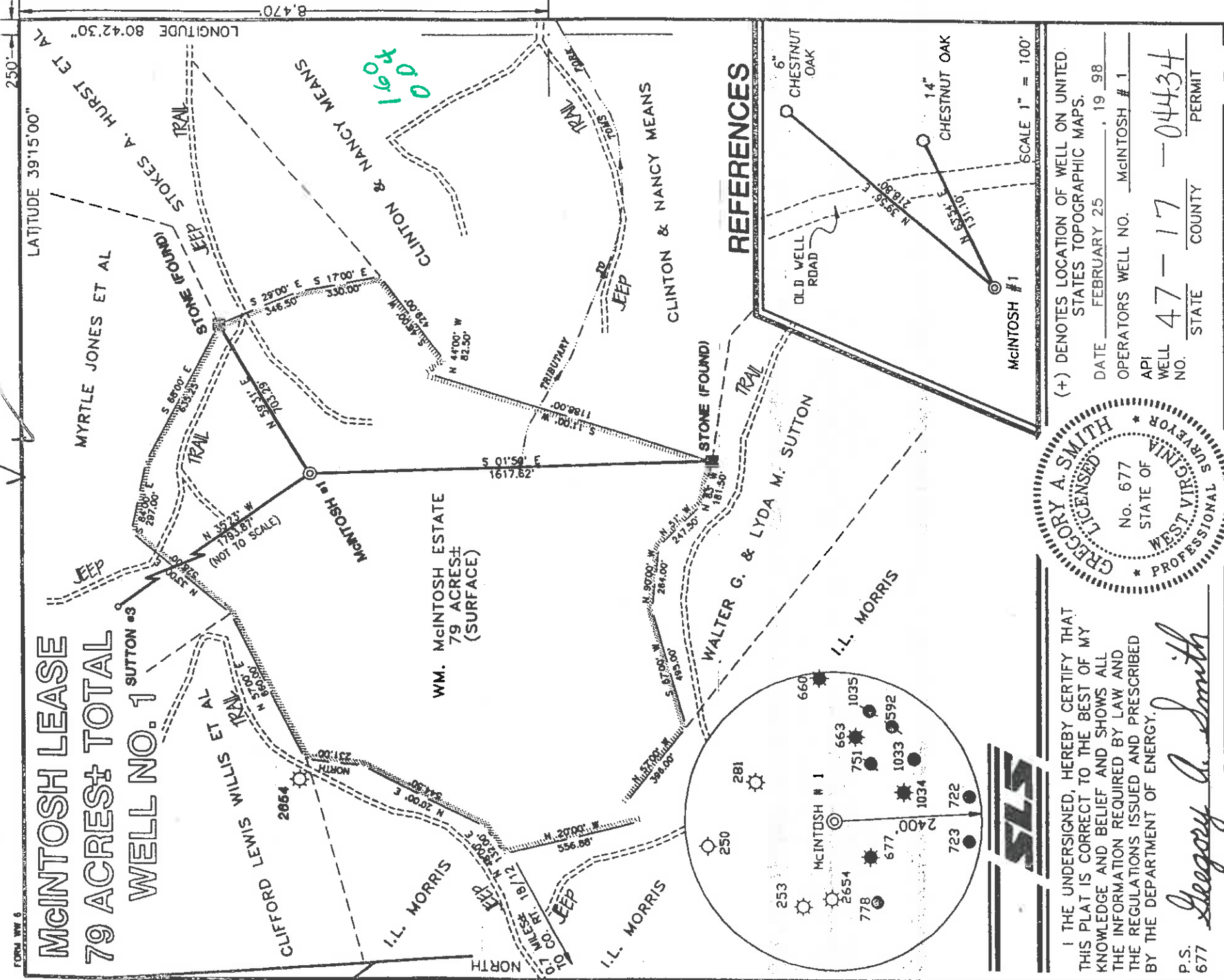
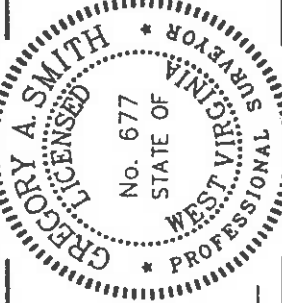
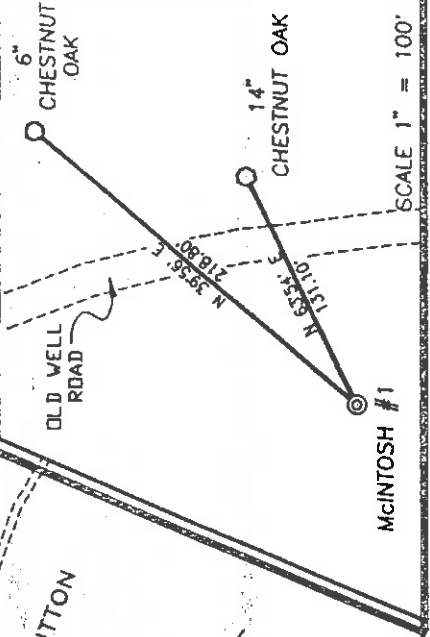


MCINTOSH LEASE 79 ACRES± TOTAL WELL NO. 1



LATITUDE 39°15'00" LONGITUDE 80°42'30" 8.470 250'

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. *Gregory A. Smith*
677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE FEBRUARY 25, 19 98
OPERATORS WELL NO. MCINTOSH # 1
API WELL NO. 47-17-04434
STATE COUNTY PERMIT

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

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 38B2P1 (64-73)
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1246'
SCALE 1" = 500'

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

LOCATION : ELEVATION 1118' WATERSHED TRIBUTARY OF TOMS FORK
DISTRICT NEW MILTON COUNTY DODDRIDGE QUADRANGLE NEW MILTON 7.5'
SURFACE OWNER WM. MCINTOSH ESTATE, ET AL ACREAGE 79
ROYALTY OWNER WM. MCINTOSH ESTATE, ET AL LEASE ACREAGE 79 LEASE NO. _____
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 JAN CHAPMAN
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452
Dodd COUNTY NAME 4434 PERMIT 6-6-1994

WR-35

15-May - 98
API # 47 - 17-4434

RECEIVED
Office of Oil & Gas
UIC Section
MAR 31 1999
WV Division of
Environmental Protection

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

Well Operator's Report of Well Work

Farm name: PHILLIPS, MARY A. Operator Well No. : McINTOSH #1

LOCATION: Elevation: 1,118.00

Quadrangle: NEW MILTON

District: NEW MILTON County: DODDRIDGE
Latitude: 8470 Feet South of 39 Deg. 15 Min. 00 Sec.
Longitude: 250 Feet West of 80 Deg. 42 Min. 30 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 05/15/98
Well Work Commenced: 07/20/98
Well Work Completed: 07/25/98

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5574'
Fresh water depths (ft) 50'
Salt water depths (ft) NONE

Is coal being mined in area (Y / N) ? N
Coal Depths (ft) : _____

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
8 5/8"	1104.45'	1104.45'	310 sks To Surface
4 1/2"	5464'	5464'	500 sks
2 3/8"		5316'	

OPEN FLOW DATA

Warren
Speechley
Balltown
Rileys
Benson
Elk

Producing formation Alexander
 Gas: Initial open flow 60 MCF / d Oil: Initial open flow 0 Bbl / d
 Final open flow 1,555 MCF / d Oil: Final open flow show Bbl / d
 Time of open flow between initial and final tests N/A Hours
 Static rock pressure 1600 psig (surface pressure) after 96 Hours

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 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: [Signature] PRESIDENT
Date: March 24, 1999 APR 12 1999

Dooo 4434

McIntosh #1 (47-017-4434)
Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (13 holes) (5336.50' to 5395.25') Elk (4 holes) (5158.50' to 5236.75')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 814 bbis foam.
2 nd Stage:	Benson (8 holes) (5016.50' to 5018.25') Third Riley (2 holes) (4919.25' & 4919.50') Second Riley (2 holes) (4843.50' & 4843.75')	60 Quality Foam. 1000 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 618 bbis foam.
3 rd Stage:	Riley (9 holes) (4551.50' to 4567.50') Balltown (3 holes) (4125.75' to 4126.25')	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 743 bbis foam.
4 th Stage:	Speechley (8 holes) (3419.75' to 3621') Warren (4 hole) (3385' to 3392.25')	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	0	4	
Red Rock & Sand & Shale	4	170	
Sand	170	199	1/4" water @ 50'
Shale & Red Rock	199	232	
Shale & Sand	232	309	
Sand & Shale & Red Rock	309	831	
Sand & Shale	831	1500	
Sand	1500	1550	
Sand & Shale	1550	1893	
Sand	1893	1962	
Shell	1962	1970	
Little Lime	1970	2006	
Blue Monday	2006	2037	
Big Lime	2037	2120	
Big Injun	2120	2160	
Sand & Shale	2160	2289	
Weir	2289	2388	
Sand & Shale	2388	2506	
Berea	2506	2522	
Shale	2522	2719	
Gordon	2719	2734	
Shale	2734	3350	
Warren	3350	3404	
Shale	3404	3415	
Speechley	3415	3631	
Sand & Shale	3631	3718	
Balltown	3718	4432	
Shale	4432	4532	
Riley	4532	4594	
Sand & Shale	4594	4789	
Second Riley	4789	4858	
Shale	4858	4902	
Third Riley	4902	4944	
Shale	4944	5013	
Benson	5013	5025	
Sand & Shale	5025	5144	
Elk	5144	5250	
Shale	5250	5280	
Alexander	5280	5400	
Sand & Shale	5400	5574	
TD	5574		

Gas Checks

1949' - No Show
2507' - 12/10-1" w/H²O
3001' - 2/10-2" w/H²O
3527' - 2/10-2" w/H²O
4084' - 2/10-2" w/H²O
4609' - 2/10-2" w/H²O
4919' - 2/10-2" w/H²O
5105' - 2/10-2" w/H²O