

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION 893'
Road Intersection

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.
 (SIGNED) Paul K. Marshall
 R.P.E. _____ L.L.S. 580

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE APRIL 18, 19 84
 OPERATOR'S WELL NO. MIRACLE #2
 API WELL NO. 47-107-1308-Frac

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 STATE COUNTY PERMIT
WOOD WOOD Frac. Cancelled

LOCATION: ELEVATION 895' WATERSHED BULL RUN CREEK
 DISTRICT UNION 8 (8) COUNTY WOOD
 QUADRANGLE WILLOW ISLAND (7.5') MARIETTA (15')

SURFACE OWNER Donald R. Miracle, et ux & Robert A. Miracle, et ux ACREAGE 88
 OIL & GAS ROYALTY OWNER Donald R. & Robert A. Miracle LEASE ACREAGE 88 ON BOTH
 LEASE NO. _____

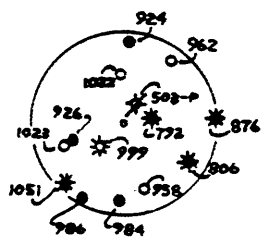
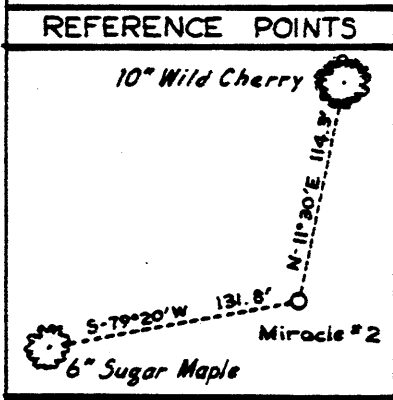
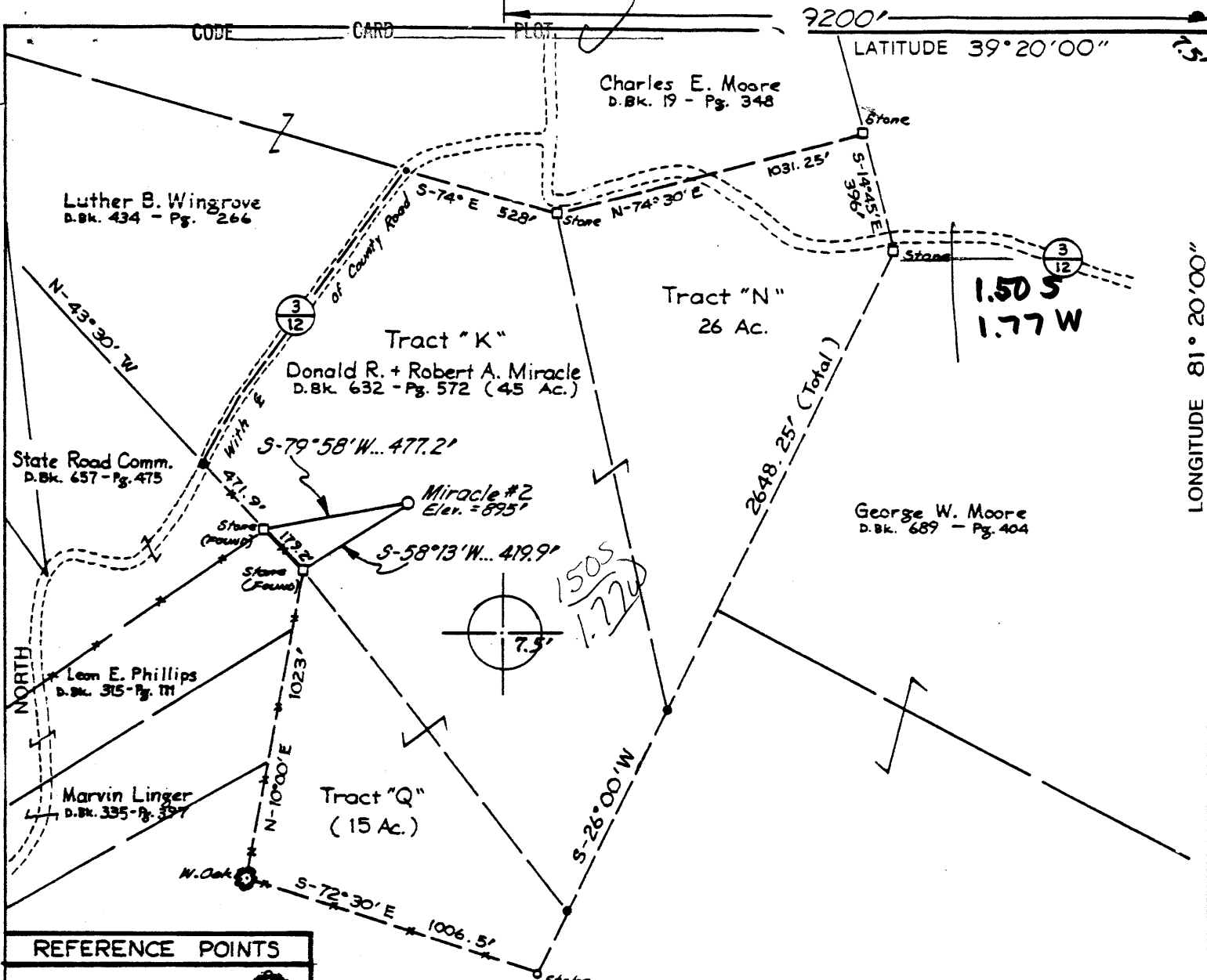
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ LEAN OUT AND REPLUG _____
 TARGET FORMATION GORDON ESTIMATED DEPTH 3000'
 WELL OPERATOR APPALACHIN ENERGY TEC. INC. DESIGNATED AGENT JOHN O. KIZER
 ADDRESS 2188 BARCELONA DRIVE ADDRESS OLIVER BUILDING - MELLON SQUARE
CLEAR WATER, FLORIDA 33546 PITTSBURG, PA. 15222

