Area"):

1. Effective date: December 1, 2017 at 7:00 a.m. central standard time.
2. Total Consideration:
  - a. Cash at Closing: [REDACTED] US Cash determined as follows:
    - i. 280 net acres x \$ [REDACTED]
3. Closing: On or before February 1, 2018.
4. Description of Assets: All tangible and intangible real, personal and mixed property associated with the wells and lands contained within the Offer Area, including, but not limited to the Oil and Gas Leases, mineral or overriding royalty interests; all contracts associated with the Offer Area; any Salt Water disposal well or facility, frac pond or other surface facility located within or associated with the Offer Area; all interests and rights related to or arising from the wells, the equipment, pipeline or electrical lines, facilities, production, proceeds or such items which are needed or useful in or resulting from the operation or ownership of the wells and equipment.
5. Assumptions: This offer was made with the assumption that Great Western owns the Working Interest and Net Revenue Interest within the lands and wells as noted in Exhibit "A". We understand that Great Western has received AFEs and a force pooling notice from Chisholm covering the drilling of four wells within this section and that Great Western has submitted two drilling well AFEs to Chisholm along with force pooling notice of same. Hearing is scheduled for later this month. We would like for Great Western to continue the proceedings on our behalf and we will reimburse Great Western for the expense of such representation in the event Great Western is willing to sell its interest to Advance as set out in this offer letter. If Great Western is willing to sell its interest, then, we would like to have standing at the force pooling proceedings.
6. Due Diligence: Prior to the execution of the Definitive Agreement, Great Western shall make available to Advance all of its land and operational data relative to the Assets so that our value assumptions may be verified. In addition, and sufficiently in advance of closing to allow for



satisfactory investigation, Advance shall be entitled to conduct customary due diligence with respect to title and environmental issues. The offer contained herein shall be subject to the confirmation of such assumptions and the results of Due Diligence.

7. Final Agreement: The parties shall undertake the negotiation of mutually agreeable closing documents which will include, but not be limited to, the terms and conditions contained herein, as well as other terms and conditions, representations, warranties and indemnities customarily covered in oil and gas transactions of this type, and required by the parties to consummate the proposed transaction. The parties shall endeavor to complete negotiation of the closing documents as soon as reasonably possible following the acceptance of this proposal and confirmation of Advance's assumptions.
8. All discussions and negotiations between the parties hereto regarding this proposal shall be held confidential by all parties.
9. Names of Advance contacts:
  - a. David Scott- Vice President Land, Legal and Contracts; 832-672-4606 or 214-557-5745
  - b. Brian van Staveren- Sr. Landman: 832-672-4624 or 432-254-8866

This offer shall expire at 5:00 pm CST on December 15, 2017 unless extended by Advance.

We look forward to working with you on this proposal. Should you have any questions, please contact Brian or me directly at the telephone numbers listed above.

Sincerely,

David A. Scott  
Vice President

Exhibit A

## Exhibit A

### Lands

Lease Number	Sec.	TWS	Range	Legal	Gross Acres	WI of Great Western	Net Acres	NRI to 8/8ths
V-5683	34	21S	34E	N/2	320.00	0.4375	140.00	0.813000
E-9659	34	21S	34E	S/2	320.00	0.4375	140.00	0.775000
					Total		280.00	

