API Well Number: 43047532100000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
BONANZA 1023-17K4CS

2. TYPE OF WORK
DRILL NEW WELL ■ REENTER P&A WELL ☐ DEEPEN WELL ☐

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
PONDEROSA

6. NAME OF OPERATOR
KERR-MCGEE OIL & GAS ONSHORE, L.P.

7. OPERATOR PHONE
720 929-6515

8. ADDRESS OF OPERATOR
P.O. Box 173779, Denver, CO, 80217

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
UTU37355

11. MINERAL OWNERSHIP
FEDERAL ■ INDIAN ☐ STATE ☐ FEE ☐

12. SURFACE OWNERSHIP
FEDERAL ■ INDIAN ☐ STATE ☐ FEE ☐

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ■ (Submit Commingling Application) NO ☐

19. SLANT
VERTICAL ☐ DIRECTIONAL ■ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2388 FNL 1854 FEL	SWNE	17	10.0 S	23.0 E	S
Top of Uppermost Producing Zone	1484 FSL 2137 FWL	NESW	17	10.0 S	23.0 E	S
At Total Depth	1484 FSL 2137 FWL	NESW	17	10.0 S	23.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
1484

23. NUMBER OF ACRES IN DRILLING UNIT
1920

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
2217

26. PROPOSED DEPTH
MD: 8335 TVD: 7891

27. ELEVATION - GROUND LEVEL
5180

28. BOND NUMBER
WYB000291

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 1960	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 8335	11.6	I-80 LT&C	12.5	Premium Lite High Strength	260	3.38	12.0
							50/50 Poz	1210	1.31	14.3

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ✔ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ✔ COMPLETE DRILLING PLAN
- ☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ✔ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ✔ TOPOGRAPHICAL MAP

NAME Danielle Piernot | **TITLE** Regulatory Analyst | **PHONE** 720 929-6156

SIGNATURE | **DATE** 09/24/2012 | **EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047532100000

APPROVAL

Permit Manager

RECEIVED: October 16, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

BONANZA1023-17K4CS

Surface: 2388 FNL / 1854 FEL SWNE
BHL: 1484 FSL / 2137 FWL NESW

Section 17 T10S R23E

Uintah County, Utah
Mineral Lease: UTU-37355

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	734'	
Birds Nest	1,024'	Water
Mahogany	1,510'	Water
Wasatch	3,736'	Gas
Mesaverde	5,696'	Gas
Sego	7,891'	Gas
TVD	7,891'	
TD	8,335'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 7891' TVD, approximately equals 5,050 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,303 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	May 11, 2012
WELL NAME	**BONANZA1023-17K4CS**	TD	7,891' TVD 8,335' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 5179.5
SURFACE LOCATION	SWNE 2388 FNL 1854 FEL Sec 17 T 10S R 23E		
	Latitude: 39.949706 Longitude: -109.347918 NAD 83		
BTM HOLE LOCATION	NESW 1484 FSL 2137 FWL Sec 17 T 10S R 23E		
	Latitude: 39.945812 Longitude: -109.352539 NAD 83		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
		200'	12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
			11'	8-5/8", 28#, IJ-55, LTC	Air mist
			7-7/8"	4-1/2" 11.6# I-80 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 734'
Top of Birds Nest @ 1,024'
Mahogany @ 1,510'

Preset f/ GL @ 1,960' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 3,736'

Mud logging program TBD
Cased hole logging program from TD - surf csg

Mverde @ 5,696' TVD

Sego @ 7,891' TVD

Max anticipated Mud required 12.5 ppg **TD @ 7,891' TVD 8,335' MD**

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KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	1,960	28.00	IJ-55	LTC	2.76	2.05	7.24	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.24		3.41
	4-1/2"	5,000	to	8,335'	11.60	I-80	LTC	1.11	1.24	7.13	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,460'	65/35 Poz + 6% Gel + 10 pps gilsonite	140	35%	11.00		3.82
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
			+ 0.25 pps flocele					
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION	LEAD	3,235'	Premium Lite II +0.25 pps	260	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	5,100'	50/50 Poz/G + 10% salt + 2% gel	1,210	35%	14.30		1.31
			+ 0.1% R-3					

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

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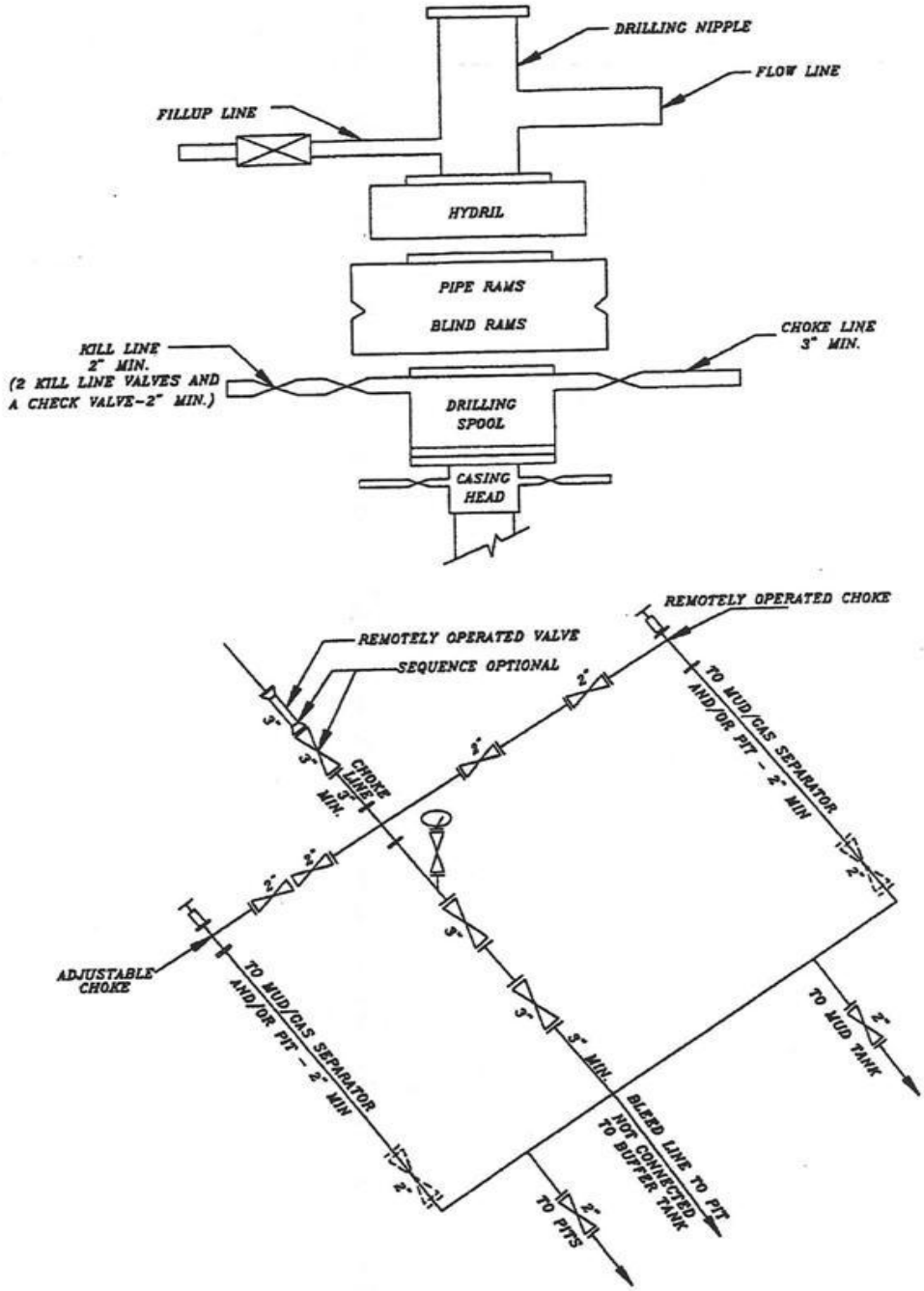
EXHIBIT A
BONANZA1023-17K4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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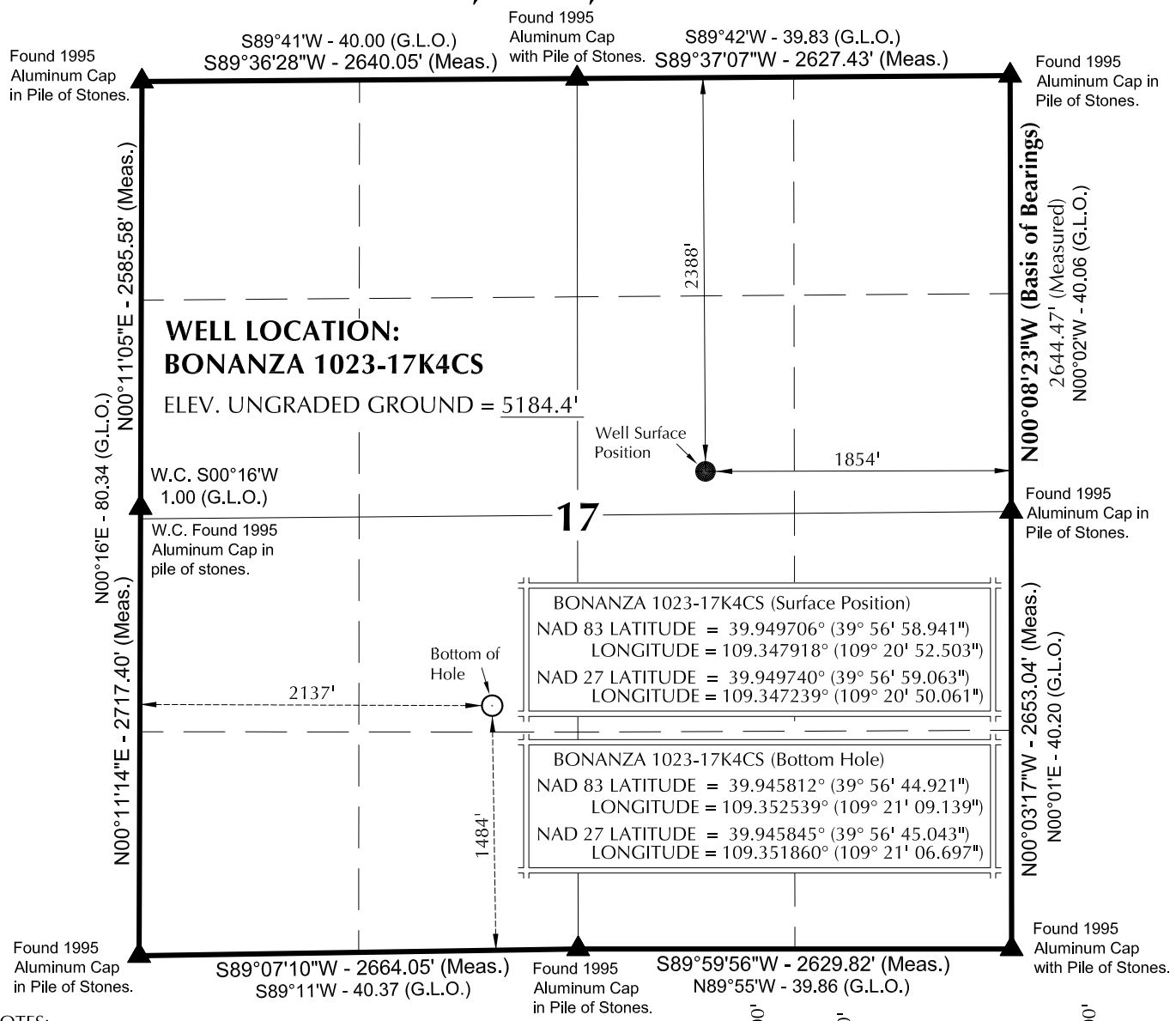
T10S, R23E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S42°19'58"W 1921.74' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

11-30-11

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R LAUGH STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: BONANZA 1023-17G

BONANZA 1023-17K4CS
WELL PLAT
1484' FSL, 2137' FWL (Bottom Hole)
NE $\frac{1}{4}$ SW $\frac{1}{4}$ OF SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 11-04-11	SURVEYED BY: W.W.	SHEET NO:
DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	22
SCALE: 1" = 1000'	Date Last Revised:	22 OF 46

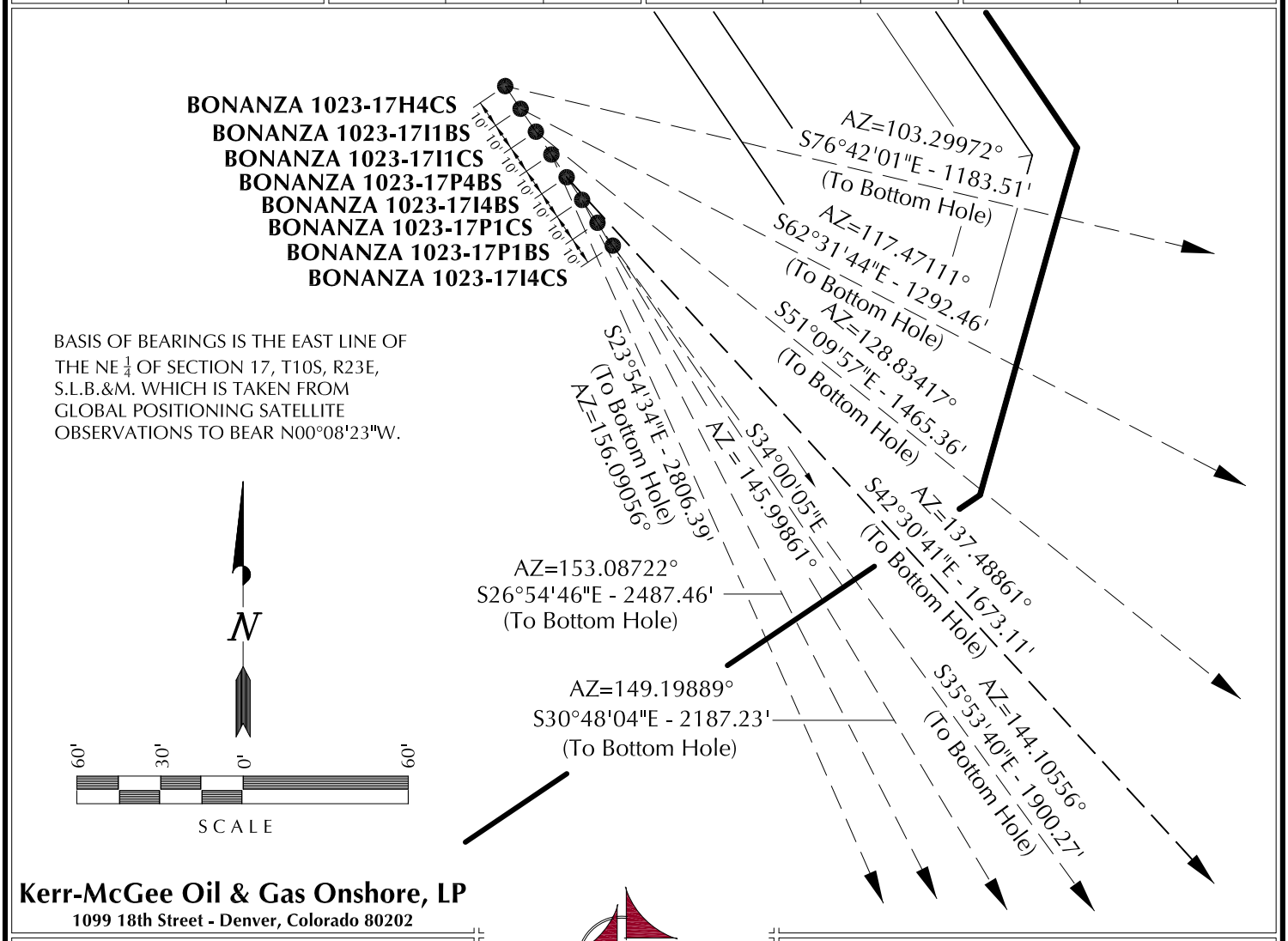
RECEIVED: August 21, 2012

API Well Number: 43047532100000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
BONANZA 1023-17H4CS	39°57'00.813" 39.950226°	109°20'49.808" 109.347169°	39°57'00.935" 39.950260°	109°20'47.366" 109.346491°	2200' FNL 1644' FEL	39°56'58.108" 39.949474°	109°20'35.027" 109.343063°	39°56'58.229" 39.949508°	109°20'32.586" 109.342385°	2480' FNL 493' FEL
BONANZA 1023-17I1BS	39°57'00.731" 39.950203°	109°20'49.736" 109.347149°	39°57'00.853" 39.950237°	109°20'47.294" 109.346471°	2208' FNL 1639' FEL	39°56'54.825" 39.948563°	109°20'35.026" 109.343063°	39°56'54.947" 39.948596°	109°20'32.585" 109.342385°	2482' FSL 493' FEL
BONANZA 1023-17I1CS	39°57'00.649" 39.950180°	109°20'49.664" 109.347129°	39°57'00.770" 39.950214°	109°20'47.223" 109.346451°	2217' FNL 1633' FEL	39°56'51.555" 39.947654°	109°20'35.027" 109.343063°	39°56'51.677" 39.947688°	109°20'32.587" 109.342385°	2151' FSL 493' FEL
BONANZA 1023-17P4BS	39°57'00.566" 39.950157°	109°20'49.592" 109.347109°	39°57'00.688" 39.950191°	109°20'47.151" 109.346431°	2225' FNL 1627' FEL	39°56'35.204" 39.943112°	109°20'35.036" 109.343065°	39°56'35.325" 39.943146°	109°20'32.595" 109.342388°	496' FSL 493' FEL
BONANZA 1023-17I4BS	39°57'00.485" 39.950135°	109°20'49.521" 109.347089°	39°57'00.607" 39.950169°	109°20'47.079" 109.346411°	2233' FNL 1622' FEL	39°56'48.285" 39.946746°	109°20'35.029" 109.343064°	39°56'48.407" 39.946780°	109°20'32.588" 109.342386°	1820' FSL 493' FEL
BONANZA 1023-17P1CS	39°57'00.403" 39.950112°	109°20'49.449" 109.347069°	39°57'00.525" 39.950146°	109°20'47.007" 109.346391°	2242' FNL 1616' FEL	39°56'38.474" 39.944021°	109°20'35.034" 109.343065°	39°56'38.596" 39.944054°	109°20'32.594" 109.342387°	827' FSL 493' FEL
BONANZA 1023-17P1BS	39°57'00.321" 39.950089°	109°20'49.377" 109.347049°	39°57'00.443" 39.950123°	109°20'46.936" 109.346371°	2250' FNL 1611' FEL	39°56'41.744" 39.944929°	109°20'35.032" 109.343065°	39°56'41.866" 39.944963°	109°20'32.592" 109.342387°	1158' FSL 493' FEL
BONANZA 1023-17I4CS	39°57'00.239" 39.950066°	109°20'49.306" 109.347029°	39°57'00.360" 39.950100°	109°20'46.864" 109.346351°	2258' FNL 1605' FEL	39°56'45.015" 39.945837°	109°20'35.031" 109.343064°	39°56'45.136" 39.945871°	109°20'32.590" 109.342386°	1489' FSL 493' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17H4CS	-272.3'	1151.8'	BONANZA 1023-17I1BS	-596.2'	1146.7'	BONANZA 1023-17I1CS	-918.9'	1141.5'	BONANZA 1023-17P4BS	-2565.6'	1137.4'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17I4BS	-1233.3'	1130.6'	BONANZA 1023-17P1CS	-2218.1'	1125.9'	BONANZA 1023-17P1BS	-1878.7'	1120.0'	BONANZA 1023-17I4CS	-1539.4'	1114.1'



BASIS OF BEARINGS IS THE EAST LINE OF THE NE $\frac{1}{4}$ OF SECTION 17, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°08'23"W.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

WELL PAD INTERFERENCE PLAT
WELLS - BONANZA 1023-17H4CS, BONANZA 1023-17I1BS, BONANZA 1023-17I1CS, BONANZA 1023-17P4BS, BONANZA 1023-17I4BS, BONANZA 1023-17P1CS, BONANZA 1023-17P1BS & BONANZA 1023-17I4CS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 11-04-11	SURVEYED BY: W.W.	SHEET NO:
DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	35A
SCALE: 1" = 60'	Date Last Revised:	35A OF 46

RECEIVED: August 21, 2012

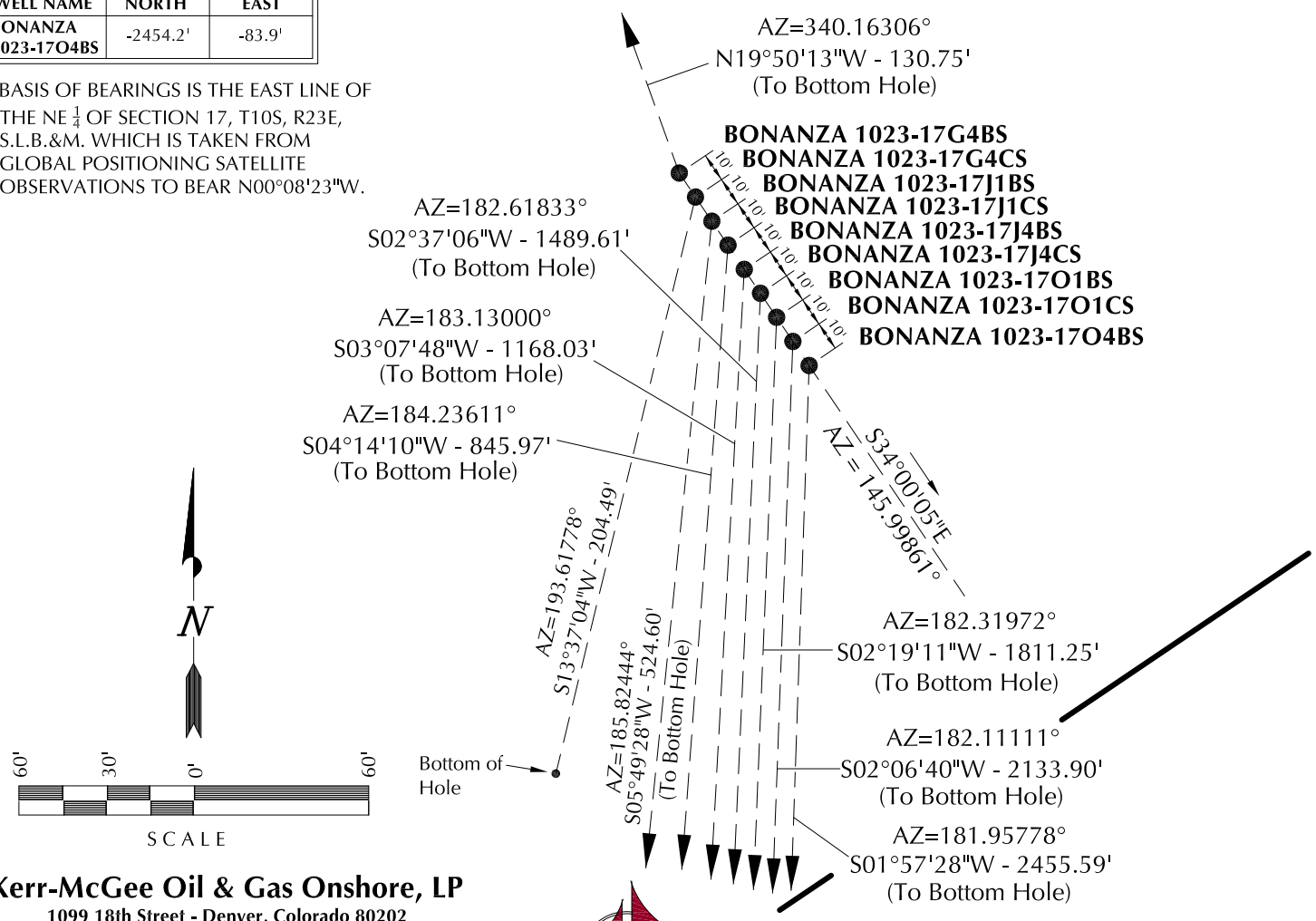
API Well Number: 43047532100000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
BONANZA 1023-17G4BS	39°57'00.123" 39.950034°	109°20'51.370" 109.347603°	39°57'00.244" 39.950068°	109°20'48.929" 109.346925°	2269' FNL 1766' FEL	39°57'01.338" 39.950372°	109°20'51.938" 109.347761°	39°57'01.460" 39.950406°	109°20'49.496" 109.347082°	2146' FNL 1810' FEL
BONANZA 1023-17G4CS	39°57'00.041" 39.950011°	109°20'51.299" 109.347583°	39°57'00.163" 39.950045°	109°20'48.857" 109.346905°	2278' FNL 1760' FEL	39°56'58.078" 39.949466°	109°20'51.920" 109.347756°	39°56'58.200" 39.949500°	109°20'49.479" 109.347077°	2476' FNL 1809' FEL
BONANZA 1023-17J1BS	39°56'59.958" 39.949988°	109°20'51.227" 109.347563°	39°57'00.080" 39.950022°	109°20'48.785" 109.346885°	2286' FNL 1755' FEL	39°56'54.803" 39.948556°	109°20'51.919" 109.347755°	39°56'54.925" 39.948590°	109°20'49.477" 109.347077°	2478' FSL 1809' FEL
BONANZA 1023-17J1CS	39°56'59.877" 39.949966°	109°20'51.155" 109.347543°	39°56'59.999" 39.950000°	109°20'48.714" 109.346865°	2294' FNL 1749' FEL	39°56'51.543" 39.947651°	109°20'51.972" 109.347770°	39°56'51.664" 39.947685°	109°20'49.530" 109.347092°	2148' FSL 1813' FEL
BONANZA 1023-17J4BS	39°56'59.794" 39.949943°	109°20'51.083" 109.347523°	39°56'59.916" 39.949977°	109°20'48.642" 109.346845°	2303' FNL 1744' FEL	39°56'48.272" 39.946742°	109°20'51.922" 109.347756°	39°56'48.394" 39.946776°	109°20'49.480" 109.347078°	1817' FSL 1809' FEL
BONANZA 1023-17J4CS	39°56'59.713" 39.949920°	109°20'51.012" 109.347503°	39°56'59.835" 39.949954°	109°20'48.571" 109.346825°	2311' FNL 1738' FEL	39°56'45.012" 39.945837°	109°20'51.910" 109.347753°	39°56'45.134" 39.945870°	109°20'49.469" 109.347075°	1487' FSL 1808' FEL
BONANZA 1023-17O1BS	39°56'59.631" 39.949897°	109°20'50.941" 109.347483°	39°56'59.753" 39.949931°	109°20'48.499" 109.346805°	2319' FNL 1732' FEL	39°56'41.752" 39.944931°	109°20'51.912" 109.347753°	39°56'41.873" 39.944965°	109°20'49.471" 109.347075°	1157' FSL 1808' FEL
BONANZA 1023-17O1CS	39°56'59.549" 39.949875°	109°20'50.869" 109.347464°	39°56'59.670" 39.949908°	109°20'48.427" 109.346785°	2328' FNL 1727' FEL	39°56'38.481" 39.944023°	109°20'51.913" 109.347754°	39°56'38.603" 39.944056°	109°20'49.472" 109.347076°	826' FSL 1808' FEL
BONANZA 1023-17O4BS	39°56'59.467" 39.949852°	109°20'50.797" 109.347444°	39°56'59.588" 39.949886°	109°20'48.355" 109.346765°	2336' FNL 1721' FEL	39°56'35.221" 39.943117°	109°20'51.915" 109.347754°	39°56'35.342" 39.943151°	109°20'49.474" 109.347076°	496' FSL 1808' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17G4BS	123.0'	-44.4'	**BONANZA 1023-17G4CS**	-198.7'	-48.1'	**BONANZA 1023-17J1BS**	-521.9'	-53.2'	**BONANZA 1023-17J1CS**	-843.7'	-62.5'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**
BONANZA 1023-17J4BS	-1166.3'	-63.8'	**BONANZA 1023-17J4CS**	-1488.1'	-68.0'	**BONANZA 1023-17O1BS**	-1809.8'	-73.3'	**BONANZA 1023-17O1CS**	-2132.5'	-78.6'
WELL NAME	**NORTH**	**EAST**									
BONANZA 1023-17O4BS	-2454.2'	-83.9'									

BASIS OF BEARINGS IS THE EAST LINE OF THE NE $\frac{1}{4}$ OF SECTION 17, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°08'23"W.



