



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION JCT. OF RDS. 1350±
N. OF LOCATION, ELEV = 1176'

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

PLACE SEAL HERE

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



DATE APRIL 2, 1982
 OPERATOR'S WELL NO. UNIT NO. 1
 API WELL NO. 47-087-3568
 STATE COUNTY PERMIT

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 1164' WATER SHED HARDCAMP RUN
 DISTRICT WALTON COUNTY ROANE
 QUADRANGLE CLIO 7.5' Walton 15' EC
 SURFACE OWNER RAYMOND L. WEHRLE ACREAGE 112.75
 OIL & GAS ROYALTY OWNER G.F. GANDEE ET AL. LEASE ACREAGE 112.75
 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 BROWN SHALE ESTIMATED DEPTH 5590'
 WELL OPERATOR DELTA DRILLING CO. DESIGNATED AGENT ROBERT E. FOX
 ADDRESS 200 FLEET ST. SUITE 4005 ADDRESS P.O. BOX 129
PITTSBURG, PA. 15220 GLENVILLE, WV 26351

APR 28 1982



Date: 3 April, 19 82

Operator's Well No. Gandee-Vineyard #1

API Well No. 47 087 3568

State County Permit

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

WELL TYPE: Oil _____ / Gas XXXX /
(If "Gas", Production XXXXX / Underground storage _____ / Deep _____ / Shallow XXXX /)

LOCATION: Elevation: 1164' Watershed: Hardcamp Run
District: Walton County: Roane Quadrangle: Clio 7.5'

WELL OPERATOR Delta Drilling Co
Address 200 Fleet St. Suite 4005
Pittsburgh, Pa. 15220

DESIGNATED AGENT Robert E. Fox
Address P.O. Box 129,
Glenville, WV. 26351

OIL & GAS ROYALTY OWNER G.F. Gandee et al
Address 625 Moore Road
Akron, Ohio 44319
Acreage 112.75

COAL OPERATOR _____
Address _____

SURFACE OWNER Raymond L. Wehrle
Address 6438 Starlite Drive
Sissonville, WV 25302
Acreage 112.75

COAL OWNER(S) WITH DECLARATION ON RECORD:

Name SAME AS OIL AND GAS

Address _____

RECEIVED

Name APR 6 - 1982

Address _____

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

FIELD SALE (IF MADE) TO:
Address Columbia Gas

COAL LESSEE WITH DECLARATION ON RECORD:

Name _____

Address _____

RECEIVED

APR 6 - 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Richard J. Morris
Address P.O. Box 372 Grantsville, WV 26147
354-7259

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed _____ / lease _____
other contract XXXX / dated 1 February, 1980, to the undersigned well operator from PYXON Corp

(If said deed, lease, or other contract has been recorded:)
Recorded on _____, 19_____, in the office of the Clerk of the County Commission of _____ County, West
Va., in _____ Book _____ at page _____. A permit is requested as follows:

NOT YET RECORDED

PROPOSED WORK: Drill XXX / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____ /
Plug off old formation _____ / Perforate new formation _____ /
Other physical change in well (specify) _____
---planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to
make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the
Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to
the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to
the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY
TO:

WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

GUARANT BOND

Delta Drilling Co.
Well Operator

By Robert E. Fox

Its _____ AGENT

PROPOSED WORK ORDER

(12-81)

THIS IS AN ESTIMATE ONLY.
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-2 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Fox Drilling Co

Address P.O. Box 129

Glenville, WV. 26351

GEOLOGICAL TARGET FORMATION, Brown Shale

Estimated depth of completed well, 5590' feet Rotary xxxx / Cable tools _____ /

Approximate water strata depths: Fresh, 80/120' feet; salt, _____ feet.

