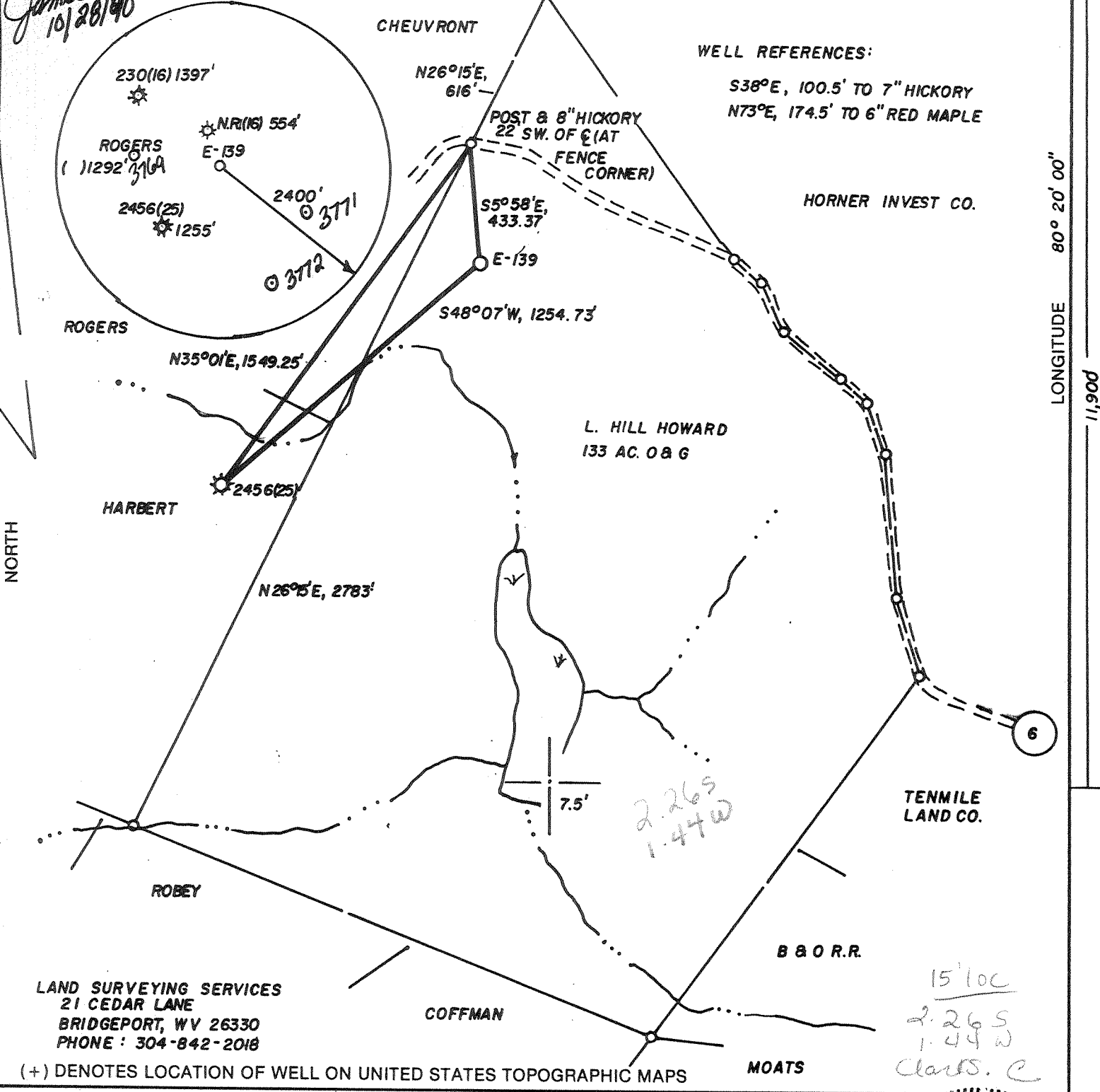


Januel 10/28/90

LATITUDE 39° 25' 00"



WELL REFERENCES:
 S38°E, 100.5' TO 7" HICKORY
 N73°E, 174.5' TO 6" RED MAPLE

HORNER INVEST CO.