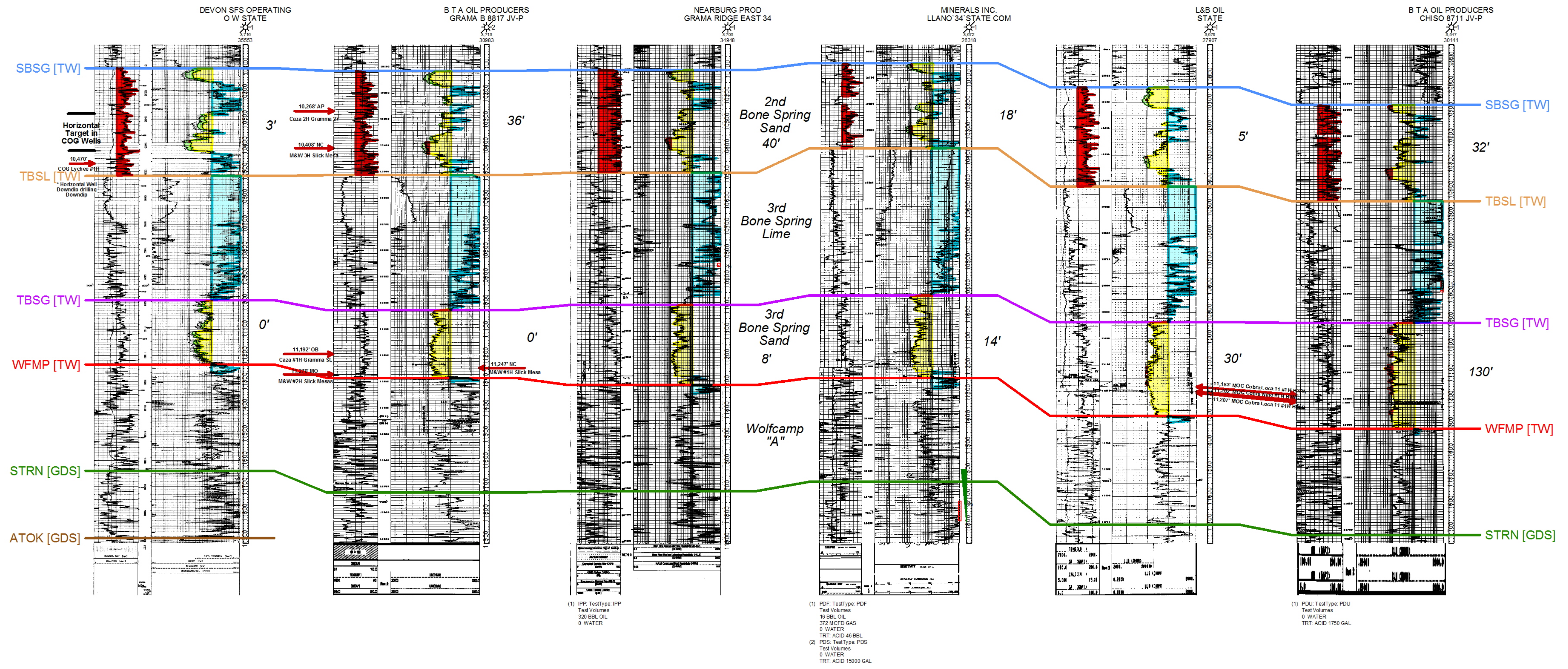
### Wells:

Gamma Ridge East 34 State #1 well, API 300-253-4948. 43.75% WI and 34.7375 NRI









GREAT WESTERN DRILLING CO.