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

WELL PAD INTERFERENCE PLAT
WELLS - BONANZA 1023-17G4BS, BONANZA 1023-17G4CS, BONANZA 1023-17J1BS, BONANZA 1023-17J1CS, BONANZA 1023-17J4BS, BONANZA 1023-17J4CS, BONANZA 1023-17O1BS, BONANZA 1023-17O1CS & BONANZA 1023-17O4BS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	**35B**
SCALE: 1" = 60'	Date Last Revised:	35B OF 46

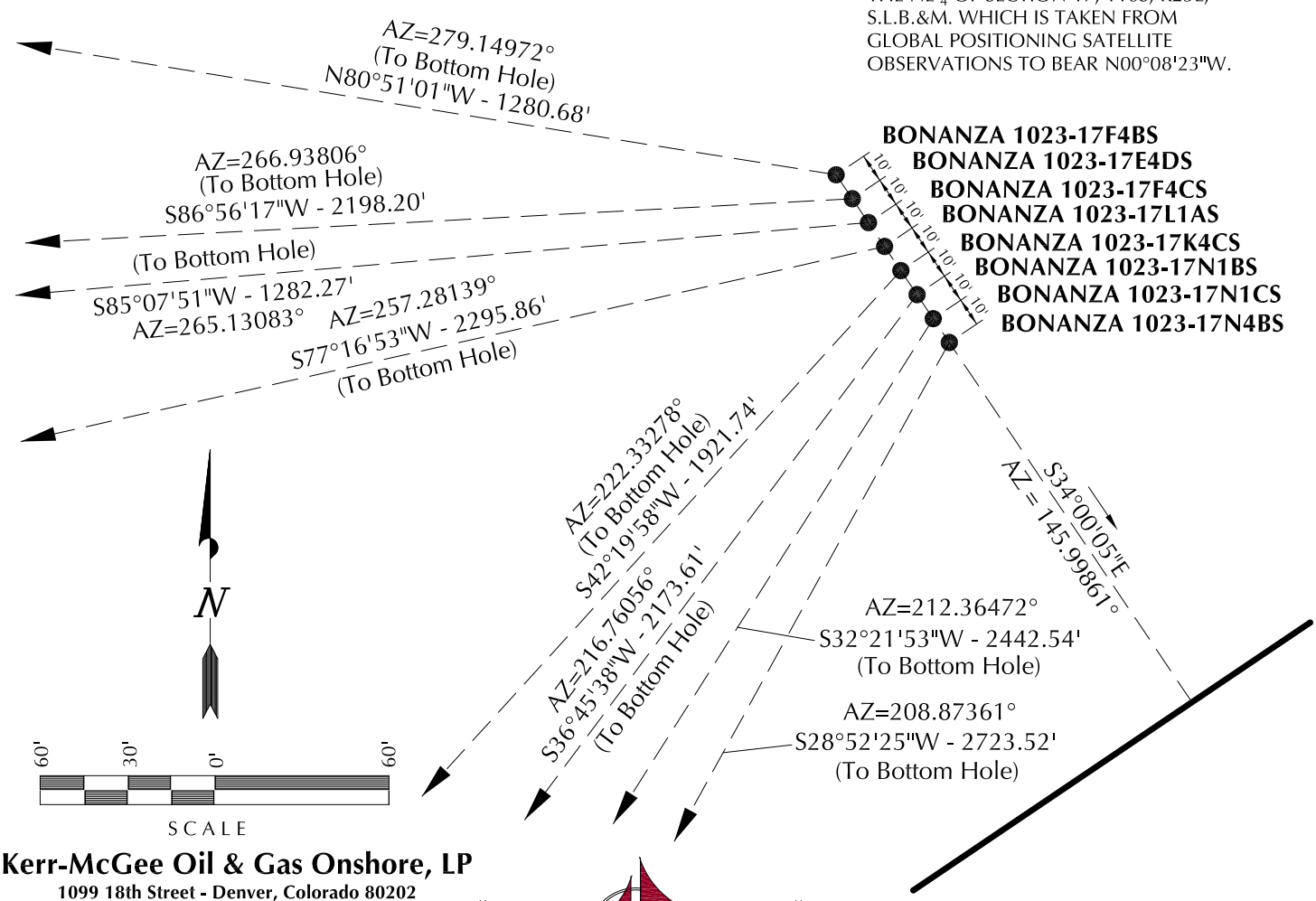
RECEIVED: August 21, 2012

API Well Number: 43047532100000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
BONANZA 1023-17F4BS	39°56'59.268" 39.949797°	109°20'52.790" 109.347997°	39°56'59.390" 39.949831°	109°20'50.348" 109.347319°	2355' FNL 1877' FEL	39°57'01.296" 39.950360°	109°21'09.018" 109.352505°	39°57'01.418" 39.950394°	109°21'06.575" 109.351826°	2143' FNL 2139' FWL
BONANZA 1023-17E4DS	39°56'59.186" 39.949774°	109°20'52.718" 109.347977°	39°56'59.308" 39.949808°	109°20'50.277" 109.347299°	2363' FNL 1871' FEL	39°56'58.054" 39.949459°	109°21'20.898" 109.355805°	39°56'58.176" 39.949493°	109°21'18.455" 109.355126°	2466' FNL 1215' FWL
BONANZA 1023-17F4CS	39°56'59.105" 39.949751°	109°20'52.646" 109.347957°	39°56'59.227" 39.949785°	109°20'50.205" 109.347279°	2372' FNL 1865' FEL	39°56'58.046" 39.949457°	109°21'09.049" 109.352514°	39°56'58.167" 39.949491°	109°21'06.607" 109.351835°	2472' FNL 2138' FWL
BONANZA 1023-17L1AS	39°56'59.023" 39.949729°	109°20'52.575" 109.347938°	39°56'59.145" 39.949762°	109°20'50.134" 109.347259°	2380' FNL 1860' FEL	39°56'54.057" 39.948349°	109°21'21.332" 109.355925°	39°56'54.179" 39.948383°	109°21'18.889" 109.355247°	2422' FSL 1183' FWL
BONANZA 1023-17K4CS	39°56'58.941" 39.949706°	109°20'52.503" 109.347918°	39°56'59.063" 39.949740°	109°20'50.061" 109.347239°	2388' FNL 1854' FEL	39°56'44.921" 39.945812°	109°21'09.139" 109.352539°	39°56'45.043" 39.945845°	109°21'06.697" 109.351860°	1484' FSL 2137' FWL
BONANZA 1023-17N1BS	39°56'58.859" 39.949683°	109°20'52.431" 109.347898°	39°56'58.980" 39.949717°	109°20'49.990" 109.347219°	2397' FNL 1849' FEL	39°56'41.670" 39.944908°	109°21'09.158" 109.352544°	39°56'41.792" 39.944942°	109°21'06.716" 109.351866°	1155' FSL 2137' FWL
BONANZA 1023-17N1CS	39°56'58.776" 39.949660°	109°20'52.360" 109.347878°	39°56'58.898" 39.949694°	109°20'49.918" 109.347199°	2405' FNL 1843' FEL	39°56'38.410" 39.944003°	109°21'09.177" 109.352549°	39°56'38.531" 39.944036°	109°21'06.735" 109.351871°	825' FSL 2137' FWL
BONANZA 1023-17N4BS	39°56'58.695" 39.949638°	109°20'52.289" 109.347858°	39°56'58.817" 39.949671°	109°20'49.847" 109.347180°	2413' FNL 1838' FEL	39°56'35.148" 39.943097°	109°21'09.209" 109.352558°	39°56'35.270" 39.943131°	109°21'06.767" 109.351880°	495' FSL 2136' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17F4BS	203.6'	-1264.4'	BONANZA 1023-17E4DS	-117.4'	-2195.1'	BONANZA 1023-17F4CS	-108.8'	-1277.6'	BONANZA 1023-17L1AS	-505.5'	-2239.5'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**
BONANZA 1023-17K4CS	-1420.6'	-1294.2'	BONANZA 1023-17N1BS	-1741.4'	-1300.8'	BONANZA 1023-17N1CS	-2063.1'	-1307.5'	BONANZA 1023-17N4BS	-2385.0'	-1315.1'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

WELL PAD INTERFERENCE PLAT
WELLS - BONANZA 1023-17F4BS, BONANZA 1023-17E4DS, BONANZA 1023-17F4CS, BONANZA 1023-17L1AS, BONANZA 1023-17K4CS, BONANZA 1023-17N1BS, BONANZA 1023-17N1CS & BONANZA 1023-17N4BS
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DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	35C
SCALE: 1" = 60'	Date Last Revised:	35C OF 46

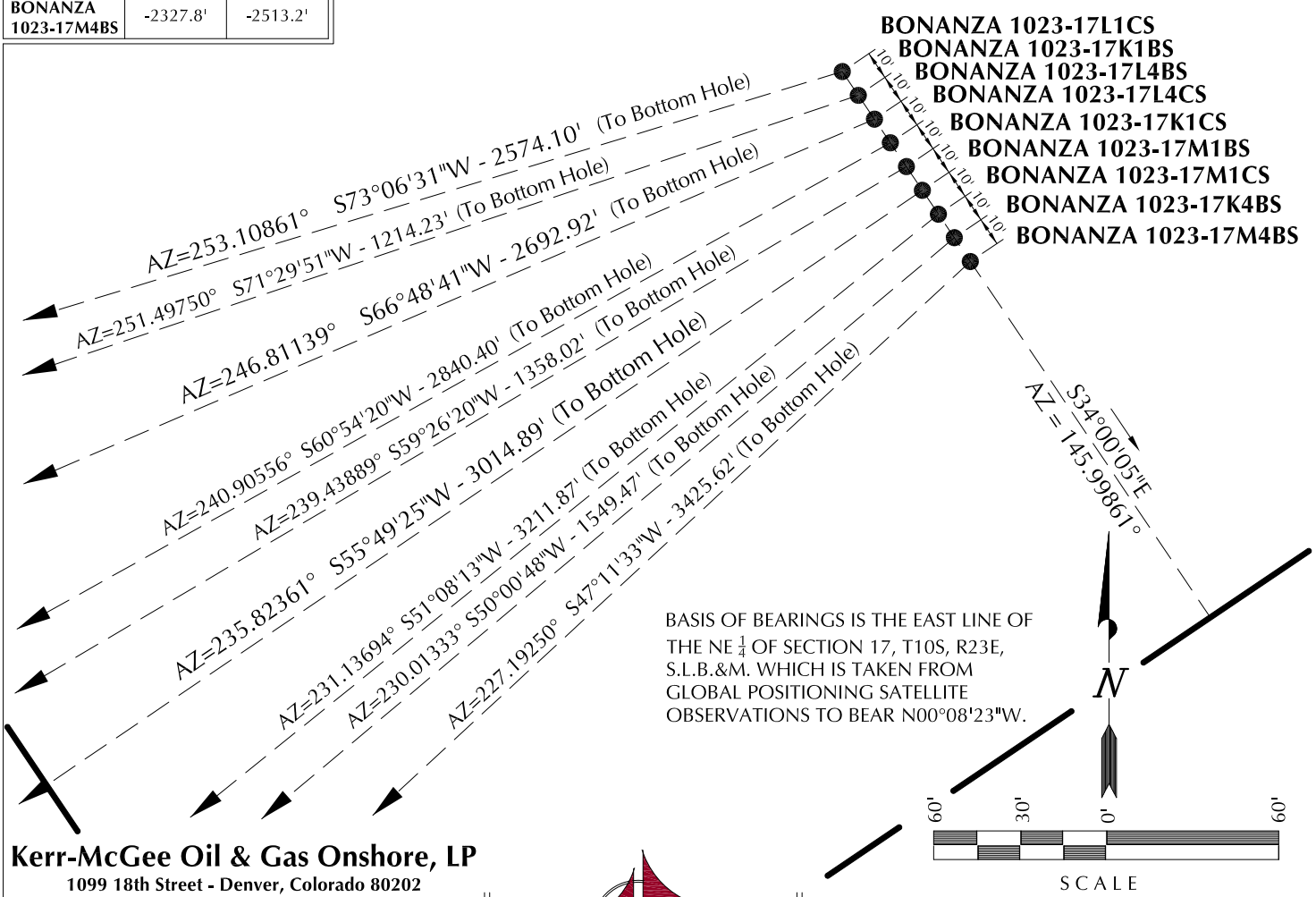
RECEIVED: August 21, 2012

API Well Number: 43047532100000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
BONANZA 1023-17L1CS	39°56'58.579" 39.949605°	109°20'54.353" 109.348431°	39°56'58.701" 39.949639°	109°20'51.911" 109.347753°	2424' FNL 1998' FEL	39°56'51.220" 39.947561°	109°21'25.982" 109.357217°	39°56'51.342" 39.947595°	109°21'23.539" 109.356539°	2140' FSL 822' FWL
BONANZA 1023-17K1BS	39°56'58.497" 39.949582°	109°20'54.281" 109.348411°	39°56'58.619" 39.949616°	109°20'51.840" 109.347733°	2433' FNL 1993' FEL	39°56'54.704" 39.948529°	109°21'09.069" 109.352519°	39°56'54.826" 39.948563°	109°21'06.626" 109.351841°	2474' FSL 2138' FWL
BONANZA 1023-17L4BS	39°56'58.415" 39.949560°	109°20'54.209" 109.348391°	39°56'58.536" 39.949593°	109°20'51.767" 109.347713°	2441' FNL 1987' FEL	39°56'47.969" 39.946658°	109°21'26.001" 109.357223°	39°56'48.091" 39.946692°	109°21'23.558" 109.356544°	1811' FSL 822' FWL
BONANZA 1023-17L4CS	39°56'58.333" 39.949537°	109°20'54.138" 109.348372°	39°56'58.455" 39.949571°	109°20'51.696" 109.347693°	2449' FNL 1982' FEL	39°56'44.718" 39.945755°	109°21'26.020" 109.357228°	39°56'44.840" 39.945789°	109°21'23.577" 109.356549°	1482' FSL 822' FWL
BONANZA 1023-17K1CS	39°56'58.251" 39.949514°	109°20'54.066" 109.348352°	39°56'58.373" 39.949548°	109°20'51.624" 109.347673°	2458' FNL 1976' FEL	39°56'51.443" 39.947623°	109°21'09.088" 109.352524°	39°56'51.565" 39.947657°	109°21'06.646" 109.351846°	2144' FSL 2138' FWL
BONANZA 1023-17M1BS	39°56'58.169" 39.949491°	109°20'53.994" 109.348332°	39°56'58.291" 39.949525°	109°20'51.553" 109.347654°	2466' FNL 1971' FEL	39°56'41.467" 39.944852°	109°21'26.039" 109.357233°	39°56'41.589" 39.944886°	109°21'23.596" 109.356554°	1153' FSL 822' FWL
BONANZA 1023-17M1CS	39°56'58.086" 39.949468°	109°20'53.923" 109.348312°	39°56'58.208" 39.949502°	109°20'51.481" 109.347634°	2474' FNL 1965' FEL	39°56'38.206" 39.943946°	109°21'26.058" 109.357238°	39°56'38.328" 39.943980°	109°21'23.615" 109.356560°	823' FSL 822' FWL
BONANZA 1023-17K4BS	39°56'58.005" 39.949446°	109°20'53.851" 109.348292°	39°56'58.127" 39.949480°	109°20'51.410" 109.347614°	2483' FNL 1959' FEL	39°56'48.182" 39.946717°	109°21'09.107" 109.352530°	39°56'48.304" 39.946751°	109°21'06.665" 109.351851°	1814' FSL 2138' FWL
BONANZA 1023-17M4BS	39°56'57.923" 39.949423°	109°20'53.780" 109.348272°	39°56'58.045" 39.949457°	109°20'51.338" 109.347594°	2491' FNL 1954' FEL	39°56'34.955" 39.943043°	109°21'26.076" 109.357243°	39°56'35.077" 39.943077°	109°21'23.634" 109.356565°	494' FSL 822' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17L1CS	-747.9'	-2463.0'	BONANZA 1023-17K1BS	-385.3'	-1151.5'	BONANZA 1023-17L4BS	-1060.4'	-2475.4'	BONANZA 1023-17L4CS	-1381.1'	-2482.0'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
BONANZA 1023-17K1CS	-690.5'	-1169.4'	BONANZA 1023-17M1BS	-1693.6'	-2494.3'	BONANZA 1023-17M1CS	-2015.3'	-2500.9'	BONANZA 1023-17K4BS	-995.7'	-1187.2'
WELL NAME	NORTH	EAST									
BONANZA 1023-17M4BS	-2327.8'	-2513.2'									



BASIS OF BEARINGS IS THE EAST LINE OF THE NE $\frac{1}{4}$ OF SECTION 17, T10S, R23E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°08'23"W.

Kerr-McGee Oil & Gas Onshore, LP
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WELL PAD - BONANZA 1023-17G

WELL PAD INTERFERENCE PLAT
WELLS - BONANZA 1023-17L1CS, BONANZA 1023-17K1BS, BONANZA 1023-17L4BS, BONANZA 1023-17L4CS, BONANZA 1023-17K1CS, BONANZA 1023-17M1BS, BONANZA 1023-17M1CS, BONANZA 1023-17K4BS & BONANZA 1023-17M4BS
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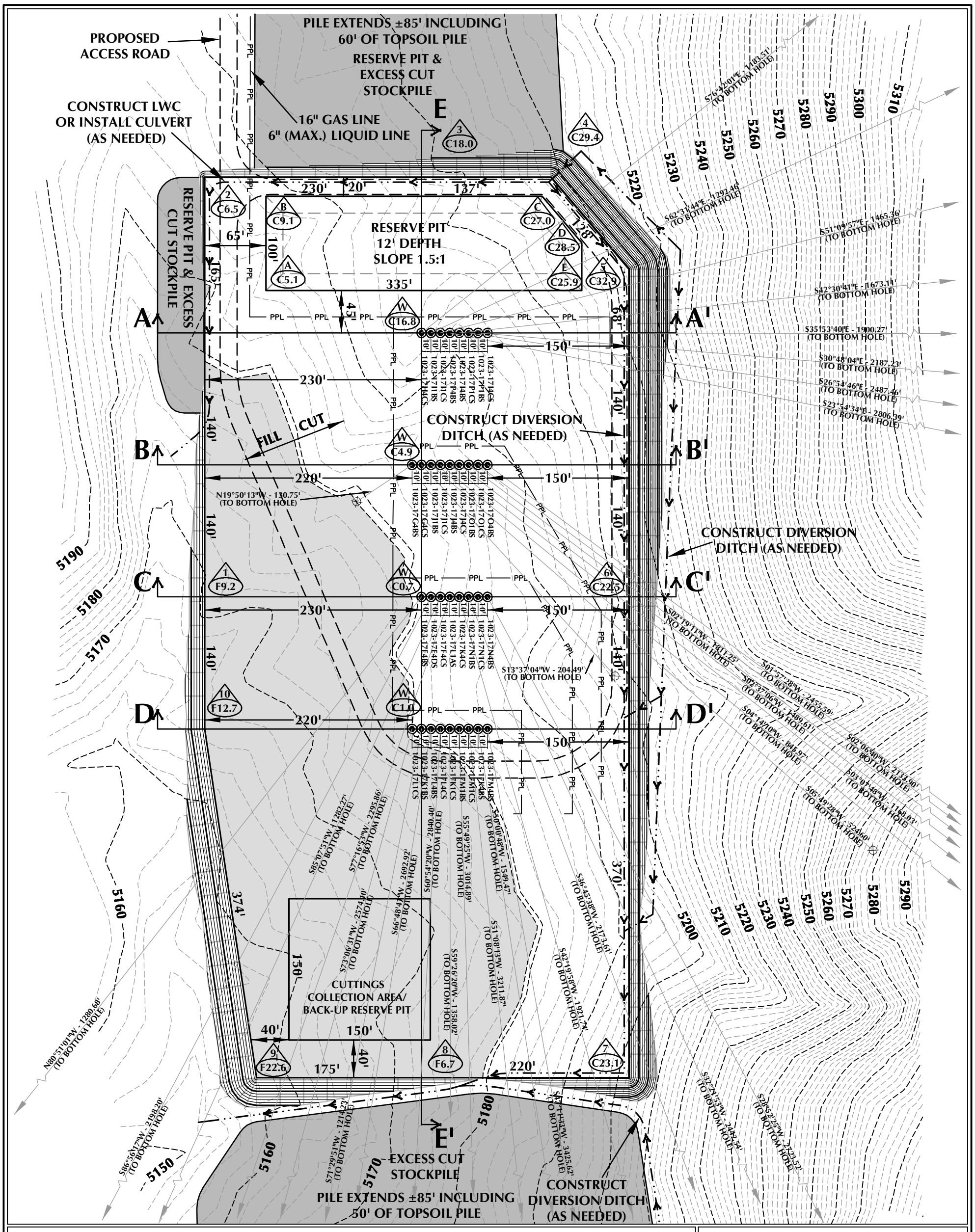
SCALE: 1" = 60'	Date Last Revised:	35D OF 46

RECEIVED: August 21, 2012



WELL PAD - BONANZA 1023-17G DESIGN SUMMARY

EXISTING GRADE @ BONANZA 1023-17F4BS = 5180.2'
FINISHED GRADE ELEVATION = 5179.5'
CUT SLOPES = 1:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 10.92 ACRES
TOTAL DISTURBANCE AREA = 15.37 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
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WELL PAD - BONANZA 1023-17G

WELL PAD - LOCATION LAYOUT
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 111,894 C.Y.
TOTAL FILL FOR WELL PAD = 67,475 C.Y.
TOPSOIL @ 6" DEPTH = 8,806 C.Y.
EXCESS MATERIAL = 44,419 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 11,240 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 42,940 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 50' 100' 1" = 100'
2' CONTOURS

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209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=100'	DATE: 11/30/11	SHEET NO:
REVISED:	NAT 3/29/12	36 36 OF 46

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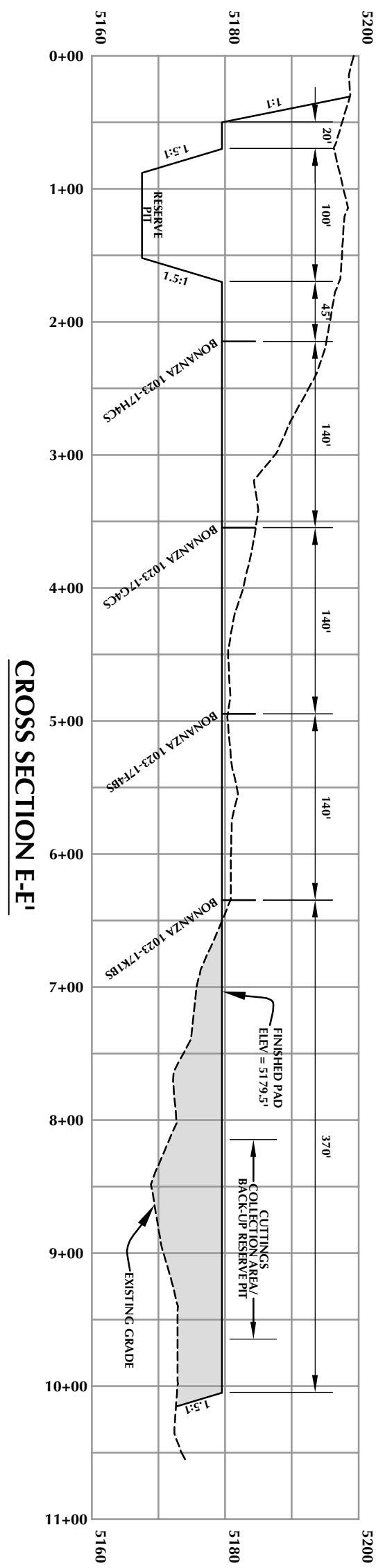
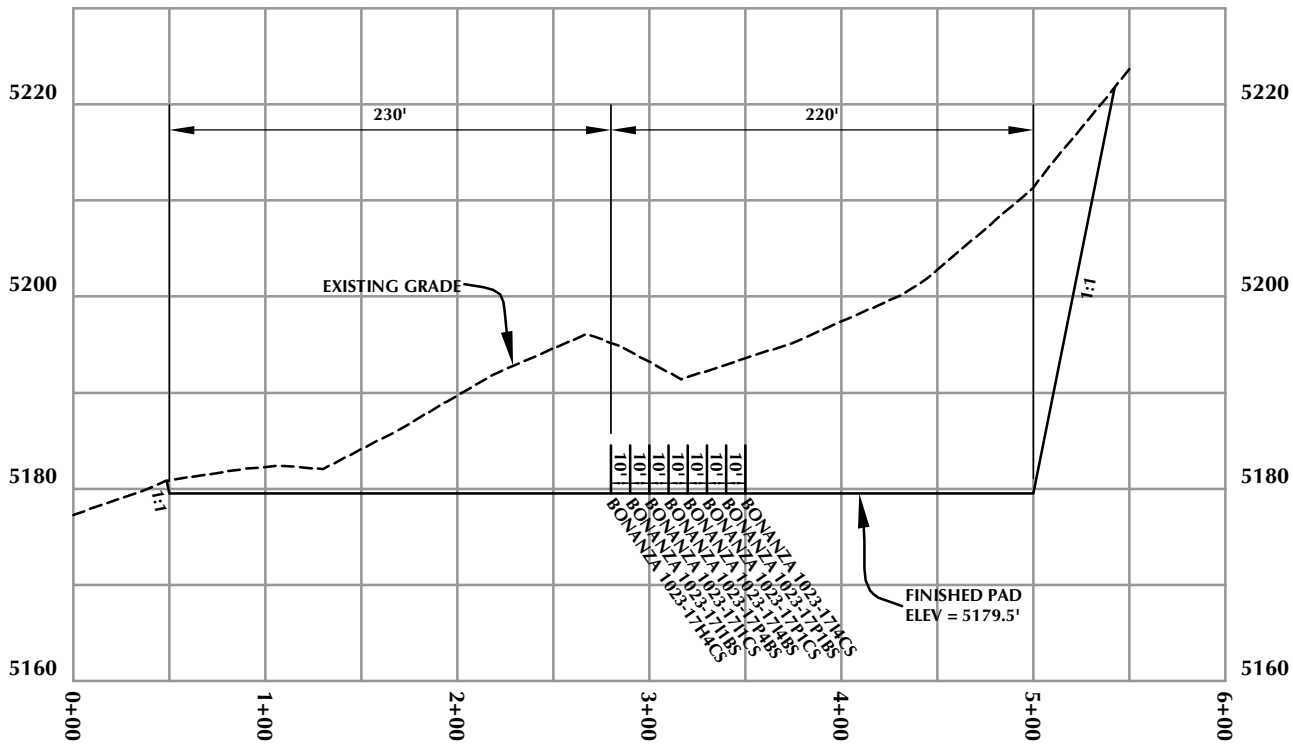
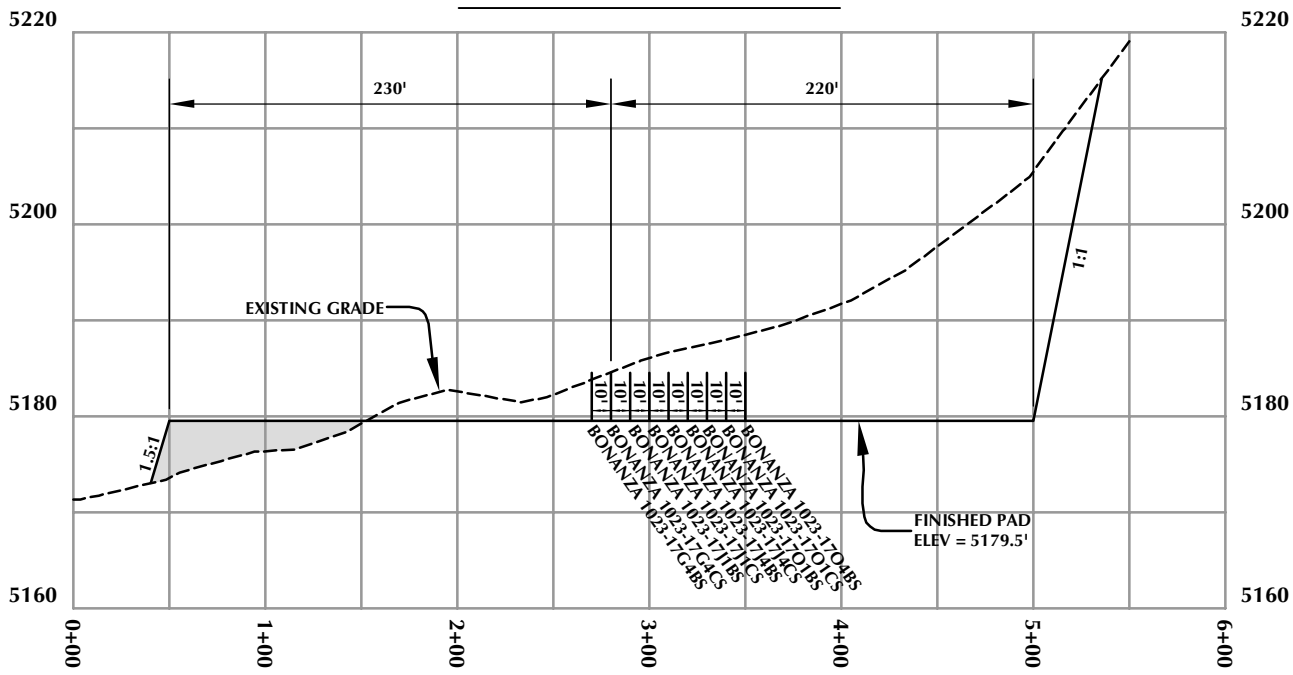
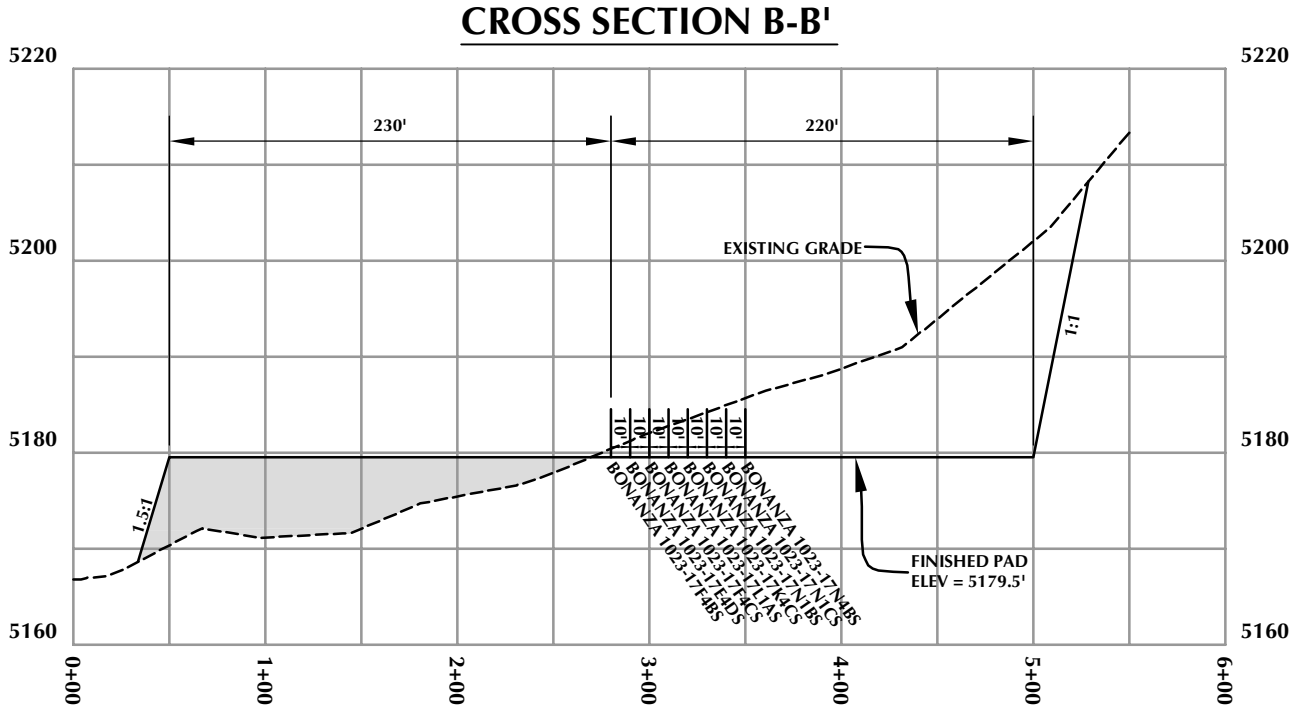
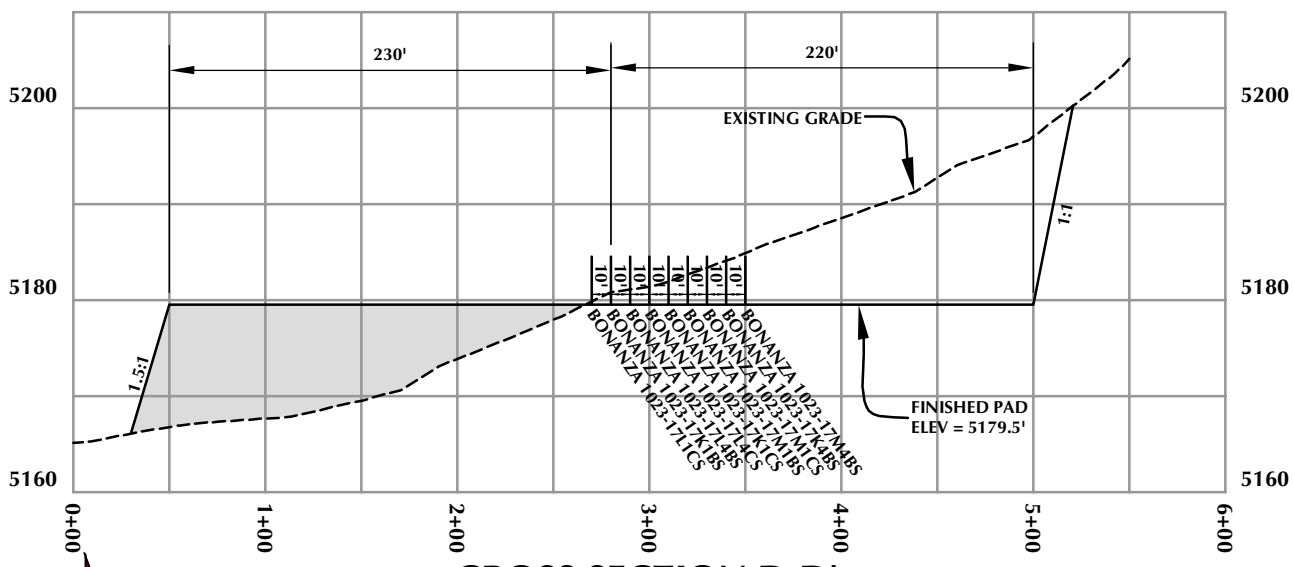










Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

WELL PAD - CROSS SECTIONS
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

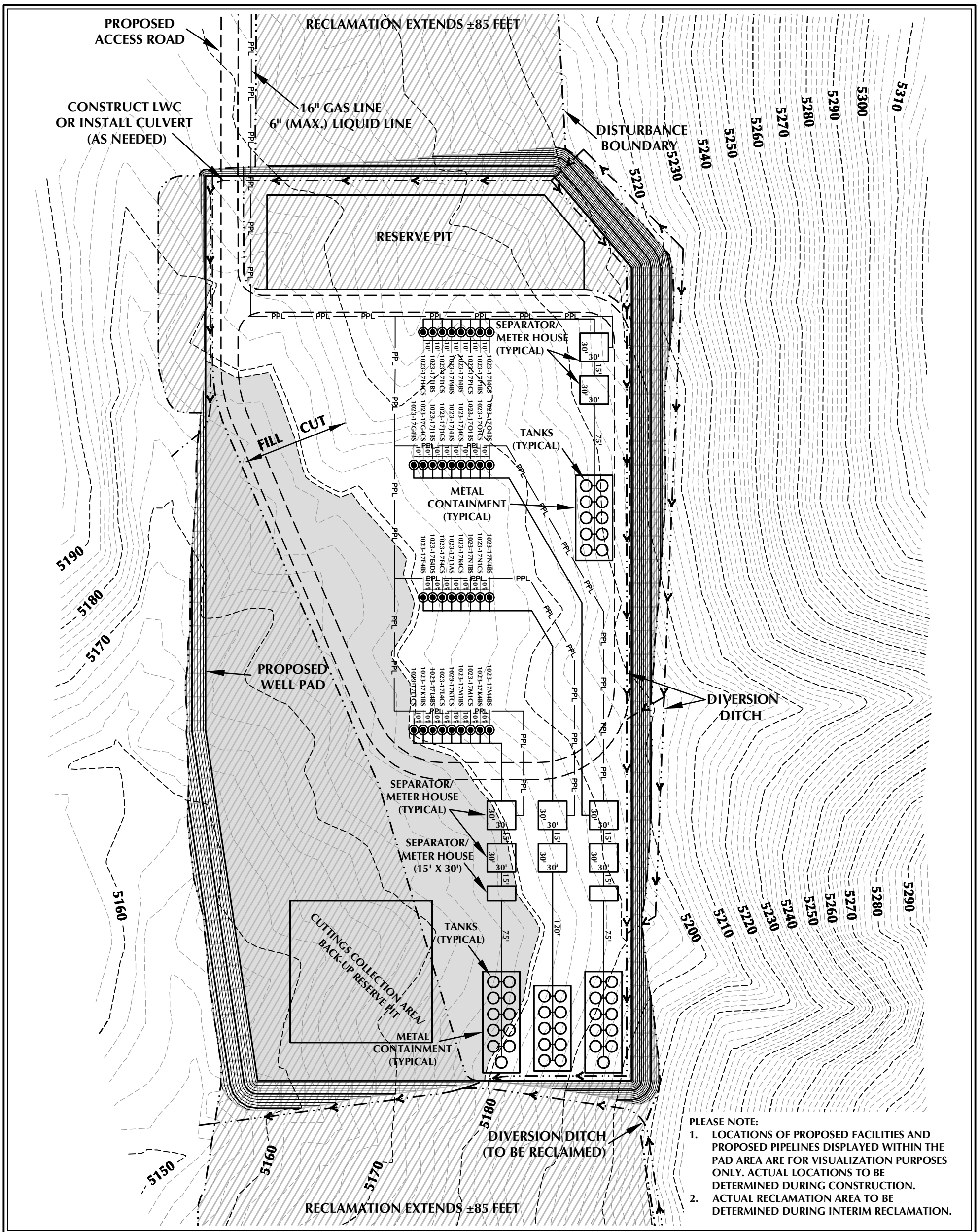
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

HORIZONTAL 0 50' 100' 1" = 100'
VERTICAL 0 10' 20' 1" = 20'

Scale: 1"=100'	Date: 11/30/11	SHEET NO:
REVISED:	NAT 3/29/12	37 37 OF 46

K:\ANADARKO\2011\2011_73_NBU_FOCUS_1023-17\DWGS\BONANZA 1023-17G\BONANZA 1023-17G.dwg, 3/30/2012 2:57:59 PM, andy



PLEASE NOTE:
1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.

WELL PAD - BONANZA 1023-17G DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 15.37 ACRES
RECLAMATION AREA = 9.22 ACRES
TOTAL WELL PAD AREA AFTER RECLAMATION = 6.15 ACRES

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE
- RECLAMATION AREA

HORIZONTAL 0 50' 100' 1" = 100'

2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

WELL PAD - RECLAMATION LAYOUT
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

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209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=100'	DATE: 1/20/12	SHEET NO:
REVISED:	NAT 3/29/12	38 38 OF 46

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RECEIVED: August 21, 2012

API Well Number: 43047532100000

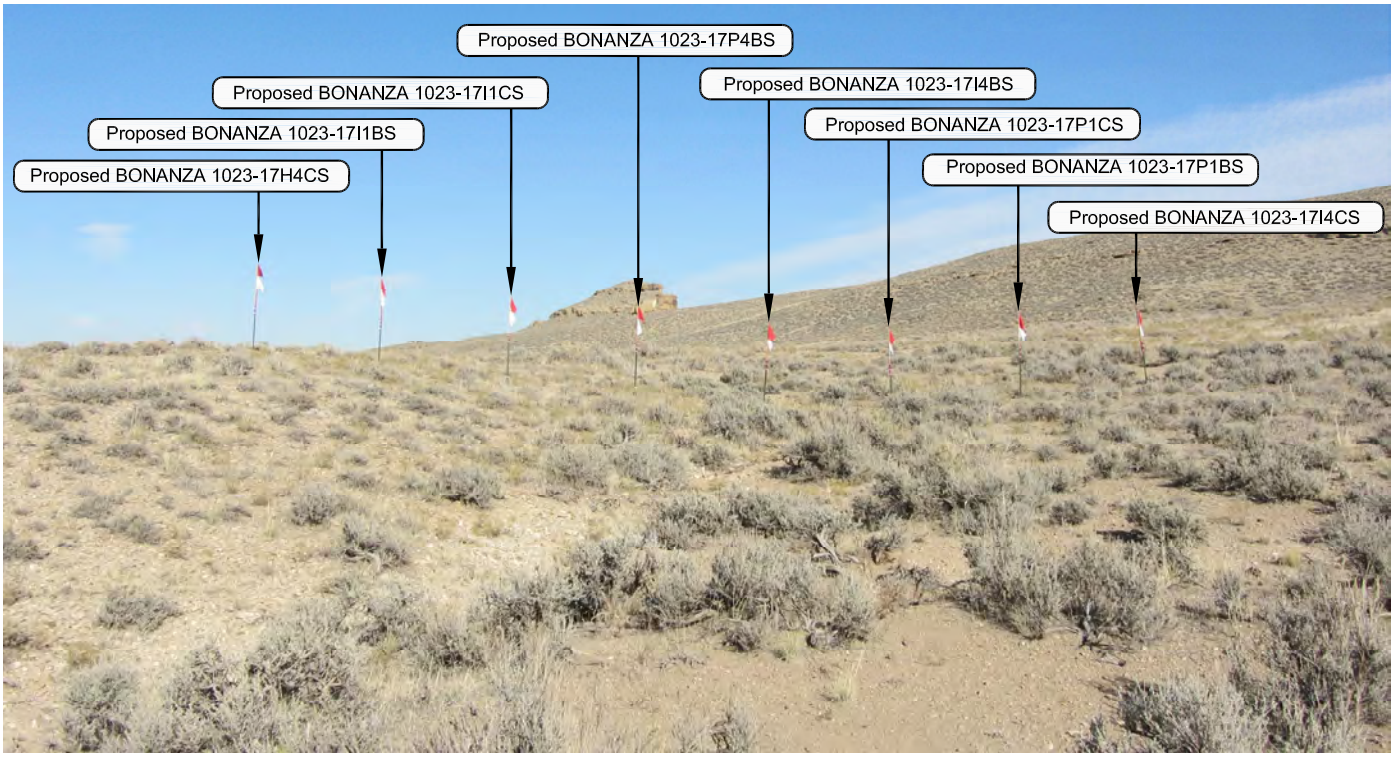

PHOTO VIEW: FROM CORNER #8 TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

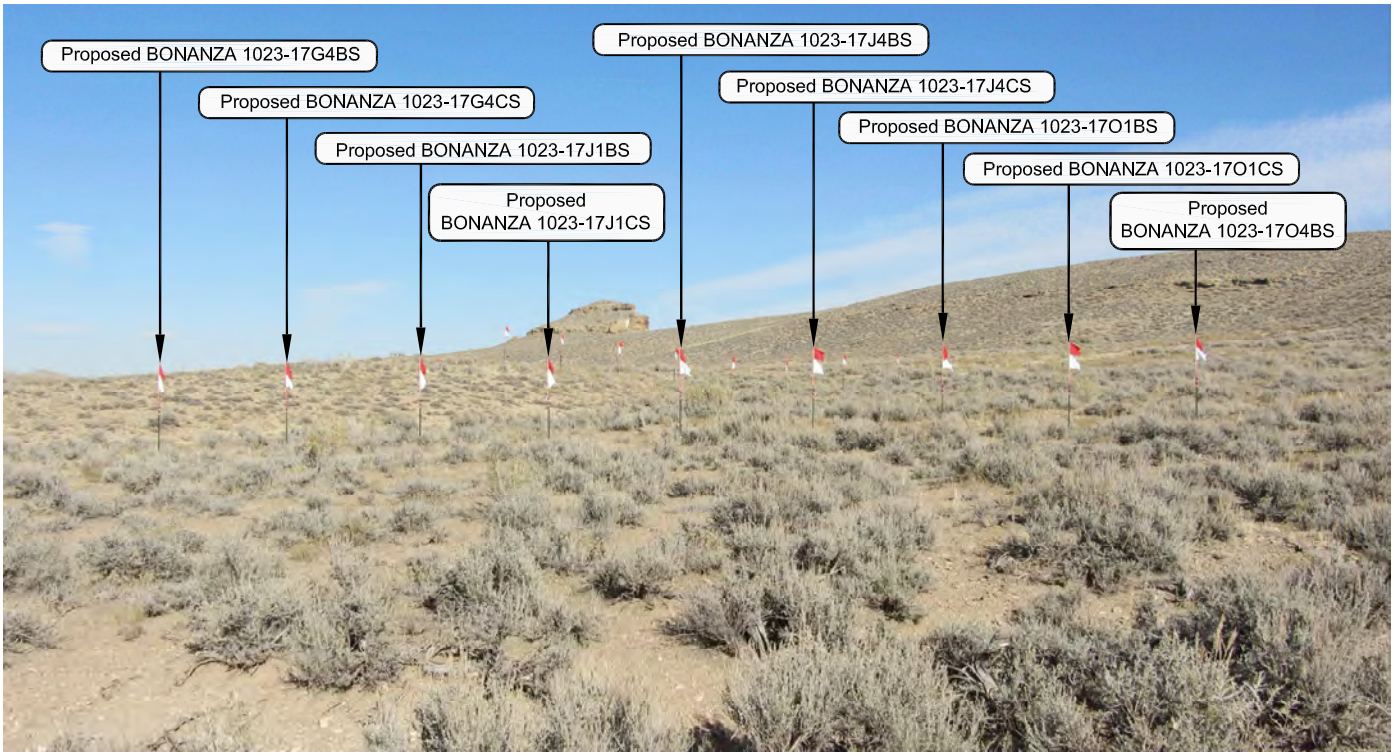

PHOTO VIEW: FROM CORNER #8 TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

LOCATION PHOTOS
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 11-04-11	PHOTOS TAKEN BY: W.W.	SHEET NO:
DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	39A
Date Last Revised:		39A OF 46

RECEIVED: August 21, 2012

API Well Number: 43047532100000

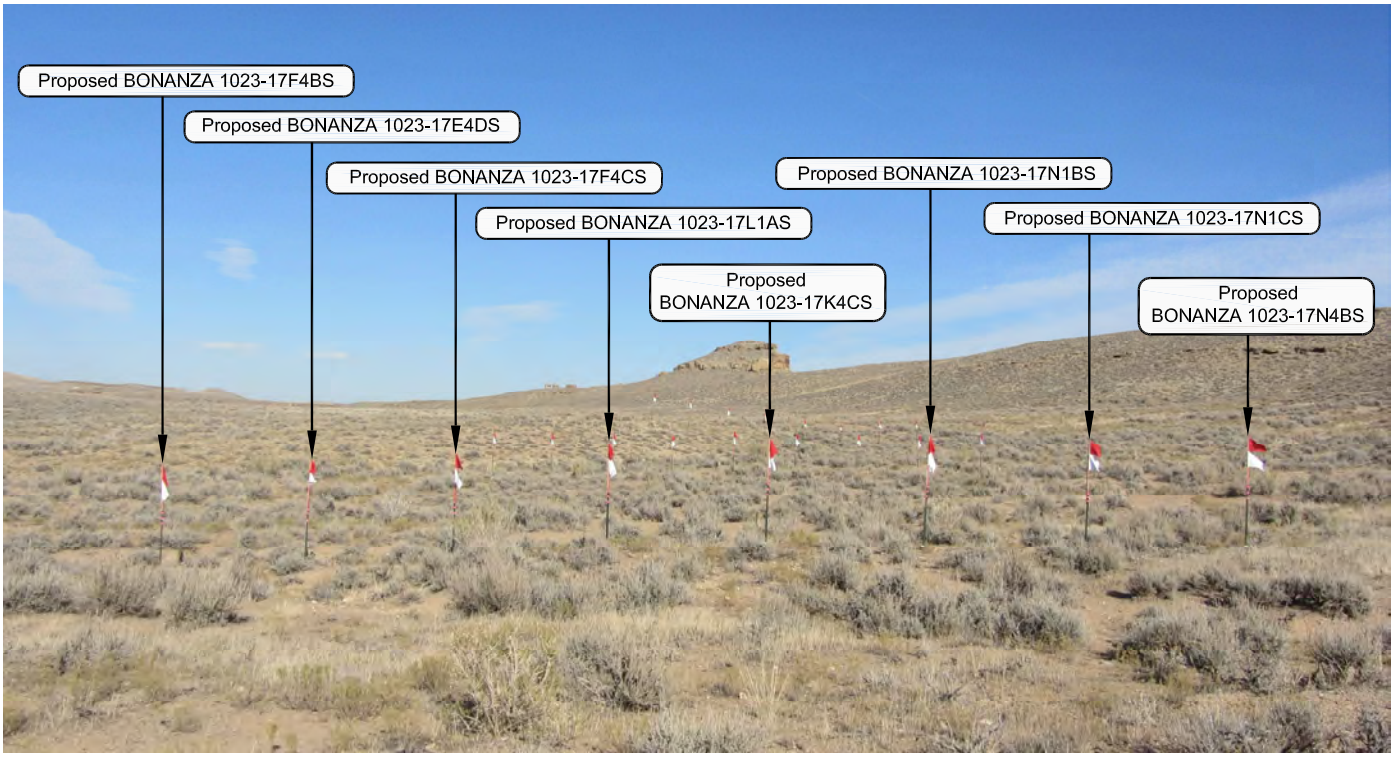

PHOTO VIEW: FROM CORNER #8 TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

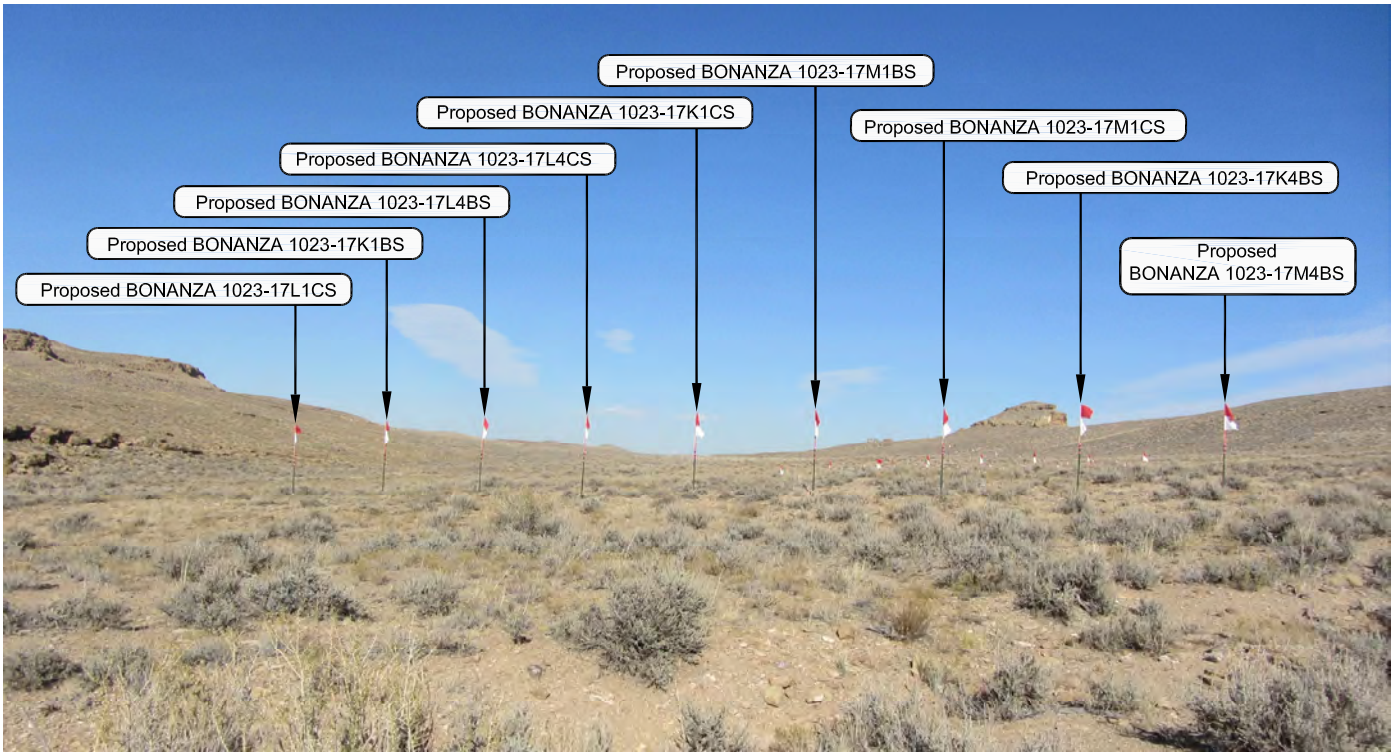

PHOTO VIEW: FROM CORNER #8 TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

LOCATION PHOTOS
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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DATE PHOTOS TAKEN: 11-04-11	PHOTOS TAKEN BY: W.W.	SHEET NO:
DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	39B
Date Last Revised:		39B OF 46

RECEIVED: August 21, 2012

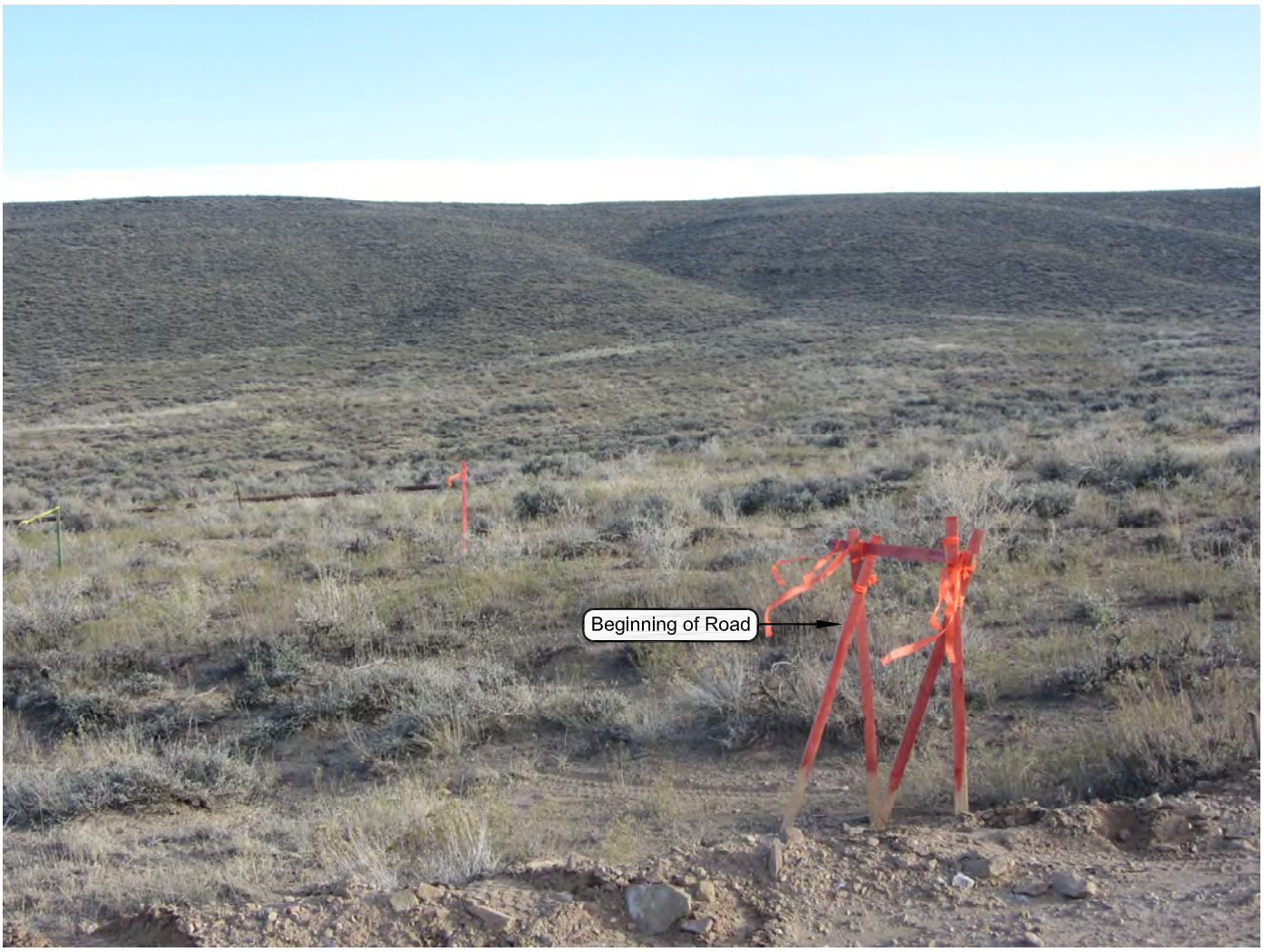

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-17G

LOCATION PHOTOS
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH.

