Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR D-ARTESIA BUREAU OF LAND MANAGEMENT D-ARTESIA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

FORM APPROVED OMB No. 1004-0137 Expires March 31, 2007

Expires March 31, 2007	
5. Lease Serial No.	
C-065421	
5. If Indian, Allottee or Tribe Name	

		ubui	ndonod wen. Obo form o		2) . c. c. c p. c	/ / ·		
		SUBMIT IN TRI	IPLICATE - Other instru	ıctions or	reverse side		7. If	Unit or CA/Agreement, Name and/or No.
1.	Type of Well	Well	Gas Well	Other				111029 /ell Name and No.
	Name of Opera		Cas Well	Other			Brad	ley 14 Federal Com No. 1
<u> </u>	Name of Opera	Cim:	arex Energy Co. of Colorad	0			9. A	API Well No.
3a.	Address				hone No. (include	area code)	30-0	15-32672
	600 N. Marienf	eld St., Ste. 600; Mi	idland, TX 79701	4	32-571-7800		10. Fi	ield and Pool, or Exploratory Area
4.		· ·	., M., or Survey Description)					te City; Penn (G) & Wolfcamp Wildcat
	1650 FNL & 990 14-24S-26E) FWL					11. C	ounty or Parish, State
	14-243-200						Eddy	County, NM
		CHECK APP	PROPRIATE BOX(ES)	TO INDI	CATE NATUI	RE OF NOTICE,	-	RT, OR OTHER DATA
	TYPE OF SU	JBMISSION			TYI	PE OF ACTION		
			Acidize	D	eepen	Production (Star	t/Resume	e) Water Shut-off
	Notice of Into	ent	Alter Casing	Fr	acture Treat	Reclamation		Well Integrity
	Subsequent F	Report	Casing Repair	ШN	ew Construction	Recomplete		Other Recomplete to
	Subsequent is	Серог	Change Plans	PI	ug and Abandon	Temporarily Aba	ndon	Cisco and Wolfcamp and
	Final Abando	onment Notice	Convert to Injection	PI	ug Back	Water Disposal		DHC
	13. Describe Propo	osed or Completed Oper	ration (clearly state all pertinent of	letails, inclu	ded estimated starti	ng date of any propose	d work ar	nd approximate duration thereof.
	-							fall pertinent markers and zones.
	Attach the bon	d under which the work	will be performed or provide the	Bond No. o	on file with BLM/B	IA. Required subseque	nt reports	s shall be filed within 30 days
	_	•	•		•	•		Form 3160-4 shall be filed once
	=	•	andonment Notices shall be filed	only after al	l requirements, incl	uding reclamation, hav	e been co	empleted, and the operator has
		t the site is ready for fin	nal inspection.)					
		WH & NU 5K BOP.						
		sted casing to 4000	·					
		gan DO CBP @ 1014						
		& pushed CBP to 1						
	07.20.10 Set	: CIBP @ 10175.' Pe	erfed Cisco Canyon 10067-	10071, 10	0082-10086, 101	105-10109, 10120-	10125,	10136-10139, 10147-10151 3 spf, 7
	hol	les, 3¼" perf guns.						·
				5% HCL, 3	165 gal 6% HCL-	1.5% HF followed	by 220,0	095 gal slickwater containing 25,132
		O mesh sand. Set Ci					*	
		•					•	f guns. Frac'd 9979-10047 w/ 977 ga
			l 6% HCL-1.5% HF followed					
		· · · · · · · · · · · · · · · · · · ·						541, 9570-9574, 3 spf, 60 holes, 31⁄4
	=			nd 4708 ga	al 6% HCL-1.5% I	HF followed by 29	3,853 ga	al slickwater containing 43,691 # 100
		sh. Set CBP @ 939		0204 024	14 0244 0226	240 0264 0265		0 0 5
			and 4823 gal 6% HCL-1.5%					0 holes, 31/8" guns. Frac'd 9167-9365
		all CBPS.	allu 4023 gal 0% HCL-1.3%	HE IOLION	reu with 200,00	9 gai Siickwater to	ntanning	30,700# 100 Mesn.
		st production/sales.			4			
		" L-80 8RD to 9098'		oubm	it Com	deting ?) חממ ח	+ willing 30 days
14.		hat the foregoing is tru		00111	11 X OIII	restron je	1.00	EDTED FOR DECORD
	Name (Printed/Typ				Title		AUU	EPTED FOR RECORD
	Natalie Kruege	<u></u>			Title	Regulatory		10 9 1 M
	Signature	atali)	Kango 2		Date	09.08.10		of ternant
		CALANCE	THIS SPACE FO	R FEDF	RAL OR STAT		+	- SET 4/ WIB
	roved by					Title	BUI	REAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE
			. Approval of this notice does rable title to those rights in the s			Office	L	ONNESDAD FIELD OFFICE
CELL	ny macine appuea	ara morda regar or equita	rote time to mose tights in file?	uojeet tease	•	Office		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. 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.

