Form C-101 June 16, 2008

District II

1301 W Grand Avenue, Artesia, NM 88210

1000 Rio Brazos Road, Aztec, NM 87410 1 6 2010 District IV

Oil Conservation Division 1220 South St. Francis Dr.

Submit to appropriate District Office

☐ AMENDED REPORT

1220 S St Fr	ancıs Dr , S	anta Fe, NM 8	<b>Ö</b> BR26			Santa	•				~~ . ~		DD A GÓNE	
AP	PLICA	TION FO	Operator Name	IT TO	DRI	LL, RE	-ENT	ER, I	DEEP	EN, PLUC	SBACI	K, OR A	DD A ZÔNE	
Merit En	erav Co	ompany 13	727 Noel			00 Dall	as, 5	[exas	7524	·0	14591	API Number	70	
						<sup>3</sup> Property N			<del></del>	30 - <b>L</b>	<u> 125 -</u>	- > 1D	I No	
179	erty Code 887 <b>30</b>	6843		Fanning	д В	r roperty r	iui ii				/	2	<b>ノ</b>	
		9 P	roposed Pool 1 y (58300)	<i></i>				Imp	erial;	; Tubb-Dr:	Proposed F inkard	Pool 2 (33600)		
						<sup>7</sup> Surfac	e Loc	ation						
UL or lot no A	Section 33	Township 23S	Range 3 7 E	Lot 1	Idn	Feet from			outh line V	Feet from the	E E	ast/West line E	County Lea	
	<u> </u>	<u> </u>	<sup>8</sup> Pr	oposed B	ottom	Hole Loc	ation I	f Differ	ent Fron	m Surface				
UL or lot no	Section	Township	Range	Lot	Idn	Feet from	n the	North/S	outh line	Feet from the	E E	ast/West line	County	
	L				Addi	itional W		forma						
II Work N	Type Code		12 Well Type Co	de		13 Cable/ R				<sup>4</sup> Lease Type Cod P	ie		ind Level Elevation 294 '	
	fultiple	<del></del>	17 Proposed Dep	oth	<del>                                     </del>	18 Form	nation			19 Contractor	···	<sup>2n</sup> Spud Date		
N			6450'		Pad	dock-Bl	inebı	ſУ		UDI		08/16	/2010	
				<sup>21</sup> Pro	posed	l Casing	and C	Cemer	nt Prog	ram				
Hole S	lize	Casu	ig Size	Casin	Casing weight/foot			Setting Depth			Sacks of Cement		Estimated TOC	
12-1/4	1"	8-	5/8"	24#			1100'			575		Surf.		
7-7/8	3 "	4 -	1/2"		11.	6#		6450'		985			Jul.	
			,					<del>~·</del> ·		<del> </del>			-	
Describe the	ne proposed plowout pre	program If the	is application is m, if any Use a	to DEEPE	N or PI heets if	LUG BACK necessary.	, give th	e data or	the prese	ent productive z	one and pr	oposed new p	roductive zone	
Drill	a 6450	' oil wel	l to test	the P	addoo	ck-Blin	ebry							
	ff.				۸									
	Dere	nit Explr	s 2 Years	From	App	es Loast								
	₹	Date Unl	ess Drillin	g Una	:L.Me	y								
<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief							OIL CONSERVATION DIVISION							
Signature						Approv	ed by		21					
Line	N	2000	<u> </u>						<u> </u>	9/KM	ruz			
Printed name	Lynr	ne Moon					Title	PET		THE ENVIRONMENT				
Title Regi	ulatory	Manager					Approv	al Date	AUG	2 0 2010	Ехріга	tion Date		
E-mail Addre	ss. lyn	ne.moon@r	meritener	gy.com										
Date 08/	10/10		Phone 972	-628-1	569		Conditions of Approval Attached							

