BEFORE THE OIL & GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION OF)
GREAT WESTERN OIL AND GAS COMPANY,)
LLC FOR AN ORDER POOLING) Cause No.
NONCONSENTING INTERESTS IN THE CODELL	
AND NIOBRARA FORMATIONS IN THE) Docket No.
GREATER WATTENBERG AREA, WELD	
COUNTY, COLORADO)

APPLICATION

Great Western Oil and Gas Company, LLC as the sole Manager ("Applicant"), by and through its undersigned counsel, requests the Oil and Gas Conservation Commission of the State of Colorado ("COGCC"), enter an order pooling all non-consenting interests for the Appaloosa 33-13 & Appaloosa 33-14 Wells for production from the Codell and Niobrara formations. In support thereof, the Applicant states as follows:

- 1. Applicant is a limited liability company duly authorized to conduct business in the State of Colorado.
- 2. Applicant owns working interests in the following described lands ("Application Lands") located in the Greater Wattenberg Area as defined in COGCC Rule 318A(I):

Township 7 North, Range 65 West, 6th P.M. Section 33: W½SW¼
Weld County, Colorado

- 3. Applicant spudded the Appaloosa 33-13 & Appaloosa 33-14 Wells ("Wells") on May 28, 2011 (33-13) and on May 16, 2011 (33-14) as directional wells with a surface location of 1455 feet FSL and 1536 feet FWL in the Application Lands and a bottom hole location of 1901 feet FSL and 658 feet FWL of the same section for the Appaloosa 33-13 and a surface location of 1415 feet FSL and 1536 FWL in the Application Lands and a bottom hole location of 631 feet FSL and 661 feet FWL of the same section for the Appaloosa 33-14. The Wells have been completed in and produce from the Codell and Niobrara formations.
 - 4. The Application Lands are subject to COGCC Rule 318A(I)a.4.C.
- 5. The Wells were drilled within designated drilling windows under Rule 318A(I)a.4 and Applicant designated the W½SW¼ of Section 33 as the spacing unit for the Wells.
- 6. Applicant, pursuant to provisions of C.R.S. §34-60-116(6) and (7) and COGCC Rule 530 seeks an order to involuntarily pool all interests not voluntarily pooled for the development of the Niobrara formation in the Application Lands.
- 7. Applicant requests COGCC's pooling order be made retroactive to the earliest date costs are incurred for the Well as allowed by C.R.S. §34-60-116(7), or the date of this application, whichever is earlier.
- 8. The names and last known addresses of the interest owners in the Application Lands are shown in Exhibit A to this application. Applicant certifies that, at least 30 days prior to the hearing on this matter, each such interest owner not already leased or pooled has been offered the opportunity to lease their interest or to participate in the drilling of the Well, and has been provided with the information required by COGCC Rule 530.
- 9. With respect to each Unleased Mineral Owner listed in <u>Exhibit A</u>, Applicant has made reasonable attempts pursuant to COGCC Rule 530.b. to enter into leases or participation agreements with such parties but has been unsuccessful in such attempts. An Authorization for Expenditure ("AFE") for the Well containing information required by COGCC Rule 530.a. was sent to each Unleased Mineral Owner more than 30 days prior to the date of the hearing on this Application. An example of such AFE and letter is attached hereto as <u>Exhibit B</u>.
- 10. In order to prevent waste, protect correlative rights and in the best interests of conservation, all interests in the Codell and Niobrara formations in the Wellbore Spacing Unit owned

by the Unleased Mineral Owners listed on Exhibit A should be pooled in accordance with C.R.S. § 34-60-116 and Rule 530 of the COGCC.

WHEREFORE, Applicant respectfully requests this matter be set for hearing, that notice thereof be given as required by law and that upon such hearing COGCC enter its order:

- A. Involuntarily pooling all interest owners with whom Applicant has been unable to secure a lease or participation agreement with respect to the drilling and completion of the Well in the Codell and Niobrara Formations in the Wellbore Spacing Unit, and that such owners be treated as non-consenting owners under C.R.S. § 34-60-116 and made subject to the terms and penalties provided for therein.
- B. Establishing that COGCC's order made with respect to this application is retroactive to the earliest date costs were incurred for the Well as allowed by C.R.S. §34-60-116(7), or the date of this application, whichever is earlier.
- C. Making such other findings and orders as the Commission may deem proper or advisable in the premises.

DATED this 20th day of June, 2012.

Respectfully submitted,

WELBORN SULLIVAN MECK & TOOLEY, P.C.

By:

Stephen J. Sullivan

1125 17th Street, Suite 2200

Denver, CO 80202

(303) 830-2500

ssullivan@wsmtlaw.com

Applicants' Address:

Great Western Oil and Gas Company, LLC 1700 Broadway, Suite 650 Denver, CO 80290

VERIFICATION

STATE OF COLORADO)
CITY AND COUNTY OF DENVER)
The undersigned, of lawful age, having been first sworn upon his oath, deposes and states that:
1. He is a Petroleum Landman for Great Western Oil and Gas Company, LLC whose address is 1700 Broadway, Suite 650, Denver, CO 80290.
2. He has read the within application, is familiar with the facts set forth therein, and states that said facts are true and correct to the best of his knowledge and belief.
Further Affiant sayeth not.
Santiago Rodriguez
Subscribed and sworn to before me this 19th day of 19th, 2012. Witness my hand and official seal.
My commission expires: Notary Public Notary Public

EXHIBIT "A"

APPLICATION OF GREAT WESTERN OIL AND GAS COMPANY LLC

Interested Parties in the W1/2SW1/4 of Section 33, Township 7 North, Range 65 West

Applicant:

Great Western Oil and Gas Company, LLC

1700 Broadway, Suite 650

Denver, CO 80290

Applicant's Attorney:

Stephen J. Sullivan, Esq.

Wellborn Sullivan Meck & Tooley, P.C.

1125 17th Street, Ste. 2200

Denver, CO 80202

Local Government Designee:

Bruce T. Barker, Esq.

Weld County Commissioner Office

P.O. Box 758

Greeley, CO 80634

Leased Mineral Owners:

Mark D. & Joyce A. Drescher

20184 Leola Way Eaton, CO. 80615

Daniel T. & Teri E. Foster.