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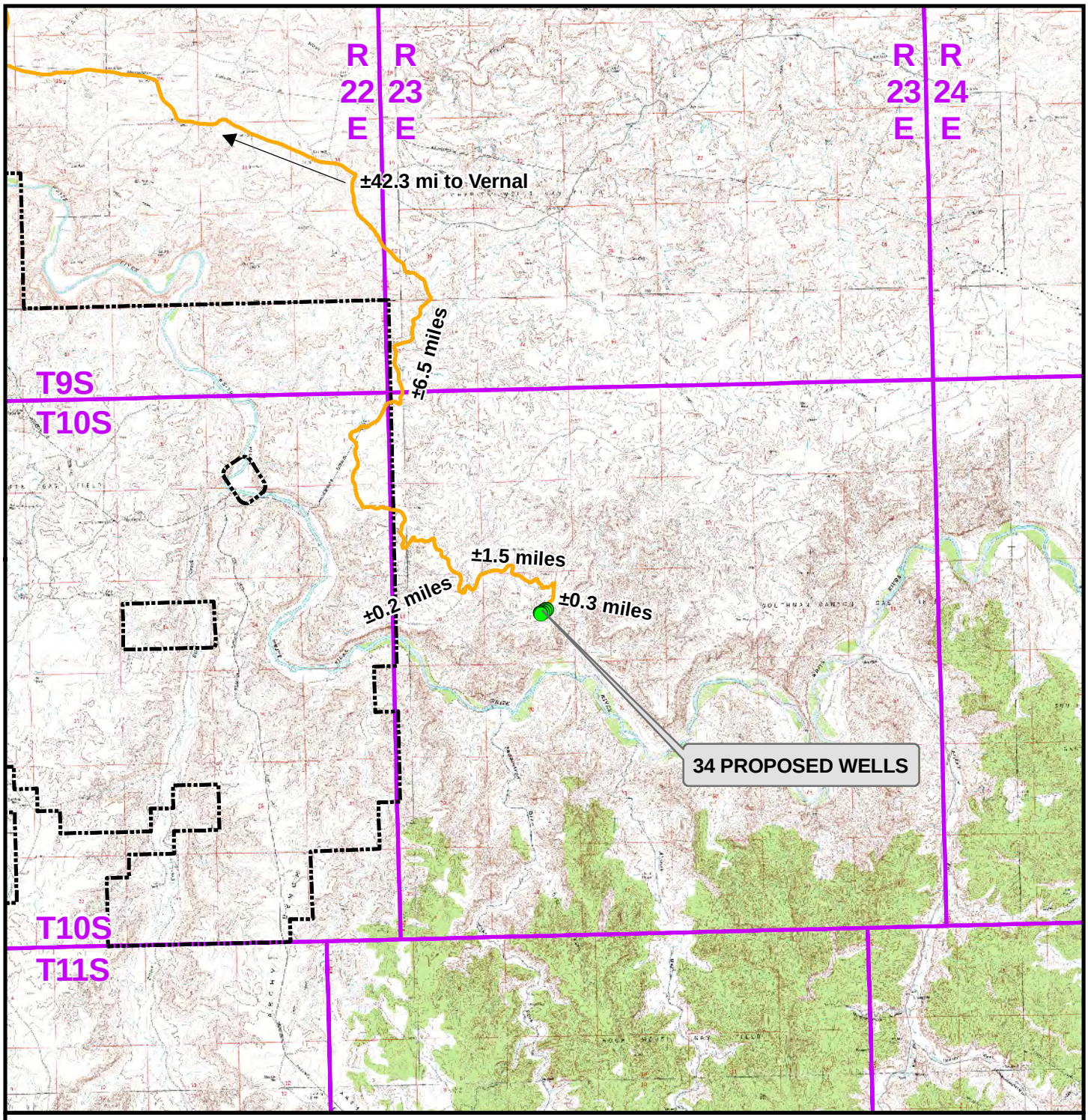
DATE PHOTOS TAKEN: 11-04-11	PHOTOS TAKEN BY: W.W.	SHEET NO:
DATE DRAWN: 11-21-11	DRAWN BY: M.W.W.	39C
Date Last Revised:		39C OF 46

RECEIVED: August 21, 2012

API Well Number: 43047532100000



Legend

Distance From Well Pad - BONANZA 1023-17G To Unit Boundary: ±8,540ft

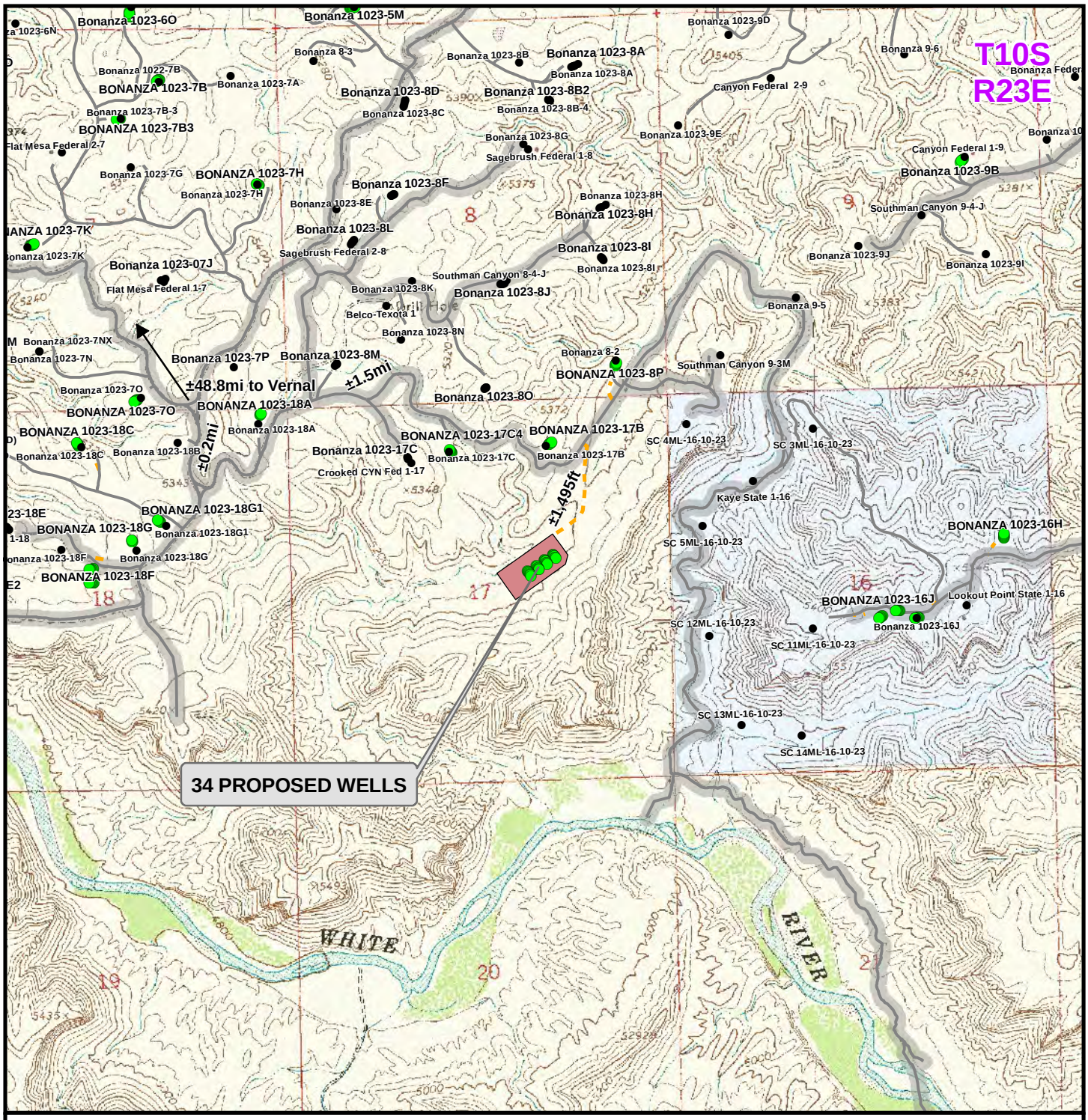
- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

WELL PAD - BONANZA 1023-17G	**Kerr-McGee Oil & Gas Onshore L.P.**	609 CONSULTING, LLC 2155 North Main Street Sheridan, Wyoming 82801 Phone 307-674-0609 Fax 307-674-0182
TOPO A **34 PROPOSED WELLS** **LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH**	**1099 18th Street** **Denver, Colorado 80202**	SCALE: 1:100,000 / NAD83 USP Central / SHEET NO: 40 DRAWN: TL / DATE: 30 Nov 2011 REVISED: / DATE: / 40 OF 46

N

RECEIVED: August 21, 2012

API Well Number: 43047532100000



Legend

Total Proposed Road Length: ±1,495ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - BONANZA 1023-17G

TOPO B
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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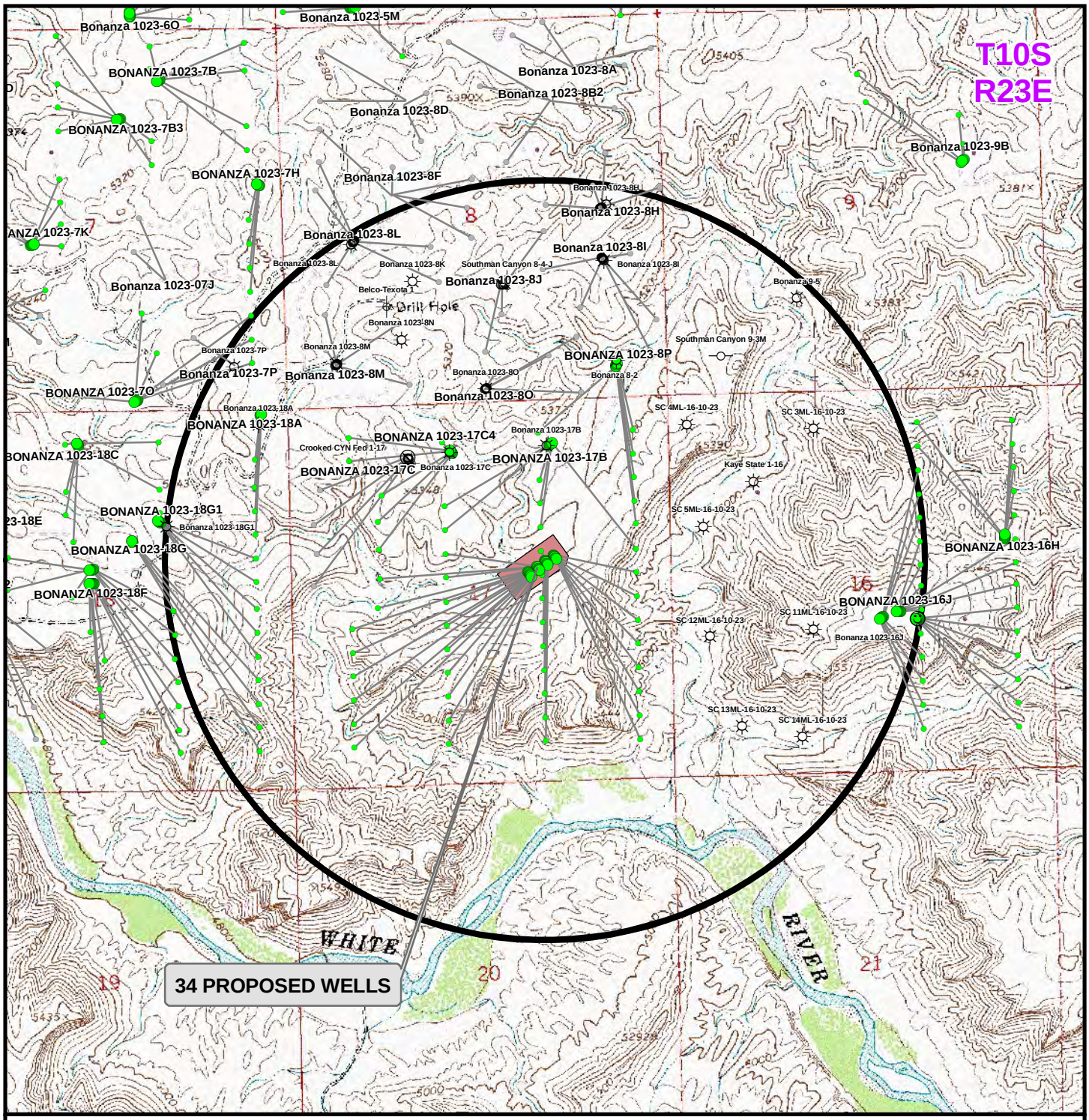
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:	
DRAWN: TL	DATE: 30 Nov 2011	41	
REVISED: TL	DATE: 20 Jan 2012	41 OF 46	

RECEIVED: August 21, 2012

API Well Number: 43047532100000



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - BONANZA 1023-17G

TOPO C
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

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N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 42A
DRAWN: TL	DATE: 20 Jan 2012	
REVISED:	DATE:	42A OF 46

RECEIVED: August 21, 2012

Proposed Well	Nearest Well Bore	Footage
BONANZA 1023-17H4CS	SC 5ML-16-10-23	1,127ft
BONANZA 1023-17I1BS	SC 12ML-16-10-23	1,153ft
BONANZA 1023-17I1CS	SC 12ML-16-10-23	1,026ft
BONANZA 1023-17P4BS	SC 13ML-16-10-23	1,423ft
BONANZA 1023-17I4BS	SC 12ML-16-10-23	997ft
BONANZA 1023-17P1CS	SC 13ML-16-10-23	1,427ft
BONANZA 1023-17P1BS	SC 12ML-16-10-23	1,239ft
BONANZA 1023-17I4CS	SC 12ML-16-10-23	1,075ft
BONANZA 1023-17G4BS	Bonanza 1023-17B	1,458ft
BONANZA 1023-17G4CS	Bonanza 1023-17B	1,787ft
BONANZA 1023-17J1BS	Bonanza 1023-17B	2,118ft
BONANZA 1023-17J1CS	SC 12ML-16-10-23	2,327ft
BONANZA 1023-17J4BS	SC 12ML-16-10-23	2,311ft
BONANZA 1023-17J4CS	SC 12ML-16-10-23	2,344ft
BONANZA 1023-17O1BS	SC 12ML-16-10-23	2,424ft
BONANZA 1023-17O1CS	SC 12ML-16-10-23	2,544ft
BONANZA 1023-17O4BS	SC 12ML-16-10-23	2,700ft
BONANZA 1023-17F4BS	Crooked CYN Fed 1-17	1,345ft
BONANZA 1023-17E4DS	Bonanza 1023-17E3CS BH	918ft
BONANZA 1023-17F4CS	Crooked CYN Fed 1-17	1,659ft
BONANZA 1023-17L1AS	Bonanza 1023-17E3CS BH	939ft
BONANZA 1023-17K4CS	Bonanza 1023-17E3CS BH	2,217ft
BONANZA 1023-17N1BS	Bonanza 1023-17E3CS BH	2,416ft
BONANZA 1023-17N1CS	Bonanza 1023-17E3CS BH	2,643ft
BONANZA 1023-17N4BS	Bonanza 1023-17E3CS BH	2,888ft
BONANZA 1023-17L1CS	Bonanza 1023-17E3CS BH	803ft
BONANZA 1023-17K1BS	Bonanza 1023-17E3CS BH	1,855ft
BONANZA 1023-17L4BS	Bonanza 1023-17E3CS BH	1,074ft
BONANZA 1023-17L4CS	Bonanza 1023-17E3CS BH	1,371ft
BONANZA 1023-17K1CS	Bonanza 1023-17E3CS BH	1,927ft
BONANZA 1023-17M1BS	Bonanza 1023-17E3CS BH	1,680ft
BONANZA 1023-17M1CS	Bonanza 1023-17E3CS BH	1,996ft
BONANZA 1023-17K4BS	Bonanza 1023-17E3CS BH	2,051ft
BONANZA 1023-17M4BS	Bonanza 1023-17E3CS BH	2,315ft

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

WELL PAD - BONANZA 1023-17G

TOPO C
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.
1099 18th Street
Denver, Colorado 80202

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Sheridan, Wyoming 82801
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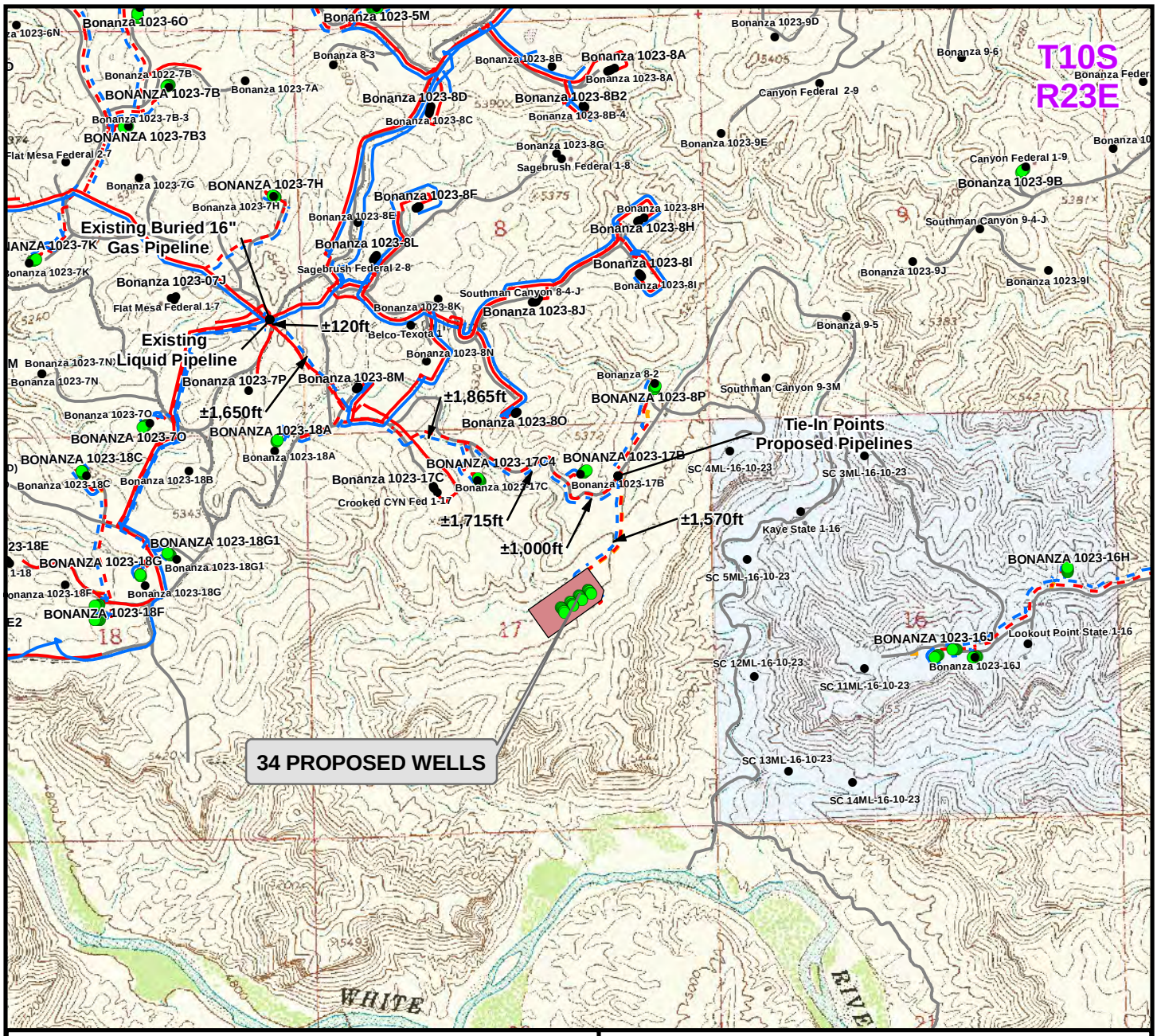
SCALE: N/A	NAD83 USP Central	SHEET NO:	
DRAWN: TL	DATE: 20 Jan 2012	42B	
REVISED:	DATE:	42B OF 46	

RECEIVED: August 21, 2012



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter Houses to Edge of Pad)	±2,225ft
Buried 6"(Max.) (Edge of Pad to 8P Intersection)	±1,570ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±3,795ft

Proposed Gas Pipeline	Length
Buried 16" (Meter Houses to Edge of Pad)	±2,225ft
Buried 16" (Edge of Pad to 8P Intersection)	±1,570ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±3,795ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - BONANZA 1023-17G

TOPO D
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH

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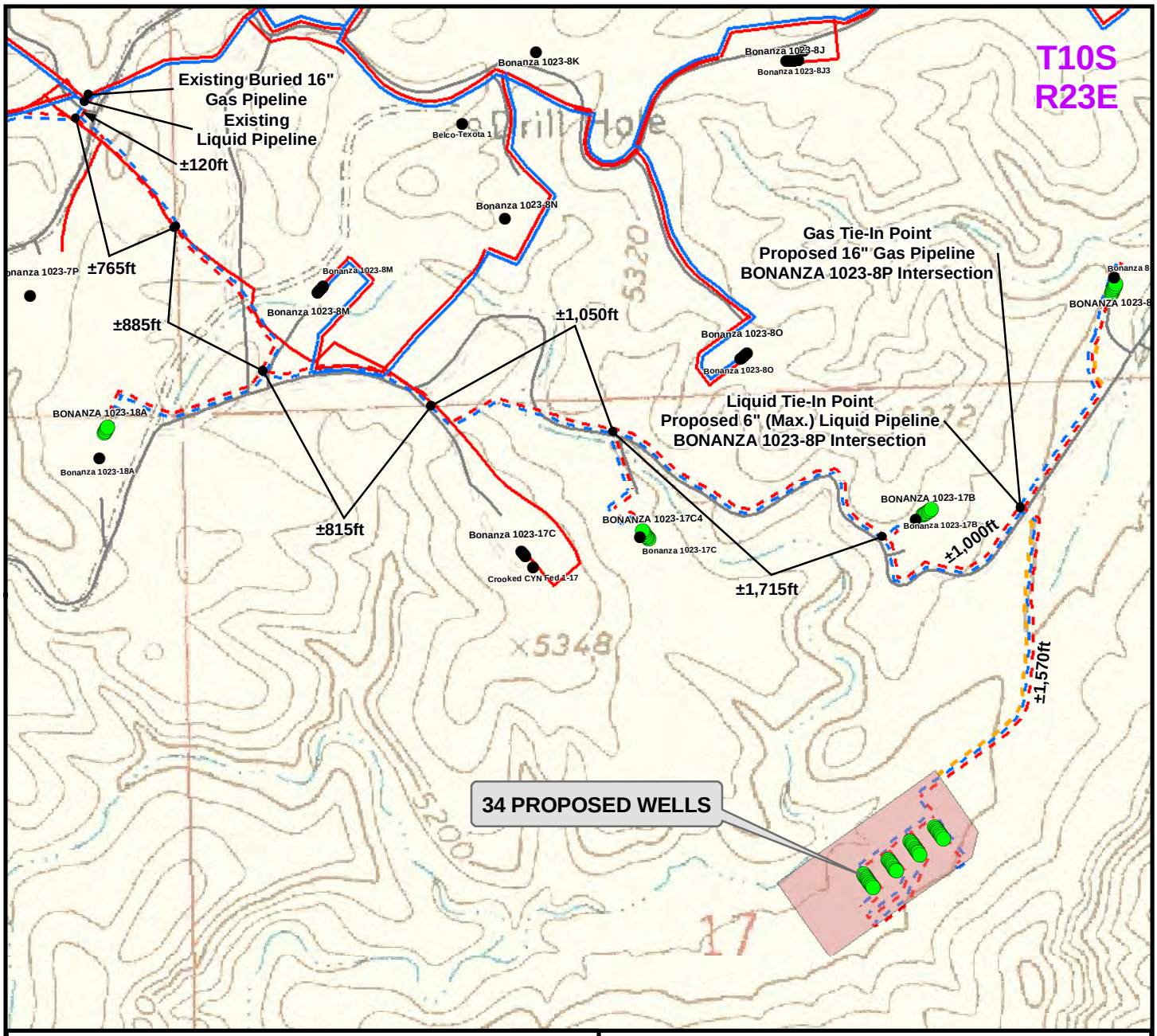
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 43
DRAWN: TL	DATE: 20 Jan 2012	43 OF 46
REVISED:	DATE:	

RECEIVED: August 21, 2012

API Well Number: 43047532100000



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter Houses to Edge of Pad)	±2,225ft
Buried 6"(Max.) (Edge of Pad to 8P Intersection)	±1,570ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±3,795ft

Proposed Gas Pipeline	Length
Buried 16" (Meter Houses to Edge of Pad)	±2,225ft
Buried 16" (Edge of Pad to 8P Intersection)	±1,570ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±3,795ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - BONANZA 1023-17G

TOPO D2 (PAD & PIPELINE DETAIL)
34 PROPOSED WELLS
LOCATED IN SECTION 17, T10S, R23E, S.L.B.&M., UINTAH COUNTY, UTAH

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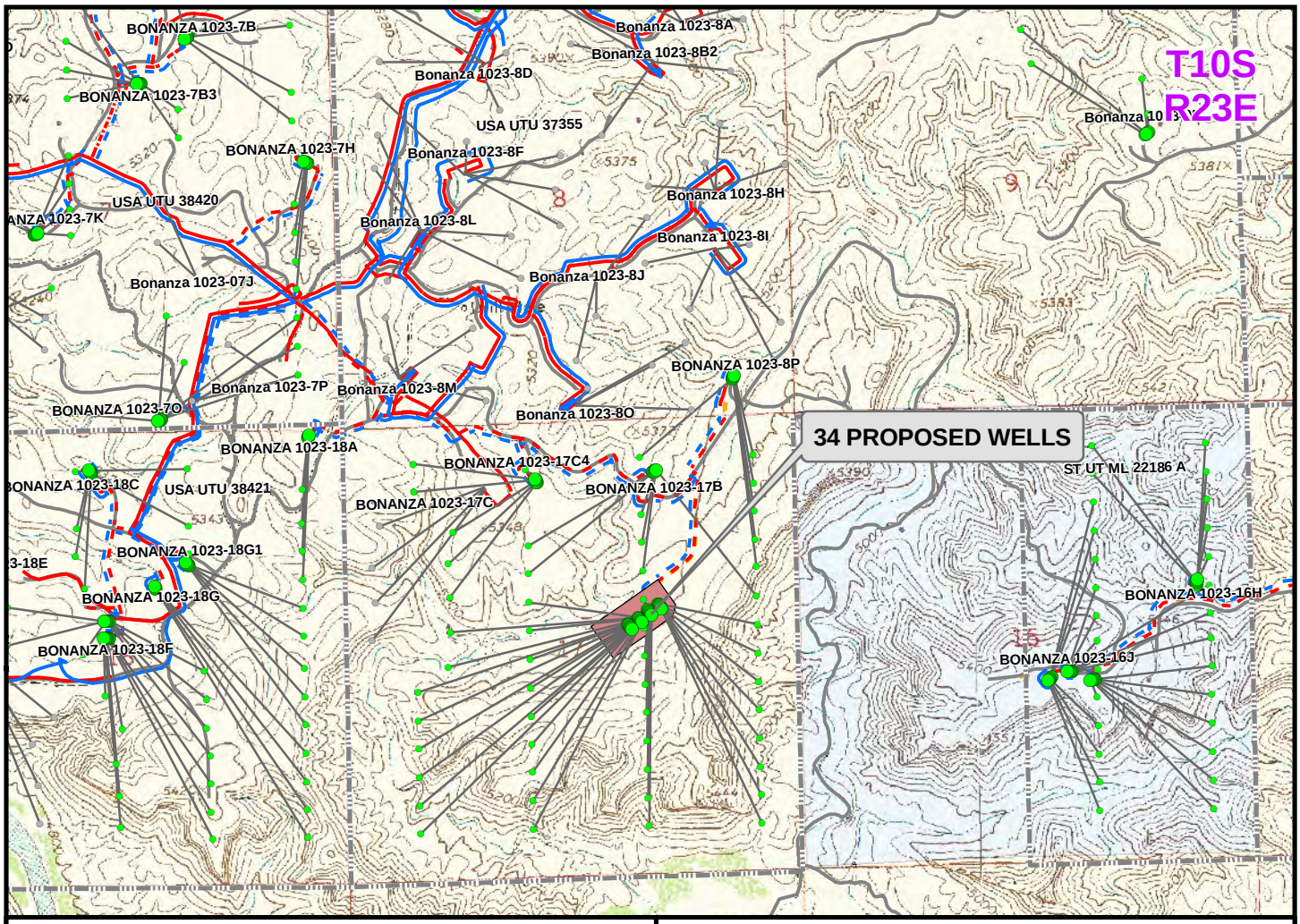
SCALE: 1" = 750ft	NAD83 USP Central	SHEET NO:	
DRAWN: TL	DATE: 30 Nov 2011	44	
REVISED: TL	DATE: 20 Jan 2012	44 OF 46	

RECEIVED: August 21, 2012

API Well Number: 43047532100000



Proposed Well	Distance To Nearest Lease Boundary
BONANZA 1023-17H4CS	493ft
BONANZA 1023-17I1BS	493ft
BONANZA 1023-17I1CS	493ft
BONANZA 1023-17P4BS	493ft
BONANZA 1023-17I4BS	493ft
BONANZA 1023-17P1CS	493ft
BONANZA 1023-17P1BS	493ft
BONANZA 1023-17I4CS	493ft
BONANZA 1023-17G4BS	1,810ft
BONANZA 1023-17G4CS	1,809ft
BONANZA 1023-17J1BS	1,809ft
BONANZA 1023-17J1CS	1,813ft
BONANZA 1023-17J4BS	1,809ft
BONANZA 1023-17J4CS	1,487ft
BONANZA 1023-17O1BS	1,157ft
BONANZA 1023-17O1CS	826ft
BONANZA 1023-17O4BS	496ft

Proposed Well	Distance To Nearest Lease Boundary
BONANZA 1023-17F4BS	2,139ft
BONANZA 1023-17E4DS	1,215ft
BONANZA 1023-17F4CS	2,138ft
BONANZA 1023-17L1AS	1,183ft
BONANZA 1023-17K4CS	1,484ft
BONANZA 1023-17N1BS	1,155ft
BONANZA 1023-17N1CS	825ft
BONANZA 1023-17N4BS	495ft
BONANZA 1023-17L1CS	822ft
BONANZA 1023-17K1BS	2,138ft
BONANZA 1023-17L4BS	822ft
BONANZA 1023-17L4CS	822ft
BONANZA 1023-17K1CS	2,138ft
BONANZA 1023-17M1BS	822ft
BONANZA 1023-17M1CS	822ft
BONANZA 1023-17K4BS	1,814ft
BONANZA 1023-17M4BS	494ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
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WELL PAD - BONANZA 1023-17G

TOPO E
34 PROPOSED WELLS
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Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 45
DRAWN: TL	DATE: 20 Jan 2012	45 OF 46
REVISED:	DATE:	

RECEIVED: August 21, 2012

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – BONANZA 1023-17G
34 PROPOSED WELLS
Section 17, T10S, R23E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly direction along the Seven Sisters Road approximately 6.5 miles to a Class D County Road to the south. Exit right and proceed in a southerly direction along the Class D County Road approximately 0.2 miles to a second Class D County Road to the northeast. Exit left and proceed in a northeasterly, then southeasterly, then northeasterly direction along the second Class D County Road approximately 1.5 miles to the proposed access road to the south. Follow road flags in a southerly direction approximately 1,485 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 50.8 miles in a southerly direction.