GRAMA RIDGE PROSPECT

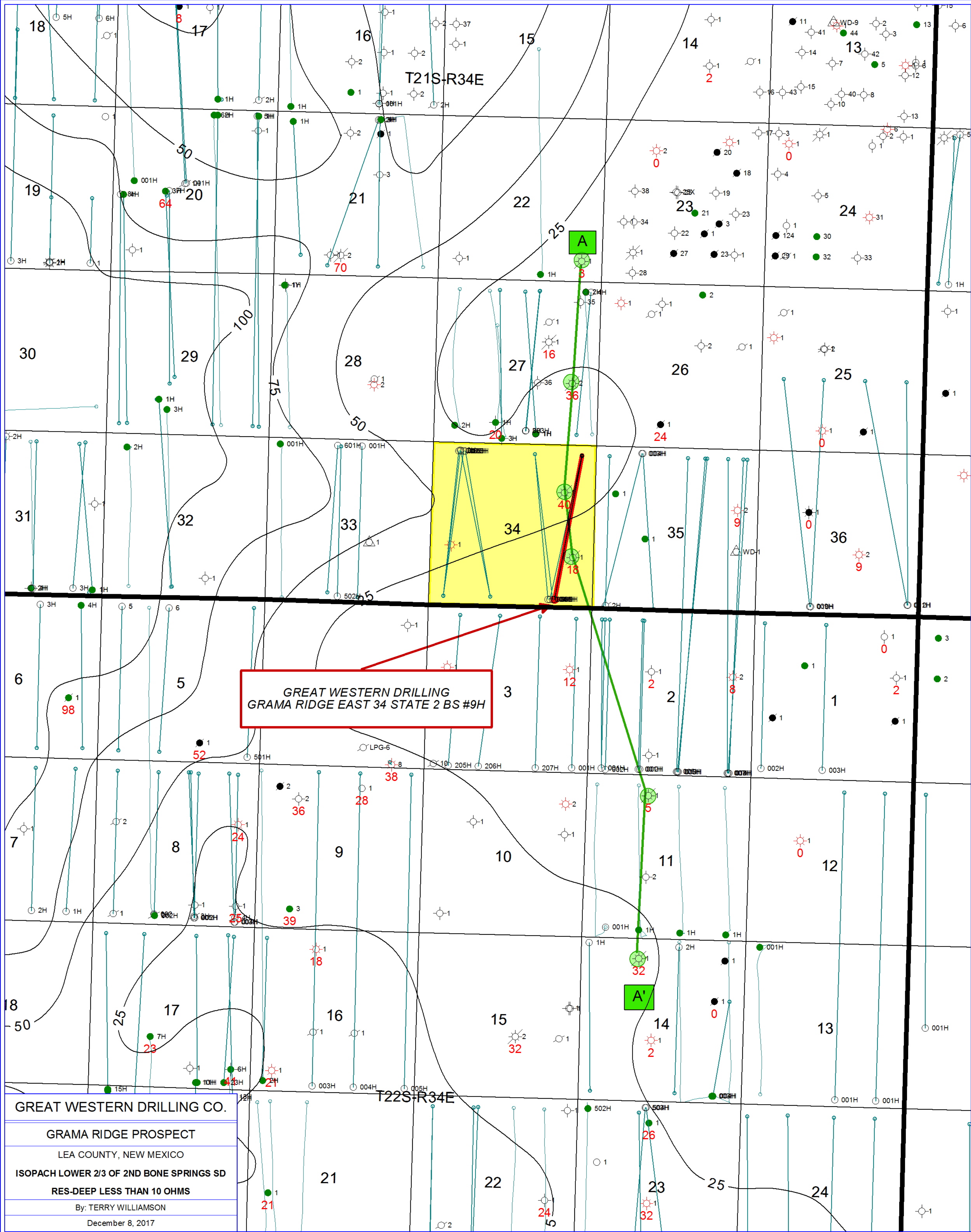
LEA COUNTY, NEW MEXICO

STRUCTURAL CROSS-SECTION

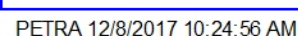
A - A'