36329 Appy Rd. 65 Eaton, CO. 80615

Norman H. & Rosemarie Laber

36127 Appy Rd. Eaton, CO. 80615

Bradley M. Roder 20195 Leola Way Eaton, CO. 80615

Leonard & Janice J. Thorbjornson

20085 WCR 74 Eaton, Co. 80615

Clifford Clift 2001 Fern Ave. Greeley, CO. 80631

Paul Clift

P.O. Box 4016

Breckenridge, CO. 80424

Kurt A. & Elaine Marjorie Peterson

36151 Appy Rd. Eaton, CO. 80615

Timothy Eugene & Geri D. Phagan

36301 Appy Rd. Eaton, CO. 80615

Scott & Tammy Girten 20202 Leola Way Eaton, CO. 80615

James Edwards & Pamela Mae Dorland

20198 Leola Way Eaton, CO. 80615 David L. & Leslie L. Brantner 20205 Leola Way Eaton, CO. 80615

Jeffrey C. & Krista L. Smith 36207 Appy Rd. Eaton, CO. 80615

Nathan R. Weibel 20207 Leola Way Eaton, CO. 80615

Harder Building and Development, Inc. 5164 Shavano Ct. Windsor, CO. 80550-2584

Advantage Bank 4290 W. 10th Street, Ste. 110 Greeley, CO. 80634

David R. & Melody A. Brown 35361 Appy Rd. Eaton, CO. 80615

Joseph R. & Bonnie Abernathy 20201 Leola Way Eaton, CO. 80615

Daniel R. & Andrea M. Dirksen 20204 Leola Way Eaton, CO. 80615

Kelly E. & Susan E. Lacy 36375 Appy Rd. Eaton, CO. 80615

Scott Hanneman 20186 Leola Way Eaton, CO. 80615

Kimberly K. Winck 20187 Leola Way Eaton, CO. 80615

Kenneth G. & Sandra E. Curtis 20192 Leola Way Eaton, CO. 80615

Donald R. & Joni M. Struppler 20185 Leola Way. Eaton, CO. 80615

Gail S. Robinson 36169 Appy Rd. Eaton, CO. 80615

Brian G. Lesh 15985 Road 41 Sterling, CO. 80751

Jeffrey A. & Trisha S. Koeltzow 20199 Leola Way Eaton, CO. 80615 Douglas A. Lesh 6 Lazy W Road Fountain, CO. 80817

Joanne L. Gilbaugh 305 Cobble Dr. Windsor, CO. 80550

Gary L. & Mary A. Hazen 20411 WCR 76 Eaton, CO. 80615-9200

Ronald L. & Lauretta Anderson 14886 WCR 74 Eaton, CO. 80615

Carol Louise Anderson Honstein 4545 Wheaton Dr., Unit D-150 Ft. Collins, CO. 80525

Earl C. & Lucille Bowlsby 95 North Shore Circle Murray, KY. 42071

Richard A. & Dixie Bloom 927 Emerson Ave. Alliance, NE. 69301

Darrell W. & Lynn R. Anderson 856 S. Quivas Denver, CO. 80223

Janice E. Anderson 1215 Honeysuckle Ct. Windsor, CO. 80550

Heather L. Anthony 1215 Honeysuckle Ct. Windsor, CO. 80550

Joyce Elaine Anderson Heimbickner 12933 Columbine Dr. Longmont, CO. 80501

Tamera S. & James D. Waymire 36524 WCR 41 Eaton, CO. 80615

Dorothy Paxton 36620 WCR 41 Eaton, CO. 80615

Unleased Mineral Owners:

Pioneer Developers, LLC C/O Thomas K. Wilson, manager 1525 Pelican Lakes PT Unit A Windsor, CO. 80550-6219

Lori K. & Randall R. Craddock 36103 Appy Rd. Eaton, CO. 80615 Edward L. & Lois I. Nestor 36245 Appy Rd. Eaton, CO. 80615

Juan Rodriguez 20035 CR 74 Eaton, CO. 80615

Leasehold Owners:

Canamex, LLC

1700 Broadway, Suite 650

Denver, CO 80290

Petroleum Development Corporation 1775 N. Sherman St., Ste. 3000

Denver, CO. 80203-4341

EXHIBIT "B" TO APPLICATION OF GREAT WESTERN OIL AND GAS COMPANY LLC Authorization for Expenditure

1700 Broadway Suite 650 Denver, Colorado 80290



Santiago Rodriguez
Petroleum Landman
Tel: 303.398.0596
Fax: 1.866.776.1057
E-mail:
srodriguez@gwogco.com

March 28, 2012

Joanne L. Gilbaugh 305 Cobble Dr. Windsor, CO. 80550 USPS CERTIFIED MAIL Tracking #7008 1830 0000 5318 5731

RE:

OIL & GAS LEASE: WELD COUNTY, COLORADO

Township 7 North, Range 65 West, 6th P.M.

Section 33: GA-1 Lot 1, GA-2 Lot 2, GA-10 Lot 10 & GA-14 Lot 14 Gilbaugh's Appaloosa Acres

2nd Replat, being a part of the W½SW¾.

Containing 3.0308 gross acres and 3.0308 net acres, ±...

Dear Ms. Gilbaugh:

I am writing to inform you that the 3.0308 mineral acres owned by Ms. Joanne L. Gilbaugh in the above described is included in the Spacing Units for the Appaloosa 33-13, 33-14 and the Lamb 33-53 wells. Great Western Oil and Gas Company, LLC ("GWOG") has drilled and completed said wells in the fourth quarter of 2010 at the locations specified on Exhibit A, and as such, you own a share of the oil and gas produced from said wells. You have multiple options in regards to these wells:

- 1. Lease your mineral interest to GWOG and receive a royalty on production.
- 2. Participate as our partner by paying your share of the estimated drilling & completion costs.
- 3. Do nothing and allow the State of Colorado to force pool your oil and gas rights.

To date I have not received your signed oil and gas lease that I sent to you on November 18, 2011; so I am required by Colorado Statute §34-60-116(7) (d), C.R.S. to inform you that the Appaloosa 33-13, 33-14 and Lamb 33-53 wells have been drilled to an approximate depth of 7,500 feet, or deep enough to test the Codell and Niobrara formations, for an estimated cost of \$699,019.00 per Appaloosa well, and \$621,469.00 for the Lamb 33-53 well. Enclosed herewith are GWOG's AFEs for your review and approval. Your estimated ownership and share of the expense to drill & complete each well is listed on Exhibit A. If you elect to participate, please indicate your election on the enclosed page and return the signed copy in the envelope provided, along with the signed AFEs; the extra copies are for your records. I will send our Joint Operating Agreement for your review and execution if you elect to participate.