L. HILL HOWARD
 133 AC. O & G

TENMILE LAND CO.

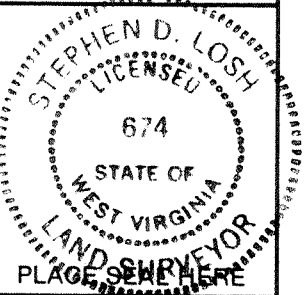
LAND SURVEYING SERVICES
 21 CEDAR LANE
 BRIDGEPORT, WV 26330
 PHONE : 304-842-2018

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

15' loc
2.265
1.44 W
Clark S. C

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION ROAD INT. 2550' WEST
OF LOC. AT ELEV. 984'

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.
 (SIGNED) *[Signature]*
 R.P.E. _____ L.L.S. NO. 674
STEPHEN D. LOSH



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE SEPT. 24, 19 90
 OPERATOR'S WELL NO. HOWARD 1
 API WELL NO. E-139

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1013' WATER SHED JONES RUN
 DISTRICT EAGLE COUNTY HARRISON
 QUADRANGLE SHINNSTON 7.5

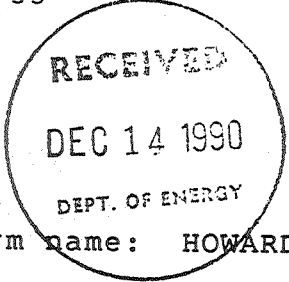
SURFACE OWNER JAMES H. HILL ACREAGE 97.90
 OIL & GAS ROYALTY OWNER L. HILL HOWARD LEASE ACREAGE 133.
 LEASE NO. _____

PROPOSED WORK: DRILL X 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 BALLTOWN ESTIMATED DEPTH 3700'
 WELL OPERATOR EXCEL ENERGY, INC. DESIGNATED AGENT HARRY BARNETT
 ADDRESS P. O. BOX 1020 ADDRESS P. O. BOX 1020
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

NOV 5 1990

"00' 02" 08 EQUIDISTANT
 page 11
 COUNTY NAME
 PERMIT



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

Well Operator's Report of Well Work

Farm name: HOWARD, LORNA TRUSTEE Operator Well No.: HOWARD E-139

LOCATION: Elevation: 1013.00 Quadrangle: SHINNSTON

District: EAGLE County: HARRISON
 Latitude: 11900 Feet South of 39 Deg. 25Min. 0 Sec.
 Longitude 7700 Feet West of 80 Deg. 20 Min. 0 Sec.

Company: EXCEL ENERGY, INC
 P. O. BOX 1020
 BRIDGEPORT, WV 26330-1020

Agent: HARRY L. BARNETT

Inspector: STEVE CASEY
 Permit Issued: 11/01/90
 Well work Commenced: 11/28/90
 Well work Completed: 12/03/90
 Verbal Plugging _____
 Permission granted on: _____
 Rotary X Cable _____ Rig _____
 Total Depth (feet) 3555'
 Fresh water depths (ft) 50'
 Salt water depths (ft) N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	25'	25'	-----
8 5/8"	1070'	1070'	250 sks
4 1/2"	3486'	3486'	500 sks

Is coal being mined in area (Y/N)? N
 Coal Depths (ft): None recorded

OPEN FLOW DATA

Balltown, Speechley
 Producing formation and Elizabeth Pay zone depth (ft) 2606-3395
 Gas: Initial open flow show MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 1299 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 270 psig (surface pressure) after 24 Hours
 Big Injun, 50',
 Second producing formation Gordon, 4th, 5th Pay zone depth (ft) 1363-2310
 Gas: Initial open flow show MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow comingled MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure comingled psig (surface pressure) after 24 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: EXCEL ENERGY, INC