By: TERRY WILLIAMSON

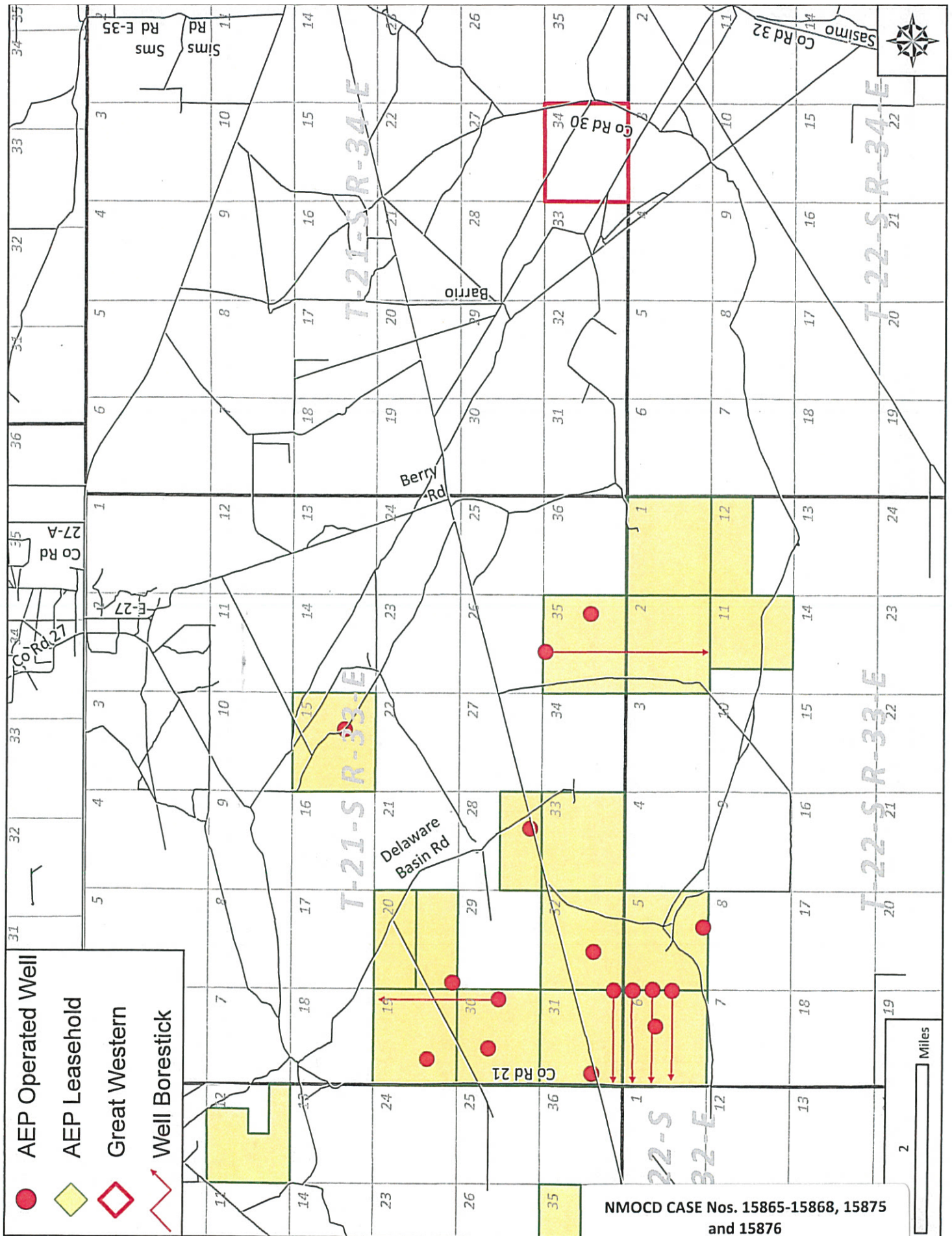












NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 12  
December 13, 2017



# T21S-R34E Sec 34 (Grama)

## Great Western