

API #47 - 17 - 04302

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: RICHARDS, RAY

Operator Well No.: ROSS #2

LOCATION:

Elevation:

1080.00

Quadrangle: OXFORD

District: CENTRAL

County:

DODDRIDGE

Latitude:

1400 Feet South of 39 Deg. 15 Min.

0 Sec.

Longitude:

10000 Feet West of 80 Deg. 50 Min. 0 Sec.

Company:

KEY OIL COMPANY

22 GARTON PLAZA

WESTON, WV 26452-0000

Agent:

JAN E. CHAPMAN

Inspector:

Rotary X

MIKE UNDERWOOD

Permit Issued:

Well Work Commenced:

09/16/96

Well Work Completed:

10/02/96 10/10/96

Verbal Plugging

Permission granted on:

Cable Rig

Total Depth (feet)

5500'

Fresh water depths (ft) Salt water depths (ft) 1178'.

178'

Is coal being mined in area (Y/N)? N Coal Depths (ft): None Reported

	4.4		
Casing & Tubing Size	Used In Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	124.20'	124.20'	70 sks To surface
8 5/8"	2111.15'	2111.15'	615 sks To surface
4 1/2"	5456'	5456'	370 sks
2 3/8"		5270'	

OPEN FLOW DATA

Ballto	own		3880' - 4440'
Riley			4582' - 4989'
Bens	on		5014' - 5028'
Producing formation Alexa		Pay zone depth (1	t) 5268' - 5350'
Gas: Initial open flow 47		Oil: Initial open fl	ow0Bbl/d
Final open flow 1,586	MCF/d	Oil: Final open flo	ow_show Bbl/d
Time of open flow be	ween initial and	final tests N/A	Hours
Static rock pressure 1650	_psig (surface	oressure) after <u>96</u>	Hours
Second producing formation_	Commingled	Pay zone depth (1	t)
Gas: Initial open flow		Oil: Initial open fl	
Final open flow	_MCF / d	Oil: Final open flo	
Time of open flow be	ween initial and		Hours
Static rock pressure	psig (surface p	ressure) after	Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For:

KEY OIL COMPANY

JANUARY 22, 1997

President FEB 1 4 1997

Ross #2 (47-017-04302) Four Stage Foam Frac - Halliburton

			and the second of the second of				
1st Stage:	Alexander (11	holes) (5290	.75' - 5333.50')	60 Quality Foal 60.000# 20/40 811 bbls foam	sand, 55	gal. 15% HCL. 0,000 SCF N2,	
2nd Stage:	Benson (5 ho Third Riley (5		5022") 75' - 4958.25')	60 Quality Foa 35,000# 20/40 566 bbls foam	sand, 39	gal 15% HCL. 14,000 SCF N2,	
3rd Stage:	Riley (10 hole	es) (4604.25	' - 4631.5')	60 Quality Foa 10,000# 80/10 508,000 SCF	0 sand,	30,000# 20/40 sand	,
4th Stage:	Balltown (10	holes) (420	2' - 4367') WELL LOG	60 Quality Foa 5,000# 80/100 390,000 SCF I	sand, 35	gal 15% HCL. 5,000# 20/40 sand, bls foam.	
Red Rock & C	lav	0	10				
Sand & Shale		10	91				
Sand	~ ! \OQ! OO!\	91	151		Damn	@ 178'	
Sand & Shale	& Red Rock	151	1004		Damp	@ 170	
Sand		1004	1011				
Red Rock & S	and & Shale	1011	1600		Damn	@ 1178'	
White Sand		1600	1611		- Julip	9 1170	
Sand & Shale		1611	1950				
Maxon		1950	1990				
Sand & Shale		1990	2018				
Sand & Shale		2018	2088		Damn	@ 2038'	
Big Lime	∞ ≥ 11110	2088	2152		Danip	Gas Checks	
Big Injun		2152	2219		2566	NO SHOW	
Shale		2219	2353		3027	NO SHOW	
Weir		2353	2514		3956	NO SHOW	
Shale		2514	2574		4357		
Berea		2574	2574 2580		4820		
Sand & Shale		2580	2560 3447		5218	NO SHOW 2/10 - 1/2" w/ H ² O	
Warren		3447	3516		5300		
Shale		3516	3510 3522		- TD		
Speechley		3522	3646			44/10 - 1"w/ H ² O s 20/10 - 1"w/ H ² O	
Shale	• .	3646	3880		Collais	5 20/10 - 1 W/ H O	
Balltown		3880	4440				
Shale		4440	4582				
Riley		4582	4562 4662				
Shale		4662	4938				
3rd Riley		4938	4989				
Shale		4989	5014				
Benson	*	5014	5014 5028				
Sand & Shale		5028	5268				
Alexander	27	5268	5350				
Sand & Shale		5350					
T D		5550 5500	5500				

5500

Sand & Shale

T.D.

