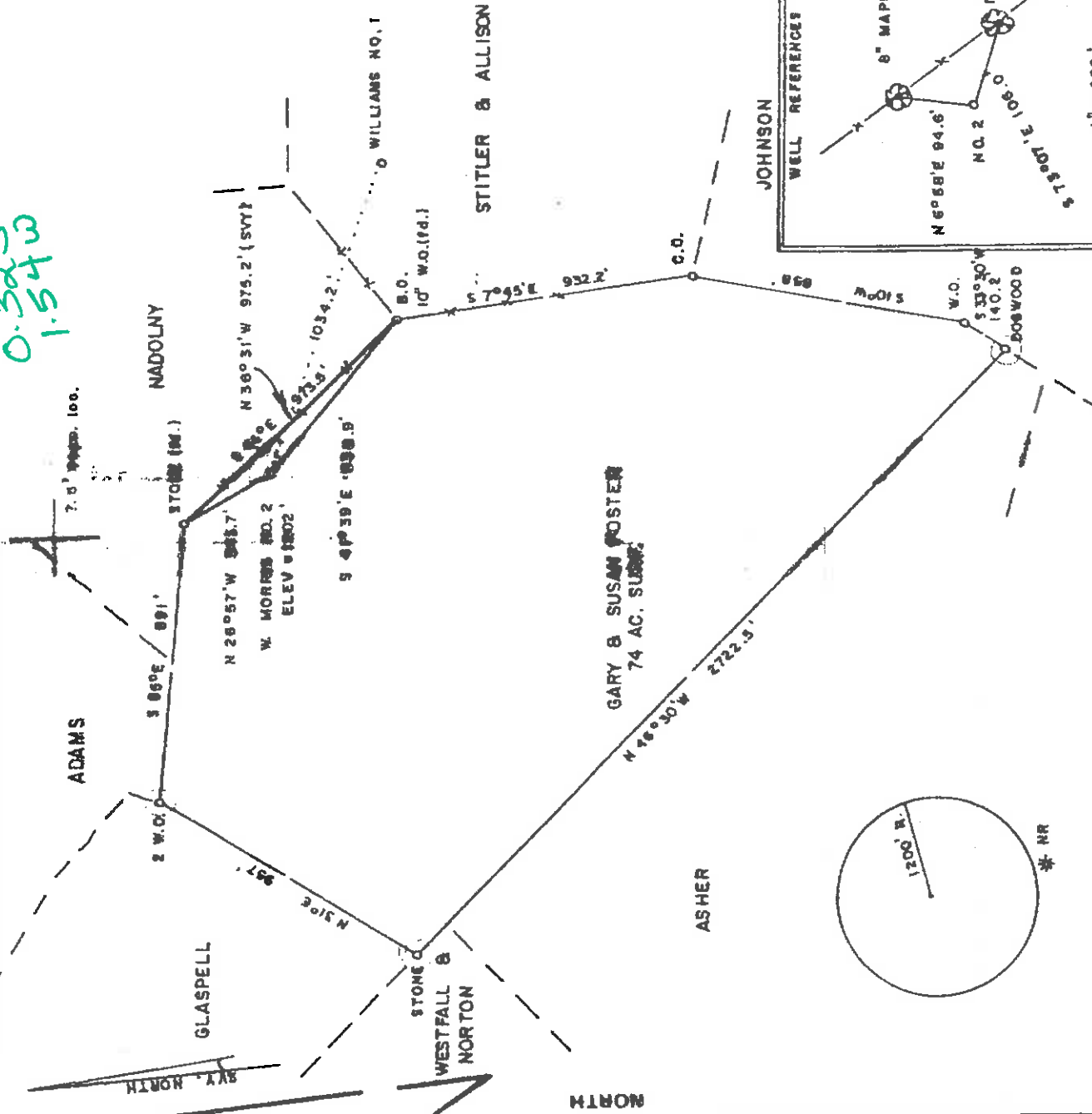


MORRIS LEASE 74 AC

LATITUDE 39° 22' 30"

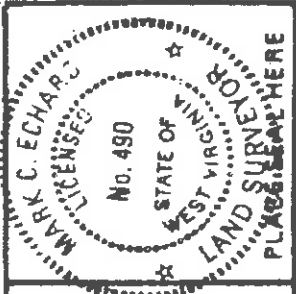
LONGITUDE 80° 37' 30"

0.325
1.540



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200'
 PROVEN SOURCE OF ELEVATION JCT. OF ROADS
 SOUTH OF LEASE ELEV. = 946'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAY 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 MINES. *Mark C. Echard*
 (SIGNED) MARK C. ECHARD
 R.P.S. _____ L.L.S. 490