Approximate coal seam depths: 300' Is coal being mined in the area? Yes _____ / No XXX /

CASING AND TUBING PROGRAM

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	16 1/2"					30'	30'	To Surface	Kinds
Fresh Water									
Coal	11 3/4"					350'	350'	To Surface	Sizes
Intermediate	8 5/8"					3250'	3250'	To Surface	
Production	4 1/2"					5590'	5590'	1100 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.
ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,
ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY
APPROVED FOR Drilling. THIS PERMIT SHALL EXPIRE
IF OPERATIONS HAVE NOT COMMENCED BY 12-8-82.
BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19 _____

By [Signature]
Its _____



IV-35
(Rev 8-81)

RECEIVED

MAY 24 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia

Department of Mines
Oil and Gas Division

Date 5-17-82

Operator's
Well No. #1
Farm GANDEE/VINEYARD
API No. 47 - 087 - 3568

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 X / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1164' Watershed WATERCAMP RUN
District: WALTON County ROANE Quadrangle CLIO 7.5

COMPANY DELTA DRILLING COMPANY N.E. PROD.
ADDRESS 200 FLEET ST. SUITE 4005 PGH., PA
DESIGNATED AGENT JOHN O. KIZER
c/o LOVE, WISE, ROBINSON, WOODROW
ADDRESS P. O. BOX 951 CHARLESTON, WV 25323
SURFACE OWNER RAYMOND L. WEHRLE
ADDRESS 6438 STARLITE DR. SISSOUVILLE WV 25302
MINERAL RIGHTS OWNER G. F. GANDEE et AL.
ADDRESS 625 MOORE RD. AKRON OHIO 44319
OIL AND GAS INSPECTOR FOR THIS WORK RICHARD
MORRIS ADDRESS P.O. BOX 372 GRANTSVILLE
PERMIT ISSUED APRIL 3, 1982 WV
DRILLING COMMENCED APRIL 14, 1982
DRILLING COMPLETED APRIL 20, 1982
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"	293	293	215 sks
9 5/8			
8 5/8	2150	2150	460 sks
7			
5 1/2			
4 1/2	5602	5602	475 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION BROWN SHALE Depth 2448-5604 feet
Depth of completed well 5602 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 108 feet; Salt - feet
Coal seam depths: NONE Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation BROWN SHALE Pay zone depth 3496-5576 feet
Gas: Initial open flow - Mcf/d Oil: Initial open flow - Bbl/d
Final open flow 298 Mcf/d Final open flow - Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 1115 psig (surface measurement) after 72 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

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

PERFORATIONS	FOAM VOL.	SAND VOL.	AVERAGE INJECTION RATE
4213-5576 (15) <i>Huron → Permian</i>	38,000 gal.	64,000#	40 BPM
3496-3929 (15) <i>Huron</i>	46,000 gal.	78,000#	40 BPM

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
RED ROCK & SHALE			0	45	
SAND			45	150	
SHALE			150	174	
SAND			174	264	
SHALE			264	327	
SAND			327	350	
SHALE			350	370	
SAND			370	400	
SHALE			400	420	
SAND			420	455	
SHALE			455	475	
SAND			475	525	
SHALE			525	535	
SAND			535	622	
SHALE			622	635	
SAND			635	855	
SHALE			855	870	
SAND			870	932	
SHALE			932	935	
SAND			935	1048	
SHALE			1048	1060	
SAND			1060	1345	
SHALE			1345	1440	
SAND			1440	1831	
SHALE			1831	1835	
LITTLE LIME			1835	1865	
PENCIL CAVE			1867	1880	
BIG LIME			1880	2015	
SHALE			2015	2040	
BIG INJUN			2040	2080	
SHALE			2080	2447	
BEREA			2447	2448	
BROWN SHALE			2448	5604	
			LOGGERS	5604	
			TD		

5604
 2448

 3156

4213
 2448

 1765

5604 TD?
 marcellus

(Attach separate sheets as necessary)

DELTA DRILLING COMPANY

Well Operator

By: *[Signature]*

Date: *2/20/82*

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 ..., encountered in the drilling of a well."