## RECEIVED

State of New Mexico

AUG 1 6 2010 AUG 1 6 2010 DISTRICT 1

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

HOBBSOCPL DISTRICT H 1301 W. GRAND AVERUE, ARTESIA, NW 88210

DISTRICT III

CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

1000 Rio Brazos Rd , Aztec, NM 87410 WELL LOCATION AND ACREAGE DEDICATION PLAT DISTRICT IV C) AMENDED REPORT 1220 S. ST. FRANCIS OR., SANTA FE, NY 87505 Pool Name Teague Pool Code API Number PADDOCK - BLINEBRY 30-025-58300 Well Number Property Name 2 FANNING B Elevation Operator Name OGRID No. 3294 MERIT ENERGY COMPANY 14591

East/West line County North/South line feet from the Lot Idn Feet from the Range Township UL or lot No. Section 330 EAST LEA NORTH 23-S 37-E 990 33 Bottom Hole Location If Different From Surface

Surface Location

East/West line County North/South line Feet from the Lot fdn Feet from the UL or lot No Section Township Range Order No. Joint or Infill Consolidation Code Dedicated Acres

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OR A NON-STANDARD UNIT HAS BEEN APPROVED	BY THE DIVISION
	OPERATOR CERTIFICATION  I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or infessed innered interest in the land including the proposed bottom hale location at has a right to drill this well at the location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretutors entered by the division
GFODETIC GOORDINATES NAD 27 NME  Y=462226.8 N X: 862706 8 F  LAT =32 26532/* N : LONG =103 159935* W	Surveyor Certification  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my behef
	Date Streeyed Mary 1/A Signature Askal of Professional Surveyor  According Dulyn 00/06/2010  Certificate No. GARY EIDSON 12641 RONALD 1 EIDSON 3239

DISTRICT I State of New Mexico Energy, Minerals and Natural Resources Department

#### State of New Mexico

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

Certificate No GARY EIDSON

12641

RONALD J CIDSON 3239

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NN. 802 AUG 16 2010L CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

DISTRICT III	Rd , Aztec, Ni		SUCU	Santa	Fe, No	ew Mo	exico 87505			·
DISTRICT IV		¥	WELL LO	CATION	AND A		GE DEDICATION		□ AMENDE	D REPORT
1220 S ST FRANCIS I	Number	NM 87505		Pool Code		I	mperial TUBB-DRIN	Pool Name		
	•	,	336	00			UBB - DRIN	MARD		
Property (	Code	0112			•	erty Nam	e		Well Num	iber
7798	g-306	843				NING ator Nam			Elevatio	II.
OGRID N				MERI			COMPANY		3294	
1459	/					ce Loca			<del></del>	. —
	T	I	Range	Lot Idn	Feet fro		North/South line	Feet from the	East/West line	County
UL or lot No.	Section	Township	37-E	1,01 1011	990		NORTH	330	EASI	LEA
A	33	23-S	L							
			Bottom		·		rent From Sur			
UL or lot No.	Section	Township	Range	Lot Idn	Feet fre	om the	North/South line	Feet from the	East/West line	County
Ĭ										
Dedicated Acre	s Joint o	or Infill Co	nsolidation	Code Or	rder No.					
NO ALL	OWABLE V	VILL BE AS OR A D	SSIGNED NON-STAN	TO THIS (DARD UI	COMPLE VIT HAS	BEEN	INTIL ALL INTER APPROVED BY	THE DIVISION		
				``				OPERATO	OR CERTIFICAT	ТОИ
	1			1		ļ		1 hereby	certify that the infi and complete to th	ormation
							066-	my knowledge	and belief, and that ither owns a working	t this
				1				or unleased to	meral interest in the proposed bottom hos	e land
	and a second					- 1	<u> </u>	or has a right	to drill this well a ant to a confract w	t this ith an
	The state of the s			***			33	or to a solunt	mmeral or working ary pooling agreeme oling order beretofo. 1.	at or a
		CEO	DETIC CO	ORDINATES	5					, ,
7777	ĺ	010	NAD 27		•	1		Lixu 1	1000 08/1000 Da	13/10
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	-		X=86270	6.8 F				Printed Nan	E //IOON	
	and the second		AT =32 26 VG = 103 1		/	-		1 1	or certificat	
		- 4-40-4		-			and the distribution of Asserting		or ogiers for	
				A part of the same				shown on this notes of actua under my sup-	certify that the we plat was plotted from al surveys made by ervision, and that the ect to the best of n	om field me or he same is
									remainment of the second	