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

DATE AUGUST 8, 19 98
 OPERATOR'S WELL NO. MORRIS NO. 2
 API WELL NO. 47-017-04464
 STATE WEST VIRGINIA COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1202' WATER SHEET RIGGS RUN
 DISTRICT McCLELLAN COUNTY DODDRIDGE
 QUADRANGLE SMITHBURG 7.5'
 SURFACE OWNER GARY and SUSAN FOSTER ACREAGE 74
 OIL & GAS ROYALTY OWNER WILL E. MORRIS, et al LEASE ACREAGE _____

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION BIG INJUN ESTIMATED DEPTH 2400'
 WELL OPERATOR D.A.C. DESIGNATED AGENT KENNETH MASON
 ADDRESS P.O. BOX 99 ADDRESS P.O. BOX 99
ALMA, WV 26320 ALMA, WV 26320

6-6-99

D000 4464

WR-12

AP# 47-017-006C
4464

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

Well Operator's Report of Well Work

| | | | |
|-----------|-----------------------------|--------------------|---------------|
| Well Name | Well E. Morris | Operator's Well No | Morris #2 |
| Location | Elevation 1202' | Quadrangle | Smithburg 7 S |
| | District West Union | County | Doddridge |
| | Latitude 1600 Feet South of | 19 Deg | 22 min 30sec |
| | Longitude 8200 Feet West of | 90 Deg | 17 min 30sec |

Company Drilling Appalachian Cor.,
P O Box 99
Alma WV 26010

Agent Kenneth Mcson

Inspector Mike Underwood

Permit Issued 08/28/98

Well Work Commenced 09/14/98

Well Work Completed 09/18/98

Rotary Cable Rig

Total Depth (feet) 2603'

Fresh Water Depths (ft) ...

Salt Water Depths (ft) ...1630'

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

Coal Depths (ft) ...N/A

| casing tubing | used in drilling | left in well | cement fill up sks |
|---------------|------------------|--------------|--------------------|
| 0 5/8 | 150 | 132 | 50 |
| 6 5/8 | 1450 | 1416 | 110 |
| 4 1/2 | 2603 | 2466 | 38 |

REC'D
OCT 15 1998

OPEN FLOW DATA

Producing formation Big Linton

Gas Initial open flow 21 MCF/D

Final open flow 375 MCF/D

Static Rock Pressure 650

Pay zone depth (ft) 2270-2350

Initial open flow 0 BBL/D

Final open flow show BBL/D

psig (surface pressure) after 48 Hours

Second producing formation

Gas Initial open flow MCF/D

Final open flow MCF/D

static rock pressure

Pay zone depth (ft)

Initial open flow 0 BBL/D

Final open flow 0 BBL/D

psig (surface pressure) after Hours

For Drilling Appalachian Corp

By *Kenneth Mcson*

DATE 09-28-98

D000 4464

12-29-00

| Stage | Formation | Perfs | Sand | N2 |
|----------|-----------|------------------|---------|-------------|
| 09-23-08 | Mouth #2 | | | |
| | Big Injun | 2270-2350 15' | 100 cks | 217,000 scf |

ISIP = 1815#
S min = 1505#

217,000 scf
217,000
OCT 10 1982

Drillers Log **Electric Log Tops**

| Formation | Top | Bottom | Formation | Depth Top |
|-----------|------|--------|---------------------------------|-----------|
| fill | 0 | 10 | Big Lime | 2172 |
| Sh | 10 | 195 | Big Injun | 2201 |
| RR | 195 | 210 | | |
| Sd/Sh | 210 | 385 | | |
| Sd | 385 | 540 | | |
| Sh | 540 | 847 | | |
| Coal | 847 | 852 | | |
| Sd/Sh | 852 | 1745 | | |
| Sd | 1745 | 1815 | | |
| Sd/Sh | 1815 | 2124 | | |
| Lime | 2124 | 2140 | | |
| Sh | 2140 | 2157 | | |
| Lime | 2157 | 2238 | | |
| Sd | 2238 | 2247 | gas ck @ 2233 = 8/10 in 1" w/w | |
| Sh | 2247 | 2317 | gas ck @ 2238 = 6/10 in 1" w/w | |
| Sd | 2317 | 2340 | gas ck @ 2341 = 10/10 in 1" w/w | |
| Sd/Sh | 2340 | 2603 | gas ck @ 2603 = 4/10 in 1" w/w | |
| TD | 2603 | | | |

wet in air