which would entitle the applicant to conduct operations thereon.

Form 3160-5 (April 2004)

UNITED STATES ARTESIA DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 200

5. Lease Serial No. LC-065421

		Do not use this for abandoned well. U				6. If Indian, Allottee or Tribe Name
						G ICH 's CAIA as a N as N A
		TRIPLICATE - O	ther instructions	on reverse side)	7. If Unit or CA/Agreement, Name and/or No.
1. Type of We			NM-111029 8. Well Name and No.			
	Oil Well	Gas Well	Other			Bradley 14 Federal Com No. 1
2. Name of Op	perator	Cimarex Energy Co.	of Colorado			9. API Well No.
3a. Address			3b	. Phone No. (include	de area code)	30-015-32672
600 N. Mar	ienfeld St., Ste. 60	00; Midland, TX 7970	1	432-571-7800		10. Field and Pool, or Exploratory Area
4. Location of V	Well (Footage, Sec.	, T., R., M., or Survey	Description)			White City; Penn (G) & Wolfcamp Wildcat
1650 FNL &	990 FWL					11. County or Parish, State
14-24S-26E						
						Eddy County, NM
	CHECK	APPROPRIATE E	BOX(ES) TO IN	DICATE NATU	RE OF NOTICE,	REPORT, OR OTHER DATA
TYPE OF	F SUBMISSION			· TY	PE OF ACTION	
		Acidize		Deepen	Production (Star	rt/Resume) Water Shut-off
Notice of	Intent	Alter Casi	ng	Fracture Treat	Reclamation	Well Integrity
Subseque	ent Report	Casing Re	pair	New Construction	Recomplete	Other DHC
		Change Pl	ans	Plug and Abandon	Temporarily Aba	ndon
Final Aba	andonment Notice	Convert to	Injection	Plug Back	Water Disposal	
Attach the following testing has determined 07.27.10	bond under which the completion of the invi- been completed. Fir d that the site is ready DO all CBPS.	e work will be performed olved operations. If the o nal Abandonment Notices	or provide the Bond N peration results in a m shall be filed only afte	No. on file with BLM/ nultiple completion or er all requirements, in	BIA. Required subseque recompletion in a new i	depths of all pertinent markers and zones. lent reports shall be filed within 30 days nterval, a Form 3160-4 shall be filed once we been completed, and the operator has
	Results of	Production Log		0		,
	Water	Oil	Gas			
Wolfcamp	32.92%	33.46%	29.79%	-		
Cisco Canyon	67.08%	66.54%	70.21%	_		
Production Log	is attached.					
14. I hereby certi	fy that the foregoin	g is true and correct				<u></u>
Name (Printed	l/Typed)	<u> </u>		Title		
Natalie Krue	eger			1 IIIC	Regulatory	
Signature	Jatali	2 Knieg	2	Date	09.08.10	
		THIS/S	PACE FOR FEL	DERAL OR STA	TE OFFICE USE	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. 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.