### **MERIT ENERGY COMPANY - FANNING B2 DRILL WELL** SEC33-T23S-R37E LEA COUNTY, NM PROPOSED MUD PROGRAM

DRILLING FLUID									
Interval Depth	ppg .	VIS	PV	ΥP	рН	Filtrate	Solids (% Vol)	Chloride (mg/L)	
0-1100'	8.6-9.2	32-36	8-12	6-12	10-10.5	NC	< 5	1k – 5k	
1100-4800'	9.8-10.0	28-30	0-2	0-1	10-10.5	NC	< 5	165k	
4800-6200'	10.0-10.1	28-30	1-4	0-2	9-10	10-20cc	<2	150-190k	
6200-6450'	10.0-10.3	36-38	5-12	3-10	10	10-12cc	< 5	150-190k	

### 0-1,100' ( Drill a 12 1/4' hole and set 8 5/8' casing)

Spud in with Fresh Gel flocculated with Lime for sufficient viscosity to clean the hole. Use Paper as needed for any seepage. Mix Paper as needed for seepage. Add fibrous materials for any losses.

VISCOSITY 32-36 sec/1000cc WEIGHT

WATER LOSS

8.6-9.2

no control

#### 1,100'- 4,800' (drill a 7 7/8' hole with brine)

Drill out from under surface with brine water and circulate the reserve pit. Mix Lime to control the pH at 10-10.5. Mix Paper as need for seepage. Mix MF55 slowly at the flow line to reduce solids and keep the fluid clear at the suction. Mix BI Seal and Salt Gel to control any losses.

VISCOSITY

WEIGHT

**WATER LOSS** 

28-30 sec/1000cc

9.8-10.0

no control

### 4,800'- 6,450' (Drill a 7 7/8' hole with a Salt Gel/Starch mud system- set 5 1/2' casing)

Go to the working pits at 4800' and Starch up for a 10-20cc filtrate. The Starch should help with better samples along with seepage control. Continue to add Lime to control the pH at 9.0-10.0 slowly through the chemical barrel. Jet as needed to control the mud weight and solids. Use brine water from the reserve pits for volume. Prior to total depth or about 6-8 hours before td raise the viscosity to 36-38 seconds with Salt Gel and reduce the filtrate to 10-12cc for logs. Mix daily additions of BL1150 for biocide control and use WC Defoamer for any airing problems. Use BI Seal to help control any losses.