Our offer to lease your mineral interest for \$200.00 per net mineral acre, 18.5% royalty, with a three year primary term still stands. If you do not wish to lease or participate in the drilling of said wells, please be advised that you will be named in the application for force pooling which I am prepared to file with the Colorado Oil and Gas Conservation Commission. If you have any questions, please contact me at (303) 398-0596 or email me at srodriguez@gwogco.com. Thank you for your time into this matter.

Best Regards, Great Western Oil and Gas Company, LLC

Santiago Rodriguez Petroleum Landman March 28, 2012

RE:	Election Letter – Appaloosa 33-13, 3 T7N-R65W Section 33: W½SW¼ &	33-14 & Lamb 33-3 SW ¹ / ₄ , 6 th P.M. We	ld County, CO.	
Dear V	Vorking Interest Owner:			
Pursua follow	ent to that certain well proposal letter for ing:	or the above caption	ed wells, please circle	le one of the
Truste	oonse to GWOG's drilling proposal in t e of the Ivan Gilbaugh Family Trust, h ing and completing the Appaloosa 33 -	ereby elects to	, Joanne L. Gilbaugh participate,	, Individually and as not participate
Truste	oonse to GWOG's drilling proposal in t e of the Ivan Gilbaugh Family Trust, he ling and completing the Appaloosa 33 -	ereby elects to	, Joanne L. Gilbaugh participate,	, Individually and as not participate
Truste	oonse to GWOG's drilling proposal in t e of the Ivan Gilbaugh Family Trust, he ling and completing the Lamb 33-53 w	ereby elects to	, Joanne L. Gilbaugh participate,	, Individually and as not participate
Truste	oonse to GWOG's drilling proposal in t e of the Ivan Gilbaugh Family Trust, he ned wells and the associated spacing un	ereby elects to	, Joanne L. Gilbaugh divest its' interes	, Individually and as at in the above
Signed	this day of	, 2012.		
Joanne	L. Gilbaugh			
Ву:		-		
Name:		_		
Joanne	L. Gilbaugh, Trustee of the Ivan Gilba	augh Family Trust		
Ву:		-		
Title:				

Exhibit "A" To Drilling Proposal Letter dated March 28, 2012 T7N-R65W-Section 33: W½SW¼ & SW¼ Weld County, Colorado

Appaloosa 33-13

Surface Hole Location = 1455' FSL & 1536' FWL Bottom Hole Location = 1901' FSL & 658' FWL Spacing Unit: W½SW¼, containing 79.4247 acres, ±. Your combined ownership: 3.815942% W.I. Your Cost to drill and complete: \$26,674.16

Appaloosa 33-14

Surface Hole Location = 1415' FSL & 1536' FWL Bottom Hole Location = 631' FSL & 661' FWL Spacing Unit: W½SW¼, containing 79.4247 acres, ±. Your combined ownership: 3.815942% W.I. Your Cost to drill and complete: \$26,674.16

Lamb 33-53

Surface and Bottom Hole = 1434' FSL & 1536' FWL Spacing Unit: SW $\frac{1}{4}$, containing 159.4247 acres, \pm . Your combined ownership: 1.901086% W.I. Your cost to drill and complete: \$11,814.66

Total Drilling and Completion Cost: \$65,162.98

Well Name: Appaloosa 33-13 Field: Wattenberg Location: T3-7n, R63-67w County: Weld State: CO

Original Preparation Date:

5/17/2011

Revision Preparation Date:

Total Depth: 6800 - 7500 New Codell/Niobrara w:\clients\04513\0001\[00098379.xlsm]a