RECEIVED: August 21, 2012

API Well Number: 43047532100000

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: BONANZA 1023-17G PAD
Well: BONANZA 1023-17K4CS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

T M
Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52240.8snT
Dip Angle: 65.84°
Date: 04/05/2012
Model: IGRF2010

WELL DETAILS: BONANZA 1023-17K4CS

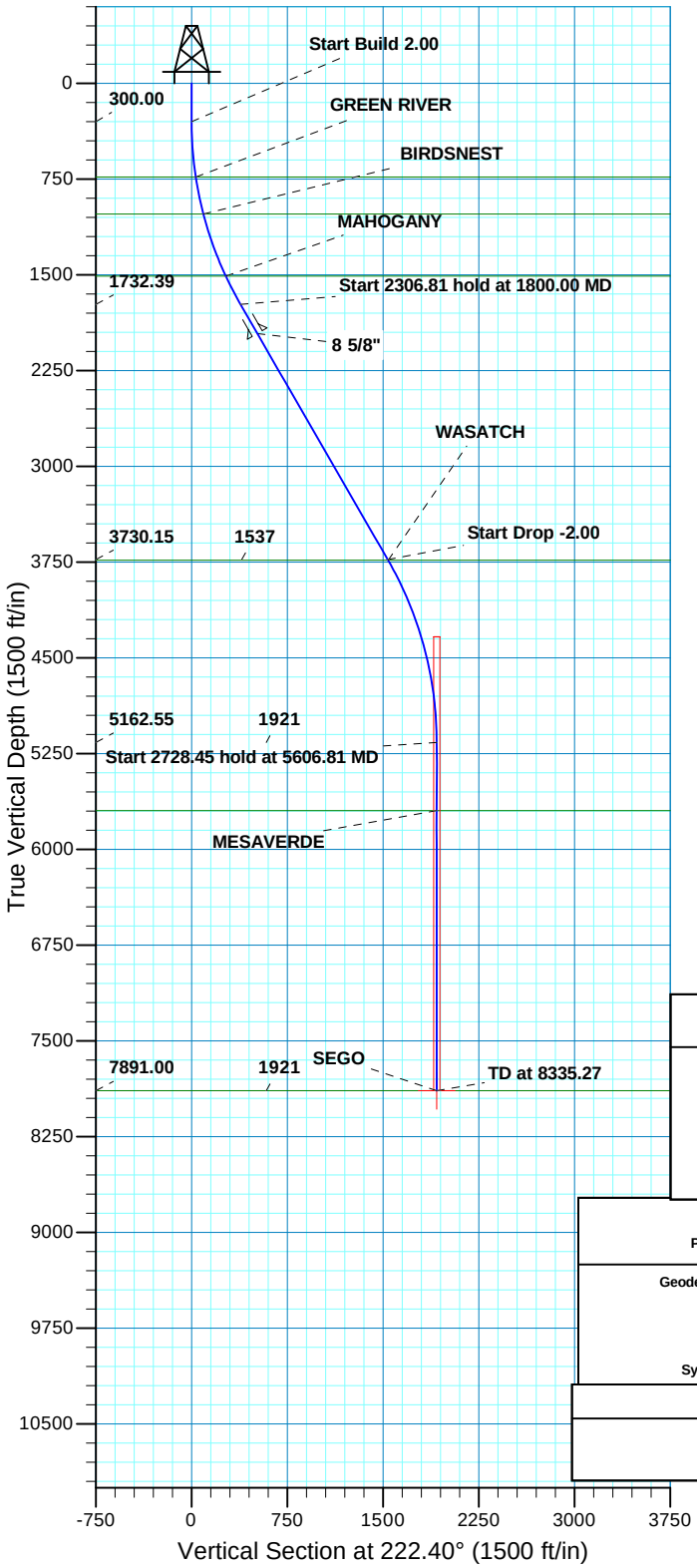
GL 5179 & KB 4 @ 5183.00ft (ASSUMED)

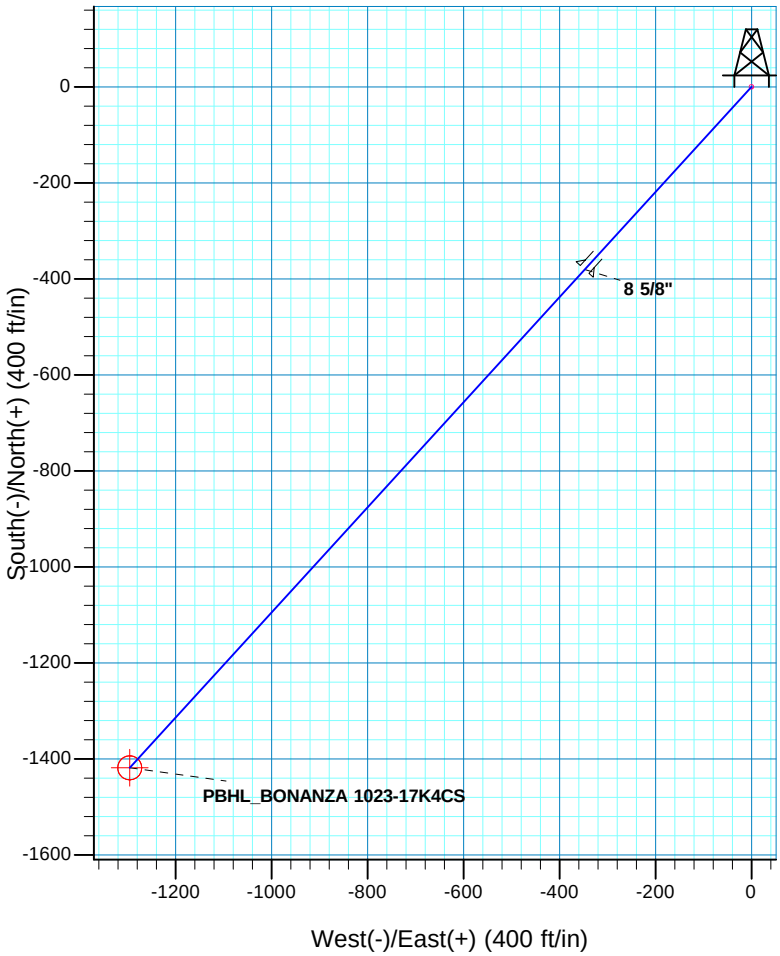
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14512033.64	2103636.64	39.949740	-109.347239

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7891.00	-1418.50	-1295.45	14510591.38	2102367.70	39.945845	-109.351860	Circle (Radius: 25.00)

- plan hits target center





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1800.00	30.00	222.40	1732.39	-283.41	-258.82	2.00	222.40	383.81	
4106.81	30.00	222.40	3730.15	-1135.09	-1036.62	0.00	0.00	1537.21	
5606.81	0.00	0.00	5162.55	-1418.50	-1295.45	2.00	180.00	1921.02	
8335.27	0.00	0.00	7891.00	-1418.50	-1295.45	0.00	0.00	1921.02	PBHL_BONANZA 1023-17K4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 17 T10S R23E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	Di
734.00	735.68	GREEN RIVER	
1024.00	1031.94	BIRDSNEST	
1510.00	1549.21	MAHOGANY	
3736.00	4113.56	WASATCH	
5696.00	6140.27	MESAVERDE	
7890.99	8335.26	SEGO	

CASING DETAILS

TVD	MD	Name	Size
1960.00	2062.82	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (BONANZA 1023-17K4CS/OH)

Created By: RobertScott Date: 15:26, April 12 2012

RECEIVED

API Well Number: 43047532100000

Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
BONANZA 1023-17G PAD
BONANZA 1023-17K4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

12 April, 2012

Anadarko
Petroleum Corporation

RECEIVED: August 21, 2012

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Site:	BONANZA 1023-17G PAD	**North Reference:**	True
Well:	BONANZA 1023-17K4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site BONANZA 1023-17G PAD, SECTION 17 T10S R23E

Site Position:		**Northing:**	14,512,226.99 usft	**Latitude:**	39.950260
From:	Lat/Long	**Easting:**	2,103,842.82 usft	**Longitude:**	-109.346491
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.06 °

Well BONANZA 1023-17K4CS, 2388 FNL 1854 FEL

Well Position	**+N/-S**	-189.49 ft	**Northing:**	14,512,033.64 usft	**Latitude:**	39.949740
	+E/-W	-209.74 ft	**Easting:**	2,103,636.64 usft	**Longitude:**	-109.347239
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,179.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/05/12	10.90	65.84	52,241

Design PLAN #1 PRELIMINARY

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	222.40

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	30.00	222.40	1,732.39	-283.41	-258.82	2.00	2.00	0.00	222.40	
4,106.81	30.00	222.40	3,730.15	-1,135.09	-1,036.62	0.00	0.00	0.00	0.00	
5,606.81	0.00	0.00	5,162.55	-1,418.50	-1,295.45	2.00	-2.00	0.00	180.00	
8,335.27	0.00	0.00	7,891.00	-1,418.50	-1,295.45	0.00	0.00	0.00	0.00	PBHL_BONANZA 10

RECEIVED: August 21, 2012

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Site:	BONANZA 1023-17G PAD	**North Reference:**	True
Well:	BONANZA 1023-17K4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	222.40	399.98	-1.29	-1.18	1.75	2.00	2.00	0.00
500.00	4.00	222.40	499.84	-5.15	-4.71	6.98	2.00	2.00	0.00
600.00	6.00	222.40	599.45	-11.59	-10.58	15.69	2.00	2.00	0.00
700.00	8.00	222.40	698.70	-20.59	-18.80	27.88	2.00	2.00	0.00
735.68	8.71	222.40	734.00	-24.42	-22.30	33.07	2.00	2.00	0.00
GREEN RIVER									
800.00	10.00	222.40	797.47	-32.14	-29.35	43.52	2.00	2.00	0.00
900.00	12.00	222.40	895.62	-46.23	-42.22	62.60	2.00	2.00	0.00
1,000.00	14.00	222.40	993.06	-62.84	-57.39	85.10	2.00	2.00	0.00
1,031.94	14.64	222.40	1,024.00	-68.67	-62.71	93.00	2.00	2.00	0.00
BIRDSNEST									
1,100.00	16.00	222.40	1,089.64	-81.95	-74.84	110.98	2.00	2.00	0.00
1,200.00	18.00	222.40	1,185.27	-103.53	-94.55	140.21	2.00	2.00	0.00
1,300.00	20.00	222.40	1,279.82	-127.57	-116.51	172.77	2.00	2.00	0.00
1,400.00	22.00	222.40	1,373.17	-154.03	-140.67	208.60	2.00	2.00	0.00
1,500.00	24.00	222.40	1,465.21	-182.88	-167.02	247.67	2.00	2.00	0.00
1,549.21	24.98	222.40	1,510.00	-197.95	-180.78	268.08	2.00	2.00	0.00
MAHOGANY									
1,600.00	26.00	222.40	1,555.84	-214.09	-195.52	289.93	2.00	2.00	0.00
1,700.00	28.00	222.40	1,644.94	-247.61	-226.13	335.33	2.00	2.00	0.00
1,800.00	30.00	222.40	1,732.39	-283.41	-258.82	383.81	2.00	2.00	0.00
Start 2306.81 hold at 1800.00 MD									
1,900.00	30.00	222.40	1,819.00	-320.33	-292.54	433.81	0.00	0.00	0.00
2,000.00	30.00	222.40	1,905.60	-357.25	-326.26	483.81	0.00	0.00	0.00
2,062.82	30.00	222.40	1,960.00	-380.44	-347.44	515.22	0.00	0.00	0.00
8 5/8"									
2,100.00	30.00	222.40	1,992.20	-394.17	-359.98	533.81	0.00	0.00	0.00
2,200.00	30.00	222.40	2,078.80	-431.09	-393.69	583.81	0.00	0.00	0.00
2,300.00	30.00	222.40	2,165.41	-468.01	-427.41	633.81	0.00	0.00	0.00
2,400.00	30.00	222.40	2,252.01	-504.93	-461.13	683.81	0.00	0.00	0.00
2,500.00	30.00	222.40	2,338.61	-541.85	-494.85	733.81	0.00	0.00	0.00
2,600.00	30.00	222.40	2,425.21	-578.77	-528.56	783.81	0.00	0.00	0.00
2,700.00	30.00	222.40	2,511.82	-615.69	-562.28	833.81	0.00	0.00	0.00
2,800.00	30.00	222.40	2,598.42	-652.61	-596.00	883.81	0.00	0.00	0.00
2,900.00	30.00	222.40	2,685.02	-689.53	-629.72	933.81	0.00	0.00	0.00
3,000.00	30.00	222.40	2,771.63	-726.45	-663.43	983.81	0.00	0.00	0.00
3,100.00	30.00	222.40	2,858.23	-763.37	-697.15	1,033.81	0.00	0.00	0.00
3,200.00	30.00	222.40	2,944.83	-800.29	-730.87	1,083.81	0.00	0.00	0.00
3,300.00	30.00	222.40	3,031.43	-837.22	-764.59	1,133.81	0.00	0.00	0.00
3,400.00	30.00	222.40	3,118.04	-874.14	-798.30	1,183.81	0.00	0.00	0.00
3,500.00	30.00	222.40	3,204.64	-911.06	-832.02	1,233.81	0.00	0.00	0.00
3,600.00	30.00	222.40	3,291.24	-947.98	-865.74	1,283.81	0.00	0.00	0.00
3,700.00	30.00	222.40	3,377.84	-984.90	-899.46	1,333.81	0.00	0.00	0.00
3,800.00	30.00	222.40	3,464.45	-1,021.82	-933.18	1,383.81	0.00	0.00	0.00
3,900.00	30.00	222.40	3,551.05	-1,058.74	-966.89	1,433.81	0.00	0.00	0.00
4,000.00	30.00	222.40	3,637.65	-1,095.66	-1,000.61	1,483.81	0.00	0.00	0.00
4,100.00	30.00	222.40	3,724.25	-1,132.58	-1,034.33	1,533.81	0.00	0.00	0.00
4,106.81	30.00	222.40	3,730.15	-1,135.09	-1,036.62	1,537.21	0.00	0.00	0.00

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Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

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Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Site:	BONANZA 1023-17G PAD	**North Reference:**	True
Well:	BONANZA 1023-17K4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start Drop -2.00									
4,113.56	29.87	222.40	3,736.00	-1,137.58	-1,038.90	1,540.58	2.00	-2.00	0.00
WASATCH									
4,200.00	28.14	222.40	3,811.60	-1,168.52	-1,067.15	1,582.49	2.00	-2.00	0.00
4,300.00	26.14	222.40	3,900.59	-1,202.20	-1,097.91	1,628.10	2.00	-2.00	0.00
4,400.00	24.14	222.40	3,991.11	-1,233.57	-1,126.55	1,670.57	2.00	-2.00	0.00
4,500.00	22.14	222.40	4,083.07	-1,262.58	-1,153.05	1,709.86	2.00	-2.00	0.00
4,600.00	20.14	222.40	4,176.33	-1,289.20	-1,177.36	1,745.92	2.00	-2.00	0.00
4,700.00	18.14	222.40	4,270.80	-1,313.41	-1,199.47	1,778.70	2.00	-2.00	0.00
4,800.00	16.14	222.40	4,366.36	-1,335.16	-1,219.34	1,808.16	2.00	-2.00	0.00
4,900.00	14.14	222.40	4,462.88	-1,354.44	-1,236.95	1,834.27	2.00	-2.00	0.00
5,000.00	12.14	222.40	4,560.26	-1,371.22	-1,252.27	1,857.00	2.00	-2.00	0.00
5,100.00	10.14	222.40	4,658.37	-1,385.49	-1,265.29	1,876.31	2.00	-2.00	0.00
5,200.00	8.14	222.40	4,757.10	-1,397.21	-1,276.00	1,892.19	2.00	-2.00	0.00
5,300.00	6.14	222.40	4,856.32	-1,406.38	-1,284.38	1,904.61	2.00	-2.00	0.00
5,400.00	4.14	222.40	4,955.91	-1,412.99	-1,290.42	1,913.56	2.00	-2.00	0.00
5,500.00	2.14	222.40	5,055.76	-1,417.03	-1,294.10	1,919.03	2.00	-2.00	0.00
5,600.00	0.14	222.40	5,155.74	-1,418.50	-1,295.44	1,921.01	2.00	-2.00	0.00
5,606.81	0.00	0.00	5,162.55	-1,418.50	-1,295.45	1,921.02	2.00	-2.00	0.00
Start 2728.45 hold at 5606.81 MD									
5,700.00	0.00	0.00	5,255.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
5,800.00	0.00	0.00	5,355.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
5,900.00	0.00	0.00	5,455.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,000.00	0.00	0.00	5,555.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,100.00	0.00	0.00	5,655.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,140.27	0.00	0.00	5,696.00	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
MESAVERDE									
6,200.00	0.00	0.00	5,755.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,300.00	0.00	0.00	5,855.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,400.00	0.00	0.00	5,955.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,500.00	0.00	0.00	6,055.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,600.00	0.00	0.00	6,155.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,700.00	0.00	0.00	6,255.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,800.00	0.00	0.00	6,355.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
6,900.00	0.00	0.00	6,455.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,000.00	0.00	0.00	6,555.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,100.00	0.00	0.00	6,655.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,200.00	0.00	0.00	6,755.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,300.00	0.00	0.00	6,855.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,400.00	0.00	0.00	6,955.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,500.00	0.00	0.00	7,055.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,600.00	0.00	0.00	7,155.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,700.00	0.00	0.00	7,255.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,800.00	0.00	0.00	7,355.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
7,900.00	0.00	0.00	7,455.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
8,000.00	0.00	0.00	7,555.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
8,100.00	0.00	0.00	7,655.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
8,200.00	0.00	0.00	7,755.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
8,300.00	0.00	0.00	7,855.74	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
8,335.26	0.00	0.00	7,890.99	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
SEGO									
8,335.27	0.00	0.00	7,891.00	-1,418.50	-1,295.45	1,921.02	0.00	0.00	0.00
TD at 8335.27 - PBHL_BONANZA 1023-17K4CS									

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Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5179 & KB 4 @ 5183.00ft (ASSUMED)
Site:	BONANZA 1023-17G PAD	**North Reference:**	True
Well:	BONANZA 1023-17K4CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_BONANZA 1023- - plan hits target center - Circle (radius 25.00)	0.00	0.00	7,891.00	-1,418.50	-1,295.45	14,510,591.39	2,102,367.69	39.945845	-109.351860

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,062.82	1,960.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
735.68	734.00	GREEN RIVER			
1,031.94	1,024.00	BIRDSNEST			
1,549.21	1,510.00	MAHOGANY			
4,113.56	3,736.00	WASATCH			
6,140.27	5,696.00	MESAVERDE			
8,335.26	7,890.99	SEGO		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,800.00	1,732.39	-283.41	-258.82	Start 2306.81 hold at 1800.00 MD
4,106.81	3,730.15	-1,135.09	-1,036.62	Start Drop -2.00
5,606.81	5,162.55	-1,418.50	-1,295.45	Start 2728.45 hold at 5606.81 MD
8,335.27	7,891.00	-1,418.50	-1,295.45	TD at 8335.27

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Kerr-McGee Oil & Gas Onshore. L.P.

BONANZA 1023-17G PAD

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced well pad.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on March 22, 2012. Present were:

- David Gordon, Dan Emmett, Melissa Wardle - BLM;
- Jacob Dunham - 609 Consulting;
- John Slaugh, Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Danielle Piernot, Doyle Holmes, Dave Gomendi, Sheila Wopsock, Rod Anderson, Tim Kalus, Tom Lee - Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts,

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bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%.
Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.
Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

The following road segments are "on-lease"

±1,495' (0.3 miles) – Section 17 T10S R23E (NE/4) – On-lease UTU-37355, BLM Surface, proposed new access road. Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

Division of Oil, Gas and Mining (UDOGM) records show no drilled locations on this pad.
Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of

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compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total buried gas gathering pipeline distance from the meter to the tie in point is ±2,225'. The individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±2,225' (0.4 miles) – Section 17 T10S R23E (SW/4 NE/4) – On-lease UTU-37355, BLM surface, New 16" buried gas gathering pipeline from the meter to the edge of the pad. The proposed pipeline will then tie into a previously proposed 16" buried gas pipeline filed under separate cover by AUM. Please refer to Topo D2 - Pad and Pipeline Detail and Exhibit A.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±2,225' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±2,225' (0.4 miles) – Section 17 T10S R23E (SW/4 NE/4) – On-lease UTU-37355, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. The proposed pipeline will then tie into a previously proposed 6" buried main gathering liquid pipeline filed under separate cover by KMOG. Please refer to Topo D2 - Pad and Pipeline Detail and Exhibit B.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may

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vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the

closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use i completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6” aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.
The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal

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lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluid will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during

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construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E

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MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification

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will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing location be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a “picker box” in order to seed “fluffy” seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for

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re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	**Pure Live Seed lbs/acre**
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass	1
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

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United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Onsite Specifics:

- Place Topsoil stockpile behind excess stockpile at corner 3.
- Place excess material stockpile, rather than topsoil stockpile, at corners 1 & 2. Hold back from toe of fill slope to allow storm water to run off pad.
- Construct diversion ditch from Corner 4 to Corner 2, then to fill area east of corner 1. Install culvert beneath access road.
- Place Topsoil stockpile behind Excess stockpile at corner 8.
- To allow for runoff, hold Excess stockpile back from toe of slope at corners 7, 8 & 9.
- Trim Corner 9, 40' toward corner 8 to maintain separation of pad slope from existing drainage.
- Can slide cuttings collection area toward corner 8 & elongate if needed.
- During drilling, a road will run from corner 4 to corner 2. During reclamation, move road westerly to run close to pit corners E & A.
- Access road crosses several small drainages. At the second drainage from road beginning, install culvert or construct low water crossing as needed. construct low water crossings at all other drainages.

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed on January 25, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-371.

A paleontological reconnaissance survey was completed in November, 2011 by SWCA Environmental Consultants. For additional details please refer to report UT11-14314-194, report UT12-14314-126 and report UT12-14314-125.

Biological field survey was completed in November, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-674 and report GCI-671.

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Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)[1]

Pollutant	Development	Production	Total
NOx	3.8	0.12	3.92
CO	2.2	0.11	2.31
VOC	0.1	10.94	11.04
SO_2	0.005	0.00	0.01
PM_{10}	1.7	0.11	1.81
$PM_{2.5}$	0.4	0.03	0.43
Benzene	2.2E-03	0.08	0.09
Toluene	1.6E-03	0.13	0.14
Ethylbenzene	3.4E-04	0.00	0.00
Xylene	1.1E-03	0.06	0.06
n-Hexane	1.7E-04	0.34	0.34
Formaldehyde	1.3E-02	8.64E-05	1.31E-02

[1] Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison

Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory[a] (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	133.28	16,547	0.81%
VOC	375.45826	127,495	0.29%

[a] http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html Uintah Basin Data

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M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

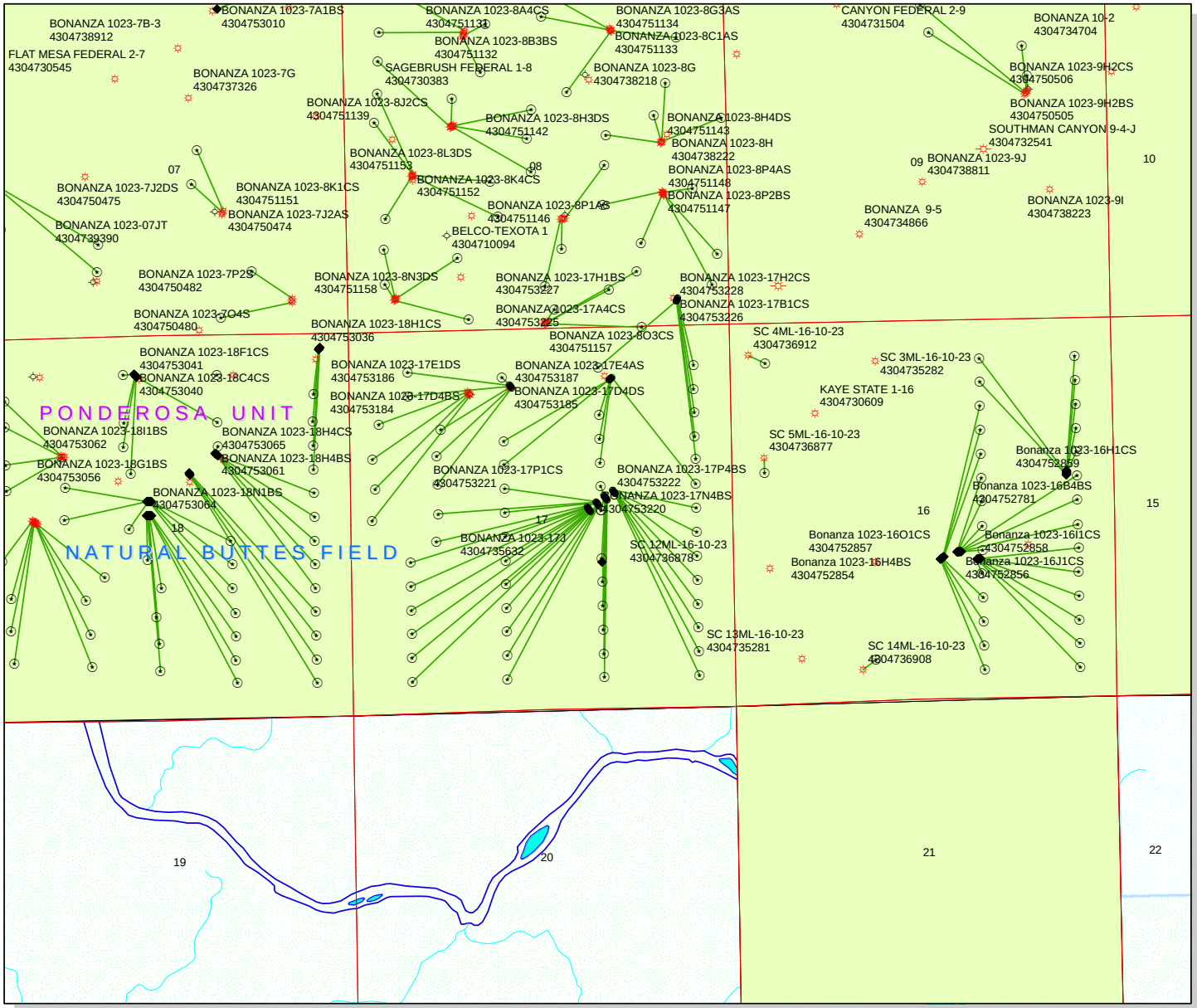
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

May 7, 2012
Date

API Well Number: 43047532100000



API Number: 4304753210

Well Name: BONANZA 1023-17K4CS

Township T10.0S Range R23.0E Section 17

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well
- Bottom Hole Location - OilGasDb

1,750 875 0 1,750 Feet

1:17,106

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

October 2, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Ponderosa Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Ponderosa Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
Pad 1023-17B		
43-047-53177	BONANZA 1023-17F1BS	Sec 17 T10S R23E 0671 FNL 1665 FEL
		BHL Sec 17 T10S R23E 1483 FNL 2139 FWL
43-047-53178	BONANZA 1023-17F1CS	Sec 17 T10S R23E 0665 FNL 1656 FEL
		BHL Sec 17 T10S R23E 1813 FNL 2139 FWL
43-047-53179	BONANZA 1023-17G1BS	Sec 17 T10S R23E 0654 FNL 1640 FEL
		BHL Sec 17 T10S R23E 1486 FNL 1810 FEL
43-047-53180	BONANZA 1023-17G1CS	Sec 17 T10S R23E 0649 FNL 1631 FEL
		BHL Sec 17 T10S R23E 1816 FNL 1810 FEL
43-047-53181	BONANZA 1023-17H4BS	Sec 17 T10S R23E 0644 FNL 1623 FEL
		BHL Sec 17 T10S R23E 2150 FNL 0493 FEL
Pad 1023-17C4		
43-047-53182	BONANZA 1023-17C1CS	Sec 17 T10S R23E 0707 FNL 2230 FWL
		BHL Sec 17 T10S R23E 0595 FNL 2125 FWL
43-047-53183	BONANZA 1023-17D1CS	Sec 17 T10S R23E 0715 FNL 2235 FWL
		BHL Sec 17 T10S R23E 0494 FNL 0823 FWL
43-047-53184	BONANZA 1023-17D4BS	Sec 17 T10S R23E 0723 FNL 2241 FWL
		BHL Sec 17 T10S R23E 0822 FNL 0823 FWL
43-047-53185	BONANZA 1023-17D4DS	Sec 17 T10S R23E 0732 FNL 2247 FWL
		BHL Sec 17 T10S R23E 1304 FNL 1267 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