vs Chisholm

### 12/12/2017

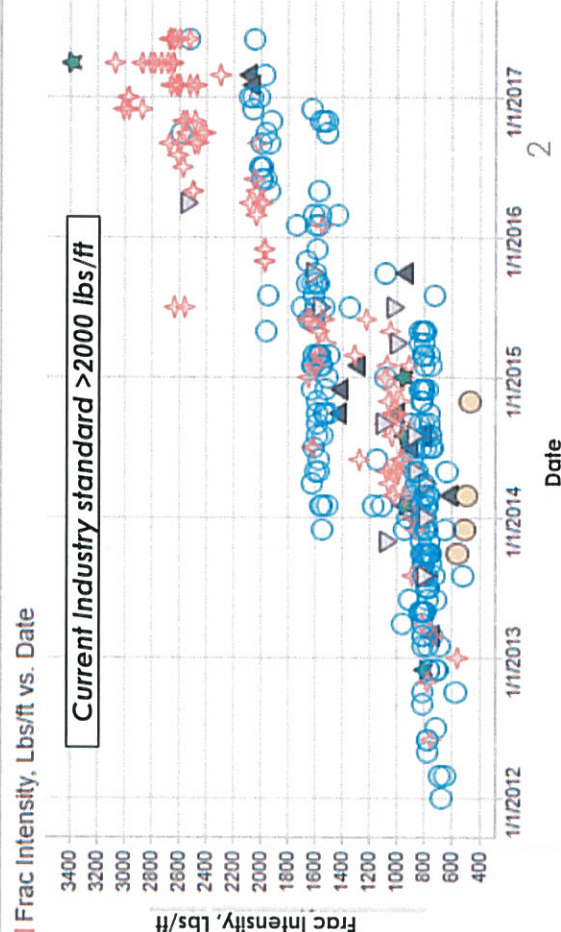
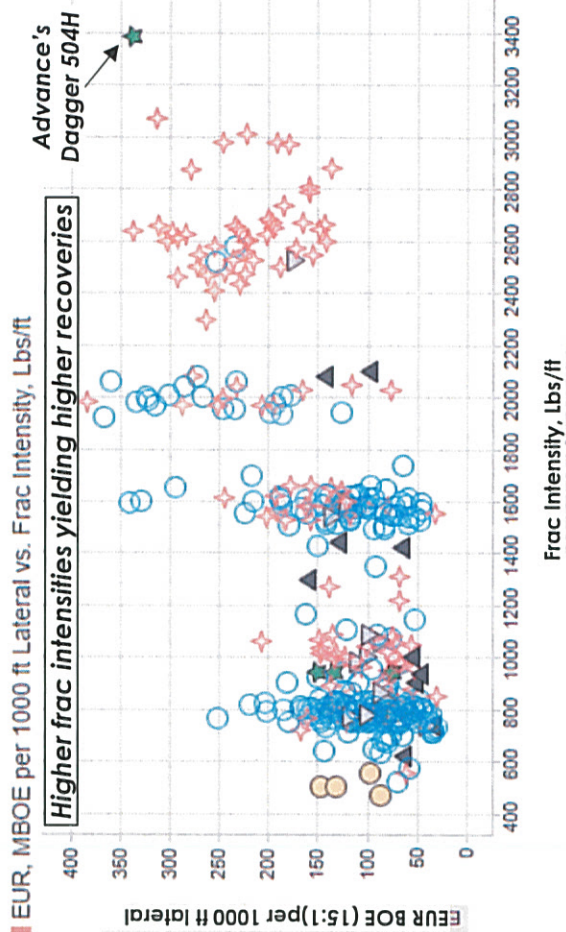
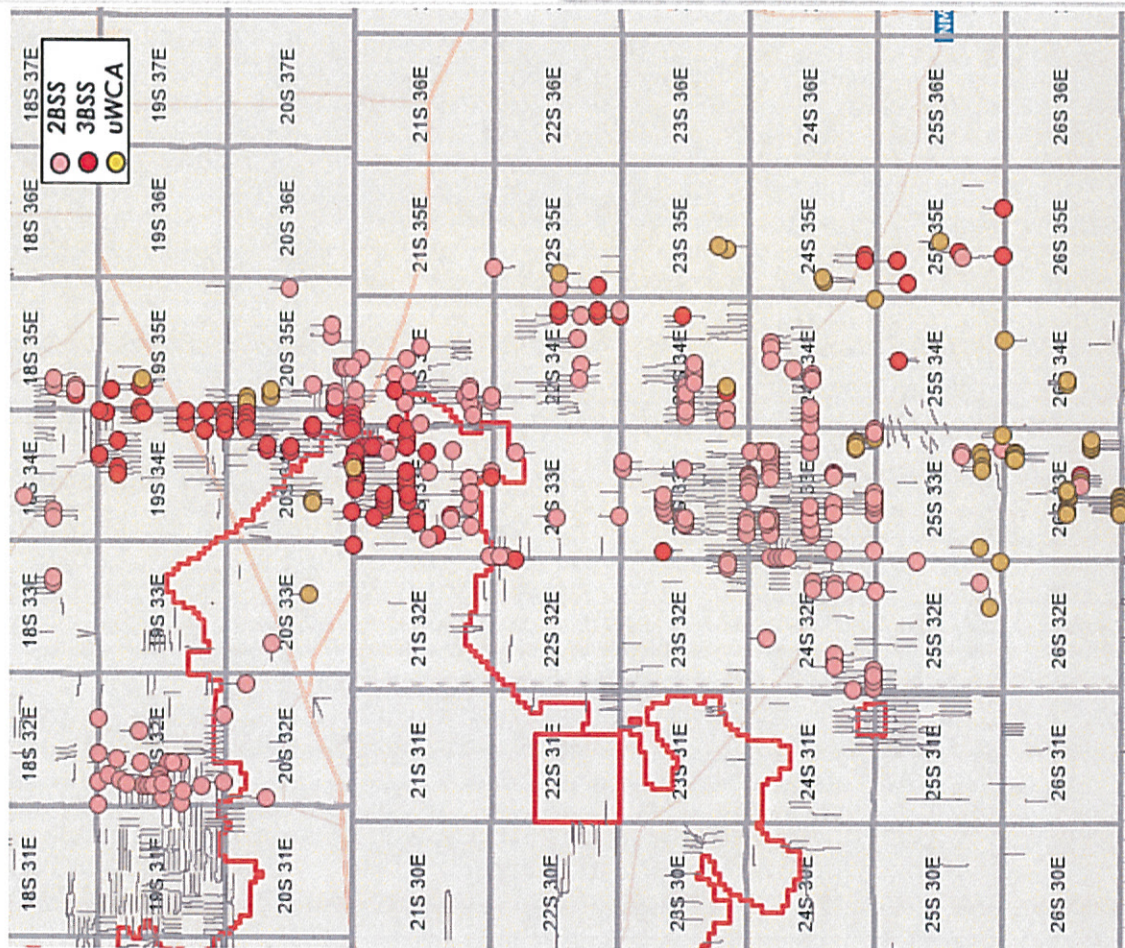
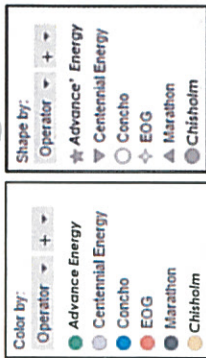