FORM	WW-23	•		OF WEST	TDCTNTA 0	17-430% F	ageot
	DIVISI	on of env	IRONMENTA	L PROTECT	ION, OFFICE	OF OIL A	ND GAS
			WELL WORK	PERMIT A	PPLICATION		- /
1)	Well Oper	ator:	KEY OIL CO	MPANY 25	655 W	5	U 6
	Operator'						levation: 1080'
4)	Well type	: (a) Oi	1 <u>X</u> / 0	r Gas_		Issued (Expues (
45		(b) If	: Gas: Pr	oduction_	X / Undergro	ound Stora Shall	re /
225					(3)	211677	
	Proposed	Target Fo	ormation(s	;):AL	EXANDER		- Area
	Proposed						Environment Sion
	Approxima	ate fresh	water sti	ata depti	as:O-		Simental profession of 1995
8)	Approxima	ate salt	water dept	hs: 174	61		Per 0 1995
9)	Approxima	ate coal	seam depti	ns: <u>N</u>	Α	~~/	ce of Oil no
10)	Does land	i contain	coal sea	ns tribut	ary to acti	ve mine?	Yes/°No_x_/
11)					ULATE, PRODUC		
12)							·
CASING AND TUBING PROGRAM							
	_		<				
TYPI		SE	<		FOOTAGE I	NTERVALS	
TYPI	3		ECIFICATI	ONS Weight	FOOTAGE I	Left in	
	ductor		ECIFICATI	ONS Weight	FOOTAGE II	Left in	Fill-up
Con			ECIFICATI	ONS Weight	FOOTAGE II	Left in	Fill-up
Con	ductor sh Water	Size	PECIFICATI	ONS Weight per ft.	FOOTAGE I	Left in well	Fill-up (cu. ft.)
Con	ductor sh Water	Size 11 3/4	PECIFICATI	ONS Weight per ft.	FOOTAGE I	Left in well	Fill-up (cu. ft.)
Conc Fre	ductor sh Water	Size 11 3/4	ECIFICATI Grade ERW	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.) 70 SKS. TO SURFACE
Con Fre Coa Int	ductor sh Water l ermediate	Size 11 3/4 8 5/8	CECIFICATI Grade ERW ERW	Weight per ft. 42	For drilling	Left in well 132 2020	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE
Conc Fre- Coa Int Pro	ductor sh Water l ermediate duction	11 3/4 8 5/8 4 1/2	CECIFICATI Grade ERW ERW	Weight per ft. 42	For drilling	Left in well 132 2020	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE
Concentration of the Concentra	ductor sh Water l ermediate duction ling hers	Size 11 3/4 8 5/8 4 1/2 1.5	CECIFICATI Grade ERW ERW	Weight per ft. 42	For drilling	Left in well 132 2020	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE
Concentration of the Concentra	ductor sh Water l ermediate duction sing sers KERS : Kir	Size 11 3/4 8 5/8 4 1/2 1.5	CECIFICATI Grade ERW ERW	Weight per ft. 42	For drilling	Left in well 132 2020	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE
Conservation Coal International Property Line	ductor sh Water l ermediate duction oing ters EXERS: Kin	8 5/8 4 1/2 1.5 ad zes pths set	ERW ERW J-55	Weight per ft. 42 23 10.5	For drilling 132 2020	132 2020 5425	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE
Concentration of the Concentra	ductor sh Water l ermediate duction oing mers KERS: Kin Sin Der	8 5/8 4 1/2 1.5 1.5 1.5	ERW ERW J-55 For Office	Weight per ft. 42 23 10.5	For drilling 132 2020 and Gas Use	Left in well 132 2020 5425	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE 360 SKS.
Conservation Coal International Property Line	ductor sh Water l ermediate duction eing ers ERERS: Kin Sin Der	8 5/8 8 5/8 4 1/2 1.5 1.5 1.5 1.5 1.5 1.5	ERW ERW J-55 For Office	Weight per ft. 42 23 10.5 c of Oil	For drilling 132 2020 and Gas Use	Left in well 132 2020 5425 Conly clamation	Fill-up (cu. ft.) 70 SKS. TO SURFACE 545 SKS. TO SURFACE