**VISCOSITY** 28-30 sec/1000cc WEIGHT 10.0-10.1 **WATER LOSS** 

10-20cc

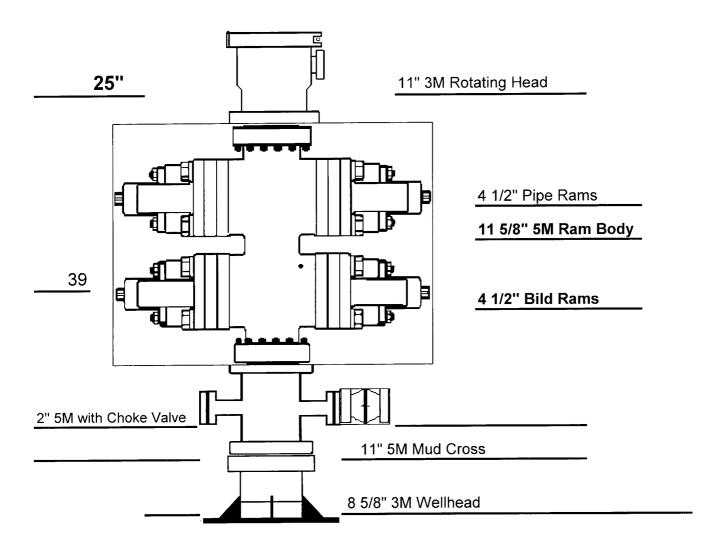
36-38 sec/1000cc

10.0-10.3

10-12cc - for logging

Length

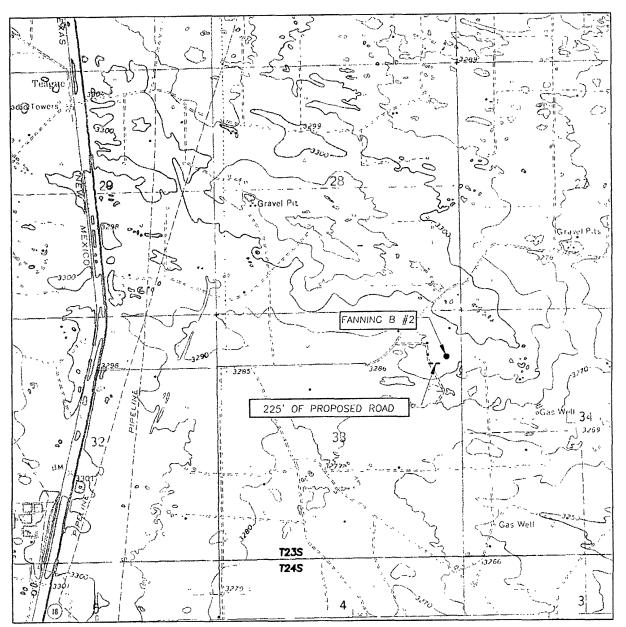
Description



There is a 4" valve out of the mud cross flowing to gas buster

SECTION 33, TOWNSHIP 23 S	OUTH, RANGE 37 EAST,	N.M.P.M.,
	son'	
	600'	
		(6)
	' NORTH	
0	FFSE1 297 5'	
	□ •	
		NORTH
		1
. 150' WEST FANN OFFSET □ 7005 0'	TING B #2 150' EAST  O	,009
3293.2 ELEV	7. 3294.2' 3292.0'	99
	2.265327" N 03.159935° W	
		***
225' OF PROPOSED ROAD	,	
150	□ ' SOUTH	
$\mathcal{C}$	0FFSET 293 2'	a.
	600	
DIRECTIONS TO LOCATION		
FROM THE INTERSECTION OF ST HWY #18 AND CO.  RD E-11 (TEAGUE SWITCH RD.), GO SOUTH ON ST	100 0 100	200 Feet
HWY #18 APPROX 1.2 MILE. TURN LEFT AND GO EAST APPROX. 1.1 MILES VEER LEFT AND GO NORTHEAST APPROX 0.1 MILE. TURN RIGHT AND GO	Scale.1"=100'	
EAST APPROX 0.1 MILES. TURN RIGHT AND GO SOUTHEAST APPROX 0.1 MILE TO A PROPOSED ROAD	MERIT ENERGY C	OMPANY
SURVEY FOLLOW ROAD SURVEY EAST 225 FEET TO THIS LOCATION	FANNING B #2 WELL LOCATED 990 FEET FROM THE NORT	H LINE
PROVIDING SURVEYING SERVICES	AND 330 FEET FROM THE EAST LINE OF TOWNSHIP 23 SOUTH, RANGE 37 EAST,	SECTION 33,
SINCE 1946 JOHN WEST SURVEYING COMPANY	Survey Date. 7/29/10 Sheet I	of 1 Sheets
412 N DAL PASO HOBBS, N M 88240 (505) 393-3117	W O. Number: 10.11 1118 Dr By. LA	Rev 1:N/A
1 (56.7 555 577)	Date 8/4/10 10111111.	Scale i "=100"

