

6,350'

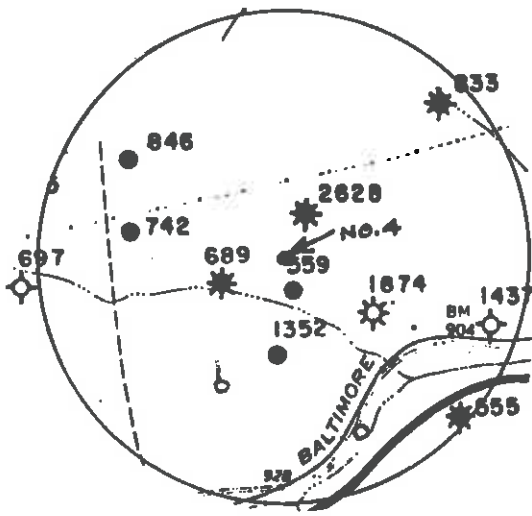
LATITUDE

39°17'30"

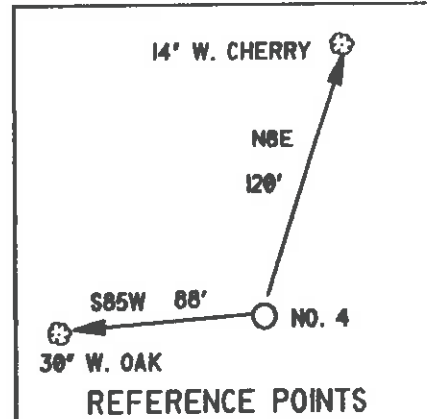
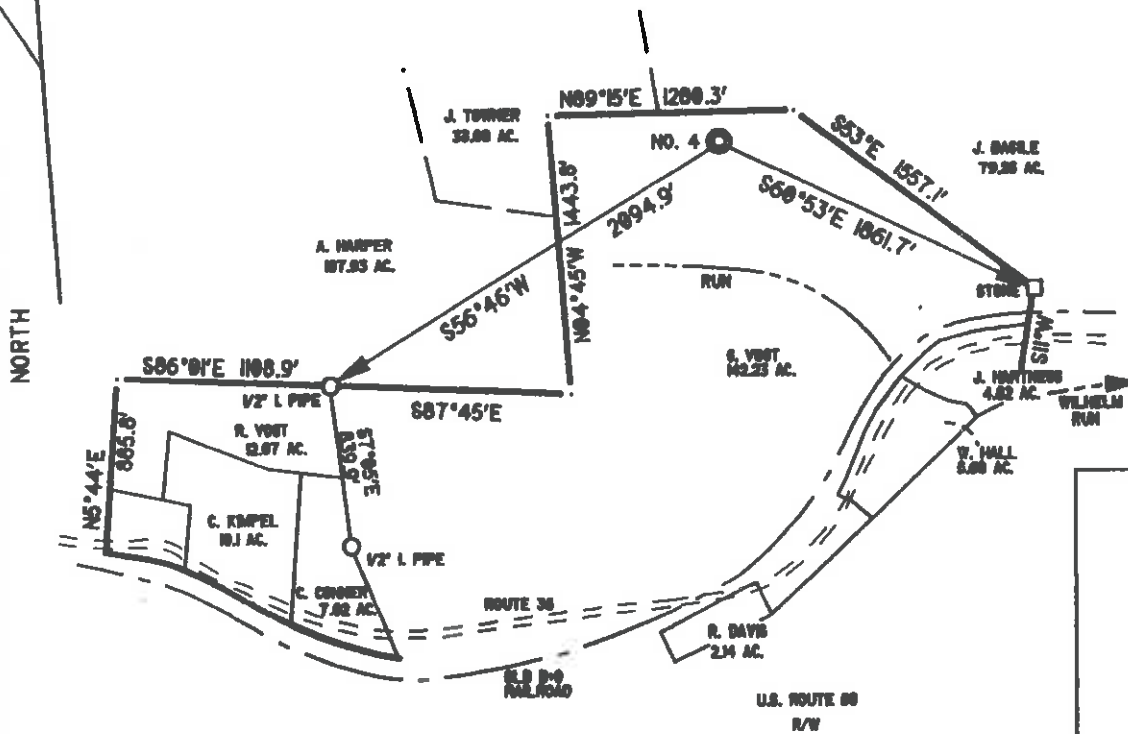
LONGITUDE