CODE		E#		VENDOR	こうり ナロロ・ハー た	I AROR	ΤΟΤΔΙ	CODE
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	DRILLING			· · · · · · · · · · · · · · · · · · ·		\$500	\$500	106
	Compliance & Environmental Management				\$0 \$0	\$500	ລວບບ	108
108	Legal (DTO and DOTO)		-		\$0 \$0	\$200	\$200	110
110	Federal and State Permits and Fees			Crews&Zeren	\$0	ΨΖΟΟ	\$0	111
	Land and USR Geological Fee		_	Crewsozeren	\$0	\$0	\$0	
114	Staking			Powers Surveying	\$0	\$750	\$750	114
116	Temp.Road/CAT/Grader			M&M	\$0	\$0	\$0	116
	Build Location,	1		M&M	\$0	\$7,000	\$7,000	118
	Contract Labor			Longhom	\$0	·	\$0	119
120	Temp Equipment (Culverts, Fence, etc.)			Longhorn	\$0	\$200	\$200	120
121	Conductor Casing				\$0	\$0	\$0	121
	Surface Damage Payments				\$0	\$4,000	\$4,000	122 123
123	Right of Way Fees				\$0	\$0 \$0	\$0 \$0	123
	Crop Damage Payments				\$0 \$0	\$15,000	\$15,000	125
	Drilling Rig Mobilization,	<u> </u>		Ensign	\$0	\$177,000	\$177,000	126
126	Drilling Rig (Tumkey)	<u> </u>		Ensign Ensign	\$0	\$0	\$0	127
127	Drilling Rig (Daywork)			CTAP / WB	ΨΟ	\$0	- +	128
	Surface Casing (8 5/8" 24#)	-		Ensign		\$0	\$0	129
	Drilling Rig (Footage) Transportation	 		Lineigh	\$0	\$0	\$0	130
131	Intermediate Casing				\$0	\$0	\$0	131
	Cement/Float Equip.			Halliburton / BJ Services	\$0		\$0	132
	Drill String Rentals				\$0	\$0	\$0_	133
	Drilling Water		0.75	Basic	\$7,000	\$0	\$7,000	134
	Surf Equipment Rental (Camp, Solids Equip, E	tc.)				\$18,000	\$18,000	135
136	Drilling Fluids/Chemicals			Imperial		\$0	**	136
	Bits			Ensign	\$0	\$0	\$0	137
138	Casing Crew			Ensign	\$0	\$6,500	\$6,500	138 139
139	Fishing				\$0 \$0	\$0 \$1,500	\$0 \$1,500	140
	Geologist/Mudlogger				\$0 \$0	\$1,500	\$1,500	141
	Communications			PSI	\$0	\$5,000	\$5,000	142
	Open Hole Logging	-		r3i	\$0	\$0	\$0	143
	Potable Water Coring/Drill Stem Testing	-			\$0	\$0	\$0	144
144	Conng/Drill Sterri resung				Ψ0	Ψ	Ψ	
145	Mice Supplies				\$0	\$0	\$0	145
145	Misc. Supplies			Integrity	\$0 \$0	\$0 \$6,000		
145 146	Drilling Mud Hauling			Integrity	\$0 \$0 \$0	\$0 \$6,000 \$0	\$0 \$6,000 \$0	146 147
145 146 147	Drilling Mud Hauling Miscellaneous-mud motor			Integrity Miller	\$0 \$0 \$0	\$6,000 \$0 \$0	\$6,000 \$0 \$0	146 147 148
145 146 147 148 149	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision			Miller JLJ	\$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250	\$6,000 \$0 \$0 \$1,250	146 147 148 149
145 146 147 148 149	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision			Miller JLJ Halliburton	\$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0	\$6,000 \$0 \$0 \$1,250 \$0	148 149 150
145 146 147 148 149 150	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling			Miller JLJ Halliburton Ensign	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0	146 147 148 149 150 151
145 146 147 148 149 150	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location,			Miller JLJ Halliburton	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0	146 147 148 149 150
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145 146 147 148 149 150 151 152	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS:			Miller JLJ Halliburton Ensign	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900	146 147 148 149 150 151 152
145 146 147 148 149 150 151 152	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management			Miller JLJ Halliburton Ensign M&M	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$242,900	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$249,900	146 147 148 149 150 151 152
145 146 147 148 149 150 151 152	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days)	7,200		Miller JLJ Halliburton Ensign M&M Colo Tubular / WB	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$249,900	146 147 148 149 150 151 152 201 202
145 146 147 148 149 150 151 152	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight	7,200		Miller JLJ Halliburton Ensign M&M	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$242,900	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0	146 147 148 149 150 151 152 201 202 204
145 146 147 148 149 150 151 152 201 202 204 206	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints	7,200	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$242,900	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$249,900	146 147 148 149 150 151 152
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145 146 147 148 149 150 151 152 201 202 204 206 208 212 212	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint		9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0	146 147 148 149 150 151 152 201 202 204 206 208 210 212
145 146 147 148 149 150 151 152 201 202 204 206 208 212 212	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight		9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$30,175 \$0 \$0 \$1,500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216
145 146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head/Tree & Fittings Tubing Head/Tree & Fittings		9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$1,500	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$30,175 \$0 \$0 \$1,500 \$500 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218
145 146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 218 218	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$30,175 \$0 \$1,500 \$30,175	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$30,175 \$0 \$30,175 \$0 \$1,500 \$50 \$50 \$500 \$500 \$500 \$500 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 219
145 146 147 148 150 151 152 201 202 204 206 208 210 212 214 218 219 220	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew		9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$1,500 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$30,175 \$0 \$0 \$1,500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 219 220
145 146 147 148 150 151 152 201 202 204 206 208 210 212 214 216 219 220 222	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/BJ	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$1,500 \$30,175 \$0 \$1,500 \$1,500 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$1,500 \$500 \$1,500 \$500 \$1,500	146 147 148 149 150 151 152 201 202 204 208 210 212 214 216 218 219 220 222
145 146 147 148 150 151 152 201 202 204 206 208 210 212 214 216 219 220 222 224	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$1,500 \$500 \$1,500 \$500 \$1,500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 219 222 224
145 146 147 148 150 151 152 201 202 204 206 208 210 212 214 216 218 220 222 224 226	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/BJ Bran-Dex Cable	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$1,500 \$50 \$1,500 \$500 \$1,500 \$500 \$500 \$500 \$500 \$500 \$500 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 219 220 222 224
145 146 147 148 150 151 152 201 202 204 206 210 212 214 216 218 219 220 220 222 224 226 228	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$7,000 \$1,500 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$1,500 \$500 \$1,500 \$500 \$1,500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 219 220 222 224 226 228
145 146 147 148 150 151 152 201 202 204 206 210 212 214 216 218 219 222 224 226 228 230	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/BJ Bran-Dex Cable HS KCI	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$1,500 \$500 \$500 \$0 \$18,000 \$14,500 \$0 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232
145 146 147 148 149 150 151 152 201 202 204 206 210 212 214 216 218 220 222 224 223 230 232	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Rig & Accessories	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS KCI Ensign / ECWS	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$0 \$0 \$1,500 \$0 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$1,250 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$1,500 \$500 \$500 \$500 \$1,500 \$500 \$500 \$500 \$500 \$500 \$500 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 220 222 224 228 230 232
145 146 147 148 149 151 152 201 202 204 206 208 210 212 214 216 218 220 222 224 226 230 232 232	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Fig & Accessories Tool Rental	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/BJ Bran-Dex Cable HS KCI	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$1,500 \$30,175 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$0 \$0 \$0 \$0 \$1,500 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$500 \$14,500 \$14,500 \$5,000 \$15,000 \$115,000 \$115,000 \$115,000 \$115,000 \$115,000 \$114,040	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 229 224 226 228 230 232 234 236
145 146 147 148 149 151 152 201 202 204 206 208 210 212 214 216 218 220 222 224 226 232 233 233	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Rig & Accessories	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS KCI Ensign / ECWS Weatherford	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$1,500 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$1,500 \$1,500 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$242,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$500 \$500 \$1,500 \$15,000 \$14,500 \$500 \$51,500 \$500 \$500 \$500 \$500 \$500 \$500 \$500	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 229 224 226 228 230 232 234 236 237
145 146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 229 220 222 224 226 228 230 232 234 236 237	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing Completion Fluids Completion Fig & Accessories Tool Rental Rental Frac/Flowback Tanks	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS KCI Ensign / ECWS Weatherford	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$7,000 \$1,500 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$500 \$14,500 \$5,000 \$15,000 \$15,000 \$14,500 \$15,000 \$15,000 \$14,500 \$5,000 \$15,000 \$15,000 \$14,040 \$0 \$600	146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 216 218 229 220 222 224 226 228 230 232 232 234 236 237 237 238
145 146 147 148 149 150 151 152 201 202 204 206 208 210 212 214 218 219 220 222 224 226 230 232 232 234 236 237 238 240 240 240 240 250 260 260 270 270 270 270 270 270 270 270 270 27	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Fluids Completion Rig & Accessories Tool Rental Rental Frac/Flowback Tanks Communications Tank Cleaning Tank Hauling	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS KCI Ensign / ECWS Weatherford A&W / Key Leed/Rainbow Key / Leed	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$7,000 \$1,500 \$30,175 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$500 \$500 \$14,500 \$5,000 \$15,000 \$14,500 \$11,500 \$5,000 \$11,500	146 147 148 149 150 151 152 201 202 204 208 210 212 214 216 218 220 222 224 226 230 232 232 234 236 237 238 237 238 240
145 146 147 148 149 150 151 152 201 202 204 206 210 212 214 216 218 229 220 222 224 230 232 234 237 238 239 240 242 242 242 244 242	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Fluids Completion Rig & Accessories Tool Rental Rental Frac/Flowback Tanks Communications Tank Cleaning Tank Hauling Purchase & Haul Frac Water	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/BJ Bran-Dex Cable HS KCI Ensign / ECWS Weatherford A&W / Key Leed/Rainbow Key / Leed A&W	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$7,000 \$1,500 \$750 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$1,500 \$500 \$500 \$500 \$1,500 \$14,000 \$14,000 \$14,040 \$0 \$600 \$11,000 \$5,000	146 147 148 149 150 151 152 201 202 204 206 210 212 214 216 218 219 220 222 224 226 230 232 234 236 237 237 238 237 237 238 237 238 239 240 240 240 240 240 240 240 240 240 240
145 146 147 148 149 150 150 201 202 204 206 212 214 216 218 219 220 222 224 230 232 232 234 236 237 238 240 240 240 240 240 240 240 240 240 240	Drilling Mud Hauling Miscellaneous-mud motor Trash Hauling/Sanitation Drilling Supervision Plug and Abandon Directional Drilling Backfill Location, TOTAL DRILLING COSTS: COMPLETION Project Management Production Casing (2%/10days) Casing Freight Pup Joints Casing Head and Fittings Tubing (2 3/8ths J-55 new) (2%/10days) Tubing Freight Blast Joint Tubing Head/Tree & Fittings Tubing Head Labor Miscellaneous Equipment Transportation Casing Crew Cementing/Float Equipment Bond/Prod Logging, Perforating, WL Work Reservoir Testing Pressure Testing/Circulating Completion Fluids Completion Fluids Completion Rig & Accessories Tool Rental Rental Frac/Flowback Tanks Communications Tank Cleaning Tank Hauling	7,100	9.67	Miller JLJ Halliburton Ensign M&M Colo Tubular / WB Adams WB Colo Tubular / WB RMI WB Kimzey Halliburton/ BJ Bran-Dex Cable HS KCI Ensign / ECWS Weatherford A&W / Key Leed/Rainbow Key / Leed	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$7,000 \$1,500 \$30,175 \$30,175 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,500 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$6,000 \$0 \$0 \$1,250 \$0 \$0 \$1,250 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$249,900 \$68,232 \$0 \$1,500 \$750 \$30,175 \$0 \$0 \$1,500 \$500 \$500 \$500 \$14,500 \$5,000 \$15,000 \$14,500 \$11,500 \$5,000 \$11,500	146 147 148 149 150 151 152 201 202 204 208 210 212 214 216 218 220 222 224 226 230 232 232 234 236 237 238 237 238 240

