

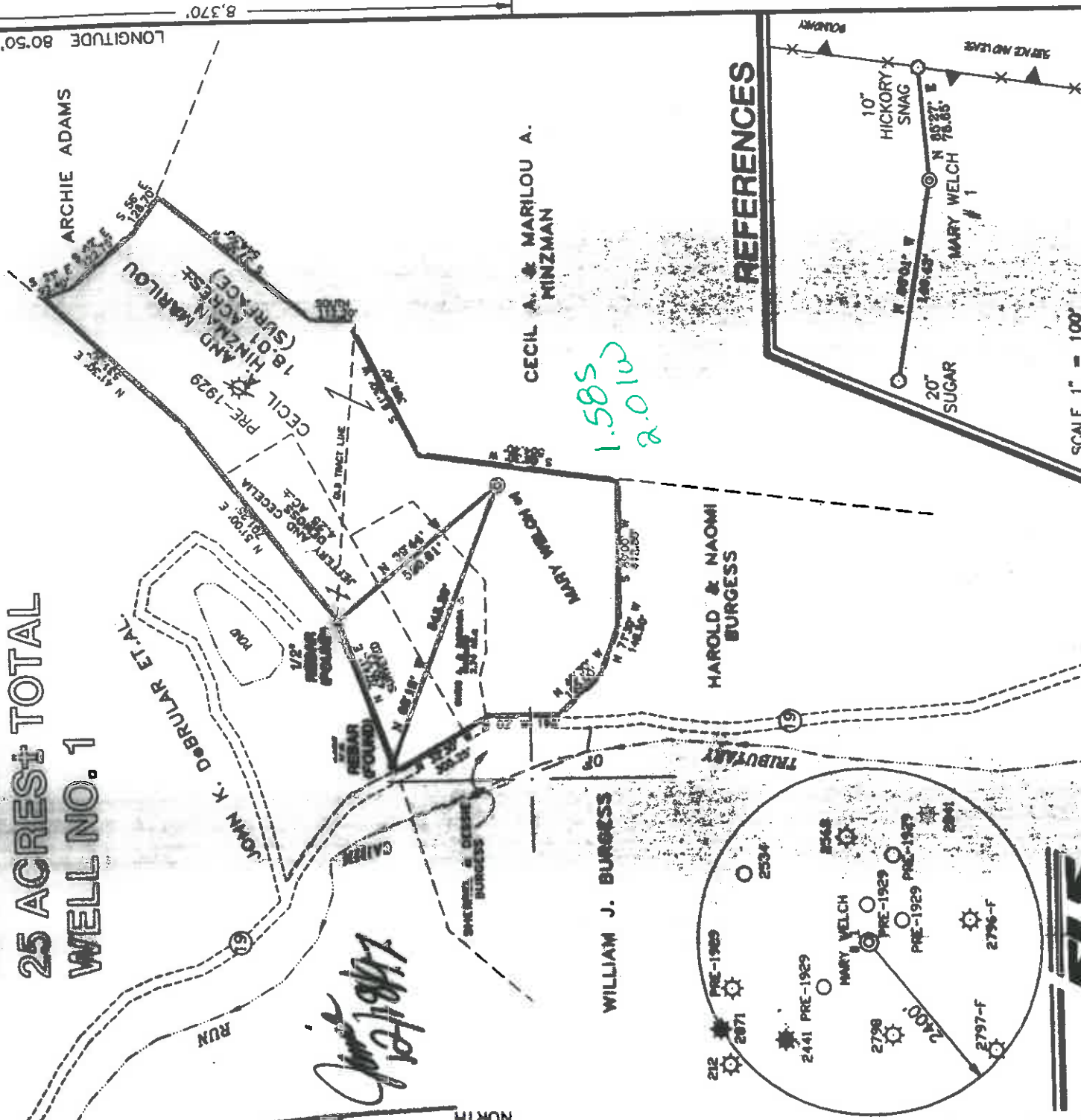
**MARY WELCH LEASE
25 ACRES± TOTAL
WELL NO. 1**

LATITUDE 39°15'00"

LONGITUDE 80°50'00"