Title

Office

Date

Conditions of Approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease

which would entitle the applicant to conduct operations thereon.

Production Profile Interpretation Report

Company: Cimarex Energy Co. Colorado

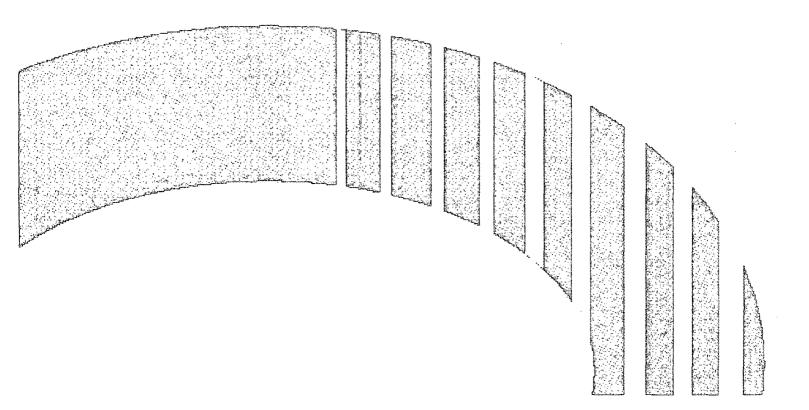
Field: White City

Well: Bradley 14 Federal Com.#1

Survey Date: 8-25-2010

Service Company: Techwell Surveys Corporation

Interpretation Date: 8-30-2010 Analyst: JD Taylor



Techwell		Job Information Bradley_14-1				
Surveys Corporation Xurvaces Corpor	Field	Company: Cimarex Energy Co. of Colorado Test: Flowing 3/4" Choke Field: White City Date: 8-25-2010 Well: Bradley 14 Federal Com. #1 Survey: Survey # 1				
S	urvey date	8-25-2010	Interpretation date	8/30/2010		
Service	e company	Techwell Surveys Corporation	Done by	JD Taylor		
	SURVEY	Survey # 1				
Sui	rface rates		Gas	449 Mscf/D		
	Oil	29 STB/D	Water	172 STB/D		
	TOOLS					
9	String O.D.	1.375 in	Capacitance			
Spinner I	blade O.D.	3. in	Calib. type	Yw vs norm. resp.		
	Density	Corrected	Default chart	CWH Water-Hydrocarbon		
			100% Water	7690 cps		
			100% HC	18392 cps		
INTERPE	RETATION	Interpretation # 1				
Der	nsity offset	0 g/cc				
	ance offset	0 cps				
	Flow type	3-Phase L-G				
Flow	model L-G	Dukler				
Flow n	nodel W-O	ABB - Deviated				
,	Vpcf mult.	1				
	Vslip mult.	1				
Vslip	mult.W-O	1				

Comments

Well logged flowing to sales with 260 psi ftp on a 3/4" choke, line pressure at 244 psi. 70% of the production is coming from the Wolfcamp with 30% from the Cisco Canyon. There was no fluid entry into the lower part of the casing string as it was filled with a thick viscous fluid (10112-10151). Data suggests that the major oil is from the middle of the Wolfcamp, top of inflow zone 3. Depth corrected to Halliburton CBL dated 5-30-2003. See detailed analysis below!

Bradley 14-1 API # 30-015-32672 1650' FNL & 990' FWL of Sec.14, T24S,R26E Eddy Co., New Mexico

JD Taylor

Techwell Surveys Corporation 432-664-4978.