OCT 30 1990

FORM IV-6 (8-78)

WOOD COUNTY NAME PERMIT 1308-FRAC



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

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 (SIGNED) Paul K. Marshall
 R.P.E. _____ L.L.S. 580

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE APRIL 18 19 84
 OPERATOR'S WELL NO. MIRACLE #2
 API WELL NO. _____

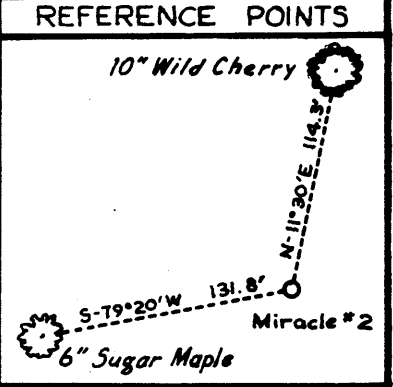
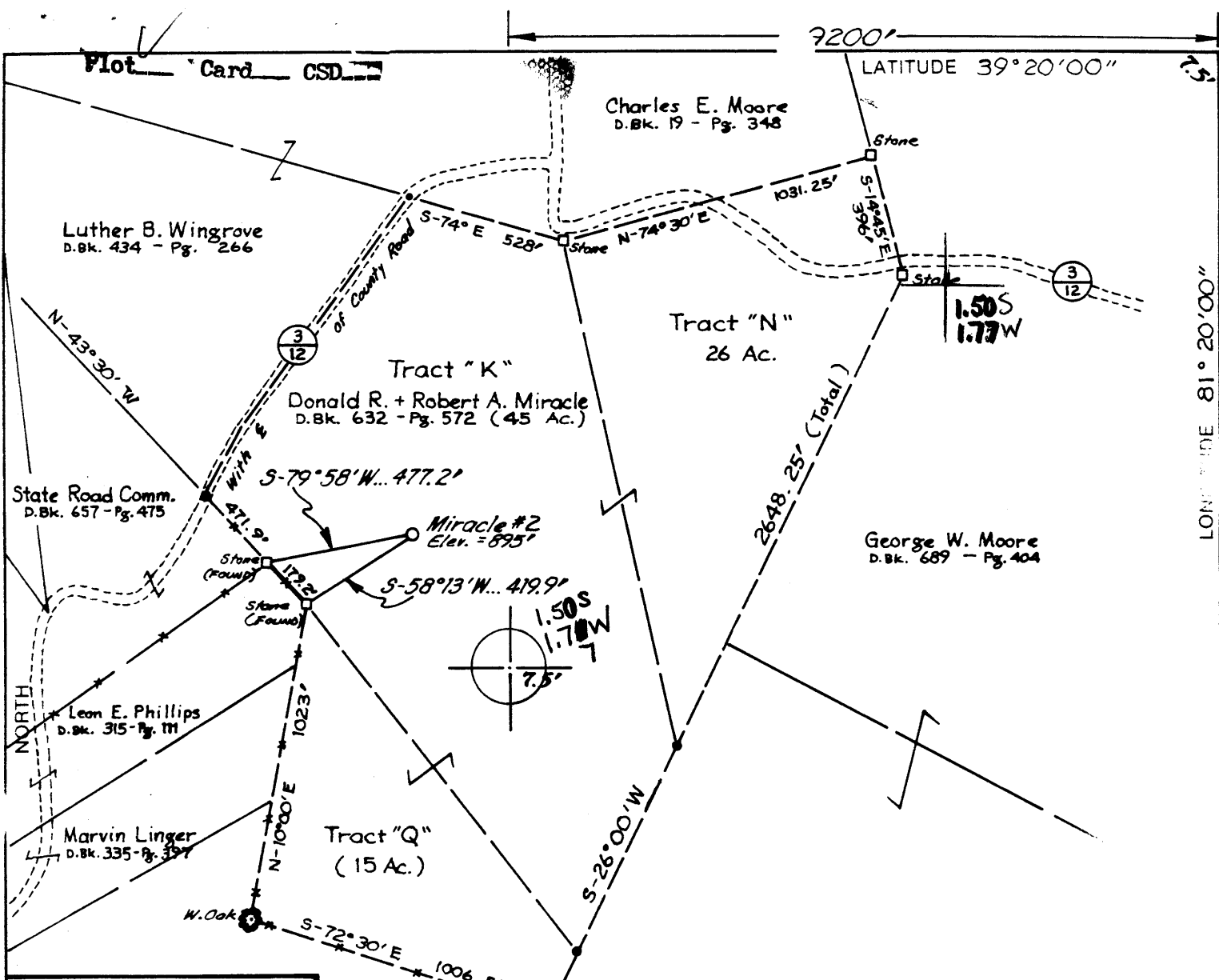
WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 895' WATER SHED BULL RUN CREEK
 DISTRICT UNION 8 COUNTY WOOD
 QUADRANGLE WILLOW ISLAND (7.5') MARIETTA (15') 073 SC 8
 SURFACE OWNER Donald R. Miracle, et ux & Robert A. Miracle, et ux ACREAGE 88
 OIL & GAS ROYALTY OWNER Donald R. & Robert A. Miracle LEASE ACREAGE 88 ON BOTH

