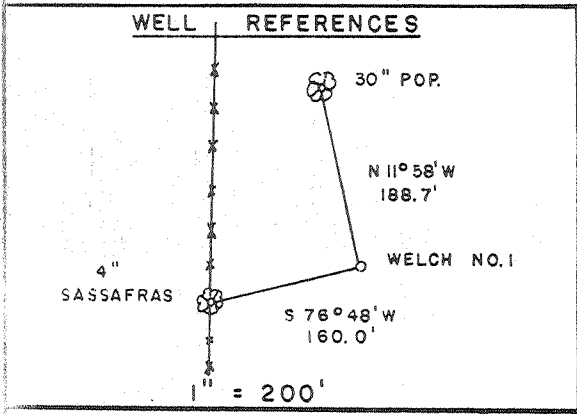
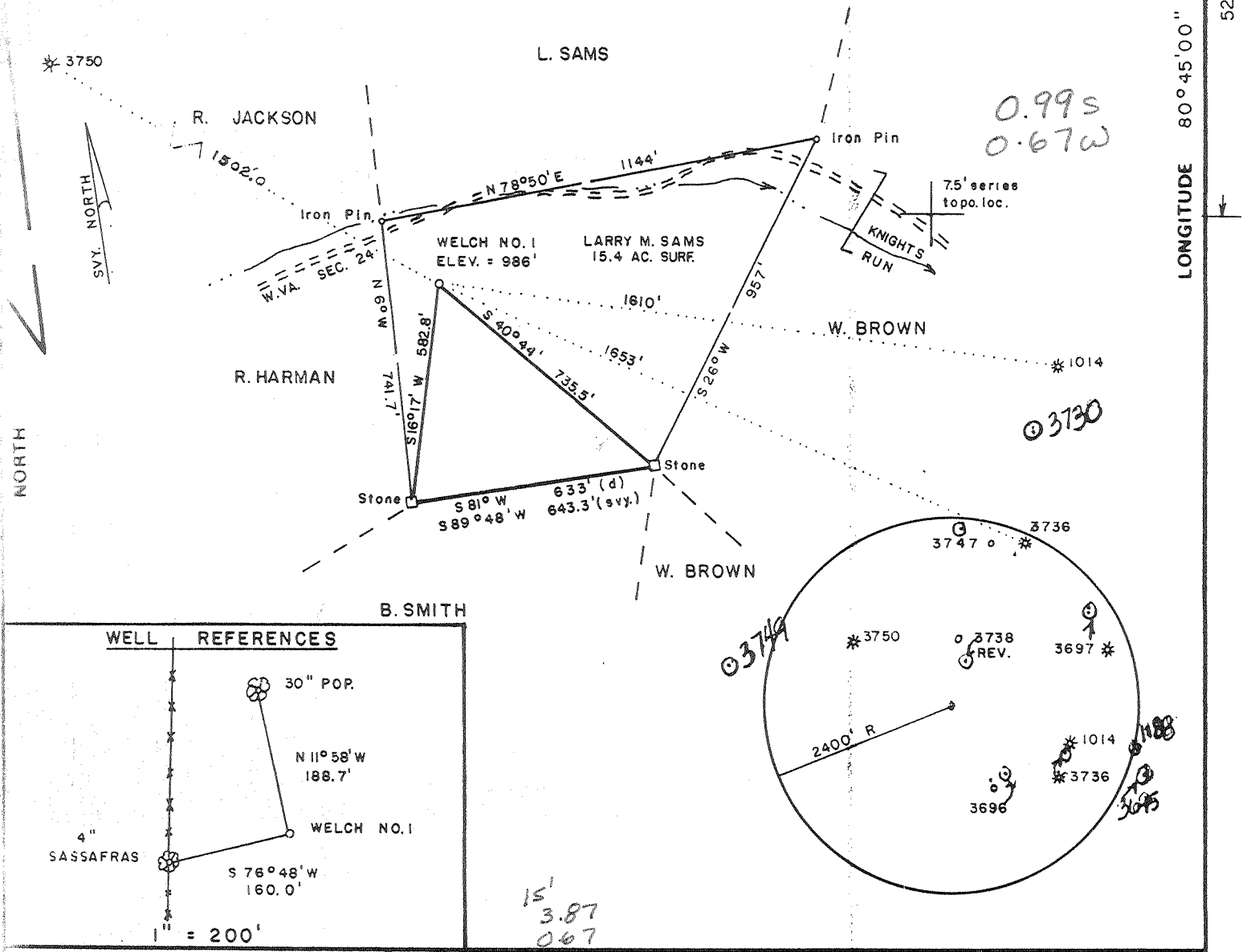


