

LATITUDE 39°17'30"

LONGITUDE 80°52'30"

James
1/11/96

A. KNIGHT
130 AC.

H. WALDO
56 AC.

S81°W 1188'

NO. 1
302.8'

S22°30'W 313.5'

S3°30'W 103.1'

H. GRIDER
28 AC.

S13°02'E 1424.6'

R. PHILLIPS
201 AC.

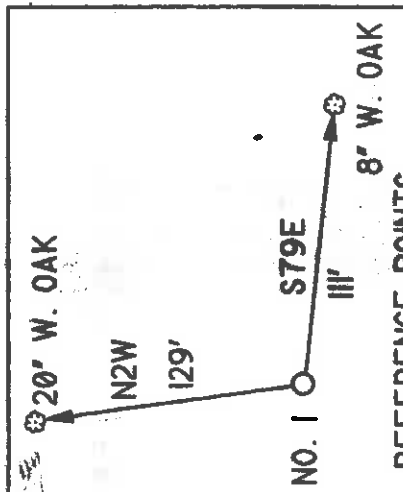
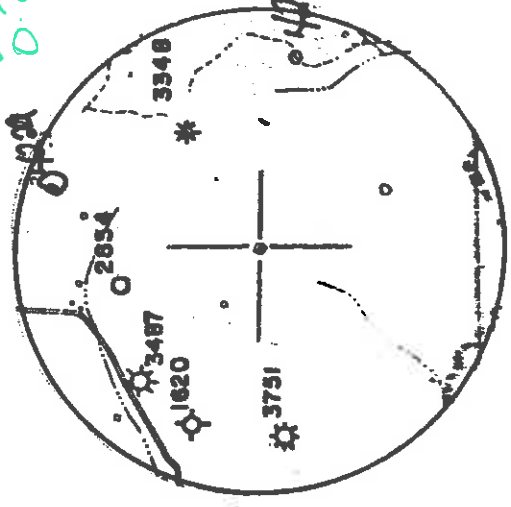
WESTVACO
151 AC.

S56°E 1646.7'

3/4" STEEL ROD

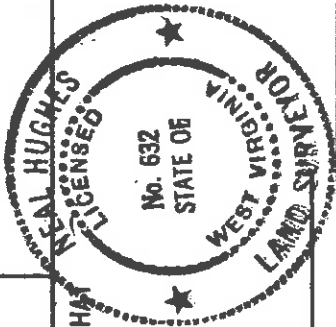
R. MOSSOR

NORTH



REFERENCE POINTS

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. *Neal Hughes*
632

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

DATE MAY 21 19 96
OPERATORS WELL NO. GALE SMITH I

API WELL NO. 47 - 017 04281
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION KNOB 1208'
SCALE 1" = 500'

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

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

LOCATION: ELEVATION 1120' WATERSHED CABIN RUN
DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE *Lanaboro*
SURFACE OWNER HOWARD AND ANN GRIDER ACREAGE 28
ROYALTY OWNER GALE SMITH, ET AL LEASE ACREAGE 28

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'

COUNTY NAME _____ PERMIT _____
WELL OPERATOR KEY OIL COMPANY *475* DESIGNATED AGENT JAN CHAPMAN
ADDRESS 22 GARTON PLAZA WESTON, WV 26452
22 GARTON PLAZA WESTON, WV 26452

6-6 89

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

Well Operator's Report of Well Work

Farm name: GRIDER, HOWARD

Operator Well No.: GALE SMITH #1

LOCATION: Elevation: 1,120.00

Quadrangle: PENNSBORO

District: CENTRAL

County: DODDRIDGE

Latitude: 12,800

Feet South of 39 Deg. 17 Min. 30 Sec.

Longitude: 4100

Feet West of 80 Deg. 52 Min. 30 Sec.

Company: KEY OIL COMPANY
22 GARTON PLAZA
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD

Permit Issued: 07/11/96

Well Work Commenced: 07/28/96

Well Work Completed: 08/08/96

Verbal Plugging

Permission granted on: _____

Rotary X Cable _____ Rig _____

Total Depth (feet) 5635'

Fresh water depths (ft) NONE

Salt water depths (ft) 1370'

Is coal being mined in area (Y / N)? N

Coal Depths (ft) : None Reported

OPEN FLOW DATA

Balltown

Riley

Benson

Producing formation Alexander

Gas: Initial open flow show MCF / d

Final open flow 1,524 MCF / d

Time of open flow between initial and final tests N/A

Static rock pressure 1500 psig (surface pressure) after 96 Hours

3847' - 4570'

4593' - 4656'

5014' - 5024'

5258' - 5340'

Pay zone depth (ft) _____

Oil: Initial open flow 0 Bbl / d

Oil: Final open flow show _____ Bbl / d

Hours _____

Second producing formation Comingled

Gas: Initial open flow MCF / d

Final open flow MCF / d

Time of open flow between initial and final tests _____

Static rock pressure _____ psig (surface pressure) after _____ Hours

Pay zone depth (ft) _____

Oil: Initial open flow _____ Bbl / d

Oil: Final open flow _____ Bbl / d

Hours _____

Casing & Tubing Size	Used in	Left	Cement Fill Up
	Drilling	in Well	Cu. Ft.
8 5/8"	1140.50'	1140.50'	300 sks
4 1/2"		5452'	To surface
2 3/8"		5288'	420 sks