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) _____
DEC 16 1985

PLUG AND ABANDON _____ LEAN OUT AND REPLUG _____
 TARGET FORMATION GORDON 031 ESTIMATED DEPTH 3000'
 WELL OPERATOR APPALACHIAN ENERGY TEC. INC. DESIGNATED AGENT JOHN O. KIZER
 ADDRESS 2188 BARCELONA DRIVE ADDRESS OLIVER BUILDING - MELLON SQUARE
CLEAR WATER, FLORIDA 33546 PITTSBURG, PA. 15222

FORM IV-6 (8-78)
 H.T. HALL

COUNTY NAME
 PERMIT



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

FILE NO. _____
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 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION 893'
Road Intersection

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 (SIGNED) Paul K. Marshall
 R.P.E. _____ L.L.S. 580

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE APRIL 18, 19 84
 OPERATOR'S WELL NO. MIRACLE #2
 API WELL NO. 47-107-1308

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 895' WATER SHED BULL RUN CREEK
 DISTRICT UNION 8 COUNTY WOOD
 QUADRANGLE WILLOW ISLAND (7.5') MARIETTA (15') SC 8
 SURFACE OWNER Donald R. Miracle, et ux & Robert A. Miracle, et ux ACREAGE 88
 OIL & GAS ROYALTY OWNER Donald R. & Robert A. Miracle LEASE ACREAGE 88 ON BOTH

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 GORDON ESTIMATED DEPTH 3000' Waverly (71)
 WELL OPERATOR APPALACHIN ENERGY TEC. INC. DESIGNATED AGENT JOHN O. KIZER
 ADDRESS 2188 BARCELONA DRIVE ADDRESS 1200 Charleston National Plaza
CLEAR WATER, FLORIDA 32521 Charleston, WV 25306

MAY 29 1984

FORM IV-6 (8-78)

COUNTY NAME PERMIT

RECEIVED

JUL 11 1985



OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date JULY 8, 1985
Operator's Well No. MIRACLE 2
Farm DONALD & ROBERT MIRACLE
API No. 47 - 107 - 1308

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal /
(If "Gas," Production / Underground Storage / Deep X / Shallow /)

LOCATION: Elevation: 895' Watershed BULL RUN CREEK
District: UNION County WOOD Quadrangle