Well Name: Appaloosa 33-13 Field: Wattenberg Location: T3-7n, R63-67w

<u>Directional Wells 2011</u>

Total Depth: 6800 - 7500

County: Weld State: CO

Original Preparation Date: Revision Preparation Date: 5/17/2011

New Codeil/Niobrara w:\clients\04513\0001\(00098379.xlsm)a

w:\client	s\04513\0001\[00098379.xlsm]a WATTENBERG			denotes change from prev	rious			
CODE		Ft	\$/Ft	VENDOR	MATERIALS	LABOR	TOTAL	CODE
	TERM Breakdown	**************************************	<u> </u>		\$0	\$0	\$0	248
	Fracture Codell and Niobrara			Halliburton/Calfrac	\$0	\$125,000	\$125,000	250
	Water Disposal Charge	1000	0.55	Conquest	\$0	\$550	\$550	252
252	Flowback Water/Completion Fluid Hauling	1000		Northern Plains	\$0	\$1,200	\$1,200	254
254	Flowback (Build/Tear Apart)	_	1.10	Longhorn	\$0	\$225	\$225	256
				Longhorn	\$0	\$1,000	\$1,000	257
	Contract Labor			Congricin	\$0	- +1,001	\$0	258
	Miscellaneous Equipment Rental/Services			JLJ	\$0	\$3,250	\$3,250	259
	Completion Supervision		,	M&M	\$0	40,200	\$0	286
	CAT/Grader			IVICIVI	\$0	\$0	\$0	298
	Subsurface Equipment					\$212,865	\$315,022	
	TOTAL COMPLETION COSTS:				\$102,157	\$212,000	\$310,022	
	FINAL INSTALLATION AND SITE PREP				#505	60.1	\$525	260
	Flowline/Water Disposal Line	150	3.50	WB	\$525	\$0	\$525 \$0	261
	Gas Sales Pipeline				\$0	\$0		
262	Flowline/Water Disposal Line Labor	150	5.65		\$0	\$850	\$850	262
263	Gas Sales Pipeline Labor				\$0	\$0	\$0	263
	Production Tanks/High Profile		8100.00	WB	\$8,100	\$0	\$8,100	264
266	Tank Install:/Pad Construction				\$0	\$9,000	\$9,000	266
268	Production Unit			Cimarron/Leed	\$20,000	\$0	\$20,000	268
270	Unit Install./Pad Construction				\$0	\$1,700	\$1,700	270
272	Miscellaneous Pipes and Fittings			WB	\$7,000	\$0	\$7,000	272
	Intermitter/Plunger Lift/Automation Equipment			PCS/Wellmaster	\$5,000	\$0	\$5,000	274
	Chemical Pump/Delivery & Install.			WB/Redman		\$0	\$0	276
	Emissions Control Device				\$10,000	\$0	\$10,000	277
	Waste Water Tank,			Cimarron	\$2,500	\$0	\$2,500	278
	Rods, Pump, Misc. (Used)				\$0	\$0	\$0	279
280	Permanent Fences/Guards/Culverts/Bldgs.				\$1,250	\$0	\$1,250	280
281	r elmanent r ences/ odards/ odiverts/ blogs.				\$0	\$0	\$0	281
	Signs			Coverali	\$125	\$0	\$125	282
	Insulation		_		\$0	\$0	\$0	283
	Painting			Coverali, Naili	\$0		\$0	284
204	Permanent Road/Battery Turnaround			M&M	\$0	\$1,500	\$1,500	288
				M&M	\$1,000	\$0	\$1,000	289
	Production Equipment Berms/Material			IVICXIVI	\$0	\$1,000	\$1,000	290
	Final/Extraordinary Labor,			-	\$0	\$1,000	\$1,000	291
	Environmental Compliance TOTAL INSTALLATION:			<u> </u>	\$55,500	\$15,050	\$70,550	201
	TOTAL BEFORE CONTINGENCY				\$164,657	\$470,815	\$635,472	
					φ104,007	Ψ10,010		<u>.</u>
	CONTINGENCY				#00 F47 !	#c	\$60 E 47	301
	Contingency				\$63,547	\$0	\$63,547	
302	TOTAL MOTALLATION:				\$63,547	\$0 \$0	\$0 \$63,547	302
	TOTAL INSTALLATION:							
	GRAND TOTAL				\$228,204	\$470,815	\$699,019	