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:  President

FEB 14 1997

Date: JANUARY 22, 1997

JAN

Gale Smith #1 (47-017-04281)
Four Stage Foam Frac - Halliburton

1st Stage:	Alexander (10 holes) (5308.50' - 5320.50')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 811 bbls foam.
2nd Stage:	Benson (10 holes) (5017.50' - 5019.75')	60 Quality Foam. 750 gal 15% HCL. 35,000# 20/40 sand, 428,000 SCF N2, 518 bbls foam.
3rd Stage:	Riley (11 holes) (4618' - 4653.25') Balltown (2 holes) (4446' - 4446.25')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 25,000# 20/40 sand, 382,000 SCF N2, 552 bbls foam.
4th Stage:	Balltown (12 holes) (3927.50' - 4109.75')	60 Quality Foam, 1,000 gal 15% HCL. 10,000# 80/100 sand, 40,000# 20/40 sand, 473,000 SCF N2, 695 bbls foam.

WELL LOG

FORMATION	Top Feet	Bottom Feet	Remarks
Fill	0	5	
Shale	5	10	
Sand & Shale	10	193	
Shale & Red Rock	193	223	
Sand & Shale	223	1610	Damo @ 1370'
Sand	1610	1665	
Sand & Shale	1665	2022	
Little Lime	2022	2048	
Pencil Cave	2048	2064	
Big Lime	2064	2130	
Big Injun	2130	2207	
Shale	2207	2379	Gas Checks 2180' - No Show
Weir	2379	2515	2522' - No Show
Shale	2515	2568	3020' - No Show
Berea	2568	2573	3612' - No Show
Shale & Sand	2573	3452	4112' - No Show
Warren	3452	3530	4919' - 1/10ths 1/4" H2O
Sand & Shale	3530	3847	5200' - 6/10th 1/2" H2O
Balltown	3847	4570	T.D. - No Show
Shale	4570	4593	
Riley	4593	4656	
Shale	4656	4938	
3rd Riley	4938	4986	
Shale	4986	5014	
Benson	5014	5024	
Shale	5024	5258	
Alexander	5258	5340	
Sand & Shale	5340	5426	
T.D.	5635		

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

- 1) Well Operator: KEY OIL COMPANY ⁴⁷⁵ 25655 0 562
- 2) Operator's Well Number: GALE SMITH #1 3) Elevation: 1120'
Issued 07/11/96
Expires 07/11/98
- Well type: (a) Oil X / or Gas X /
 (b) If Gas: Production X / Undergound Storage 1
 Deep 1 / Shallow X /
- Proposed Target Formation(s): ALEXANDER ⁴³⁹
- Proposed Total Depth: 5600 feet
- 7) Approximate fresh water strata depths: 95', 290'
- 8) Approximate salt water depths: -0-
- 9) Approximate coal seam depths: NONE
- 10) Does land contain coal seams tributary to active mine? Yes 1 / No X /
- 11) Proposed Well Work: DRILL, STIMULATE, PRODUCE New Well.
- 12)

RECEIVED
 WV Division of
 Environmental Protection
 JUN 25 1996
 Permitting
 Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT per ft.	FOR drilling	Left in well	FILL-UP (cu. ft.)	CEMENT
Conductor	11 3/4	ERW	42	30	0	<u>o.k. intel.</u>	
Fresh Water	8 5/8	ERW	23	1120	1120	305 SKS. TO SURFACE	
Coal						<u>38 CSP 11.1-3</u>	
Intermediate						<u>38 CSP 11.1-2</u>	
Production	4 1/2	J-55	10.5		5500	355 SKS.	
Tubing	1.5					<u>38 CSP 11.1</u>	
Liners							

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

Fee(s) paid: 12 Well Work Permit 12 Reclamation Fund 12 WPCP
 Plat 12 WW-9 12 WW-2B 12 Bond Blanket Agent
 (TYPE)

RECEIVED 1)
WV Division of
Environmental Protection
JUN 25 1996 3)

Date: JUNE 3, 1996
Operator's well number
GALE SMITH #1
API Well No: 47 - 017 - 4281
State 47 County 017 Permit 4281

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

25655-11/561
010

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name HOWARD GRIDER
Address 205 WILLITS WAY
GLEN MILLS, PA 19342
- (b) Name _____
Address _____
- (c) Name _____
Address _____
- 5) (a) Coal Operator:
Name NONE
Address _____
- (b) Coal Owner(s) with Declaration
Name _____
Address _____
- Name _____
Address _____
- (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector MIKE UNDERWOOD
Address RT. 2 BOX 135
SALEM, WV 26426
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) _____

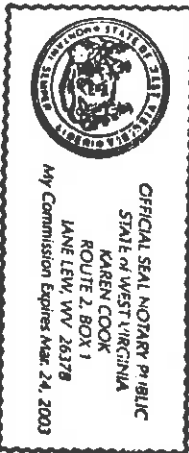
X Certified Mail (Postmarked postal receipt attached) _____

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 JAN CHAPMAN
BY: [Signature] PRESIDENT
Its: KEY OIL COMPANY
Address 22 GARTON PLAZA
WESTON, WV 26452
Telephone 304-269-7102

subscribed and sworn before me this 3RD day of JUNE, 1996

[Signature] Notary Public
commission expires MARCH 24, 2003