COMPANY APPALACHIAN ENERGY TECHNOLOGY, INC.
ADDRESS 2188 BARCELONA DRIVE, CLR., FL 33546
DESIGNATED AGENT J. KAISER
CHARLESTON, W. VA. 25305
ADDRESS 4200 CHARLESTON NATIONAL PLAZA
SURFACE OWNER DONALD MIRACLE
ADDRESS ROUTE 2, WAVERLY, W. VA. 26184
MINERAL RIGHTS OWNER DONALD & ROBERT MIRACLE
ADDRESS ROUTE 1, WILLIAMSTOWN, W. VA. 26187
OIL AND GAS INSPECTOR FOR THIS WORK MR. GLEN ROBINSON
RT. 1 MT. PLEASANT ESTATE
ADDRESS MINERAL WELLS, W. VA. 26150
PERMIT ISSUED 5/23/84
DRILLING COMMENCED 7/1/84
DRILLING COMPLETED 7/13/84
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	275'	275	SURFACE
7			
5 1/2			
4 1/2	2750	2750	300 sk s
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION GORDON Depth 2650 feet
Depth of completed well 2750 feet Rotary X / Cable Tools
Water strata depth: Fresh 50 feet; Salt 180 feet
Coal seam depths: NONE Is coal being mined in the area? NO

OPEN FLOW DATA
Producing formation GORDON Pay zone depth 2620 feet
Gas: Initial open flow 30 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 15 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 635 psig (surface measurement) after 240 hours shut in
(If applicable due to multiple completion--)
Second producing formation Pay zone depth feet
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 measurement) after hours shut in

JUL 22 1985
(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

PERFORATIONS 2603 - 2631 ^{Gordon - SWW gas} 29 shots
 FRAC JOB 1,200 bbls water
 200,000 Ns
 40,000 # 20/40 SAND

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
1. UNKNOWN			45	50	FRESH WATER
2. UNKNOWN			170	180	SALT WATER
3. 1st SALT SAND			1317	1407	SALT WATER SHOW
4. 2nd SALT SAND			1419	1450	SALT WATER SHOW
5. 3rd SALT SAND			1490	1520	SALT WATER SHOW
6. MAXTON SAND			1570	1618	SHOW OF GAS
7. BIG LIME			1628	1683	-
8. INJUN SAND			1730	1854	SALT WATER
9. SQUAW SAND			1876	1892	SHOW OF GAS ✓
10. WEIR SAND			2010	2020	-
11. BEREA SAND			2240	2251	SHOW OF GAS - OIL ✓
12. THIRTY FOOT SAND			2466	2514	-
13. GORDON SAND			2603	2631	SHOW OF GAS - OIL ✓
				TD. 2750 Up Dev. vadeff.	
					2750 895 <hr/> 1855

(Attach separate sheets as necessary)

APPALACHIAN ENERGY TECHNOLOGY, INC.

Well Operator

By: TODD HEFTER

Date: JULY 8, 1985

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations including



1) MAY 15, 19 84
 2) Operator's Well No. MIRACLE # 2
 3) API Well No. 47 - 107 - 1308
 State County Permit

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

- 4) WELL TYPE: A Oil XX / Gas XX
 B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow XX)
- 5) LOCATION: Elevation: 895' / Watershed: Bull Run Creek
 District: Union / County: Wood / Quadrangle: Willow Island
- 6) WELL OPERATOR APPALACHIAN ENERGY TECH., INC. 7) DESIGNATED AGENT JOHN KAISER
 Address 2188 BARCELONA DRIVE Address 1200 CHARLESTON NATIONAL PLAZA
CLEARWATER, FLORIDA 33546 CHARLESTON, WEST VIRGINIA 25305
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name BOB LOWTHER
 Address MIDDLEBOURNE, WEST VIRGINIA
26149
- 9) DRILLING CONTRACTOR: Name S & B Drilling Co.
 Address P O BOX 1170
Cambridge, Ohio 43725
- 10) PROPOSED WELL WORK: Drill XX / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) GORDON
- 11) GEOLOGICAL TARGET FORMATION, _____
- 12) Estimated depth of completed well, 2750 feet
- 13) Approximate strata depths: Fresh, 100 feet; salt, 1400 feet.
- 14) Approximate coal seam depths: UNKNOWN Is coal being mined in the area? Yes XXX

RECEIVED
 MAY 23 1984
 OIL & GAS DIVISION
 DEPT. OF MINES

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	8 5/8	API	20#	XX		200	275'	65 SKS CTS	NEAT
Fresh water									
Coal									Sizes
Intermediate									
Production	4 1/2	API	10.5	XX			2750	300 sks	Depths set
Tubing									or as req. by req. 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1308 Date May 23, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof. Permit expires May 23, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>CD</u>	Agency: <u>LSM</u>	Plat: <u>SM</u>	Casing: <u>SM</u>	Fee: <u>102</u>
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Margaret J. Hesse
 Administrator, Office of Oil and Gas