NMOCD CASE Nos. 15865-15868, 15875  
and 15876  
Great Western/Advance  
Exhibit No. 13  
December 13, 2017



# Lea County – Completions trend

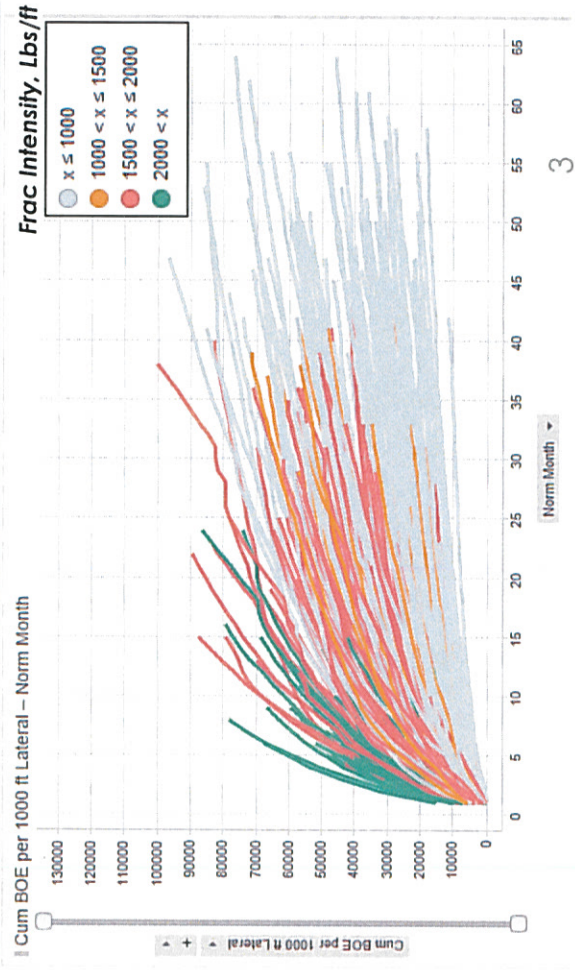
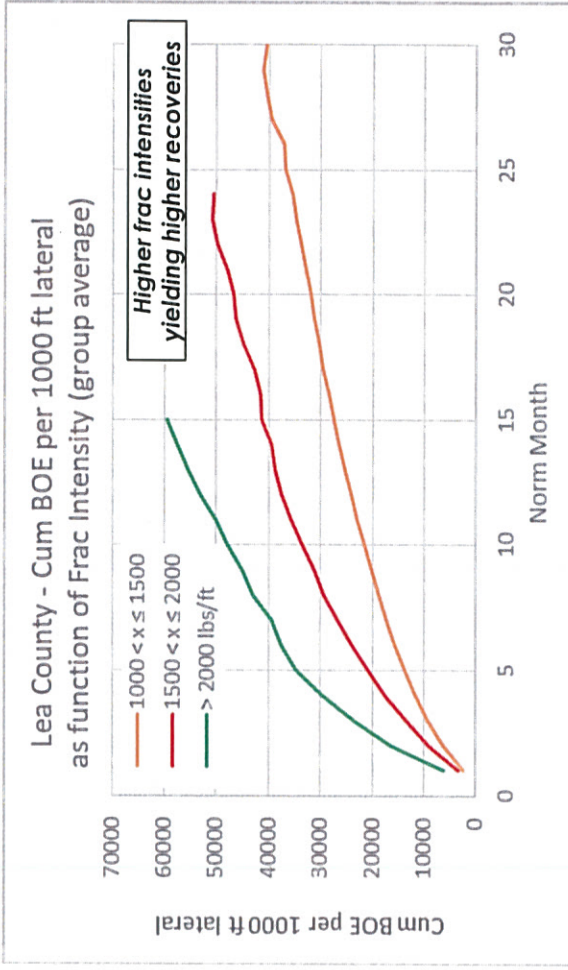
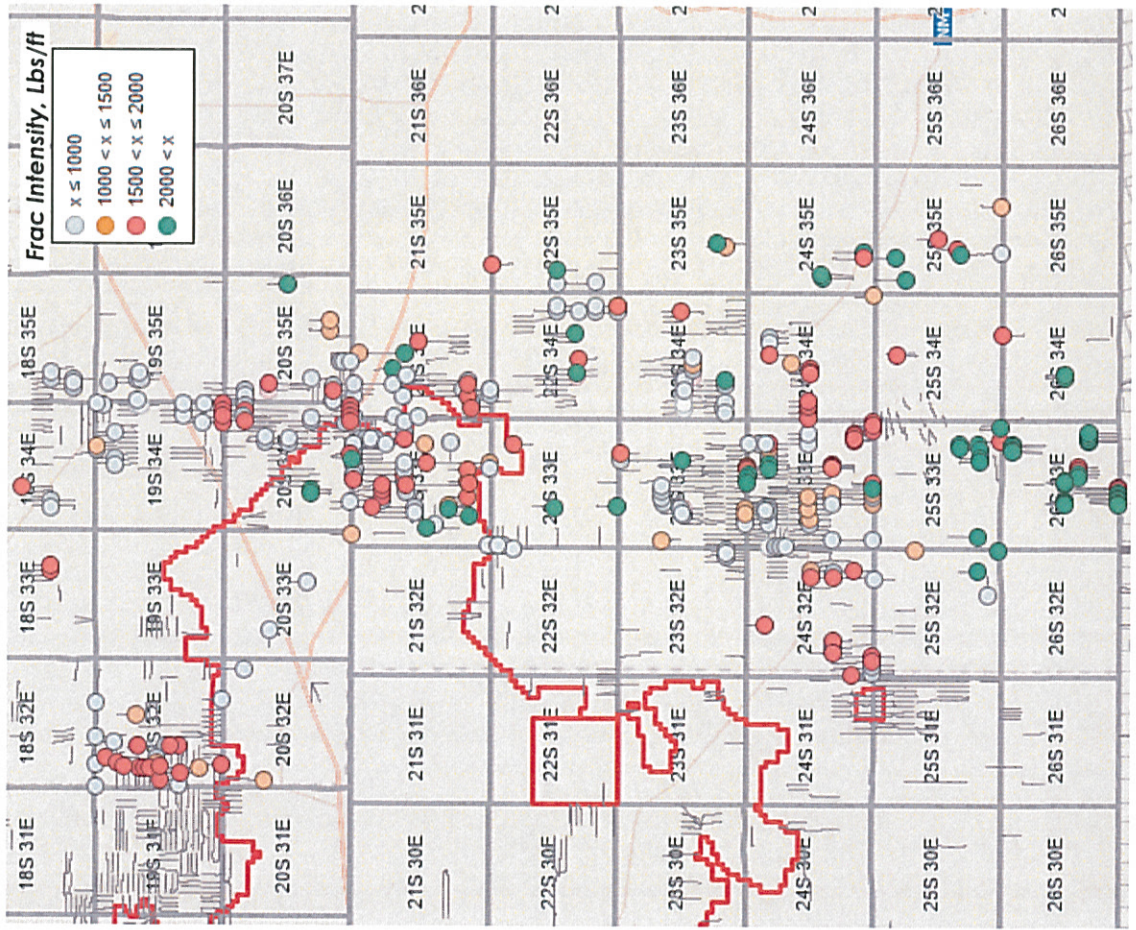
Filtered by Operator: Concho, EOG, Centennial, Marathon, Chisholm & Advance Energy