Pad 1023-17C4

43-047-53186 BONANZA 1023-17E1DS Sec 17 T10S R23E 0740 FNL 2253 FWL
BHL Sec 17 T10S R23E 1673 FNL 1205 FWL

43-047-53187 BONANZA 1023-17E4AS Sec 17 T10S R23E 0748 FNL 2259 FWL
BHL Sec 17 T10S R23E 2057 FNL 1216 FWL

Pad 1023-17G

43-047-53188 BONANZA 1023-17J1CS Sec 17 T10S R23E 2294 FNL 1749 FEL
BHL Sec 17 T10S R23E 2148 FSL 1813 FEL

43-047-53189 BONANZA 1023-17E4DS Sec 17 T10S R23E 2363 FNL 1871 FEL
BHL Sec 17 T10S R23E 2466 FNL 1215 FWL

43-047-53190 BONANZA 1023-17F4BS Sec 17 T10S R23E 2355 FNL 1877 FEL
BHL Sec 17 T10S R23E 2143 FNL 2139 FWL

43-047-53191 BONANZA 1023-17F4CS Sec 17 T10S R23E 2372 FNL 1865 FEL
BHL Sec 17 T10S R23E 2472 FNL 2138 FWL

43-047-53192 BONANZA 1023-17G4BS Sec 17 T10S R23E 2269 FNL 1766 FEL
BHL Sec 17 T10S R23E 2146 FNL 1810 FEL

43-047-53194 BONANZA 1023-17G4CS Sec 17 T10S R23E 2278 FNL 1760 FEL
BHL Sec 17 T10S R23E 2476 FNL 1809 FEL

43-047-53195 BONANZA 1023-17H4CS Sec 17 T10S R23E 2200 FNL 1644 FEL
BHL Sec 17 T10S R23E 2480 FNL 0493 FEL

43-047-53196 BONANZA 1023-17I1BS Sec 17 T10S R23E 2208 FNL 1639 FEL
BHL Sec 17 T10S R23E 2482 FSL 0493 FEL

43-047-53197 BONANZA 1023-17I1CS Sec 17 T10S R23E 2217 FNL 1633 FEL
BHL Sec 17 T10S R23E 2151 FSL 0493 FEL

43-047-53198 BONANZA 1023-17I4BS Sec 17 T10S R23E 2233 FNL 1622 FEL
BHL Sec 17 T10S R23E 1820 FSL 0493 FEL

43-047-53199 BONANZA 1023-17I4CS Sec 17 T10S R23E 2258 FNL 1605 FEL
BHL Sec 17 T10S R23E 1489 FSL 0493 FEL

43-047-53200 BONANZA 1023-17J1BS Sec 17 T10S R23E 2286 FNL 1755 FEL
BHL Sec 17 T10S R23E 2478 FSL 1809 FEL

43-047-53201 BONANZA 1023-17J4BS Sec 17 T10S R23E 2303 FNL 1744 FEL
BHL Sec 17 T10S R23E 1817 FSL 1809 FEL

43-047-53202 BONANZA 1023-17J4CS Sec 17 T10S R23E 2311 FNL 1738 FEL
BHL Sec 17 T10S R23E 1487 FSL 1808 FEL

43-047-53203 BONANZA 1023-17K1BS Sec 17 T10S R23E 2433 FNL 1993 FEL
BHL Sec 17 T10S R23E 2474 FSL 2138 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

Pad 1023-17G

43-047-53204 BONANZA 1023-17L1AS Sec 17 T10S R23E 2380 FNL 1860 FEL
BHL Sec 17 T10S R23E 2422 FSL 1183 FWL

43-047-53205 BONANZA 1023-17L1CS Sec 17 T10S R23E 2424 FNL 1998 FEL
BHL Sec 17 T10S R23E 2140 FSL 0822 FWL

43-047-53206 BONANZA 1023-17L4BS Sec 17 T10S R23E 2441 FNL 1987 FEL
BHL Sec 17 T10S R23E 1811 FSL 0822 FWL

43-047-53207 BONANZA 1023-17L4CS Sec 17 T10S R23E 2449 FNL 1982 FEL
BHL Sec 17 T10S R23E 1482 FSL 0822 FWL

43-047-53208 BONANZA 1023-17K1CS Sec 17 T10S R23E 2458 FNL 1976 FEL
BHL Sec 17 T10S R23E 2144 FSL 2138 FWL

43-047-53209 BONANZA 1023-17K4BS Sec 17 T10S R23E 2483 FNL 1959 FEL
BHL Sec 17 T10S R23E 1814 FSL 2138 FWL

43-047-53210 BONANZA 1023-17K4CS Sec 17 T10S R23E 2388 FNL 1854 FEL
BHL Sec 17 T10S R23E 1484 FSL 2137 FWL

43-047-53211 BONANZA 1023-17M1BS Sec 17 T10S R23E 2466 FNL 1971 FEL
BHL Sec 17 T10S R23E 1153 FSL 0822 FWL

43-047-53212 BONANZA 1023-17M1CS Sec 17 T10S R23E 2474 FNL 1965 FEL
BHL Sec 17 T10S R23E 0823 FSL 0822 FWL

43-047-53213 BONANZA 1023-17M4BS Sec 17 T10S R23E 2491 FNL 1954 FEL
BHL Sec 17 T10S R23E 0494 FSL 0822 FWL

43-047-53214 BONANZA 1023-17N1BS Sec 17 T10S R23E 2397 FNL 1849 FEL
BHL Sec 17 T10S R23E 1155 FSL 2137 FWL

43-047-53215 BONANZA 1023-17O1BS Sec 17 T10S R23E 2319 FNL 1732 FEL
BHL Sec 17 T10S R23E 1157 FSL 1808 FEL

43-047-53216 BONANZA 1023-17O1CS Sec 17 T10S R23E 2328 FNL 1727 FEL
BHL Sec 17 T10S R23E 0826 FSL 1808 FEL

43-047-53217 BONANZA 1023-17O4BS Sec 17 T10S R23E 2336 FNL 1721 FEL
BHL Sec 17 T10S R23E 0496 FSL 1808 FEL

43-047-53218 BONANZA 1023-17P1BS Sec 17 T10S R23E 2250 FNL 1611 FEL
BHL Sec 17 T10S R23E 1158 FSL 0493 FEL

43-047-53219 BONANZA 1023-17N1CS Sec 17 T10S R23E 2405 FNL 1843 FEL
BHL Sec 17 T10S R23E 0825 FSL 2137 FWL

43-047-53220 BONANZA 1023-17N4BS Sec 17 T10S R23E 2413 FNL 1838 FEL
BHL Sec 17 T10S R23E 0495 FSL 2136 FWL

43-047-53221 BONANZA 1023-17P1CS Sec 17 T10S R23E 2242 FNL 1616 FEL
BHL Sec 17 T10S R23E 0827 FSL 0493 FEL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
Pad 1023-17G		
43-047-53222	BONANZA 1023-17P4BS	Sec 17 T10S R23E 2225 FNL 1627 FEL
		BHL Sec 17 T10S R23E 0496 FSL 0493 FEL
Pad 1023-8P		
43-047-53223	BONANZA 1023-17A1CS	Sec 08 T10S R23E 0435 FSL 0692 FEL
		BHL Sec 17 T10S R23E 0496 FNL 0494 FEL
43-047-53224	BONANZA 1023-17A4BS	Sec 08 T10S R23E 0426 FSL 0696 FEL
		BHL Sec 17 T10S R23E 0833 FNL 0497 FEL
43-047-53225	BONANZA 1023-17A4CS	Sec 08 T10S R23E 0417 FSL 0700 FEL
		BHL Sec 17 T10S R23E 1157 FNL 0494 FEL
43-047-53226	BONANZA 1023-17B1CS	Sec 08 T10S R23E 0390 FSL 0713 FEL
		BHL Sec 17 T10S R23E 0495 FNL 1811 FEL
43-047-53227	BONANZA 1023-17H1BS	Sec 08 T10S R23E 0408 FSL 0705 FEL
		BHL Sec 17 T10S R23E 1488 FNL 0494 FEL
43-047-53228	BONANZA 1023-17H2CS	Sec 08 T10S R23E 0399 FSL 0709 FEL
		BHL Sec 17 T10S R23E 1805 FNL 0486 FEL
Pad 1023-7B		
43-047-53233	BONANZA 1023-7A1CS	Sec 07 T10S R23E 0724 FNL 1691 FEL
		BHL Sec 07 T10S R23E 0623 FNL 0496 FEL
43-047-53234	BONANZA 1023-7B1BS	Sec 07 T10S R23E 0735 FNL 1708 FEL
		BHL Sec 07 T10S R23E 0261 FNL 1814 FEL
43-047-53235	BONANZA 1023-7B1CS	Sec 07 T10S R23E 0740 FNL 1717 FEL
		BHL Sec 07 T10S R23E 0579 FNL 1817 FEL
43-047-53236	BONANZA 1023-7H1BS	Sec 07 T10S R23E 0729 FNL 1699 FEL
		BHL Sec 07 T10S R23E 1407 FNL 0493 FEL
43-047-53237	BONANZA 1023-7H1CS	Sec 07 T10S R23E 0745 FNL 1725 FEL
		BHL Sec 07 T10S R23E 1739 FNL 0493 FEL
Pad 1023-7B3		
43-047-53238	BONANZA 1023-7C1BS	Sec 07 T10S R23E 1258 FNL 2263 FEL
		BHL Sec 07 T10S R23E 0082 FNL 2144 FWL
43-047-53239	BONANZA 1023-7C4BS	Sec 07 T10S R23E 1260 FNL 2273 FEL
		BHL Sec 07 T10S R23E 0745 FNL 2148 FWL
43-047-53240	BONANZA 1023-7C4CS	Sec 07 T10S R23E 1261 FNL 2283 FEL
		BHL Sec 07 T10S R23E 1077 FNL 2148 FWL
43-047-53241	BONANZA 1023-7F1BS	Sec 07 T10S R23E 1263 FNL 2293 FEL
		BHL Sec 07 T10S R23E 1407 FNL 2148 FWL
43-047-53242	BONANZA 1023-7G1BS	Sec 07 T10S R23E 1255 FNL 2244 FEL
		BHL Sec 07 T10S R23E 1572 FNL 1818 FEL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
Pad 1023-7B3		
43-047-53243	BONANZA 1023-7G1CS	Sec 07 T10S R23E 1257 FNL 2254 FEL
		BHL Sec 07 T10S R23E 1903 FNL 1818 FEL
Pad 1023-7D		
43-047-53245	BONANZA 1023-7D1BS	Sec 07 T10S R23E 0589 FNL 0635 FWL
		BHL Sec 07 T10S R23E 0237 FNL 0819 FWL
43-047-53246	BONANZA 1023-7D1CS	Sec 07 T10S R23E 0597 FNL 0629 FWL
		BHL Sec 07 T10S R23E 0579 FNL 0823 FWL
43-047-53247	BONANZA 1023-7D4CS	Sec 07 T10S R23E 0605 FNL 0624 FWL
		BHL Sec 07 T10S R23E 1241 FNL 0823 FWL
43-047-53248	BONANZA 1023-7E1BS	Sec 07 T10S R23E 0614 FNL 0618 FWL
		BHL Sec 07 T10S R23E 1572 FNL 0823 FWL
43-047-53249	BONANZA 1023-7E1CS	Sec 07 T10S R23E 0622 FNL 0612 FWL
		BHL Sec 07 T10S R23E 1904 FNL 0823 FWL
Pad 1023-7H		
43-047-53250	BONANZA 1023-7H4CS	Sec 07 T10S R23E 2205 FNL 0374 FEL
		BHL Sec 07 T10S R23E 2078 FNL 0490 FEL
43-047-53251	BONANZA 1023-7I1BS	Sec 07 T10S R23E 2210 FNL 0365 FEL
		BHL Sec 07 T10S R23E 2567 FSL 0493 FEL
43-047-53252	BONANZA 1023-7I1CS	Sec 07 T10S R23E 2221 FNL 0348 FEL
		BHL Sec 07 T10S R23E 2236 FSL 0493 FEL
43-047-53253	BONANZA 1023-7I4BS	Sec 07 T10S R23E 2226 FNL 0339 FEL
		BHL Sec 07 T10S R23E 1905 FSL 0494 FEL
43-047-53256	BONANZA 1023-7I4CS	Sec 07 T10S R23E 2231 FNL 0330 FEL
		BHL Sec 07 T10S R23E 1574 FSL 0493 FEL
Pad 1023-7K		
43-047-53254	BONANZA 1023-7F4CS	Sec 07 T10S R23E 2297 FSL 1754 FWL
		BHL Sec 07 T10S R23E 2401 FNL 2148 FWL
43-047-53255	BONANZA 1023-7E4BS	Sec 07 T10S R23E 2288 FSL 1736 FWL
		BHL Sec 07 T10S R23E 2235 FNL 0824 FWL
43-047-53257	BONANZA 1023-7E4CS	Sec 07 T10S R23E 2283 FSL 1727 FWL
		BHL Sec 07 T10S R23E 2496 FNL 0814 FWL
43-047-53258	BONANZA 1023-7F4BS	Sec 07 T10S R23E 2292 FSL 1745 FWL
		BHL Sec 07 T10S R23E 2070 FNL 2148 FWL
43-047-53259	BONANZA 1023-7K1BS	Sec 07 T10S R23E 2305 FSL 1771 FWL
		BHL Sec 07 T10S R23E 2567 FSL 2148 FWL
43-047-53260	BONANZA 1023-7K4BS	Sec 07 T10S R23E 2301 FSL 1762 FWL
		BHL Sec 07 T10S R23E 2259 FSL 2153 FWL

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API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
Pad 1023-7M		
43-047-53261	BONANZA 1023-7K3AS	Sec 07 T10S R23E 1103 FSL 0498 FWL
		BHL Sec 07 T10S R23E 1654 FSL 1919 FWL
43-047-53262	BONANZA 1023-7L1CS	Sec 07 T10S R23E 1100 FSL 0488 FWL
		BHL Sec 07 T10S R23E 2134 FSL 0829 FWL
43-047-53263	BONANZA 1023-7M4BS	Sec 07 T10S R23E 1097 FSL 0479 FWL
		BHL Sec 07 T10S R23E 0415 FSL 0824 FWL
43-047-53264	BONANZA 1023-7M4CS	Sec 07 T10S R23E 1094 FSL 0470 FWL
		BHL Sec 07 T10S R23E 0088 FSL 0817 FWL
Pad 1023-7O		
43-047-53265	BONANZA 1023-7O1CS	Sec 07 T10S R23E 0081 FSL 2127 FEL
		BHL Sec 07 T10S R23E 0746 FSL 1818 FEL
43-047-53266	BONANZA 1023-7N4CS	Sec 07 T10S R23E 0072 FSL 2145 FEL
		BHL Sec 07 T10S R23E 0183 FSL 2152 FWL
43-047-53267	BONANZA 1023-7O2AS	Sec 07 T10S R23E 0077 FSL 2136 FEL
		BHL Sec 07 T10S R23E 1298 FSL 2010 FEL
43-047-53268	BONANZA 1023-7P1BS	Sec 07 T10S R23E 0086 FSL 2118 FEL
		BHL Sec 07 T10S R23E 1242 FSL 0493 FEL
43-047-53269	BONANZA 1023-7P1CS	Sec 07 T10S R23E 0095 FSL 2100 FEL
		BHL Sec 07 T10S R23E 0911 FSL 0494 FEL
43-047-53270	BONANZA 1023-7P4BS	Sec 07 T10S R23E 0090 FSL 2109 FEL
		BHL Sec 07 T10S R23E 0579 FSL 0493 FEL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.10.02 09:49:42 -06'00'

bcc: File - Ponderosa Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:10-2-12

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API Number	Well Name	Surface Location		
43-047-53177	BONANZA 1023-17F1BS	Sec 17	T10S R23E	0671 FNL 1665 FEL
43-047-53178	BONANZA 1023-17F1CS	Sec 17	T10S R23E	0665 FNL 1656 FEL
43-047-53179	BONANZA 1023-17G1BS	Sec 17	T10S R23E	0654 FNL 1640 FEL
43-047-53180	BONANZA 1023-17G1CS	Sec 17	T10S R23E	0649 FNL 1631 FEL
43-047-53181	BONANZA 1023-17H4BS	Sec 17	T10S R23E	0644 FNL 1623 FEL
43-047-53182	BONANZA 1023-17C1CS	Sec 17	T10S R23E	0707 FNL 2230 FWL
43-047-53183	BONANZA 1023-17D1CS	Sec 17	T10S R23E	0715 FNL 2235 FWL
43-047-53184	BONANZA 1023-17D4BS	Sec 17	T10S R23E	0723 FNL 2241 FWL
43-047-53185	BONANZA 1023-17D4DS	Sec 17	T10S R23E	0732 FNL 2247 FWL
43-047-53186	BONANZA 1023-17E1DS	Sec 17	T10S R23E	0740 FNL 2253 FWL
43-047-53187	BONANZA 1023-17E4AS	Sec 17	T10S R23E	0748 FNL 2259 FWL
43-047-53188	BONANZA 1023-17J1CS	Sec 17	T10S R23E	2294 FNL 1749 FEL
43-047-53189	BONANZA 1023-17E4DS	Sec 17	T10S R23E	2363 FNL 1871 FEL
43-047-53190	BONANZA 1023-17F4BS	Sec 17	T10S R23E	2355 FNL 1877 FEL
43-047-53191	BONANZA 1023-17F4CS	Sec 17	T10S R23E	2372 FNL 1865 FEL
43-047-53192	BONANZA 1023-17G4BS	Sec 17	T10S R23E	2269 FNL 1766 FEL
43-047-53194	BONANZA 1023-17G4CS	Sec 17	T10S R23E	2278 FNL 1760 FEL
43-047-53195	BONANZA 1023-17H4CS	Sec 17	T10S R23E	2200 FNL 1644 FEL
43-047-53196	BONANZA 1023-17I1BS	Sec 17	T10S R23E	2208 FNL 1639 FEL
43-047-53197	BONANZA 1023-17I1CS	Sec 17	T10S R23E	2217 FNL 1633 FEL
43-047-53198	BONANZA 1023-17I4BS	Sec 17	T10S R23E	2233 FNL 1622 FEL
43-047-53199	BONANZA 1023-17I4CS	Sec 17	T10S R23E	2258 FNL 1605 FEL
43-047-53200	BONANZA 1023-17J1BS	Sec 17	T10S R23E	2286 FNL 1755 FEL
43-047-53201	BONANZA 1023-17J4BS	Sec 17	T10S R23E	2303 FNL 1744 FEL
43-047-53202	BONANZA 1023-17J4CS	Sec 17	T10S R23E	2311 FNL 1738 FEL
43-047-53203	BONANZA 1023-17K1BS	Sec 17	T10S R23E	2433 FNL 1993 FEL
43-047-53204	BONANZA 1023-17L1AS	Sec 17	T10S R23E	2380 FNL 1860 FEL
43-047-53205	BONANZA 1023-17L1CS	Sec 17	T10S R23E	2424 FNL 1998 FEL
43-047-53206	BONANZA 1023-17L4BS	Sec 17	T10S R23E	2441 FNL 1987 FEL
43-047-53207	BONANZA 1023-17L4CS	Sec 17	T10S R23E	2449 FNL 1982 FEL
43-047-53208	BONANZA 1023-17K1CS	Sec 17	T10S R23E	2458 FNL 1976 FEL
43-047-53209	BONANZA 1023-17K4BS	Sec 17	T10S R23E	2483 FNL 1959 FEL
43-047-53210	BONANZA 1023-17K4CS	Sec 17	T10S R23E	2388 FNL 1854 FEL
43-047-53211	BONANZA 1023-17M1BS	Sec 17	T10S R23E	2466 FNL 1971 FEL
43-047-53212	BONANZA 1023-17M1CS	Sec 17	T10S R23E	2474 FNL 1965 FEL
43-047-53213	BONANZA 1023-17M4BS	Sec 17	T10S R23E	2491 FNL 1954 FEL
43-047-53214	BONANZA 1023-17N1BS	Sec 17	T10S R23E	2397 FNL 1849 FEL
43-047-53215	BONANZA 1023-17O1BS	Sec 17	T10S R23E	2319 FNL 1732 FEL
43-047-53216	BONANZA 1023-17O1CS	Sec 17	T10S R23E	2328 FNL 1727 FEL
43-047-53217	BONANZA 1023-17O4BS	Sec 17	T10S R23E	2336 FNL 1721 FEL
43-047-53218	BONANZA 1023-17P1BS	Sec 17	T10S R23E	2250 FNL 1611 FEL
43-047-53219	BONANZA 1023-17N1CS	Sec 17	T10S R23E	2405 FNL 1843 FEL
43-047-53220	BONANZA 1023-17N4BS	Sec 17	T10S R23E	2413 FNL 1838 FEL
43-047-53221	BONANZA 1023-17P1CS	Sec 17	T10S R23E	2242 FNL 1616 FEL
43-047-53222	BONANZA 1023-17P4BS	Sec 17	T10S R23E	2225 FNL 1627 FEL
43-047-53223	BONANZA 1023-17A1CS	Sec 08	T10S R23E	0435 FSL 0692 FEL

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API Number	Well Name	Surface Location		
43-047-53224	BONANZA 1023-17A4BS	Sec 08	T10S R23E	0426 FSL 0696 FEL
43-047-53225	BONANZA 1023-17A4CS	Sec 08	T10S R23E	0417 FSL 0700 FEL
43-047-53226	BONANZA 1023-17B1CS	Sec 08	T10S R23E	0390 FSL 0713 FEL
43-047-53227	BONANZA 1023-17H1BS	Sec 08	T10S R23E	0408 FSL 0705 FEL
43-047-53228	BONANZA 1023-17H2CS	Sec 08	T10S R23E	0399 FSL 0709 FEL
43-047-53233	BONANZA 1023-7A1CS	Sec 07	T10S R23E	0724 FNL 1691 FEL
43-047-53234	BONANZA 1023-7B1BS	Sec 07	T10S R23E	0735 FNL 1708 FEL
43-047-53235	BONANZA 1023-7B1CS	Sec 07	T10S R23E	0740 FNL 1717 FEL
43-047-53236	BONANZA 1023-7H1BS	Sec 07	T10S R23E	0729 FNL 1699 FEL
43-047-53237	BONANZA 1023-7H1CS	Sec 07	T10S R23E	0745 FNL 1725 FEL
43-047-53238	BONANZA 1023-7C1BS	Sec 07	T10S R23E	1258 FNL 2263 FEL
43-047-53239	BONANZA 1023-7C4BS	Sec 07	T10S R23E	1260 FNL 2273 FEL
43-047-53240	BONANZA 1023-7C4CS	Sec 07	T10S R23E	1261 FNL 2283 FEL
43-047-53241	BONANZA 1023-7F1BS	Sec 07	T10S R23E	1263 FNL 2293 FEL
43-047-53242	BONANZA 1023-7G1BS	Sec 07	T10S R23E	1255 FNL 2244 FEL
43-047-53243	BONANZA 1023-7G1CS	Sec 07	T10S R23E	1257 FNL 2254 FEL
43-047-53245	BONANZA 1023-7D1BS	Sec 07	T10S R23E	0589 FNL 0635 FWL
43-047-53246	BONANZA 1023-7D1CS	Sec 07	T10S R23E	0597 FNL 0629 FWL
43-047-53247	BONANZA 1023-7D4CS	Sec 07	T10S R23E	0605 FNL 0624 FWL
43-047-53248	BONANZA 1023-7E1BS	Sec 07	T10S R23E	0614 FNL 0618 FWL
43-047-53249	BONANZA 1023-7E1CS	Sec 07	T10S R23E	0622 FNL 0612 FWL
43-047-53250	BONANZA 1023-7H4CS	Sec 07	T10S R23E	2205 FNL 0374 FEL
43-047-53251	BONANZA 1023-7I1BS	Sec 07	T10S R23E	2210 FNL 0365 FEL
43-047-53252	BONANZA 1023-7I1CS	Sec 07	T10S R23E	2221 FNL 0348 FEL
43-047-53253	BONANZA 1023-7I4BS	Sec 07	T10S R23E	2226 FNL 0339 FEL
43-047-53254	BONANZA 1023-7F4CS	Sec 07	T10S R23E	2297 FSL 1754 FWL
43-047-53255	BONANZA 1023-7E4BS	Sec 07	T10S R23E	2288 FSL 1736 FWL
43-047-53256	BONANZA 1023-7I4CS	Sec 07	T10S R23E	2231 FNL 0330 FEL
43-047-53257	BONANZA 1023-7E4CS	Sec 07	T10S R23E	2283 FSL 1727 FWL
43-047-53258	BONANZA 1023-7F4BS	Sec 07	T10S R23E	2292 FSL 1745 FWL
43-047-53259	BONANZA 1023-7K1BS	Sec 07	T10S R23E	2305 FSL 1771 FWL
43-047-53260	BONANZA 1023-7K4BS	Sec 07	T10S R23E	2301 FSL 1762 FWL
43-047-53261	BONANZA 1023-7K3AS	Sec 07	T10S R23E	1103 FSL 0498 FWL
43-047-53262	BONANZA 1023-7L1CS	Sec 07	T10S R23E	1100 FSL 0488 FWL
43-047-53263	BONANZA 1023-7M4BS	Sec 07	T10S R23E	1097 FSL 0479 FWL
43-047-53264	BONANZA 1023-7M4CS	Sec 07	T10S R23E	1094 FSL 0470 FWL
43-047-53265	BONANZA 1023-7O1CS	Sec 07	T10S R23E	0081 FSL 2127 FEL
43-047-53266	BONANZA 1023-7N4CS	Sec 07	T10S R23E	0072 FSL 2145 FEL
43-047-53267	BONANZA 1023-7O2AS	Sec 07	T10S R23E	0077 FSL 2136 FEL
43-047-53268	BONANZA 1023-7P1BS	Sec 07	T10S R23E	0086 FSL 2118 FEL
43-047-53269	BONANZA 1023-7P1CS	Sec 07	T10S R23E	0095 FSL 2100 FEL
43-047-53270	BONANZA 1023-7P4BS	Sec 07	T10S R23E	0090 FSL 2109 FEL
New Pad				
Located on Previous Pad				

RECEIVED: October 02, 2012

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/24/2012 **API NO. ASSIGNED:** 43047532100000

WELL NAME: BONANZA 1023-17K4CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWNE 17 100S 230E **Permit Tech Review:** ✔

SURFACE: 2388 FNL 1854 FEL **Engineering Review:** ✔

BOTTOM: 1484 FSL 2137 FWL **Geology Review:** ✔

COUNTY: UINTAH

LATITUDE: 39.94954 **LONGITUDE:** -109.34796

UTM SURF EASTINGS: 641125.00 **NORTHINGS:** 4423464.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU37355 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: PONDEROSA

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ✔ **Drilling Unit**

Board Cause No: Cause 179-17

Effective Date: 5/9/2012

Siting: Suspends General Siting

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason

RECEIVED: October 16, 2012

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: BONANZA 1023-17K4CS
API Well Number: 43047532100000
Lease Number: UTU37355
Surface Owner: FEDERAL
Approval Date: 10/16/2012

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-17. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 179-17, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284
(please leave a voicemail message if not available)
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at http://oilgas.ogm.utah.gov

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

• Entity Action Form (Form 6) - due within 5 days of spudding the well
• Monthly Status Report (Form 9) - due by 5th day of the following calendar month
• Requests to Change Plans (Form 9) - due prior to implementation
• Written Notice of Emergency Changes (Form 9) - due within 5 days
• Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
• Report of Water Encountered (Form 7) - due within 30 days after completion
• Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

Form 3160-3
(August 2007)

RECEIVED
JUN 2 0 2012
BLM VERNAL, UTAH

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU37355

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
UTU88209A

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
BONANZA 1023-17K4CS

2. Name of Operator
KERR MCGEE OIL&GAS ONSHORE LP
Contact: DANIELLE PIERNOT
E-Mail: Danielle.Piernot@anadarko.com

9. API Well No.
43 047 53210

3a. Address
PO BOX 173779
DENVER, CO 80202-3779

3b. Phone No. (include area code)
Ph: 720-929-6156
Fx: 720-929-7156

10. Field and Pool, or Exploratory
BONANZA

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SWNE 2388FNL 1854FEL 39.949706 N Lat, 109.347918 W Lon

At proposed prod. zone NESW 1484FSL 2137FWL 39.945812 N Lat, 109.352539 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 17 T10S R23E Mer SLB

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 51 MILES SOUTH OF VERNAL, UT

12. County or Parish
UINTAH COUNTY

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1484'

16. No. of Acres in Lease
1920.00

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
2217'

19. Proposed Depth
8335 MD
7891 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
5180 GL

22. Approximate date work will start
07/30/2012

23. Estimated duration
60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
DANIELLE PIERNOT Ph: 720-929-6156

Date
06/04/2012

Title
REGULATORY ANALYST II

Approved by (Signature)

Name (Printed/Typed) Jerry Kenczka

Date 12/11/12

Title Assistant Field Manager
Lands & Mineral Resources

Office
VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED
DEC 1 8 2012
DIV. OF OIL, GAS & MINING

Additional Operator Remarks (see next page)

Electronic Submission #139647 verified by the BLM Well Information System
For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

UDOGM

NOTICE OF APPROVAL

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

12SXS0179AE NOS- 12/2/11

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr-McGee Oil & Gas Onshore, LP**	**Location:**	**SWNE, Sec. 17, T10S, R23E**
Well No:	**Bonanza 1023-17K4CS**	**Lease No:**	**UTU-37355**
API No:	**43-047-53210**	**Agreement:**	**Ponderosa Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- The following will be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

- All reclamation will comply with the Green River Reclamation Guidelines

- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.

- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established

- Noxious and invasive weeds will be controlled throughout the area of project disturbance.

- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.

- A pesticide use permit (PUP) will be obtained for the project, if applicable.

- The best method to avoid entrainment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.

- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
    a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;

b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.

- Screen all pump intakes with 3/32" mesh material.

- Approach velocities for intake structures will follow the National Marine Fisheries Service's document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream intake that operate in stream reaches where larval fish may be present, the approach velocity will not exceed 0.33 feet per second (ft./s).

- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

  Northeastern Region
  318 N Vernal Ave, Vernal, UT 84078
  Phone: (435) 781-9453

- On BLM administered land, KMG will adhere to seasonal and spatial buffers applicable to occupied raptor nests in the GNBPA in consideration of the Raptor BMPs from Appendix A of the Vernal RMP. No construction or drilling activities for the Bonanza 1023-8P, Bonanza 1023-17B, and Bonanza 1023-17G pads from January 1st through August 31st to minimize impacts during golden eagle nesting.

- Damage to livestock and livestock facilities will be reported as quickly as possible to the BLM and affected livestock operators. Operators will develop and employ prevention measures to avoid damaging fences, gates, and cattle guards, including upgrading cattle guard gate widths and load-bearing requirements and fencing all open pits and cellars.

- If partial or complete removal of a fence cannot be avoided, the fence will be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence will be braced and a cattle guard and gate installed per BLM guidance.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Cement for the 4.5 inch casing shall be brought up to a minimum of 200 feet above the surface casing shoe.
- A CBL shall be run from TD to TOC in the Production Casing.
- Variances shall be granted as requested in the APD for the process of air drilling to the depth of the surface casing,
- A variance is granted for the FIT test requirement.

Variances Granted: Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40'from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or

abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well by CD (compact disc). This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.

    - Well name and number.

    - Well location (¼¼, Sec., Twn, Rng, and P.M.).

    - Date well was placed in a producing status (date of first production for which royalty will be paid).

    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

    - Unit agreement and/or participating area name and number, if applicable.

    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 2/20/2013	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CEMENT WITH 28 SACKS READY MIX. SPUD WELL LOCATION ON February 20, 2013 AT 17:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
February 27, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II
SIGNATURE N/A		**DATE** 2/26/2013

RECEIVED: Feb. 26, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address: P.O. Box 173779
city DENVER
state CO zip 80217

Phone Number: (720) 929-6857

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304753189	BONANZA 1023-17E4DS		SWNE	17	10S	23E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	18519	2/20/2013			2/28/2013	

Comments: MIRU TRIPLE A BUCKET RIG.
SPUD WELL LOCATION ON February 20, 2013 AT 10:00 HRS.

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304753219	BONANZA 1023-17N1CS		SWNE	17	10S	23E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	18519	2/20/2013			2/28/2013	

Comments: MIRU TRIPLE A BUCKET RIG.
SPUD WELL LOCATION ON February 20, 2013 AT 14:00 HRS.

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304753210	BONANZA 1023-17K4CS		SWNE	17	10S	23E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	18519	2/20/2013			2/28/2013	

Comments: MIRU TRIPLE A BUCKET RIG.
SPUD WELL LOCATION ON February 20, 2013 AT 17:00 HRS.

ACTION CODES:

- **A** - Establish new entity for new well (single well only)
- **B** - Add new well to existing entity (group or unit well)
- **C** - Re-assign well from one existing entity to another existing entity
- **D** - Re-assign well from one existing entity to a new entity
- **E** - Other (Explain in 'comments' section)

Lindsey Frazier
Name (Please Print)

Signature

REGULATORY ANALYST II
Title

2/26/2013
Date

RECEIVED
FEB 26 2013
Div. of Oil, Gas & Mining

(5/2000)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 4/4/2013	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of March 2013. Well TD at 2,106

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
April 04, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Luke Urban	720 929-6501	Regulatory Specialist

SIGNATURE	DATE
N/A	4/4/2013

RECEIVED: Apr. 04, 2013

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 5/3/2013	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No Activity for the month of April 2013. Well TD at 2,121

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
May 10, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 5/3/2013

RECEIVED: May. 03, 2013

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KENNY MORRIS Phone Number 435-790-2921
Well Name/Number BONANZA 1023-17K4CS
Qtr/Qtr SW/NE Section 17 Township 10S Range 23E
Lease Serial Number UTU-37355
API Number 4304753210

Casing – Time casing run starts, not cementing times.

☐ Production Casing
☐ Other

Date/Time _____ _____ AM ☐ PM ☐

BOPE
☒ Initial BOPE test at surface casing point
☐ Other

Date/Time 5/8/2013 08:00 AM ☒ PM ☐

Rig Move
Location To: _____

Date/Time _ _ AM ☐ PM ☐

RECEIVED
MAY 07 2013
DIV. OF OIL, GAS & MINING

Remarks BONANZA 1023-17G PAD- WELL 5 OF 8

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By KENNY MORRIS Phone Number 435-790-2921
Well Name/Number BONANZA 1023-17K4CS
Qtr/Qtr SW/NE Section 17 Township 10S Range 23E
Lease Serial Number UTU-37355
API Number 4304753210

Casing – Time casing run starts, not cementing times.

☒ Production Casing
☐ Other

Date/Time 5/12/2013 08:00 AM ☒ PM ☐

BOPE
☐ Initial BOPE test at surface casing point
☐ Other

Date/Time _ _ AM ☐ PM ☐

RECEIVED
MAY 1 0 2013
DIV. OF OIL, GAS & MINING

Rig Move
Location To: _____

Date/Time _ _ AM ☐ PM ☐

Remarks BONANZA 1023-17G PAD- WELL 5 OF 8

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 6/3/2013	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 8,340 ft. in May 2013.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 04, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Matthew P Wold	720 929-6993	Regulatory Analyst I

SIGNATURE	DATE
N/A	6/3/2013

RECEIVED: Jun. 03, 2013

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 7/5/2013	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No actitivy for the month of June 2013. Well TD at Drilled to 8,340 ft.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
July 05, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 7/5/2013

RECEIVED: Jul. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU37355

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: PONDEROSA

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: BONANZA 1023-17K4CS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047532100000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2388 FNL 1854 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 17 Township: 10.0S Range: 23.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
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	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 7/26/2013	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 7/26/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
July 29, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist

SIGNATURE	DATE
N/A	7/29/2013

RECEIVED: Jul. 29, 2013

API Well Number: 43047532100000

BHL 2164 FWL

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU37355

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other

b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU88209A

2. Name of Operator KERR MCGEE OIL&GAS ONSHORE LP — Contact: TEENA PAULO — E-Mail: teena.paulo@anadarko.com

8. Lease Name and Well No. BONANZA 1023-17K4CS

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6236

9. API Well No. 43-047-53210

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SWNE 2388FNL 1854FEL 39.949706 N Lat, 109.347918 W Lon

At top prod interval reported below NESW 1543FSL 2123FWL

At total depth NESW 1502FSL 2137FWL

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 17 T10S R23E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 02/20/2013

15. Date T.D. Reached 05/11/2013

16. Date Completed ☐ D & A ☐ Ready to Prod. 07/26/2013

17. Elevations (DF, KB, RT, GL)* 5199 KB

18. Total Depth: MD 8340 TVD 7928

19. Plug Back T.D.: MD 8280 TVD 7868

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each) CBL/GR/CCL/TEMP

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	8.625 IJ-55	28.0	19	2090		675		0	
7.875	4.500 I-80	11.6	19	6912		1395		220	
7.875	4.500 P-110	11.6	6912	8326					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	7756							

25. Producing Intervals

	Formation	Top	Bottom
A)	WASATCH	5633	6026
B)	MESAVERDE	6100	8170
C)			
D)			

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
5633 TO 6026	0.360	33	OPEN
6100 TO 8170	0.360	153	OPEN

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5633 TO 8170	PUMP 11,154 BBLS SLICK H2O & 255,547 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
07/26/2013	08/07/2013	24	→	9.0	1491.0	0.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1092	1617.0	→	9	1491	0		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #218015 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED: Aug. 23, 2013

API Well Number: 43047532100000

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas*(Sold, used for fuel, vented, etc.)*
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				GREEN RIVER	734
				BIRD'S NEST	1024
				MAHOGANY	1510
				WASATCH	4074
				MESAVERDE	6073

32. Additional remarks (include plugging procedure):
The first 210 ft of the surface hole was drilled with a 12 1/4 inch bit. The remainder of the surface hole was drilled with an 11 inch bit. DQX csg was run from surface to 5048 ft; LTC csg was run from 5048 ft. to 8326 ft. Attached is the chronological well history, perforation report and final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #218015 Verified by the BLM Well Information System.
For KERR MCGEE OIL&GAS ONSHORE,LP, sent to the Vernal

Name *(please print)* TEENA PAULO Title STAFF REGULATORY SPECIALIST

Signature (Electronic Submission) Date 08/23/2013

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

RECEIVED: Aug. 23, 2013

US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/4/2013	6:30 - 8:30	2.00	MIRU	01	C	P		RIG UP DIVERTER & FLOWLINE /SPOT RIG OVER WELL, SET CATWALK & PIPE RACKS, HOOK UP & PRIME PUMP
	8:30 - 9:00	0.50	DRLSUR	06	A	P		PICK UP 12.25" BIT & 8" MUD MOTOR & TIH
	8:30 - 9:00	0.50	DRLSUR	02	B	P		TIH W/12.25" BIT AND DRILL ASSEMBLY
	9:00 - 10:30	1.50	DRLSUR	02	B	P		DRILL 12.25"SURFACE HOLE F/44'-210' 14TH RUN ON 12.25" BIT ROP= 166' @ 166 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 /TOTAL RPM~138 GPM= 491 @ 120 SPM SPP ON/OFF= 800/600 UP/DN/ROT = 22/20/20 NOV ON LINE
	10:30 - 11:00	0.50	DRLSUR	06	A	P		TOOH & LAY DOWN 12.25" BIT
	11:00 - 12:00	1.00	DRLSUR	06	A	P		PICK UP 11" BIT & DIR. TOOLS, SCRIBE & TIH
	12:00 - 17:00	5.00	DRLSUR	02	B	P		DRILL 11" SURFACE F/210'-T/510' 12TH RUN ON 11" BIT (GYRO IN HOLE) ROP= 300' @ 60 FPH WOB= 18-22K. RPM= TOP DRIVE~50 / MOTOR ~83 / TOTAL RPM~133 GPM= 491 @ 120 SPM SPP ON/OFF= 890/680 UP/DOWN/ ROT= 49/47/48K.~DRAG= 1K TORQUE ON/OFF = 2,900/980 NOV ON LINE MW = 8.4 NO HOLE ISSUES SLIDE - 10' = 2% 2' ABOVE AND 0.2' LEFT OF LINE
	17:00 - 19:00	2.00	DRLSUR	06	J	P		TOOH W/GYRO MWD TOOL / TIH W/EM MWD TOOL
	19:00 - 0:00	5.00	DRLSUR	02	B	P		DRILL 11" SURFACE F/510' - T/1,230' 12TH RUN ON 11" BIT ROP= 720' @ 144 FPH WOB= 18-22K. RPM= TOP DRIVE~50 / MOTOR ~83 / TOTAL RPM~133 GPM= 491 @ 120 SPM SPP ON/OFF= 1,170/950 UP/DOWN/ ROT= 60/48/54K.~DRAG = 6K TORQUE ON/OFF = 3,000/1,150 NOV ON LINE MW = 8.4 NO HOLE ISSUES SLIDE - 171' = 24% 14' ABOVE AND 0.2 LEFT OF LINE

RECEIVED: Aug. 23, 2013

US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/5/2013	0:00 - 3:00	3.00	DRLSUR	02	B	P		DRILL 11" SURFACE F/1,230'- T/1,560' ROP= 330' @ 110 FPH WOB= 18-22K. RPM= TOP DRIVE~50 / MOTOR ~83 / TOTAL RPM~ 133 GPM= 491 @ 120 SPM SPP ON/OFF= 1,200/1,000 UP/DOWN/ ROT= 65/50/56K.~DRAG = 9K TORQUE ON/OFF = 3,000/1,200 NOV ON LINE MW = 8.4 NO HOLE ISSUES SLIDE - 171' = 24% 14' ABOVE AND 0.2 LEFT OF LINE
	3:00 - 10:30	7.50	DRLSUR	22	L	Z		***NOV GENERATOR -- REPLACED
	10:30 - 12:00	1.50	DRLSUR	02	B	P		DRILL 11" SURFACE F/1,560' - T/1,680' ROP= 120' @ 110 FPH WOB= 18-22K. RPM= TOP DRIVE~50 / MOTOR ~83 / TOTAL RPM~ 133 GPM= 491 @ 120 SPM SPP ON/OFF= 1,300/1,100 UP/DOWN/ ROT= 76/54/64K.~DRAG = 9K TORQUE ON/OFF = 3,000/1,250 NOV ON LINE MW = 8.4 NO HOLE ISSUES
	12:00 - 16:30	4.50	DRLSUR	06	A	Z		***MUD MOTOR NOT HOLDING YIELD / TRIPPED MUD MOTOR
	16:30 - 21:00	4.50	DRLSUR	02	B	P		DRILL 11" SURFACE F/1,680' - T/2,106' ROP= 426' @ 94.6 FPH WOB= 18-22K. RPM= TOP DRIVE~50 / MOTOR ~83 / TOTAL RPM~ 133 GPM= 491 @ 120 SPM SPP ON/OFF= 1,300/1,100 UP/DOWN/ ROT= 76/54/64K.~DRAG = 12K TORQUE ON/OFF = 3,000/1,450 NOV ON LINE MW = 8.4 HOLE ISSUES =LOST CIRCULATION @ 1,720' SLID - 172' = 64% 29' BELOW AND 9' LEFT OF LINE
	21:00 - 23:00	2.00	DRLSUR	05	A	P		CIRCULATE & CONDITION HOLE F/ 8-5/8" CSG
	23:00 - 0:00	1.00	DRLSUR	06	A	P		LAY DOWN DRILL STRING & DIR TOOLS
3/6/2013	0:00 - 1:00	1.00	DRLSUR	06	A	P		LAY DOWN DRILL STRING & DIR TOOLS
	1:00 - 1:30	0.50	DRLSUR	12	A	P		PJSM FOR TIH CSG / MOVE PIPE RACKS & CATWALK / MOVE CSG INTO POSITION TO TIH
	1:30 - 3:30	2.00	CSGSUR	12	C	P		RUN 47 JTS, 8-5/8", 28#, J-55, LT&C CSG. / SHOE SET @ 2,075.3' & BAFFLE @ 2,029.4'
	3:30 - 4:30	1.00	CSGSUR	12	E	P		RUN 200' OF 1" DOWN BACKSIDE, RIG DOWN & MOVE OFF WELL / INSTALL CMT. HEAD & LOAD TOP PLUG

RECEIVED: Aug. 23, 2013

US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
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Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	4:30 - 6:30	2.00	DRLSUR	12	E	P		HELD SM WITH PRO PETRO CEMENTERS. PRESSURE TEST LINES TO 2000 PSI. PUMP 120 BBLS OF WATER AHEAD. PUMP 20 BBLS OF 8.3# GEL WATER AHEAD. MIX AND PUMP (300 SX) 61.4 BBLS OF 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. DROP PLUG ON FLY. DISPLACE W/ 126.5 BBLS OF H20. NO CIRC THROUGH OUT. FINAL LIFT OF 180 PSI AT 4 BBL/MIN. BUMP PLUG WITH 500 PSI FOR 5 MIN. FLOAT DIDN'T HOLD, SHUT IN UNDER PRESSURE. MIX AND PUMP (150 SX) 30.7 BBLS OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE, NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK.. WAIT 2.5 HOURS MIX AND PUMP (225SX) 46.1BBLS OF SAME TAIL CEMENT. CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. RELEASED RIG @ 06:30
5/8/2013	3:00 - 3:30	0.50	MIRU3	01	C	P	2121	SKID 10' TO THE BONANZA 1023-17K4CS, CENTER & LEVEL RIG
	3:30 - 4:00	0.50	PRPSPD	14	A	P	2121	NIPPLE UP & FUNCTION TEST BOPE
	4:00 - 8:00	4.00	PRPSPD	15	A	P	2121	HELD SAFETY MEETING WITH RIG CREW & B & C TESTER, R/U & TEST BOPE, TEST PIPE RAMS, BLIND RAMS, INNER-OUTER BOP VALVES, CHOKE VALVES, FLOOR VALVES FOR 5 MIN 250 LOW,10 MIN 5000 HIGH, ANN 5 MIN 250- 10 MIN 2500, SURFACE CASING 1500 FOR 30 MIN'S,
	8:00 - 8:30	0.50	PRPSPD	14	B	P	2121	INSTALL WEAR BUSHING
	8:30 - 9:30	1.00	PRPSPD	06	A	P		PICK UP BHA & SCRIBE, TRIP IN HOLE TO 2090'
	9:30 - 10:30	1.00	PRPSPD	09	A	P	2121	CUT & SLIP DRILL LINE
	10:30 - 11:30	1.00	PRPSPD	23		P	2121	PRE-SPUD INSPECTION
	11:30 - 12:00	0.50	DRLPRC	02	D	P	2121	DRILL CEMENT AND SHOE TRACK F/2020' TO 2121'
	12:00 - 12:30	0.50	DRLPRC	07	C	S	2121	CHANGE SHAKER SCREENS,RUNNING OVER WITH FLOZAN
	12:30 - 17:00	4.50	DRLPRC	02	D	P	2121	CLOSED LOOP SYSTEM DRILL F/2121 TO 2819@155 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =4-6 K PSI ON /OFF 1700/1300 , DIFF 300-500 PU/SO/RT =93/70/86 K SLIDE =150 ROT = 548 NOV / 2- DEWATERING 5 HIGH 4'. RIGHT OF LINE 0 DRILL FLARE, 0 CONN FLARE
	17:00 - 17:30	0.50	DRLPRC	07	A	P	2819	RIG SERVICE

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US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:30 - 0:00	6.50	DRLPRC	02	D	P	2819	CLOSED LOOP SYSTEM DRILL F/2819 TO 3493=674@104 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =4-6 K PSI ON /OFF 1700/1300 , DIFF 300-500 PU/SO/RT =93/70/86 K SLIDE =172 ROT = 502 NOV / 2- DEWATERING 11 HIGH 1' RIGHT OF LINE 0 DRILL FLARE, 0 CONN FLARE
5/9/2013	0:00 - 8:00	8.00	DRLPRC	02	D	P	3493	CLOSED LOOP SYSTEM DRILL F/3493 TO 4422=929@116 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =6/9 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =130/95/110 K SLIDE =180 ROT = 743 NOV / 2- DEWATERING 6 HIGH 0 RIGHT OF LINE 0 DRILL FLARE, 0 CONN FLARE
	8:00 - 16:30	8.50	DRLPRC	02	D	P	4422	CLOSED LOOP SYSTEM DRILL F/4422 TO 5454=1032 @121 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =8/10 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =150/110/125 K SLIDE =90 ROT = 942 NOV / 2- DEWATERING 2 HIGH 2 RIGHT OF LINE 0 DRILL FLARE, 0 CONN FLARE
	16:30 - 17:00	0.50	DRLPRC	07	A	P	5454	RIG SERVICE

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Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:00 - 0:00	7.00	DRLPRV	02	B	P	5454	CLOSED LOOP SYSTEM DRILL F/5454 TO 6030=576 @82 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =9/13 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =160/115/130 K SLIDE=60 ROT = 506 NOV / 2- DEWATERING 6 LOW 4 RIGHT OF LINE 0 DRILL FLARE, 0 CONN FLARE
5/10/2013	0:00 - 8:00	8.00	DRLPRV	02	B	P	6030	CLOSED LOOP SYSTEM DRILL F/6030 TO 6940=910 @113 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.5 PPG VIS 31 TRQ ON/OFF =9/13 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =185/125/150 K SLIDE=60 ROT = 850 NOV / 2- DEWATERING 12 NORTH 6 WEST OF CENTER 0 DRILL FLARE, 8 CONN FLARE
	8:00 - 15:30	7.50	DRLPRV	02	B	P	6940	CLOSED LOOP SYSTEM DRILL F/6940 TO 7532 =592 @79 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.7 PPG VIS 31 TRQ ON/OFF =10/14 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =198/130/160 K SLIDE=30 ROT =562 NOV / 2- DEWATERING 10 NORTH 0 WEST OF CENTER 5 DRILL FLARE, 10 CONN FLARE
	15:30 - 16:00	0.50	DRLPRV	07	A	P	7532	RIG SERVICE

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Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 18:30	2.50	DRLPRV	02	B	P	7532	CLOSED LOOP SYSTEM DRILL F/7532 TO 7721 =189 @76 FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 8.7 PPG VIS 31 TRQ ON/OFF =12/17 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =220/150/170 K SLIDE=0 ROT =189 NOV / 2- DEWATERING 10 NORTH 0 WEST OF CENTER 5 DRILL FLARE, 10 CONN FLARE
	18:30 - 19:30	1.00	DRLPRV	05	G	P	7721	DISPLACE HOLE WITH 12# FLOZAN MUD
	19:30 - 0:00	4.50	DRLPRV	02	B	P	7721	CLOSED LOOP SYSTEM DRILL F/7721 TO 8030=309@69FPH WOB / 18-20 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 11.9 PPG VIS 45 TRQ ON/OFF =15/18 K PSI ON /OFF 1900/1500 , DIFF 300-500 PU/SO/RT =220/150/170 K SLIDE=0 ROT =309 NOV / 2- BYPASSED NORTH WEST OF CENTER 0 DRILL FLARE, 0 CONN FLARE
5/11/2013	0:00 - 4:30	4.50	DRLPRV	02	B	P	8030	CLOSED LOOP SYSTEM DRILL F/8030 TO TD 8340=310@69FPH WOB / 18-24 K RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 160 GPM 420 MW 12+ PPG VIS 48 TRQ ON/OFF =15/18 K PSI ON /OFF 2450/2100 , DIFF 300-500 PU/SO/RT =220/150/170 K SLIDE=0 ROT =310 NOV / 2- BYPASSED 4 NORTH 19 EAST OF CENTER 0 DRILL FLARE, 0 CONN FLARE
	4:30 - 5:30	1.00	DRLPRV	05	C	P	8340	CIRCULATE BOTTOMS UP FOR LOGS
	5:30 - 10:00	4.50	DRLPRV	06	A	P	8340	TRIP OUT TO STAND BACK DIRECTIONAL TOOLS AND PICK UP THRU BIT LOGGING ASSEMBLY
	10:00 - 14:30	4.50	EVALPR	06	J	P	8340	MAKE UP THRU BIT LOGGING BHA,TRIP IN HOLE CIRC@1020,3775,6344,WASH 70' TO BOTTOM,
	14:30 - 15:30	1.00	EVALPR	05	C	P	8340	CIRCULATE BOTTOMS UP FOR THRU BIT LOGGING
	15:30 - 18:00	2.50	EVALPR	06	J	P	8340	PJSM,RIG UP THRU BIT TRIP TOOL IN HOLE ON WIRELINE SET LOG TOOL WITH BIT DEPTH 8247 + 60 TOOL OUTSIDE FOR TOTAL DEPTH 8307,RETRIEVE SET TOOL

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US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	Start Date: 2/13/2013	End Date: 5/12/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 23:00	5.00	EVALPR	22	A	X	8340	PIPE IS STUCK 350 UP 125 DOWN,RIG BACK UP SHIVES,PULL LOG TOOL OUT,WORK STUCK PIPE 1 HR,SPOT 150 BBLS 8.5# FLOZAN,AND DISPLACE AROUND TO SURFACE,WORK PIPE FREE
	23:00 - 0:00	1.00	EVALPR	05	C	S	8340	WORK PIPE & CIRCULATE & FILL PITS UP FOR TRIP OUT TO RUN CASING
5/12/2013	0:00 - 3:00	3.00	CSGPRO	06	B	P	8340	TRIP OUT TO RUN CASING
	3:00 - 3:30	0.50	CSGPRO	14	B	P	8340	PULL WEARBUSHING
	3:30 - 9:30	6.00	CSGPRO	12	C	P	8340	PJSM R/U KIMZEYRUN 195 JTS PROD CASING, WITH 15 CENTRALIZER, SHOE @ 8326, FLOATCOLLAR @8279 MVL MARKER @ 6117, X/O @ 5026,LAND CASING ON MANDREL@85K
	9:30 - 12:00	2.50	CSGPRO	05	D	P	8340	CIRCULATE & CONDITION FOR CEMENT/BAKER SLOW GETTING TRUCK -COMPUTOR READY
	12:00 - 15:00	3.00	CSGPRO	12	E	P	8340	HELD SAFETY MEETING WITH RIG & CEMENTING CREWS, TEST LINES TO 5000,DROP BOTTOM PLUG PUMP 25 BBLS WATER SPACER, LEAD 15% EXCESS, 445 SACKS 12.5 PPG 1.98 YLD,PLII +6%GELL +5#skKS +.4%FL52 +.2%SMS +.4% R-3+5#/skSF + 1/4#skCF TAIL 15% EXCESS 950 SACKS 1.32 YLD, 50/50 poz+2%gell+0.55% R-3 + 10%salt+5#/blnd S.F.75%SMSSHUT DOWN CLEAN LINES, DROP TOP PLUG & DISPLACE WITH 128 BBLS CLAYCARE WATER, BUMP PLUG @2900 PSI, 550 OVER FINAL LIFT OF 2350 PSI, FLOAT HELD, FULL RETURNS THOUGH OUT JOB WITH 5 BBLS LEAD TO PITS, 1.75 BACK TO TRUCK, EST TOP OF TAIL 3500, LEAD 0, FLUSH LINES & STACK , R/D
	15:00 - 15:30	0.50	RDMO	14	A	P	8340	SET PACKOFF WITH CAMERON
	15:30 - 16:00	0.50	RDMO	01	E	P	8340	,RIG DOWN,PREP FOR SKID,RIG RELEASE @16:00 5/12/2013 TO BONANZA 1023- 17N1BS

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API Well Number: 4304753210000

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	BONANZA 1023-17K4CS ORANGE	Wellbore No.	OH
Well Name	BONANZA 1023-17K4CS	Wellbore Name	BONANZA 1023-17K4CS
Report No.	1	Report Date	7/11/2013
Project	UTAH-UINTAH	Site	BONANZA 1023-17G PAD
Rig Name/No.		Event	COMPLETION
Start Date	7/25/2013	End Date	7/26/2013
Spud Date	3/4/2013	Active Datum	RKB @5,199.00usft (above Mean Sea Level)
UWI	SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	5,633.0 (usft)-8,170.0 (usft	Start Date/Time	7/11/2013 12:00AM
No. of Intervals	60	End Date/Time	7/11/2013 12:00AM
Total Shots	186	Net Perforation Interval	62.00 (usft)
Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/11/2013 12:00AM	WASATCH/			5,633.0	5,634.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

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API Well Number: 4304753210000

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/11/2013 12:00AM	WASATCH/			5,682.0	5,683.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,695.0	5,696.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,720.0	5,721.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,740.0	5,741.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,748.0	5,749.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,768.0	5,769.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,822.0	5,823.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,898.0	5,899.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			5,977.0	5,978.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	WASATCH/			6,025.0	6,026.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,100.0	6,102.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,154.0	6,156.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,779.0	6,780.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,815.0	6,816.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,823.0	6,824.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,834.0	6,835.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,894.0	6,895.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,936.0	6,937.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,967.0	6,968.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			6,992.0	6,993.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,053.0	7,054.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

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API Well Number: 4304753210000

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/11/2013 12:00AM	MESAVERDE/			7,074.0	7,075.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,116.0	7,117.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,143.0	7,144.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,162.0	7,163.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,176.0	7,177.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,206.0	7,207.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,225.0	7,226.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,269.0	7,270.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,306.0	7,307.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,322.0	7,323.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,344.0	7,345.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,420.0	7,421.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,439.0	7,440.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,471.0	7,472.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,490.0	7,491.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,539.0	7,540.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,589.0	7,590.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,617.0	7,618.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,671.0	7,672.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,696.0	7,697.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,708.0	7,709.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

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API Well Number: 4304753210000

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/11/2013 12:00AM	MESAVERDE/			7,725.0	7,726.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,743.0	7,744.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,780.0	7,781.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,796.0	7,797.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,818.0	7,819.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,832.0	7,833.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,842.0	7,843.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,906.0	7,907.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,928.0	7,929.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,968.0	7,969.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			7,983.0	7,984.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,004.0	8,005.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,017.0	8,018.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,084.0	8,085.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,139.0	8,140.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,152.0	8,153.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
7/11/2013 12:00AM	MESAVERDE/			8,169.0	8,170.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

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US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 7/25/2013	End Date: 7/26/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/19/2013	-							
7/3/2013	10:00 - 11:00	1.00	SUBSPR	33	C	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 74 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 535 PSI HELD FOR 5 MIN LOST -41 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN SURFACE HAD 150 PSI FILLED WITH 2 BBLS
7/4/2013	7:00 - 9:00	2.00	SUBSPR	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. RIH PERFWELL, AS PER PERF DESIGN. POOH. SWIFW
7/8/2013	7:30 - 18:00	10.50	FRAC	36	B	P		FRAC STG 1)WHP 1603 PSI, BRK 3744 PSI @ 4.7 BPM. ISIP 2235 PSI, FG. 0.72 ISIP 2487 PSI, FG. 0.75, NPI 252 PSI. SWI, XO T/ WL. SET CBP & PERF STG 2 AS DESIGNED. POOH, XO T/ FRAC. FRAC STG 2)WHP 2250 PSI, BRK 2489 PSI @ 5.1 BPM. ISIP 2243 PSI, FG. 0.72 ISIP 2579 PSI, FG. 0.77, NPI 336 PSI. SWI, XO T/ WL. SET CBP & PERF AS DESIGNED. POOH, XO T/ FRAC. FRAC STG 3)WHP 2257 PSI, BRK 2498 PSI @ 4 BPM. ISIP 2257 PSI, FG. 0.73 ISIP 2658 PSI, FG. 0.79, NPI 401 PSI. SWI, XO T/ WL. SET CBP & PERF STG 4 AS DESIGNED. FRAC STG 4)WHP 1916 PSI, BRK 2305 PSI @ 5.4 BPM. ISIP 1989 PSI, FG. 0.71 ISIP 2150 PSI, FG. 0.73, NPI 161 PSI. SWI, XO T/ WL. SET CBP & PERF STG 5 AS DESIGNED. POOH. SWIFN.