80°50'00"

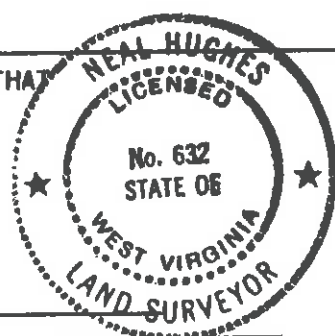
3,600'



0.685
1.20W



I THE UNDERSIGNED, DO HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.



L.L.S. 632 *Neal Hughes*

(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE FEBRUARY 19, 19 97
OPERATORS WELL NO. P. WRIGHT 4

API WELL NO. 47 - 017-04379
STATE _____ COUNTY _____ PERMIT _____

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 97-08
PROVEN SOURCE OF ELEVATION ROAD-RR INTER. 928' SCALE 1" = 1000'

WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 McJUNKIN ROAD
NITRO, WEST VIRGINIA 25143-2506

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION STORAGE _____ DEEP _____ SHALLOW _____

LOCATION: ELEVATION 957' WATERSHED WILHELM RUN
DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION
SURFACE OWNER GREGORY VOGT, ET UX ACREAGE 142.23
ROYALTY OWNER PATRICK WRIGHT LEASE ACREAGE 208

PROPOSED WORK:
DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ OTHER _____
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION ALEXANDER
ESTIMATED DEPTH 5600'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JA' CHAPMAN
ADDRESS 22 GARTON PLAZA ADDRESS 22 GARTON PLAZA
WESTON, WV 26452 6-6 89 WESTON, WV 26452 JUN 19 1997

COUNTY NAME
PERMIT

WR-35

18 - Jun - 97
API # 47 - 17 - 04379

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

Well Operator's Report of Well Work

Farm name: VOGT, GREGORY

Operator Well No. : P. WRIGHT #4

LOCATION: Elevation: 957.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 3600 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 6350 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: MIKE UNDERWOOD
Permit Issued: 06/18/97
Well Work Commenced: 11/10/97
Well Work Completed: 11/25/97
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5323'
Fresh water depths (ft) 78', 538'
Salt water depths (ft) NONE

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"	127.50'	127.50'	70 sks To Surface
8 5/8"	1580.10'	1580.10'	455 sks To Surface
4 1/2"	5279'	5279'	360 sks
2 3/8"		5129'	

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

OPEN FLOW DATA

Balltown 3680' - 4398'
Rileys 4426' - 4821'
Benson 4859' - 4873'
Producing formation Alexander Pay zone depth (ft) 5108' - 5192'
Gas: Initial open flow 103 MCF / d Oil: Initial open flow 0 Bbl / d
Final open flow 1,508 MCF / d Oil: Final open flow show Bbl / d
Time of open flow between initial and final tests N/A Hours
Static rock pressure 1800 psig (surface pressure) after 96 Hours

Second producing formation Commingled Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF / d Oil: Initial open flow _____ Bbl / d
Final open flow _____ MCF / d Oil: Final open flow _____ Bbl / d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) 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
By: _____
Date: April 18, 1998

PRESIDENT

DOSS
4379

MAY 1 1998

P. Wright #4 (47-017-04379)
Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (12 holes) (5149.75' to 5173.25')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 811 bbls foam.
2 nd Stage:	Benson (8 holes) (4866.25' to 4868') Third Riley (4 holes) (4791.75' to 4812')	60 Quality Foam. 750 gal 15% HCL. 50,000# 20/40 sand, 481,000 SCF N2, 712 bbls foam.
3 rd Stage:	Riley (10 holes) (4463.25' to 4475.75') Balltown (2 holes) (4369.50' to 4369.75')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 742 bbls foam.
4 th Stage:	Balltown (12 holes) (3876' to 3914.25')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbls foam.