NOTE: The grand total does not reflect the plugging and abandoning cost.

PREPARED BY: Jeff Reale	Date: 5/17/11
APPROVED BY:	DATE:
NON-OPERATOR APPROVAL Your signature below acknowledges your acceptance non-operator in the above well. Costs shown above which will be required to perform the proposed open	ee of the above estimate of your commitment to participate as a are estimates only, and do not establish any limit on the monies rations.
APPROVED BY: (signature)	DATE:
NAME: (print or type)	TITLE:

Well Name: Appaloosa 33-14 Field: Wattenberg

238 Tank Cleaning

242 Purchase & Haul Frac Water

244 Haul Excess Frac Water

240 Tank Hauling

246 Heat Water

Directional Wells 2011

County: Weld State: CO

Original Preparation Date: Revision Preparation Date:

\$600

\$1,000

\$5,000

\$6,000

\$0

\$0

\$0

\$0

\$1.000

\$5,000

\$6,000

\$0

240

242

246

5/17/2011

Location: T3-7n, R63-67w Total Depth: 6800 - 7500 New Codell/Niobrara

w:\clients\04513\0001\[00098378.xlsm]a denotes change from previous WATTENBERG Ft. VENDOR MATERIALS LABOR TOTAL CODE \$/Ft. CODE TERM DRILLING \$500 \$500 106 \$0 106 Compliance & Environmental Management 108 \$0 108 Legal (DTO and DOTO) \$200 \$200 110 \$0 110 Federal and State Permits and Fees 111 \$0 111 Land and USR \$0 Crews&Zeren \$0 \$0 \$0 Geological Fee \$750 114 \$750 Powers Surveying \$0 114 Staking \$0 116 \$0 \$0 116 Temp.Road/CAT/Grader M&M \$7,000 \$7,000 118 M&M \$0 118 Build Location, \$0 119 \$0 Longhorn 119 Contract Labor 120 \$200 \$200 120 Temp Equipment (Culverts, Fence, etc.) Longhorn \$0 \$0 \$0 \$0 121 121 Conductor Casing 122 \$4,000 \$4,000 \$0 122 Surface Damage Payments \$0 \$0 \$0 123 123 Right of Way Fees \$0 124 \$0 \$0 124 Crop Damage Payments \$0 \$15,000 \$15,000 125 Drilling Rig Mobilization, Ensign \$177,000 126 \$0 \$177,000 126 Drilling Rig (Tumkey) Ensign 127 \$0 \$0 \$0 127 Drilling Rig (Daywork) Ensign 128 \$0 CTAP / WB 128 Surface Casing (8 5/8" 24#) \$0 129 129 Drilling Rig (Footage) \$0 Ensign 130 \$0 \$0 \$0 130 Transportation 131 \$0 \$0 \$0 131 Intermediate Casing \$0 132 \$0 132 Cement/Float Equip. Halliburton / BJ Services 133 \$0 \$0 \$0 133 Drill String Rentals 134 \$7,000 \$0 \$7,000 0.75 Basic 134 Drilling Water \$18,000 \$18.000 135 135 Surf Equipment Rental (Camp, Solids Equip, Etc.) 136 Drilling Fluids/Chemicals 136 Imperial \$0 137 \$0 \$0 137 Bits Ensign \$0 \$6,500 \$6,500 138 Ensign 138 Casing Crew 139 \$0 \$0 139 Fishing \$0 ,500 \$1,500 140 **\$0** 140 Geologist/Mudlogger \$0 141 \$0 \$0 141 Communications \$0 \$5,000 \$5,000 142 142 Open Hole Logging PSI \$0 143 \$0 \$0 143 Potable Water \$0 \$0 \$0 144 144 Coring/Drill Stem Testing \$0 145 \$0 145 Misc. Supplies \$0 \$0 \$6,000 \$6,000 146 146 Drilling Mud Hauling Integrity 147 \$0 \$0 \$0 147 Miscellaneous-mud motor \$0 \$0 \$0 148 Miller 148 Trash Hauling/Sanitation 149 \$1,250 \$1,250 \$0 149 Drilling Supervision ĴĽĴ 150 \$0 \$0 SO 150 Plug and Abandon Halliburton \$0 151 Directional Drilling 151 Ensign \$0 \$0 \$0 152 \$0 \$0 м&м 152 Backfill Location, \$249,900 \$7,000 \$242,900 TOTAL DRILLING COSTS: COMPLETION 201 201 Project Management \$68,232 202 \$68,232 7,200 \$0 202 Production Casing (2%/10days) Colo Tubular / WB 204 \$0 204 Casing Freight \$0 Adams \$0 206 \$1.500 \$1,500 206 Pup Joints \$0 \$750 208 \$750 208 Casing Head and Fittings WΒ \$30,175 \$0 \$30,175 210 7,100 4.25 Colo Tubular / WB 210 Tubing (2 3/8ths J-55 new) (2%/10days) 212 \$0 \$0 212 Tubing Freight RMI \$0 214 \$0 \$0 214 Blast Joint \$0 \$1,500 216 216 Tubing Head/Tree & Fittings \$1,500 WB \$0 \$500 \$500 218 218 Tubing Head Labor 219 \$0 \$0 \$0 219 Miscellaneous Equipment Transportation 7,450 \$0 \$0 220 Kimzey 220 Casing Crew \$18,000 \$18,000 222 \$0 222 Cementing/Float Equipment Halliburton/ BJ 224 Bond/Prod Logging, Perforating, WL Work \$0 \$14,500 \$14,500 224 Bran-Dex 226 \$0 \$0 \$0 226 Reservoir Testing Cable \$500 \$500 228 228 Pressure Testing/Circulating HS \$0 \$5,000 230 \$0 \$5,000 230 Completion Fluids KCI \$0 \$15,000 \$15,000 232 Ensign / ECWS 232 Completion Rig & Accessories \$0 \$1,500 234 \$1,500 Weatherford 234 Tool Rental \$0 \$14,040 \$14,040 236 236 Rental Frac/Flowback Tanks 18 780.00 A&W / Key 237 \$0 \$0 \$0 237 Communications \$0 \$600 238