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US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 7/25/2013	End Date: 7/26/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/9/2013	7:00 - 18:00	11.00	FRAC	36	B	P		FRAC STG 5)WHP 1755 PSI, BRK 2218 PSI @ 3.9BPM. 1732 1 PSI, FG. 0.68 ISIP 2303 PSI, FG. 0.76, NPI 571 PSI. SWI, XO T/ WL. SET CBP & PERF STG 6 AS DESIGNED. SWI, XO T/ FRAC. FRAC STG 6)WHP 1498 PSI, BRK 1880 PSI @ 4.0 BPM. ISIP 1571 PSI, FG. 0.67 ISIP 2451 PSI, FG. 0.79, NPI 880 PSI. SWI, XO T/ WL. SET CBP & PERF STG 7 AS DESIGNED. POOH, XO T/ FRAC. FRAC STG 7)WHP 426 PSI, BRK 1954 PSI @ 4.0 BPM. ISIP 1189 PSI, FG. 0.64 ISIP 2383 PSI, FG. 0.83, NPI 1194 PSI. SET CBP & PERF STG 8 AS DESIGNED. SWI XO T/FRAC FRAC STG 8)WHP 800 PSI, BRK 1932 PSI @ 4.6 BPM. ISIP 1295 PSI, FG. 0.66 ISIP 1819 PSI, FG. 0.76, NPI 544 PSI. SWI, XO T/ WL. SET CBP @ 5,583 RD MOVE OVER TO NEXT 4 WELLS TOTAL SAND = 255,547 LBS TOTAL CLFL = 11,154 BBLS
7/25/2013	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= RU RIG SAFELY
	7:15 - 15:00	7.75	DRLOUT	30		P		RD RIG ON 17L1AS MOVE RU ON 17K4CS MOVE ANCHOR BLOCKS FOR LAST 4 WELLS ND W/H NU BOPS RU FLOOR & TUBING EQUIP SPOT IN TUBING PU 3-7/8" BIT POBS & 1.87XN TALLY & PU TUBING RIH TAG 1ST CBP @ 5584' RU DRILLING EQUIP PREP TO D/O IN AM SIW SDFN
7/26/2013	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= RIG PUMP SAFETY

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US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 7/25/2013	End Date: 7/26/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 15:00	7.75	DRLOUT	30		P		EST CIRC TEST BOPS TO 3000 PSI DRILL THRU 1ST CBP PLUG #1] DRILL THRU HALLI 8K CBP @ 5583' IN 9 MIN W/ 100 PSI INCREASE PLUG #2] CONTINUE TO RIH TAG SAND @5823' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @5853' IN 7 MIN W/ 100 PSI INCREASE PLUG #3] CONTINUE TO RIH TAG SAND @ 6159' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6186' IN 6 MIN W/ 300 PSI INCREASE PLUG #4] CONTINUE TO RIH TAG SAND @7000' (23' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7023' IN 7 MIN W/ 500 PSI INCREASE PLUG #5] CONTINUE TO RIH TAG SAND @7221' (35' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7256' IN 4 MIN W/ 100 PSI INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 7491' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7521' IN 7 MIN W/ 300 PSI INCREASE PLUG #7] CONTINUE TO RIH TAG SAND @7730' (40' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7770' IN 8 MIN W/ PSI INCREASE PLUG #8] CONTINUE TO RIH TAG SAND @7928' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7958' IN 6 MIN W/ PSI INCREASE PBTD] CONTINUE TO RIG TAG SAND @ 8240 (40' FILL) C/O TO PBTD @ 8280' CIRC CLEAN LD DRILLING EQUIP POOH LD 17 JNTS LAND TUBING ON HNGR EOT @ 7756.30' RD FLOOR & TUBING EQUIP ND BOPS NU W/H DROP BALL PUMP OFF BIT @ 900 PSI SIW NU & TEST FLOWLINE TURN WELL OVER TO FBC SDFW TUBING DETAIL K.B..... .....19.0' HNGR..... .....83" 95 JNTS 2-3/8" L-80.....3018.70' 6' PUP..... .....6.15' 149 JNTS 2-3/8" J-55.....4709.42' POBS..... .....2.20'

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API Well Number: 43047532100000

US ROCKIES REGION

Operation Summary Report

Well: BONANZA 1023-17K4CS ORANGE	Spud Date: 3/4/2013	
Project: UTAH-UINTAH	Site: BONANZA 1023-17G PAD	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 7/25/2013	End Date: 7/26/2013
Active Datum: RKB @5,199.00usft (above Mean Sea Level)	UWI: SW/NE/0/10/S/23/E/17/0/0/26/PM/N/2388/E/0/1854/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								EOT@..... .....7756.30' TOTAL FL PMP.....11154 BBLS RIG REC.....2000 BBLS LEFT TO REC.....9154 BBLS
	15:00 - 15:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1400 HR ON 7/26/2013. 570 MCFD, 1560 BWPD, FCP 1700#, FTP 1260#, 20/64" CK.

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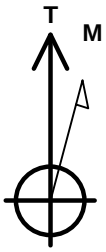
API Well Number: 43047537100000

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: BONANZA 1023-17G PAD
Well: BONANZA 1023-17K4CS
Wellbore: OH
Design: OH

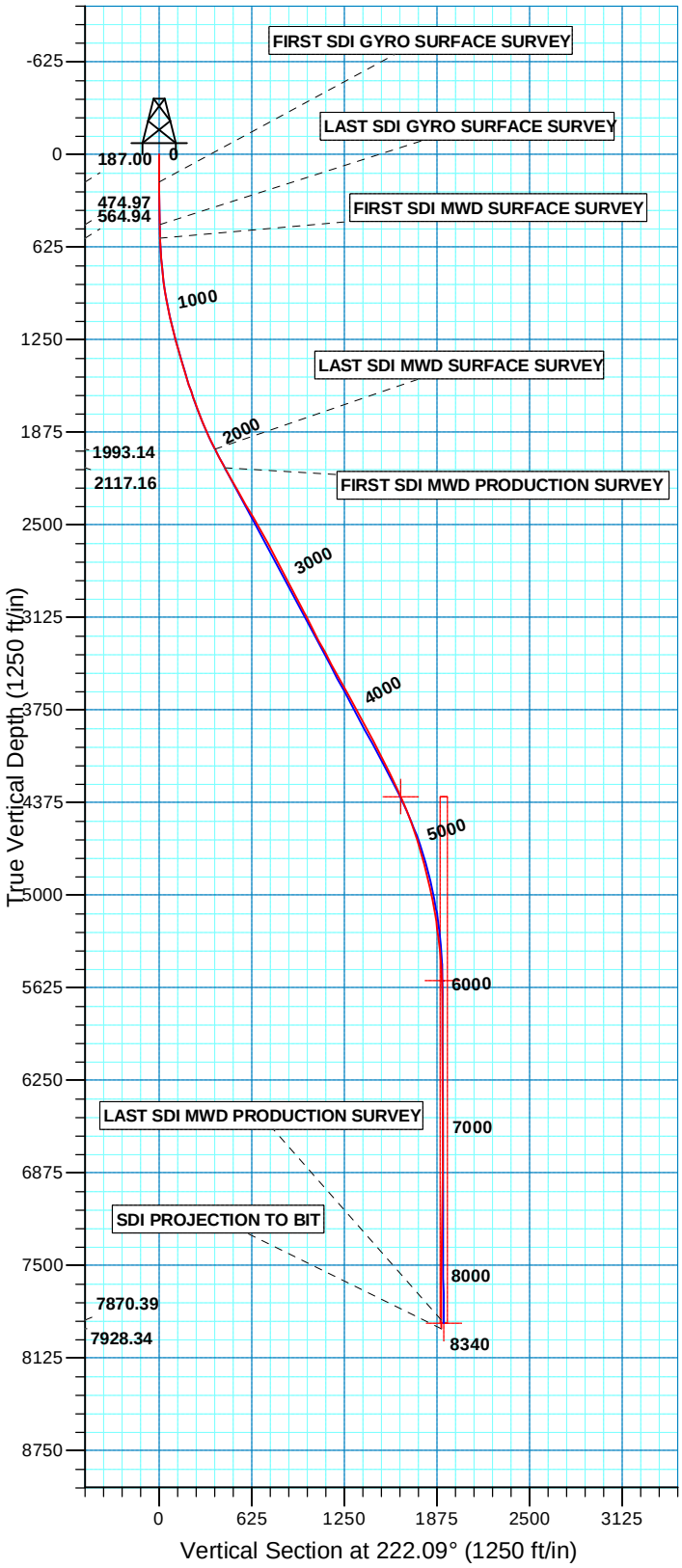
Anadarko Petroleum Corporation

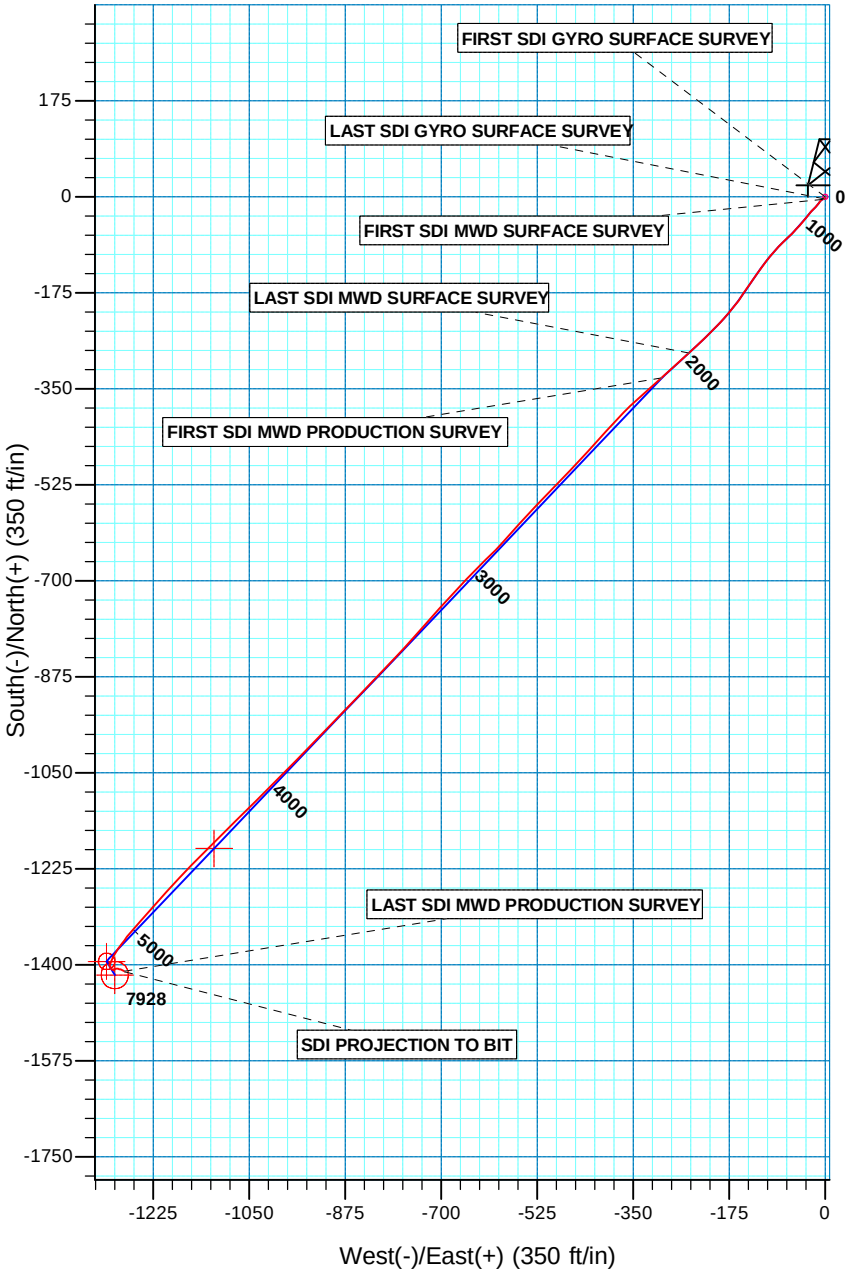
WELL DETAILS: BONANZA 1023-17K4CS					
GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14512033.64	2103636.64	39.949740	-109.347239



Azimuths to True North
Magnetic North: 10.76°

Magnetic Field
Strength: 52133.7snT
Dip Angle: 65.81°
Date: 05/03/2013
Model: IGRF2010





PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 17 T10S R23E
System Datum:	Mean Sea Level

Design: OH (BONANZA 1023-17K4CS/OH)	
Created By: Gabe Kendall	Date: 14:54, May 28 2013

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API Well Number: 43047532100000

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
BONANZA 1023-17G PAD
BONANZA 1023-17K4CS

OH

Design: OH

Standard Survey Report

23 May, 2013

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API Well Number: 43047532100000

Scientific Drilling

SDI
Survey Report

Anadarko Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Site:	BONANZA 1023-17G PAD	**MD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Well:	BONANZA 1023-17K4CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site BONANZA 1023-17G PAD, SECTION 17 T10S R23E

Site Position:		**Northing:**	14,512,226.99 usft	**Latitude:**	39.950260
From:	Lat/Long	**Easting:**	2,103,842.82 usft	**Longitude:**	-109.346491
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.06 °

Well BONANZA 1023-17K4CS, 2388 FNL 1854 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,512,033.64 usft	**Latitude:**	39.949740
	+E/-W	0.00 ft	**Easting:**	2,103,636.64 usft	**Longitude:**	-109.347239
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,179.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	05/03/13	10.76	65.81	52,134

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	222.09

Survey Program **Date** 05/23/13

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
15.00	475.00	Survey #1 SDI GYRO SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
565.00	2,051.00	Survey #2 FIRST MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
2,192.00	8,340.00	Survey #3 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
187.00	0.44	263.32	187.00	-0.08	-0.66	0.50	0.26	0.26	0.00
FIRST SDI GYRO SURFACE SURVEY									
214.00	0.35	232.91	214.00	-0.14	-0.82	0.66	0.83	-0.33	-112.63
215.00	0.35	231.99	215.00	-0.14	-0.83	0.66	0.56	0.00	-92.00
242.00	0.44	211.90	242.00	-0.28	-0.95	0.84	0.61	0.33	-74.41
270.00	0.62	197.31	270.00	-0.52	-1.05	1.09	0.80	0.64	-52.11
298.00	0.70	200.92	297.99	-0.82	-1.16	1.39	0.32	0.29	12.89

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Scientific Drilling

SDI
Survey Report

Anadarko Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Site:	BONANZA 1023-17G PAD	**MD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Well:	BONANZA 1023-17K4CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
327.00	0.88	210.41	326.99	-1.18	-1.33	1.77	0.77	0.62	32.72
355.00	0.88	216.47	354.99	-1.54	-1.57	2.19	0.33	0.00	21.64
385.00	0.97	227.55	384.98	-1.89	-1.89	2.68	0.67	0.30	36.93
415.00	0.97	224.30	414.98	-2.25	-2.26	3.18	0.18	0.00	-10.83
445.00	1.06	228.87	444.98	-2.61	-2.65	3.71	0.40	0.30	15.23
475.00	1.06	228.78	474.97	-2.98	-3.06	4.26	0.01	0.00	-0.30
LAST SDI GYRO SURFACE SURVEY									
565.00	1.85	238.60	564.94	-4.28	-4.93	6.48	0.92	0.88	10.91
FIRST SDI MWD SURFACE SURVEY									
635.00	3.36	226.69	634.87	-6.28	-7.39	9.61	2.28	2.16	-17.01
725.00	5.21	220.63	724.61	-11.19	-11.97	16.32	2.11	2.06	-6.73
815.00	6.52	221.23	814.14	-18.13	-18.00	25.52	1.46	1.46	0.67
905.00	8.42	220.95	903.37	-26.95	-25.68	37.22	2.11	2.11	-0.31
995.00	10.55	220.43	992.13	-38.20	-35.35	52.04	2.37	2.37	-0.58
1,085.00	12.34	221.70	1,080.34	-51.66	-47.09	69.90	2.01	1.99	1.41
1,175.00	13.82	224.31	1,168.01	-66.53	-60.99	90.26	1.77	1.64	2.90
1,265.00	15.19	226.24	1,255.13	-82.38	-77.02	112.76	1.61	1.52	2.14
1,355.00	16.21	221.35	1,341.78	-99.96	-93.84	137.08	1.86	1.13	-5.43
1,445.00	16.42	215.84	1,428.16	-119.71	-109.59	162.29	1.73	0.23	-6.12
1,535.00	17.76	216.10	1,514.19	-141.11	-125.12	188.59	1.49	1.49	0.29
1,625.00	18.82	213.55	1,599.64	-164.30	-141.23	216.59	1.48	1.18	-2.83
1,715.00	20.31	215.75	1,684.44	-189.08	-158.38	246.48	1.85	1.66	2.44
1,805.00	20.75	220.58	1,768.73	-213.87	-177.88	277.94	1.94	0.49	5.37
1,895.00	22.77	225.06	1,852.32	-238.28	-200.58	311.28	2.90	2.24	4.98
1,985.00	25.85	226.12	1,934.33	-264.19	-227.06	348.25	3.46	3.42	1.18
2,051.00	28.14	227.26	1,993.14	-284.73	-248.87	378.11	3.56	3.47	1.73
LAST SDI MWD SURFACE SURVEY									
2,192.00	28.67	228.95	2,117.16	-329.51	-298.79	444.81	0.68	0.38	1.20
FIRST SDI MWD PRODUCTION SURVEY									
2,287.00	29.02	227.85	2,200.37	-359.94	-333.06	490.36	0.67	0.37	-1.16
2,383.00	30.43	224.16	2,283.75	-393.01	-367.27	537.83	2.41	1.47	-3.84
2,478.00	30.69	222.05	2,365.55	-428.27	-400.27	586.12	1.16	0.27	-2.22
2,572.00	30.16	222.75	2,446.61	-463.42	-432.37	633.72	0.68	-0.56	0.74
2,667.00	29.37	224.07	2,529.08	-497.69	-464.77	680.86	1.08	-0.83	1.39
2,762.00	28.05	223.89	2,612.40	-530.53	-496.46	726.47	1.39	-1.39	-0.19
2,857.00	29.11	223.28	2,695.82	-563.45	-527.79	771.90	1.16	1.12	-0.64
2,952.00	27.61	221.87	2,779.42	-596.66	-558.33	817.02	1.73	-1.58	-1.48
3,047.00	26.12	222.22	2,864.16	-628.55	-587.07	859.95	1.58	-1.57	0.37
3,142.00	26.91	226.00	2,949.17	-658.97	-616.59	902.32	1.96	0.83	3.98
3,237.00	29.63	224.69	3,032.84	-690.60	-648.58	947.23	2.94	2.86	-1.38
3,331.00	27.44	221.79	3,115.42	-723.28	-679.36	992.11	2.76	-2.33	-3.09
3,424.00	27.35	222.31	3,197.99	-755.05	-708.02	1,034.90	0.27	-0.10	0.56
3,518.00	27.61	221.70	3,281.38	-787.28	-737.04	1,078.28	0.41	0.28	-0.65
3,611.00	28.05	221.43	3,363.62	-819.77	-765.85	1,121.69	0.49	0.47	-0.29

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Scientific Drilling

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Survey Report

Anadarko Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Site:	BONANZA 1023-17G PAD	**MD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Well:	BONANZA 1023-17K4CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,705.00	28.49	223.63	3,446.41	-852.57	-795.94	1,166.20	1.20	0.47	2.34
3,799.00	29.55	224.07	3,528.61	-885.45	-827.54	1,211.78	1.15	1.13	0.47
3,894.00	28.05	224.25	3,611.86	-918.28	-859.42	1,257.52	1.58	-1.58	0.19
3,986.00	28.23	223.72	3,692.98	-949.50	-889.55	1,300.88	0.33	0.20	-0.58
4,080.00	28.67	224.69	3,775.63	-981.60	-920.77	1,345.63	0.68	0.47	1.03
4,173.00	29.11	223.81	3,857.06	-1,013.79	-952.12	1,390.53	0.66	0.47	-0.95
4,267.00	27.70	224.16	3,939.74	-1,045.96	-983.17	1,435.22	1.51	-1.50	0.37
4,361.00	27.87	225.30	4,022.90	-1,077.09	-1,014.01	1,478.99	0.59	0.18	1.21
4,456.00	27.44	224.95	4,107.05	-1,108.20	-1,045.26	1,523.02	0.48	-0.45	-0.37
4,550.00	25.41	225.21	4,191.22	-1,137.74	-1,074.88	1,564.80	2.16	-2.16	0.28
4,644.00	24.71	225.30	4,276.37	-1,165.77	-1,103.15	1,604.55	0.75	-0.74	0.10
4,738.00	23.83	224.60	4,362.07	-1,193.11	-1,130.45	1,643.14	0.98	-0.94	-0.74
4,830.00	21.19	223.72	4,447.05	-1,218.36	-1,155.00	1,678.33	2.89	-2.87	-0.96
4,924.00	19.08	223.54	4,535.30	-1,241.78	-1,177.33	1,710.68	2.25	-2.24	-0.19
5,018.00	17.23	222.49	4,624.62	-1,263.19	-1,197.32	1,739.96	2.00	-1.97	-1.12
5,112.00	15.83	223.02	4,714.73	-1,282.83	-1,215.47	1,766.70	1.50	-1.49	0.56
5,207.00	14.42	221.08	4,806.44	-1,301.22	-1,232.08	1,791.49	1.58	-1.48	-2.04
5,302.00	13.45	221.52	4,898.64	-1,318.41	-1,247.18	1,814.36	1.03	-1.02	0.46
5,397.00	12.13	219.68	4,991.28	-1,334.36	-1,260.88	1,835.38	1.45	-1.39	-1.94
5,492.00	10.64	219.76	5,084.41	-1,348.79	-1,272.86	1,854.12	1.57	-1.57	0.08
5,587.00	8.88	215.28	5,178.03	-1,361.52	-1,282.70	1,870.16	2.02	-1.85	-4.72
5,682.00	7.30	215.90	5,272.08	-1,372.39	-1,290.48	1,883.45	1.67	-1.66	0.65
5,777.00	6.24	207.99	5,366.42	-1,381.84	-1,296.44	1,894.45	1.48	-1.12	-8.33
5,872.00	4.22	205.17	5,461.02	-1,389.56	-1,300.35	1,902.81	2.14	-2.13	-2.97
5,966.00	2.73	196.82	5,554.85	-1,394.84	-1,302.47	1,908.14	1.67	-1.59	-8.88
6,061.00	1.41	201.83	5,649.78	-1,398.09	-1,303.56	1,911.28	1.40	-1.39	5.27
6,156.00	0.44	261.34	5,744.77	-1,399.23	-1,304.35	1,912.66	1.31	-1.02	62.64
6,251.00	0.35	270.83	5,839.77	-1,399.28	-1,305.01	1,913.14	0.12	-0.09	9.99
6,346.00	0.09	175.99	5,934.77	-1,399.35	-1,305.29	1,913.38	0.39	-0.27	-99.83
6,441.00	0.18	180.56	6,029.77	-1,399.57	-1,305.29	1,913.54	0.10	0.09	4.81
6,535.00	0.35	169.67	6,123.77	-1,400.00	-1,305.24	1,913.83	0.19	0.18	-11.59
6,630.00	0.88	168.61	6,218.76	-1,401.00	-1,305.04	1,914.44	0.56	0.56	-1.12
6,724.00	0.88	152.53	6,312.75	-1,402.35	-1,304.56	1,915.12	0.26	0.00	-17.11
6,816.00	1.14	152.62	6,404.73	-1,403.79	-1,303.82	1,915.69	0.28	0.28	0.10
6,909.00	1.41	140.84	6,497.71	-1,405.50	-1,302.67	1,916.19	0.40	0.29	-12.67
7,004.00	1.76	139.87	6,592.67	-1,407.52	-1,300.99	1,916.56	0.37	0.37	-1.02
7,097.00	0.53	144.71	6,685.65	-1,408.96	-1,299.82	1,916.85	1.33	-1.32	5.20
7,191.00	0.70	80.11	6,779.65	-1,409.22	-1,299.01	1,916.49	0.72	0.18	-68.72
7,284.00	0.53	56.46	6,872.64	-1,408.88	-1,298.09	1,915.63	0.32	-0.18	-25.43
7,380.00	0.70	72.28	6,968.64	-1,408.46	-1,297.16	1,914.69	0.25	0.18	16.48
7,475.00	0.79	59.28	7,063.63	-1,407.95	-1,296.04	1,913.56	0.20	0.09	-13.68
7,569.00	1.19	66.04	7,157.62	-1,407.22	-1,294.59	1,912.05	0.44	0.43	7.19
7,664.00	1.32	76.41	7,252.59	-1,406.56	-1,292.63	1,910.25	0.27	0.14	10.92

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Scientific Drilling

SDI
Survey Report

Anadarko Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well BONANZA 1023-17K4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Site:	BONANZA 1023-17G PAD	**MD Reference:**	GL 5179 & KB 19 @ 5198.00ft (PIONEER 54)
Well:	BONANZA 1023-17K4CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,759.00	0.97	99.09	7,347.58	-1,406.43	-1,290.77	1,908.91	0.60	-0.37	23.87
7,854.00	1.14	114.82	7,442.56	-1,406.96	-1,289.12	1,908.19	0.35	0.18	16.56
7,949.00	1.41	111.48	7,537.54	-1,407.78	-1,287.17	1,907.49	0.29	0.28	-3.52
8,044.00	1.49	109.02	7,632.51	-1,408.61	-1,284.92	1,906.60	0.11	0.08	-2.59
8,139.00	1.67	111.31	7,727.47	-1,409.52	-1,282.46	1,905.62	0.20	0.19	2.41
8,233.00	1.93	118.43	7,821.42	-1,410.77	-1,279.79	1,904.76	0.36	0.28	7.57
8,282.00	2.29	121.59	7,870.39	-1,411.68	-1,278.23	1,904.39	0.77	0.73	6.45
LAST SDI MWD PRODUCTION SURVEY									
8,340.00	2.29	121.59	7,928.34	-1,412.89	-1,276.26	1,903.97	0.00	0.00	0.00
SDI PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
187.00	187.00	-0.08	-0.66	FIRST SDI GYRO SURFACE SURVEY
475.00	474.97	-2.98	-3.06	LAST SDI GYRO SURFACE SURVEY
565.00	564.94	-4.28	-4.93	FIRST SDI MWD SURFACE SURVEY
2,051.00	1,993.14	-284.73	-248.87	LAST SDI MWD SURFACE SURVEY
2,192.00	2,117.16	-329.51	-298.79	FIRST SDI MWD PRODUCTION SURVEY
8,282.00	7,870.39	-1,411.68	-1,278.23	LAST SDI MWD PRODUCTION SURVEY
8,340.00	7,928.34	-1,412.89	-1,276.26	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____

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