# LOCATION VERIFICATION MAP



SCALE 1" = 2000'

CONTOUR INTERVAL . RATTLESNAKE CANYON N.M. -- 10'

SEC 33 TWP 23-S RGE 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 990' FNL & 330' FEL

ELEVATION 3294'

OPERATOR MERIT ENERGY COMPANY

LEASE FANNING B

U S G S. TOPOGRAPHIC MAP

RATTLESNAKE CANYON. N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JUHN WEST SURVEYING COMPANY
412 N DAL PASO
HOBBS, N.M 88240
(505) 393-3117

# VICINITY MAP

	23	24	19	20	51	7 207 SS	23F R.	24	19	50	38 E13	
	26	52 K K	20 1	E9 KING	28	27	26	52 7	30	29	28	
	35	36	31	35 ES0	33	) pp	35 G	DRINKARD 36	31	32	33	
						EIZ TIMMUZ		1	6	5	4	
	5	1	6	5	1 P#	۔ لے					-	
	11	15	7	1, 1, 1, 0, 8, 0;	9	10	111 8 5	15	7	8	9	
	14	13 8	37 18 3	17	16	15	14	13 5	38 18 18 E	17	16	
_		<u>α</u>	Α							1.7	8	1 20 5
	23	TEAGUE S	WITCH	20	21	55	23	24	19	20	21	The department of the second
	26	25 %	30	NNING B	#2 28	27	26 P ₹	25	30	29	28 2	
	35	DEEPWEL 36	S 31	35	33	34	35	36 8	R 38 31 31	32	33	; }
F	M.CONLEWS D	1	6	5	4	3	s	1	6	5	4	
,	11 01	12 %	E 7 ,	() (PDM PAsset) B	9	10	O <sub>2</sub> n	18	7	8	9	<u>.</u> .
DIWE!	14 14 14	13	18	17	16	15	14	13	18	17	16	<u>Б</u> т ∨24 S
10 C	23	COOPER 24	EMETARY	COOPER 20 FLYING	21	55	23 24, 23	24	R 37 E	20	21	~
1	+			1		"						. 2

SCALE: 1" = 2 MILES

SEC <u>33</u>	TWP. <u>23-S</u> RGE. <u>37-E</u>
SURVEY	N M.P M.
COUNTY	LEA STATE NEW MEXICO
DESCRIPTION	ON 990' FNL & 330' FEL
ELEVATION	3294'
OPERATOR	MERIT ENERGY COMPANY
LEASE	FANNING B



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS. N M. 88240
(505) 393-3117

### OFFSET MERIT PRODUCING WELLS TO PROPOSED DRILL WELL LOCATIONS

Well	Section	Oil	Gas (mcfd)	Prod GOR (scf/stb)	
Fanning A1	33	2.5	7	2800	(ignore - anamoly to section-low)
Fanning B1	33	8	35	4375	
Travis #5	21	5	35	7000	
GG Travis #2	21	2	17	8500	
GG Travis #3	21	3	10	3333	
GG Travis #4	21	4	52	13000	(ignore - anamoly to section-high)

### **Pasquill-Gifford Derived Equation**

Estimated escap	pe rate (Q)	23,780	scf/day	/	]
hyd sulfide cond	centration	0.325	(mole e	equivalent fraction of h2s in gas mixture)	h2s concentration taken from Southern Union Gas Services gas analysis
	х	= 362.27	ft	[100-ppm radius of exposure]	
	х	= 165.54	ft	[500-ppm radius of exposure]	

<sup>\*\*</sup>No public areas exist within either radius of exposure calculated above\*\*

Since no public areas exist in radius of exposure - these wells **DO NOT** represent a potentially hazardous volume of hydrogen sulfide No H2S contingency plan will be required

### Prepared by

John Petty, P.E. Permian Operations

Updated: 8/9/2010 Printed: 8/10/2010

<sup>\*\*</sup>Drilling - API RP-68 and API RP-49 need to be followed (gas conc >100 ppm)