# Lea County – Completions trend

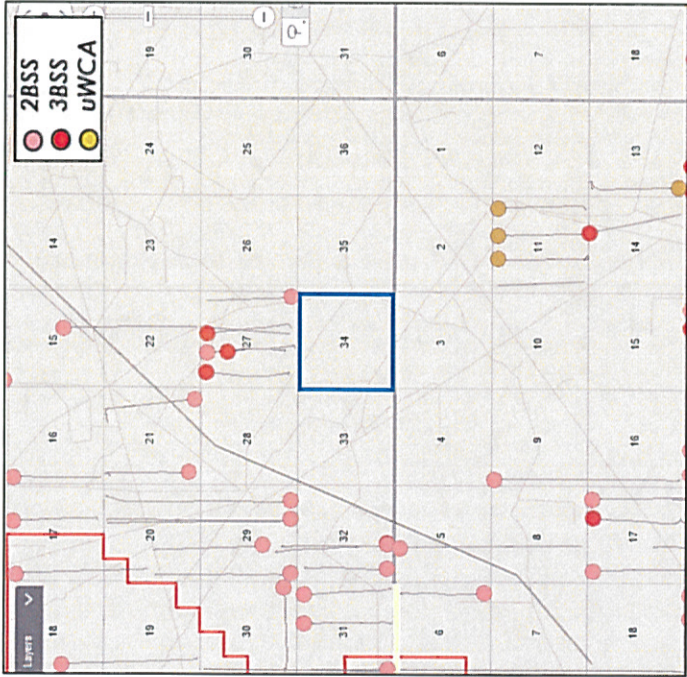
Filtered by Operator: Concho, EOG, Centennial, Marathon & Advance Energy