Leed/Rainbow

Key / Leed

A&W

KPK

Leed

Well Name: Appaloosa 33-14 Field: Wattenberg

State: CO

	Directional Wells	2011
County: Weld	_	

rieia.	wattermery
Location:	T3-7n, R63-67w
Total Depth:	6800 - 7500

Original Preparation Date:

5/17/2011

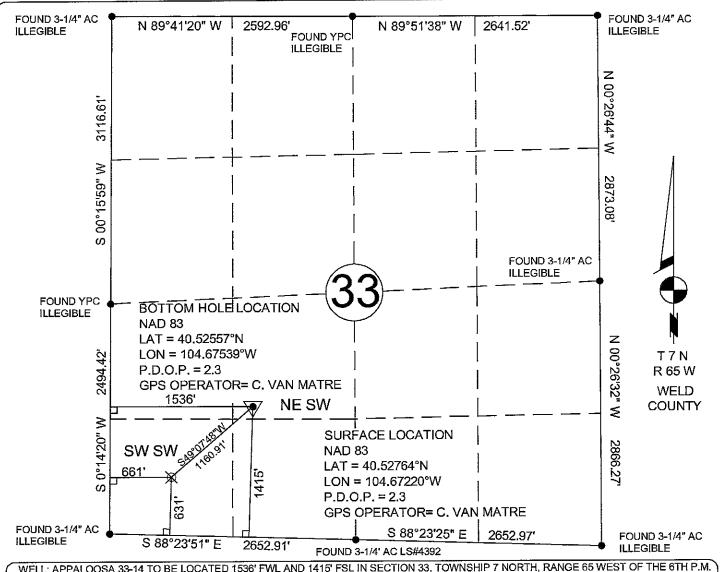
Revision Preparation Date:

New Codell/Niobrara w:\clients\04513\0001\[00098378.xlsm]a

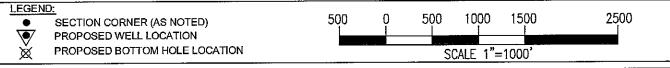
	WATTENBERG			denotes change from prev		and the second second second second	THE TAX PROPERTY.	ODE
	TERM	Ft	\$/Ft	VENDOR		LABOR	TOTAL 6	ביים טובי 248
	Breakdown				\$0	\$0	\$125,000	250
	Fracture Codell and Niobrara			Halliburton/Calfrac	\$0	\$125,000	\$125,000 \$550	252
	Water Disposal Charge	1000		Conquest	\$0	\$550	\$1,200 \$1,200	254
	Flowback Water/Completion Fluid Hauling		1.10	Northern Plains	\$0	\$1,200	\$1,200	256
	Flowback (Build/Tear Apart)			Longhom	\$0	\$225		257
	Contract Labor			Longhom	\$0	\$1,000	\$1,000 \$0	258
	Miscellaneous Equipment Rental/Services				\$0	***	\$3.250	259
	Completion Supervision			JLJ	\$0	\$3,250		286
	CAT/Grader			M&M	\$0	- 00	\$0	298
298	Subsurface Equipment				\$0	\$0	\$0	290
	TOTAL COMPLETION COSTS:				\$102,157	\$212,865	\$315,022	
	FINAL INSTALLATION AND SITE PREP				4=0=1		#FOE	200
260	Flowline/Water Disposal Line	150	3.50	WB	\$525	\$0	\$525	260
	Gas Sales Pipeline				\$0	\$0	\$0	261
	Flowline/Water Disposal Line Labor	150	5.65		\$0	\$850	\$850	262 263
263	Gas Sales Pipeline Labor				\$0	\$0	\$0	264
264	Production Tanks/High Profile		8100.00	WB	\$8,100	\$0	\$8,100	
	Tank Install./Pad Construction				\$0	\$9,000	\$9,000	266
	Production Unit			Cimarron/Leed	\$20,000	\$0	\$20,000	268
	Unit Install./Pad Construction				\$0	\$1,700	\$1,700	270
	Miscellaneous Pipes and Fittings			WB	\$7,000	\$0	\$7,000	272
274	Intermitter/Plunger Lift/Automation Equipment			PCS/Wellmaster	\$5,000	\$0	\$5,000	274
276	Chemical Pump/Delivery & Install.			WB/Redman		\$0	\$0	276
277	Emissions Control Device				\$10,000	\$0	\$10,000	277
	Waste Water Tank,			Cimarron	\$2,500	\$0	\$2,500	278
279	Rods, Pump, Misc. (Used)				\$0	\$0	\$0	279
280	Permanent Fences/Guards/Culverts/Bldgs.				\$1,250	\$0	\$1,250	280
281					\$0	\$0	\$0	281
282	Signs			Coverall	\$125	\$0	\$125	282
283	Insulation	,		_	\$0	\$0	\$0	283
	Painting			Coverall,Naill	\$0		\$0	284
	Permanent Road/Battery Turnaround			M&M	\$0	\$1,500	\$1,500	288
	Production Equipment Berms/Material			M&M	\$1,000	\$0	\$1,000	289
	Final/Extraordinary Labor,				\$0	\$1,000	\$1,000	290
	Environmental Compliance	· ·			\$0	\$1,000	\$1,000	291
	TOTAL INSTALLATION:				\$55,500	\$15,050	\$70,550	
	TOTAL BEFORE CONTINGENCY				\$164,657	\$470,815	\$635,472	
1	CONTINGENCY							
	Contingency				\$63,547	\$0	\$63,547	301
302	The state of the s					\$0 _	\$0	302
	TOTAL INSTALLATION:				\$63,547	\$0	\$63,547	
	GRAND TOTAL				\$228,204	\$470,815	\$699,019	