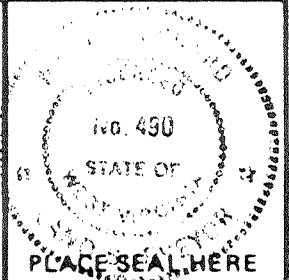
WELCH LEASE 15.4 AC. ±

Gamie 12/14/89



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Top of Knob 3100' ±
SE of Loc. Elev. = 1307'

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 MINES. *Mark C. Echard*
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE NOVEMBER 30, 19 89
 OPERATOR'S WELL NO. WELCH NO. 1
 API WELL NO. 47-017-3770
 STATE WEST VIRGINIA COUNTY DODDRIDGE PERMIT 490

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 986' WATER SHED KNIGHTS FORK of LITTLE FLINT RUN
 DISTRICT GRANT 3 COUNTY DODDRIDGE
 QUADRANGLE WEST UNION 7.5' *EC6*
 SURFACE OWNER LARRY M. SAMS ACREAGE 15.4
 OIL & GAS ROYALTY OWNER MARY MAXINE WELCH LEASE ACREAGE 15.4
 LEASE NO. _____
 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 BENSON ESTIMATED DEPTH 5300' ±
 WELL OPERATOR D.A.C. DESIGNATED AGENT KENNETH MASON
 ADDRESS P.O. BOX 99 ADDRESS P.O. BOX 99
ALMA, W.V. 26320 ALMA, W.V. 26320

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: SAMS, LARRY M. Operator Well No.: WELCH #1

LOCATION: Elevation: 986.00 Quadrangle: WEST UNION

District: GRANT County: DODDRIDGE
Latitude: 5200 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 3500 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: DRILLING APPALACHIAN CORP
P. O. BOX 99
ALMA, WV 26320-0099

Agent: KENNETH R. MASON

Inspector: MIKE UNDERWOOD
Permit Issued: 12/18/89
Well work Commenced: DECEMBER 30, 1989
Well work Completed: APRIL 23, 1990
Verbal Plugging
Permission granted on: _____
Rotary _____ Cable _____ Rig _____
Total Depth (feet) _____
Fresh water depths (ft) 45

Salt water depths (ft) N/A

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

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			to SURFACE
8 5/8	1220	1220'	270 SKS
4 1/2		5095	3000' 415 SKS

OPEN FLOW DATA

Producing formation BENSON SANDSTONE Pay zone depth (ft) 4986-87
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow - Bbl/d
Final open flow 332 MCF/d Final open flow - Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 1700 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d 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.

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Division of Energy
MAY 09 90
Permitting
Oil and Gas Section

For: DRILLING APPALACHIAN CORP.

By: Kenneth Mason
Date: 4/25/90

MAY 11 1990

GEOLOGICAL WELL RECORD DATA

WELL NAME: Welch #1

PERMIT NUMBER: 47-017-3770

	TOP	BOTTOM	
SOIL	0	15	
BROKEN SAND	15	257	
SANDS AND SHALES	257	995	
DUNKARD SAND	985	1107	
1ST SALT SAND	1232	1290	
2ND SALT SAND	1580	1651	
3RD SALT SAND	1596	1624	
MAXON	1643	1667	
BIG LIME	1904	1964	
BIG INJUN SAND	1964	2100	SHOW GAS
WEIR	2256	2330	
BEREA SAND	2447	2450	SHOW GAS
GANTZ SAND	2544	2556	
GORDON SAND	2660	2706	SHOW GAS
FIFTH SAND	2876	2882	
WARREN	3336	3370	
RILEY	4513	4556	SHOW GAS
BENSON	4973	4977	SHOW GAS
TOTAL DEPTH	5168		