Techwell		Produc	tion Profile		Bradley_14-1
Surveys Corporation Neuroconta & Analysis	Field: V	ny: Cimarex Ene Vhite City radley 14 Federa	ergy Co. of Colora	ido Test: Flow Date: 8-25 Survey: St	
Gamma Ray/C	CL Deptr Ir	nterpretation # 1	Flowmeter	Rates	Rates
GR S1,U30	(ft)	TEMP S1,I1	CFLOW (rps) 7. 7.	Rates (QZI) (B/I	D) Rates (QZT) (B/D) 800 0 13
0 GAPI GR S1,D30	200 159	°F 175 PRESS S1,I1			
0 GAPI CCL S1,D30	200 1160) psia 1560 GRAD S1,I1			
	9000.	g/cc 1 CWH S1,I1			
#	1839	02 cps 7690 Ave. p30 & U30			
	9109	The state of the s			
	от +			24.6% Qt	@1 Res.1241 Bad
AND THE PROPERTY OF THE PARTY O	9209			2 1.570 4.	@M R33. 1778 Bpd @M R33. 1778 Bpd @M R33. 338 Bpd @M R36. 449 M361 @M R36. 449 M361
	930€	\ \{\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			@ws.c. 172 State
				7.4% Qt Wa	lfcamp &
	9406				
	9506			\$7.7% @1	
	9600				
	9709	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			775 80-015
AM	Pr	essure			新聞
	9800 FIL	id Density			
	Te Te	mperature			
3	9906	uid Dielectric			er Chron
Allow by the state of the state	- Food	(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		R	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		1 30.3% @ Cisco C	anyon
C	F010	Viscous Fluid		<u>හිරින් (Cisco C</u>	anyon
Gam	ima Ray	74.3 Deg.F, 1534 Psia	Up Passes Dn Passes		
Emeraude v2			9/1/2010		Page 2/

Techwell	F	Pressure-Temp-FM		Bradley_14-1
Surveys Corporation Vermental & Arilysis	Field: White City	rex Energy Co. of Color Federal Com. #1	rado Test: Flowing Date: 8-25-20 Survey: Surve	10 ey # 1
Gamma Ray/C GR S1,U30 0 GAPI GR S1,D30 0 GAPI CCL S1,D30 45000. 4	(ft) PRESS (ps 1160	ia) TEMP (°F)	Temperature DTEMP (°F) 75 -0.5 0.5	Flowmeter CFLOW (rps) 5 -7. 7.
The state of the s	9100 9100 9200 9200 9300 9400 9400 9500 9500 9700	1543 Psia 174.3 Deg.F		Up Passes
Emeraude v2	2.42.14	9/1/2010		Page 3/11

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Techwell	Fluid	Density-Dielectric-FM		Bradley_14-1
Surveys Corporation Neurocrast & Acadysis	Field: White City Well: Bradley 14	rex Energy Co. of Colora Federal Com. #1	ado Test: Flowi Date: 8-25- Survey: Su	
Gamma Ray/C0 GR S1,U30 0 GAPI GR S1,D30	(ft) GRAD (g/cc	Density PRESSSG (g/cc) 1 0 1.	Capacitance CWH (cps) 1 18392 7	Flowmeter CFLOW (rps) -7.
0 GAPI CCL S1,D30 45000. 49	9000.			
Some of property of the sound o	F B	.99 g/cc Viscous Fluid on Bottom	Major Oil/Gas	7780 Up Passes Dn Passes
Emeraude v2	T0207	9/1/2010		

Techwell		Zones-	WS-LS-FM		Bradley_14-1
Surveys Corporation Numerical & Arthysis	Field:	pany: Cimarex Ene White City Bradley 14 Federa	ergy Co. of Colorac	do Test: Flowin Date: 8-25-2 Survey: Sur	
Gamma Ray/Co GR S1,U30 0 GAPI GR S1,D30 0 GAPI CCL S1,D30	CL Depth Z (ft) 2 200 200	Well Sketch (in) -7.874 7.874	Int. Diam. ID (in)	Cable Speed LSPD (ft/min)	Flowmeter CFLOW (rps) 20 -7. 7.
The state of the s	9200 1 1 1 9300 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2 3 8 4.7# 1.995 D	Up Rasses Dn Passe	Up Passes
Emeraude v2	.42.14		9/1/2010		Page 5/11