WELL LOG

Fill and Clay	0	14	
Sand & Shale & Red Rock	14	307	Damp @ 78'
Sand	307	346	
Red Rock & Shale & Sand	346	688	¼" H ² O @ 538'
Sand & Shale	688	769	
Red Rock	769	857	
Shale & Red Rock	857	1700	
Sand & Shale	1700	1870	
Little Lime	1870	1896	
Shale	1896	1913	
Big Lime	1913	1969	Gas Checks
Big Injun	1969	2044	2507' - No Show
Shale	2044	2210	3003' - No Show
Weir	2210	2336	3716' - No Show
Sand & Shale	2336	2810	4427' - No Show
Gordon	2810	2820	4801' - 10/10 ^{ths} - 2" w/ H ² O
Shale & Sand	2820	3294	5110' - 10/10 ^{ths} - 2" w/ H ² O
Warren	3294	3344	TD - 6/10 ^{ths} - 2" w/ H ² O
Shale	3344	3356	
Speechley	3356	3475	
Shale	3475	3680	
Balltown	3680	4398	
Shale	4398	4426	
Riley	4426	4508	
Sand & Shale	4508	4756	
Third Riley	4756	4821	
Shale	4821	4859	
Benson	4859	4873	
Shale	4873	5108	
Alexander	5108	5192	
Sand & Shale	5192	5323	
T.D.	5323		

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: KEY OIL COMPANY 25650 671 (1)
- 23792 Operator's Well Number: P. WRIGHT #4 3) Elevation: 957'
- Well type: (a) Oil X/ or Gas X/ *Issued 06/18/97*
Expires 06/18/99
 (b) If Gas: Production X/ Underground Storage /
 Deep / Shallow X/
- Proposed Target Formation(s): ALEXANDER
- 6) Proposed Total Depth: 5600 feet
- 7) Approximate fresh water strata depths: 85'
- 8) Approximate salt water depths: -0-
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No X/
- 11) Proposed Well Work: DRILL, STIMULATE, PRODUCE *New Well*
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	ERW	42	30	0	<i>OK noted</i>
Fresh Water	8 5/8	ERW	23	957	957	260 SKS. TO SURFACE
Coal						<i>38(S)R/11.3</i>
Intermediate						<i>38(S)R/11.22</i>
Production	4 1/2	J-55	10.5		5400	490 SKS.
Tubing	1.5					<i>38(S)R/11.1</i>
Liners						

PACKERS : Kind
 Sizes
 Depths set

For Office of Oil and Gas Use Only

- Fee(s) paid: Well Work Permit Reclamation Fund WPCP
- Plat WW-9 WW-2B Bond Agent
 (Type)

00 4504 / 17

1) Date: MAY 19, 1997
2) Operator's well number
P. WRIGHT #4
3) API Well No: 47 - 017 - 4379
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator:
(a) Name GREGORY VOGT Name NONE
Address RT. 1 BOX 30AB Address _____
GREENWOOD, WV 26415
(b) Name _____ (b) Coal Owner(s) with Declaration
Address _____ Name _____
Address _____
(c) Name _____ Name _____
Address _____ Address _____

6) Inspector MIKE UNDERWOOD (c) Coal Lessee with Declaration
Address RT. 2 BOX 135 Name _____
SALEM, WV 26426 Address _____
Telephone (304)-782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
 X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties, by:

- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator KEY OIL COMPANY
By: [Signature]
Its: PRESIDENT
Address 22 GARTON PLAZA
WESTON, WV 26452
Telephone 304-269-7102

Subscribed and sworn before me this 19TH day of MAY, 1997

[Signature: Karen Cook]
My commission expires MARCH 24, 2003