Page 1 of
Form WW2-A
(6/94)
File Copy

Environ ben't en la serie	1) Date: SEPTEMBER 3, 1996	25% - 1
SEP Are to the	1) Date: SEPTEMBER 3, 1995 2) Operator's well number ROSS #2	
	ROSS #2 3) API Well No: 47 - 017 - 4302	
Permining	State County Permit	

Permitting State County Office of County STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

		NOTICE AND A	APPLICATION I	FOR A WELL V	<u>WORK PERN</u>	<u>MIT</u>	
4)	Surface Ow	ner(s) to be serve	ed: 5) (a) Coa	Operator:			
	(a) Name _	RAY RICHARDS RT.1 BOX 43	Nar	me <u>NONE</u>			
	Address	CREENWOOD WY C	AQC	ress			
	(b) Name	GREENWOOD, WV 2	(b)	Coal Owner(s)	with Declara	ation	
	Address		Nar	me		20.011	
			Add	dress			
	(c) Name _				· · · · · · · · · · · · · · · · · · ·		
	Address		Nar	ne			
			Auc	11699			
6)	Inspector	MIKE UNDERWOOD	(c)	Coal Lessee w	ith Declaration	on	
,	Address	RT. 2 BOX 135	Nar	ne			
		SALEM. WV 26426	S Add	dress			
	Telephone	(304)- <u>782-1043</u>			·		
		TO THE PERSO	N(S) NAMED	ABOVE TAKE	NOTICE TH	IAT:	
	Included is	the lease or leas	es or other co	ntinuing contra	ct or contra	cts by which I	hold the
right	to extract oil	and gas OR				•	
X	Included is t	he information re	quired by Chap	iter 22, Article 6	6, Section 8	(d) of the Code	of West
virgir	nia (see page	(2) tas required und	or Chapter 22	of the Most Mir	rainia Cada	l baya cabyad	conice of
this r	notice and ar	t ás required und plication, a locat	ion plat and a	ccompanying d	documents n	anes 1 throug	b on
the a	bove named.	narties hv:			accuments p	ages i illioag	·· O
	X Pers	onal Service (Affi	davit attached)				
	Cert	tied Mail (Postma	irked postal rec	eipt attached)			
	Publ	ication (Notice of	Publication atta	ached)			
	I have read	and understand	Chapter 22-6	and 38 CSR 1	1-18 and I	agree to the t	erme and
cond	itions of any	permit issued und	er this applicat	ion.	1-10, and 1	agree to the t	siilis aliu
	I certify ur	ider penalty of la	aw that I have	e personally e	xamined an	d am familiar	with the
inforr	mation submi	tted on this applic	cation form and	d all attachmen	its, and that	based on my	inquiry of
		mmediately respon	onsible for obta	ining the inform	nation, I beli	eve that the in	formation
is tru		and complete.	anificant manal	tion for authority	tina falaa ini	formation incl	مطاح مسالم،
nnee	i alli aware hility of fina	that there are si and imprisonment	gnilicant penal	ties for submit	ung raise in	iormation, inci	uaing the
poss	ibility of fille a		/ell-Operator /	KEY OIL COM	PANY		
		B	/ 1 / /	Sama			
		lt:	PRESID	EAT			
		Α	ddress <u>22 GAR</u>	TON PLAZA			***************************************
		=	WESTON	, WV 26452			
Subs	cribed and s	۱ worn before me th	elephone <u>304-</u> vis 380 day of	269-7102 SEPTEM	MBFR -	19 95	Mariani di Tan
Caps	onbod and 5	noin poloie me u	day of	00, 101	1		
			Saren Coo	k		Notary Public	~~
Му с	ommission ex	kpires <u>MARCI</u>	H ¹ 24, 2003			OFFICIAL SEAL NOTARY PU STATE OF WEST VIRGINIA	
						KAREN COOK ROUTE 2, BOX 1	8
4						IANE LEW, WV 26378 by Commission Expires Mar. 2	
						•	W