ľ	_ Techwell	Zone Contributions; S.C.		Bradley_14-1
	Surveys Corporation Vicenation & Profession Line State of the Control of the Co	Company: Cimarex Energy Co. of Colorado Field: White City Well: Bradley 14 Federal Com. #1	Test: Flow Date: 8-25 Survey: Su	-2010

Zones	Water	Oil	Gas
ft	STB/D	STB/D	Mscf/D
9167.0-9170.0	41.22	7.10	103.91
9257.0-9365.0	15.43	2.66	29.90
9406.0-9574.0	66.24	11.33	165.07
9979.0-10151.0	49.20	8.08	150.31
Total	172.08	29.17	449.18

Techwell
Surveys Corporation
Vermenar k Arilysis

Zone Contributions; Res. Cond.

Bradley_14-1

Company: Cimarex Energy Co. of Colorado Field: White City Well: Bradley 14 Federal Com. #1

Test: Flowing 3/4" Choke Date: 8-25-2010 Survey: Survey # 1

Zones ft	Qt res. B/D	Production %	
9167.0-9170.0	281.81	24.56	
9257.0-9365.0	84.78	7.39	
9406.0-9574.0	432.96	37.74	
9979.0-10151.0	347.81	30.31	

Contributions by phase

Zones ft	Qw res. B/D	Qo res. B/D	Qg res. B/D	W © O ■ G
9167.0-9170.0	41.99	8.76	231.06	
9257.0-9365.0	15.73	3.24	65.81	
9406.0-9574.0	67.60	14.09	351.28	
9979.0-10151.0	50.25	10.36	287.20	

Techwell
Surveys Corporation
Vanna and Landain

Total Zone Rates; Res. Cond.

Bradley_14-1

Company: Cimarex Energy Co. of Colorado Field: White City Well: Bradley 14 Federal Com. #1

Test: Flowing 3/4" Choke Date: 8-25-2010

Survey: Survey # 1

Zone ft	Corr. factor	Vm ft/min	Q downhole B/D	Contribution %
9167.0-9170.0	0.87	36.165	1210.70	24.56
9257.0-9365.0	0.87	27.521	921.30	7.39
9406.0-9574.0	0.87	24.303	813.60	37.74
9979.0-10151.0	0.85	10.390	347.81	30.31

Total rates by phase

Zone ft	Qw res. B/D	Qw s.c. STB/D	Qo res. B/D	Qo s.c. STB/D	Qg res. B/D	Qg s.c. Mscf/D
9167.0-9170.0	175.30	172.08	36.10	29.17	999.30	449.18
9257.0-9365.0	133.40	130.87	27.40	22.07	760.50	345.28
9406.0-9574.0	117.80	115.43	24.30	19.41	671.50	315.38
9979.0-10151.0	50.25	49.20	10.36	8.08	287.20	150.31



Rates @ Calculation Zones: Detailed Results

Bradley_14-1

Company: Cimarex Energy Co. of Colorado Field: White City

Well: Bradley 14 Federal Com. #1

Test: Flowing 3/4" Choke

Date: 8-25-2010 Survey: Survey # 1

#	From-To ft	ID in	Deviation °	Rt	T °F	P psia
1	9110.0-9160.0	4.8900	0.0000	3.679E-4	160.0000	1199.9000
2	9180.0-9245.0	4.8900	0.0000	3.679E-4	163.0000	1217.4000
3	9370.0-9400.0	4.8900	0.0000	3.679E-4	167.0000	1267.2000
4	9700.0-9900.0	4.8900	0.0000	3.679E-4	171.0000	1412.4000