By: H.L. Barnett H.L. Barnett
 Date: December 13, 1990

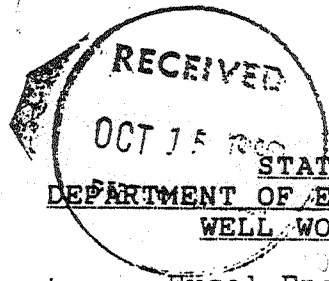
DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Stage I (3051'-3395') 13 holes, 500 gal 15% HCL, 600 bbl 75 Q foam, 400 sks sand.
 Stage II (2607'-2908') 12 holes, 500 gal 15% HCL, 500 bbl 75 Q foam, 350 sks sand.
 Stage III (2116'-2310') 13 holes, 500 gal 15% HCL, 500 bbl 75 Q foam, 250 sks sand.
 Stage IV (1740'-1987') 12 holes, 500 gal 15% HCL, 500 bbl 75 Q foam, 250 sks sand.
 Stage V (1364'-1434') 14 holes, 500 gal 15% HCL, 400 bbl 75 Q foam, 400 sks 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
Fill			0	17	
Sand & Shale			17	200	
Shale			200	340	1/4" stream of water @ 50'
Sand & Shale			340	385	
Shale			385	810	
Sand			810	950	
Sand & Shale			950	1255	
Big Lime			1255	1342	
Big Injun			1342	1365	Gas Show
Shale			1365	1885	
50' Sand			1885	1934	
Sand & Shale			1934	2148	
Gordon Sand			2148	2164	
Shale & Sand			2164	2312	
Shale			2312	2873	
Speechley			2873	2903	
Shale			2903	3190	
Balltown			3190	3220	Gas Show
Shale			3220	3555	DTD

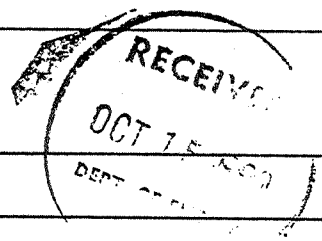
11399



033-03770
Issued 11/1/90
Expires 11/1/92 Page ___ of ___

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

- 1) Well Operator: Excel Energy, Inc. 16570 (4) 605
- 2) Operator's Well Number: Howard E-139 3) Elevation: 1013
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Balltown ⁴⁹³
- 6) Proposed Total Depth: 3700 feet
- 7) Approximate fresh water strata depths: 730'
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 623' & 691'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill and stimulate a new well.
- 12)



CASING AND TUBING PROGRAM

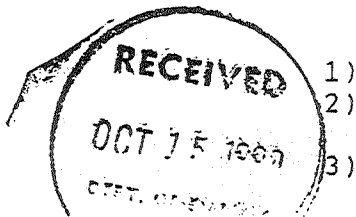
TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	11 3/4"		42#	30'	----	-----
Fresh Water						380CSR18-11.5
Coal						380CSR18-11.2
Intermediate	8 5/8"		20#	1100'	1100'	275 sks
Production	4 1/2"	J-55	10.50#	3670'	3670'	380CSR18-11.1 500 sks
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

1316
11/21 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Security Blanket Agent
(Type)

11399



1) Date: October 12, 1990
2) Operator's well number
Howard #1 E-139
3) API Well No: 47 - 033 - 03770
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 MRS. LORNA HOWARD, TRUSTEE
Address FOR JAMES H. HILL ESTATE
P.O. BOX 369, LUMBERPORT, WV 26386
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name _____
Address _____

6) Inspector STEPHEN CASEY
Address RT. 2, BOX 232-D
JANE LEW, WV 26378
Telephone (304)- 745-4888

(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 _____ on the above named parties, by:

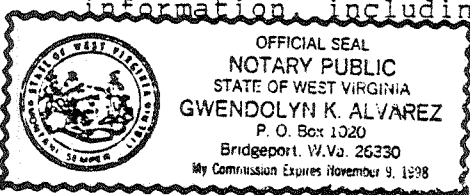
- _____ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 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 EXCEL ENERGY, INC.
By: H.L. BARNETT
Its: PRESIDENT
Address P.O. BOX 1020
BRIDGEPORT, WV 26330
Telephone (304) 842-6927



Subscribed and sworn before me this 12th day of OCTOBER, 19 90

Gwendolyn K. Alvarez Notary Public
My commission expires NOVEMBER 9, 1998