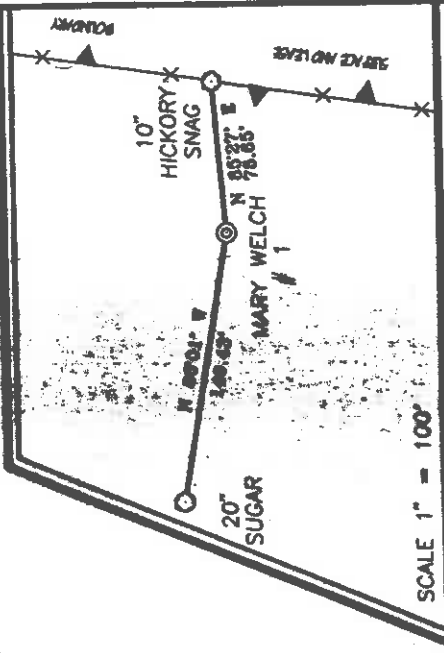
10,650'

8,370'

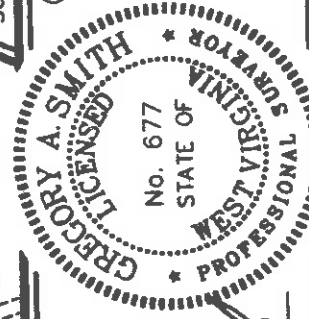


1.585
2.010

REFERENCES



I THE UNDERSIGNED/ 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.



P.S. 677 *Gregory A. Smith*

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



DATE DECEMBER 10, 19 97
OPERATORS WELL NO. MARY WELCH # 1
API WELL NO. 47-017 COUNTY OXFORD PERMIT 04418

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 3854P1 (64-52)
SCALE 1" = 400'
PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 892'

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

LOCATION : ELEVATION 958' WATERSHED TRIBUTARY OF CABIN RUN
DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'
SURFACE OWNER CECIL A. AND MARILOU HINZMAN ACREAGE 18.01
ROYALTY OWNER MARY WELCH ET AL. LEASE ACREAGE 25 LEASE NO. _____
PROPOSED WORK : DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER ALEXANDER
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION _____ ESTIMATED DEPTH 5600'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN PERMIT DEC 10 1997
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

6-6-89

WR-35

18 - Dec - 97
API # 47 - 17 - 04418

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

Well Operator's Report of Well Work

Farm name: HINZMAN, CECIL A.

Operator Well No. : MARY WELCH #1

LOCATION: Elevation: 958.00

Quadrangle: OXFORD

District: CENTRAL

County: DODDRIDGE

Latitude: 8370 Feet South of 39 Deg. 15 Min. 0 Sec.

Longitude: 10650 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: 12/18/97
Well Work Commenced: 1/10/98
Well Work Completed: 01/16/98

Verbal Plugging
Permission granted on: _____ Rig
Rotary X Cable _____ 5346'
Total Depth (feet) _____
Fresh water depths (ft) 50', 182'
Salt water depths (ft) NONE

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

| Casing & Tubing Size | Used in Drilling | Left In Well | Cement Fill Up Cu. Ft. |
|----------------------|------------------|--------------|------------------------|
| 11 3/4" | 132.05' | 132.05' | 70 sks To Surface |
| 8 5/8" | 1941.05 | 1941.05' | 570 sks To Surface |
| 4 1/2" | 5244' | 5244' | 385 sks |
| 2 3/8" | | 5115' | |

OPEN FLOW DATA

Balltown
Rileys
Benson
Elk

Producing formation Alexander
Gas: Initial open flow 133 MCF / d Oil: Initial open flow 0 Bbl / d
Final open flow 1,524 MCF / d Oil: Final open flow show Bbl / d
Time of open flow between initial and final tests N/A Hours
Static rock pressure 1700 psig (surface pressure) after 96 Hours
3676' - 4395'
4432' - 4832'
4858' - 4872'
5054' - 5068'
5102' - 5190'

Second producing formation Commingled
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 PERFORMED 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: 

PRESIDENT

Date: August 4, 1998

D000 4418

AUG 24 1998

Mary Welch #1 (47-017-4418)
 Four Stage Foam Frac - Halliburton

| | | |
|------------------------|--|--|
| 1 st Stage: | Alexander (11 holes) (5135.75' to 5177.25') Elk (3 holes) (5063.25' to 5063.75') | 60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 810 bbis foam. |
| 2 nd Stage: | Benson (3 holes) (4867.50' to 4868') Third Riley (6 holes) (4755.75' to 4798.75') Second Riley (4 holes) (4715' to 4715.75') | 60 Quality Foam. 750 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 615 bbis foam. |
| 3 rd Stage: | Riley (5 holes) (4475' to 4476') Balktown (7 holes) (4271.25' to 4220.25') | 60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 654 bbis foam. |
| 4 th Stage: | Balktown (12 holes) (3795.25' to 4080.25') | 60 Quality Foam, 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbis foam. |