#	Bw	Muw cp	Rhow g/cc	Во	Muo cp	Rhoo g/cc	Bg	Mug cp	Rhog g/cc
1	1.0187	0.4409	1.0000	1.2374	0.4218	0.6800	0.0129	0.0144	0.0666
2	1.0194	0.4326	1.0000	1.2412	0.4139	0.6800	0.0127	0.0145	0.0673
3	1.0205	0.4187	0.9900	1.2518	0.3979	0.6800	0.0123	0.0146	0.0696
4	1.0214	0.4048	0.9900	1.2821	0.3704	0.6700	0.0110	0.0151	0.0776

#	Correl.	Correl. W-O	Regime	Slip ft/min	Slip W-O ft/min
1	Dukler	ABB - Deviated	Slug liquid-gas	57.433	20.438
2	Dukler	ABB - Deviated	Slug liquid-gas	57.464	20.470
3	Dukler	ABB - Deviated	Slug liquid-gas	57.413	20.561
4	Dukler	ABB - Deviated	Bubble	59.378	20.821

#	Yw	Yo	Yg	Vw ft/min	Vo ft/min	Vg ft/min
1	0.5400	0.0235	0.4400	9.6700	45.8000	68.6000
2	0.6300	0.0216	0.3500	6.3400	37.9000	64.9000
3	0.6600	0.0205	0.3200	5.3000	35.3000	63.6000
4	0.8500	0.0119	0.1400	1.7700	26.0000	61.5000

Techwell		PVT		Bradley_14-1	
Surveys Companion Surveys Companion Surveys Companion	Field: White 0		Test: Flowing 3/4" Choke Date: 8-25-2010		
	Well: Bradley	14 Federal Com. #1	Survey: Su	irvey # 1	
	FLUID TYPE	Water - Oil+Gas			
	GAS	0.7			
	Specific gravity N2 %	0.7 0			
	CO2 %	0			
	H2S %	0			
	7 / Z	Beggs and Brill			
	Mug	Lee et al.			
	OIL				
	Gravity	0.7822 sp. gr.			
	GOR	561.458 cf/bbl			
	Pb	Standing			
	Rs	Standing			
	Во	Standing			
	co	Vasquez and Beggs			
	Muo	Beggs and Robinson			
	WATER				
	Salinity, ppm	20000			
	Rsw	Katz			
	CW	Dodson and Standing			
	Muw	Van-Wingen+Frick			
	:				
meraude v2.	.42.14	9/1/2010		Page 10	

_	Techwell
•	Surveys Corporation
	Version Gréph

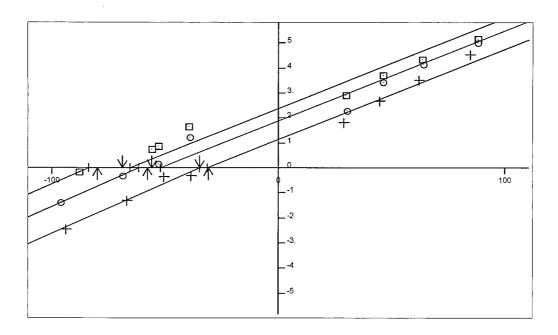
Calibration

Bradley_14-1

Company: Cimarex Energy Co. of Colorado Field: White City Well: Bradley 14 Federal Com. #1

Test: Flowing 3/4" Choke Date: 8-25-2010

Survey: Survey # 1



rps versus ft/min

Threshold (+) 3.6 ft/min

Threshold (-) -3.7 ft/min

Calib. Zone ft		Slope (+)	Slope (-)	Int (+) ft/min	Int (-) ft/min	Int. Diff. ft/min	
	9111.3-9161.5	0.036	0.040	-65.21	-83.59	18.38	
0	9182.3-9245.2	0.036	0.040	-51.99	-61.27	9.28	
+	9700.7-9899.8	0.036	0.040	-31.13	-34.52	3.39	