WELL TREATMENT SCHEDULE

Benson Sand 4986 - 4989 Perforated with 16 holes

Formation Break Down 3300 PSI

Hydraulic frac with Nitrogen assist
 Average Treating Rate 17.5 barrels per min
 498 barrels of gel treated water
 300 sacks of 20/40 sand
 50 sacks of 80/100 sand
 99,000 scf of Nitrogen

Average Treating Pressure 2105 PSI

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Division of Energy

MAY 09 90

Permitting
 Oil and Gas Section

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

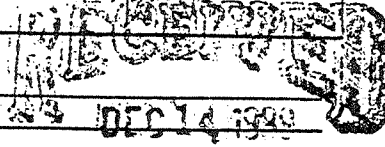
- 1) Well Operator: DRILLING APPALACHIAN CORPORATION 14425, 3, 670
- 2) Operator's Well Number: WELCH #1 3) Elevation: 986'
- 4) Well type: (a) Oil X/ or Gas X/
 (b) If Gas: Production X/ Underground Storage /
 Deep / Shallow XX/
- 5) Proposed Target Formation(s): BENSON/RILEY
- 6) Proposed Total Depth: 5100± feet.
- 7) Approximate fresh water strata depths: 146', 222', possible 510'
- 8) Approximate salt water depths: 1246'
- 9) Approximate coal seam depths: possible 614'-619', 384'-396'
- 10) Does land contain coal seams tributary to active mine? Yes / No X
- 11) Proposed Well Work: DRILL, PERFORATE, STIMULATE NEW FORMATION
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	11-3/4"	H-40	42#	30'	0'	
Fresh Water						
Coal						
Intermediate	8-5/8"	J-55	20#	1200'	1200'	38CSR18-11.2.2
Production	4-1/2"	J-55	10.5#	5176'	5176'	38CSR18-11.1
Tubing						
Liners						

Handwritten notes:
 O.K. U
 11/14/91
 C.M.S.
 38CSR18-11.2.2
 38CSR18-11.1

PACKERS : Kind _____
 Sizes _____
 Depths set _____



For Division of Oil and Gas Use Only DEPARTMENT OF ENERGY

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

Handwritten numbers:
 4913
 1033

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DEC 14 1989

Page 1 of
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: Nov. 30, 1989
2) Operator's well number
Welch #1
3) API Well No: 47 - 017 - 3770
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Larry M. Sams
Address Route 3, Box 338
Parkersburg, WV 26101
(b) Name --
Address _____
(c) Name --
Address _____
6) Inspector Mike Underwood
Address Route 2, Box 135
Salem, WV 26426
Telephone (304)- 782-1043

5) (a) Coal Operator:
Name ~~XSEXTEX~~ --
Address _____
(b) Coal Owner(s) with Declaration
Name --
Address _____
Name --
Address _____
(c) Coal Lessee with Declaration
Name --
Address _____

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

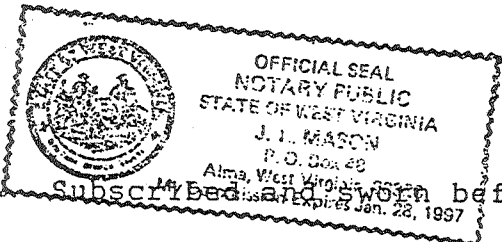
Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 5 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 22B 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 DRILLING APPALACHIAN CORPORATION
By: Kenneth P. Mason
Its: President
Address PO Box 99
Alma, WV 26320-0099
Telephone (304) 758-4638



Subscribed and sworn before me this 30th day of November, 19 89

My commission expires _____

1/28/97

Kenneth P. Mason Notary Public