WELL LOG

| | | | |
|-------------------------|------|------|--|
| Fill & Clay | 0 | 21 | |
| Sand | 21 | 48 | |
| Sand & Shale | 48 | 113 | ½" H ₂ O @ 50' |
| White Sand | 113 | 182 | |
| Sand & Shale & Red Rock | 182 | 682 | Damp @ 182' |
| Sand | 682 | 702 | |
| Shale & Red Rock | 702 | 1145 | |
| Sand & Shale | 1145 | 1232 | |
| Shale & Red Rock | 1232 | 1482 | |
| White Sand | 1482 | 1608 | |
| Shale & Red Rock | 1608 | 1826 | |
| Sand & Shale | 1826 | 1886 | |
| Maxton | 1886 | 1916 | |
| Little Lime | 1916 | 1936 | |
| Shale | 1936 | 1942 | |
| Big Lime | 1942 | 2023 | |
| Big Injun | 2023 | 2068 | <u>Gas Checks</u> |
| Shale | 2068 | 2237 | 2500' - No Show |
| Weir | 2237 | 2367 | 2996' - No Show |
| Sand & Shale | 2367 | 2824 | 3517' - Odor |
| Gordon | 2824 | 2832 | 4387' - 4/10 ^{ths} -1" w/H ₂ O |
| Sand & Shale | 2832 | 3288 | 4697' - 4/10 ^{ths} -1" w/H ₂ O |
| Warren | 3288 | 3364 | 5008' - 6/10 ^{ths} -1" w/H ₂ O |
| Shale | 3364 | 3374 | TD - 10/10 ^{ths} -1" w/H ₂ O |
| Speechley | 3374 | 3498 | |
| Shale | 3498 | 3676 | |
| Balktown | 3676 | 4395 | |
| Shale | 4395 | 4432 | |
| Riley | 4432 | 4506 | |
| Sand & Shale | 4506 | 4700 | |
| Second Riley | 4700 | 4734 | |
| Sand & Shale | 4734 | 4747 | |
| Third Riley | 4747 | 4832 | |
| Shale | 4832 | 4858 | |
| Benson | 4858 | 4872 | |
| Shale | 4872 | 5054 | |
| Elk | 5054 | 5068 | |
| Shale | 5068 | 5102 | |
| Alexander | 5102 | 5190 | |
| Sand & Shale | 5190 | 5346 | |

TD = 5346'

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

Well Operator: KEY OIL COMPANY 4-525-665 (1) 526

Operator's Well Number: MARY WELCH #1 3) Elevation: 985'

Well type: (a) OIL X / OR Gas X /
(b) If Gas: Production X / Underground Storage X / Shallow X / Deep X /
Issued 12/18/97
Expires 12/18/99

- 5) Proposed Target Formation(s): ALEXANDER
- 6) Proposed Total Depth: 5600 feet
- 7) Approximate fresh water strata depths: 80'
- 8) Approximate salt water depths: N/A
- 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 *Full Well*
- 12)

CASING AND TUBING PROGRAM

| TYPE | SIZE | GRADE | WEIGHT PER FT. | FOOTAGE FOR DRILLING | LEFT IN WELL | FILL-UP (cu. ft.) |
|--------------|--------|-------|----------------|----------------------|--------------|---------------------|
| Conductor | | | | | | |
| Fresh Water | 11 3/4 | ERW | 42 | 132 | 132 | 70 SKS. TO SURFACE |
| Coal | | | | | | |
| Intermediate | 8 5/8 | ERW | 23 | 2012 | 2012 | 540 SKS. TO SURFACE |
| Production | 4 1/2 | J-55 | 10.5 | 5500 | 5500 | 490 SKS. |
| Tubing | 1.5 | | | | | |
| Liners | | | | | | |

PACKERS : Kind _____
Sizes _____
Depths set _____

For Office of Oil and Gas Use Only
 Fee(s) paid: Well Work Permit Reclamation Fund WPC2
 Plat WW-9 WW-23 Bond _____ (Type)

1) Date: DECEMBER 16, 1997
2) Operator's well number MARY WELCH #1
3) API Well No: 47 - 017 - 4418
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 CECIL A. HINZMAN Name NONE
Address RT. 1 BOX 200 Address
WEST UNION, WV 26452
(b) Name (b) Coal Owner(s) with Declaration
Address Name
 Address
(c) Name Name
Address Address
6) Inspector MIKE HINDERWOOD (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 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)
 Certified Mail (Postmarked postal receipt attached)
 Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-13, 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
Name
Address 22 GARTON PLAZA
WESTON, WV 26452

Subscribed and sworn before me this 16TH day of DECEMBER 1997
My commission expires