# Type Curves

- Advance's EUR estimate based on 2BSS & 3BSS offsets
- High Intensity (>2000 lbs/ft) High Density(CS<25')



2nd Bone Spring Sand - Expected EUR, MBOE				
Frac Intensity, Lbs/ft	1500	2000	2500	
Lateral Length, ft	4628	4628	4628	
EUR, MBOE (6:1)	581	761	872	
EUR, MBO	465	609	698	
Incremental MBO			+144	+233

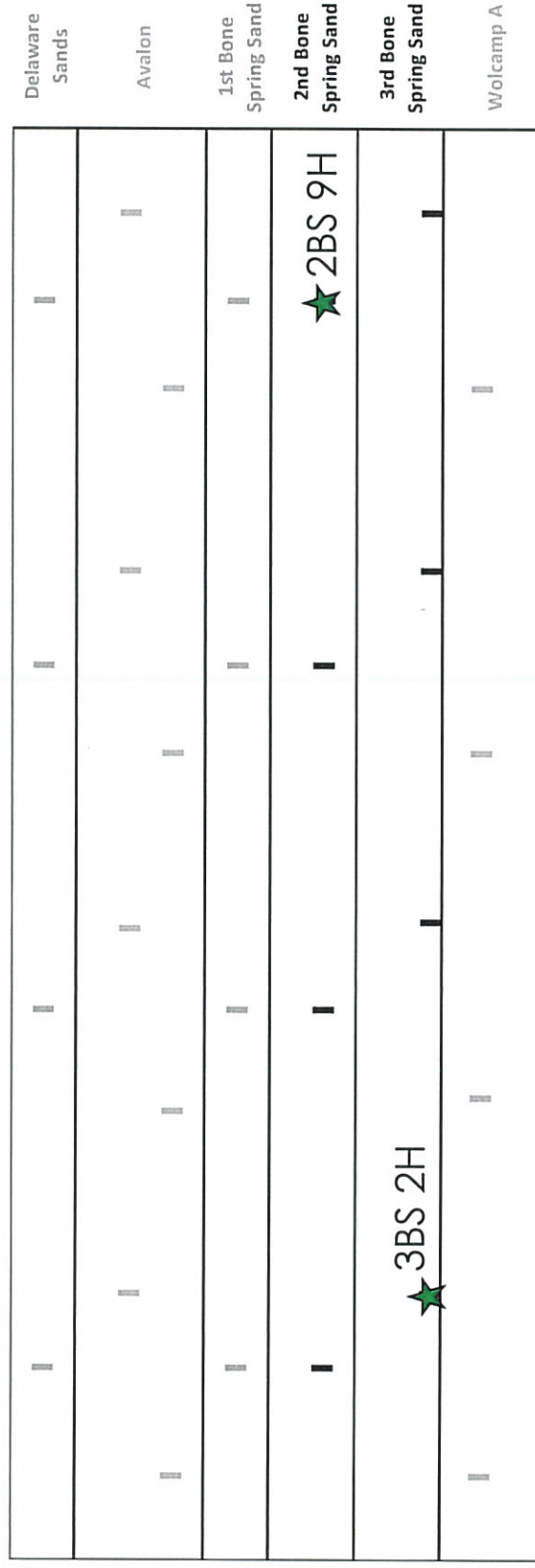
  

3rd Bone Spring Sand - Expected EUR, MBOE				
Frac Intensity, Lbs/ft	1500	2000	2500	
Lateral Length, ft	4628	4628	4628	
EUR, MBOE (6:1)	423	546	626	
EUR, MBO	338	437	501	
Incremental MBO			+99	+162





# Gramma Ridge East 34 State Development Concept



Existing location  
2018 Base  
2018 Back Up