PREPARED BY: Jeff Reale Date: 5/17/11 DATE: APPROVED BY: NON-OPERATOR APPROVAL Your signature below acknowledges your acceptance of the above estimate of your commitment to participate as a non-operator in the above well. Costs shown above are estimates only, and do not establish any limit on the monies which will be required to perform the proposed operations. DATE: APPROVED BY: (signature) TITLE: NAME:

(print or type)



WELL: APPALOOSA 33-14 TO BE LOCATED 1536' FWL AND 1415' FSL IN SECTION 33, TOWNSHIP 7 NORTH, RANGE 65 WEST OF THE 6TH P.M. IMPROVEMENTS: PROPOSED WELLS 20' & 40' N OF LOCATION. LOCATION FALLS IN: NATURAL GROUND GROUND ELEVATION = 4787'



- TO THE SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS AS SET BY THE C.O.G.C.C. RULE NO. 215.
 2. ELEVATIONS SHOWN AT THE WELL HEAD, AS WELL AS HORIZONTAL CONTROL, ARE BASED ON GPS-RTK
- VALUES DERIVED FROM DOING 2-HOUR STATIC GPS SESSIONS AND REDUCTIONS USING O.P.U.S. SOLUTIONS.
- VERTICAL = NAVD88 HORIZONTAL = NAD83/92
- VERTICAL NAVISIO HONZONIAL NASISSEZ 3. THE BEARINGS AS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND IN THE FIELD DATE BELOW.
- ANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS
- MEASURED AT A PERPENDICULAR TO SECTION LINES.
- RICHARD B. GABRIEL, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO:

GREAT WESTERN OIL AND GAS COMPANY
THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN
HEREON WAS DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON
ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL
THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS
DEFINED BY C.R.S. 38-51-102 AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.

RICHARD B. GABRIEL P.L.S. #37929 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT, IN NO EVENT MAY ANY ACTION BASED ON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THIS SAID DATE OF THIS CERTIFICATION SHOWN HEREON.

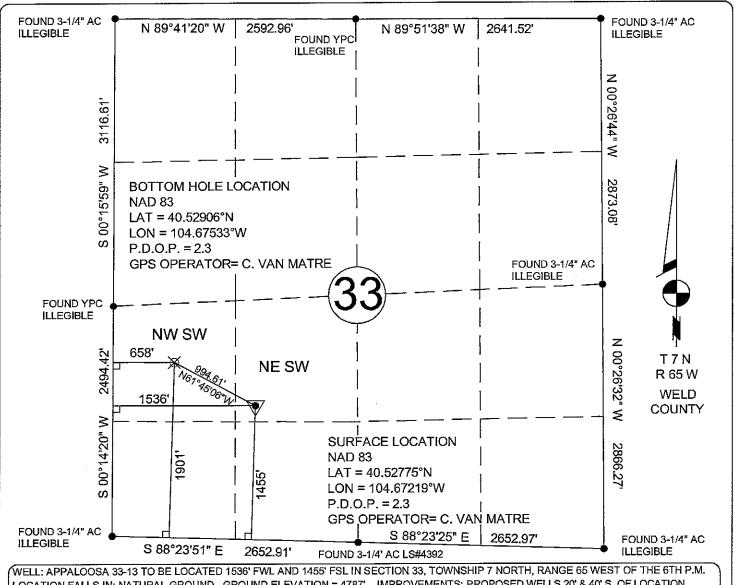




120 W. 84TH AVENUE THORNTON, COLORADO 80260

PH. 303-702-1617 FAX: 303-702-1488

DATE OF FIELD WORK: 9-14-10 DATE OF COPLETION: 9-15-10 REV 12-22-10 501-10-195B PROJECT NUMBER:



LOCATION FALLS IN: NATURAL GROUND GROUND ELEVATION = 4787' IMPROVEMENTS: PROPOSED WELLS 20' & 40' S. OF LOCATION



LEGEND:

SECTION CORNER (AS NOTED) PROPOSED WELL LOCATION

PROPOSED BOTTOM HOLE LOCATION

500 500 1000 1500 2500 SCALE 1"=1000

- 1. THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS AS SET BY
- THE C.O.G.C.O. RULE NO. 215.
 2. ELEVATIONS SHOWN AT THE WELL HEAD, AS WELL AS HORIZONTAL CONTROL, ARE BASED ON GPS-RTK VALUES DERIVED FROM DOING 2-HOUR STATIC GPS SESSIONS AND REDUCTIONS USING O.P.U.S.

VERTICAL = NAVD88 HORIZONTAL = NAD83/92

- 3. THE BEARINGS AS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND IN THE FIELD DATE BELOW.
 4. DISTANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS
- MEASURED AT A PERPENDICULAR TO SECTION LINES.

I, RICHARD B. GABRIEL, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO

GREAT WESTERN OIL AND GAS COMPANY
THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN
HEREON WAS DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON
ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL
APPALOOSA 33-13
THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS
DEFINED BY C.R.S. 38-51-102 AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.

RICHARD B. GABRIEL P.L.S. #37929 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT, IN NO EVENT MAY ANY ACTION BASED ON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THIS SAID DATE OF THIS CERTIFICATION SHOWN HEREON.





120 W. 84TH AVENUE THORNTON, COLORADO 80260 WWW.POWERSURVEYING.COM

PH. 303-702-1617 FAX: 303-702-1488

DATE OF FIELD WORK: 9-14-10 DATE OF COPLETION: _ 9-15-10 REV 12-22-10 501-10-195B PROJECT NUMBER: