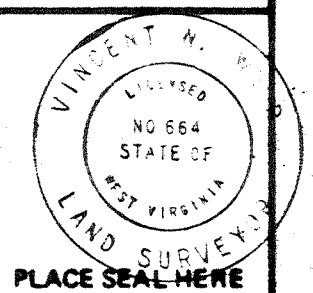


FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION INTER. W. V. RT. 2 AND RT. 7/10, ELEV. = 749

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) Vincent W. Wood
 R.P.E. _____ L.L.S. 664



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

FORM IV-B (8-78)

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

DATE JULY 29, 1982
 OPERATOR'S WELL NO. KEM 253
 API WELL NO. _____

47 - 107 - 1221-PR
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 848 WATER SHED GILPIN RUN
 DISTRICT HARRIS COUNTY WOOD
 QUADRANGLE LUBECK

SURFACE OWNER DAVID L. MENDENHALL, ET AL. ACREAGE 50
 OIL & GAS ROYALTY OWNER DAVID L. MENDENHALL, ET AL. LEASE ACREAGE 75.25
 LEASE NO. 83-04-1259

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

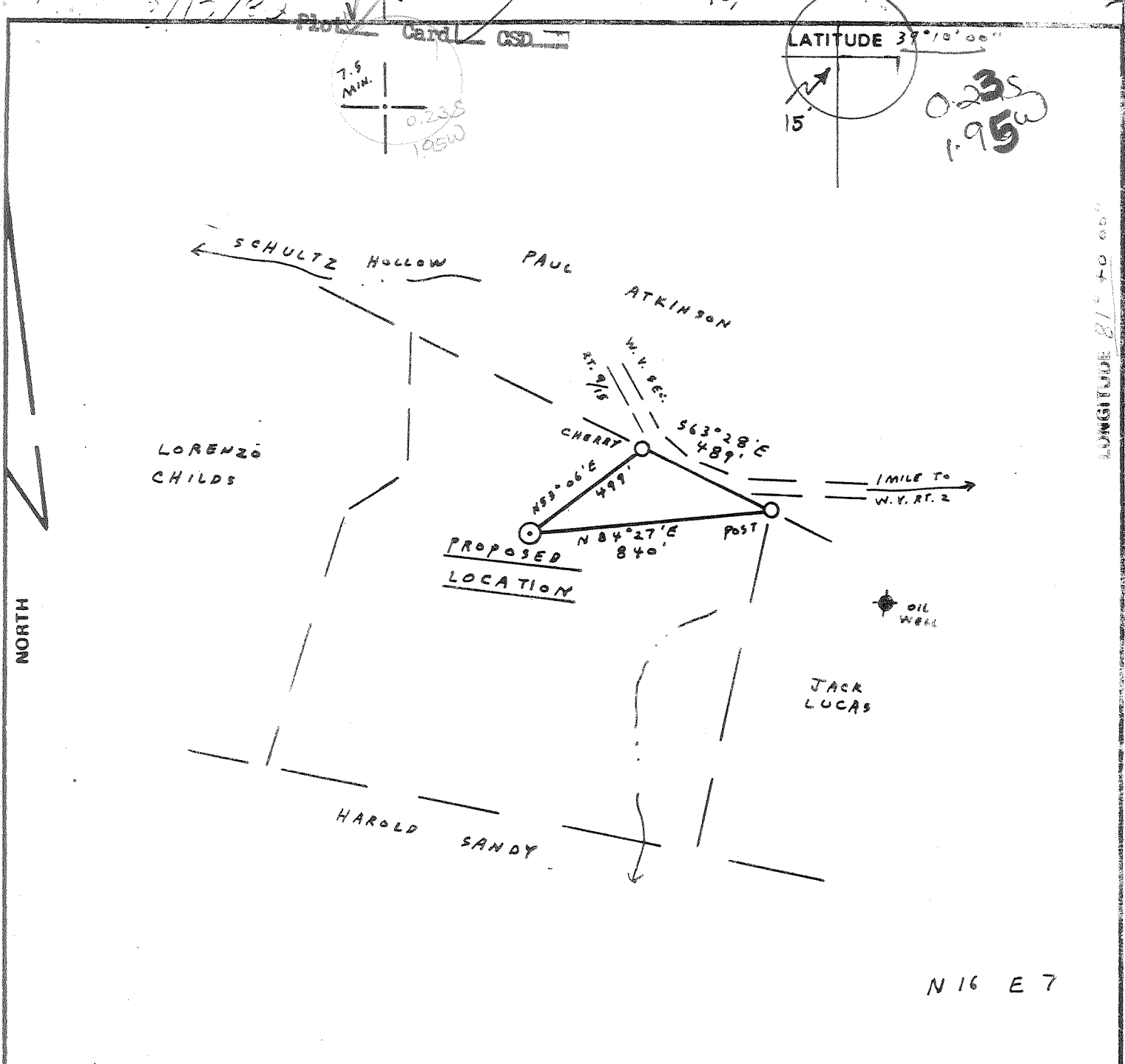
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION ORISKANY ESTIMATED DEPTH 4500'
 WELL OPERATOR KAISER EXPLOR. & MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.
 ADDRESS P.O. BOX 8 RAVENSWOOD, W. V. 26164 ADDRESS P.O. BOX 8 RAVENSWOOD, W. V. 26164

NOV 19 1984

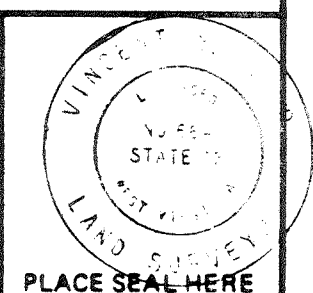
H. T. HALL

owned - DEEP WELL - 6.6 New England 26/296



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION INTER. W. V. RT. 2 AND RT. 9/18, ELEV. = 749

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) Vincent W. Wood
 R.P.E. _____ L.L.S. 664



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

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION
 DATE JULY 29, 1982
 OPERATOR'S WELL NO. KEM 253
 API WELL NO. _____
47 - 107 - 1221
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 848 WATER SHED GILPIN RUN
 DISTRICT HARRIS COUNTY WOOD
 QUADRANGLE LUBECK Bellville 15' W
 SURFACE OWNER DAVID L. MENDENHALL, ET AL. ACREAGE 50
 OIL & GAS ROYALTY OWNER DAVID L. MENDENHALL, ET AL. LEASE ACREAGE 75.25
 LEASE NO. 83-04-1259
 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 ORISKANY ESTIMATED DEPTH 4500' AUG 10 1982
 WELL OPERATOR KAISER EXPLOR. & MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.
 ADDRESS P.O. BOX 8 RAVENSWOOD, W. V. 26164 ADDRESS P.O. BOX 8 RAVENSWOOD, W. V. 26164

H.T. HALL - DEEP WELL G-6 New England (296)



REVISED

IV-35
(Rev 8-81)

Date January 22, 1985
Operator's
Well No. KEM 253
Farm David Mendenhall
API No. 47 - 107 - 1221-FANC

State of West Virginia
Department of Mines
Oil and Gas Division

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 x / Shallow ___ /)

LOCATION: Elevation: 848' Watershed Gilpin Run
District: Harris County Wood Quadrangle Lubeck

COMPANY Kaiser Exploration and Mining Co.

ADDRESS P. O. Box 8 Ravenswood, WV 26164

DESIGNATED AGENT R. A. Pryce

ADDRESS Same

SURFACE OWNER David L. Mendenhall, et al

ADDRESS 912 Meadow Hts., Raden City, WV

MINERAL RIGHTS OWNER Same

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Samuel

Hersman ADDRESS Box 66 Smithville, WV

PERMIT ISSUED 8/12/82

DRILLING COMMENCED 9/7/82 w/o comm. 11/29/84

DRILLING COMPLETED 9/13/82 w/o comp 12/5/84

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 ^{3/4}		256'	175 sx
9 5/8			
8 5/8			
7		2011'	165 sx
5 1/2			
4 1/2		4485'	225 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Sandstone Depth 4351-4412 feet

Depth of completed well 4504 feet Rotary x / Cable Tools --

Water strata depth: Fresh -- feet; Salt -- feet

Coal seam depths: -- Is coal being mined in the area? NO

Drilled on fluid not known.

OPEN FLOW DATA *plugged Oriskany

Producing formation Devonian Brown Shale Pay zone depth 3756-3573 feet

Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 336 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 950 psig (surface measurement) after -- hours shut in

(If applicable due to multiple completion--)

Second producing formation Grey Shale Pay zone depth 2625-2774 feet

Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 336 coming in Mcf/d Oil: Final open flow -- Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 95 psig (surface measurement) after -- hours shut in

(Continue on reverse side)

APR 22 1985

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

11/29/84 Young's perf ^{Huron} Brown Shale from 3573 to 3756; perf Grey Shale from ^{Up. Sec. undiff.} 2625 to 2774.

12/5/84 BJ Hughes 2-stage foam frac
 Brown Shale: #60,000 20/40 sand; 654 mscf N₂; 326 bbl water, ISIP 1030 psig
 Grey Shale: #60,000 20/40 sand; 625 mscf N₂; 327 bbl water, ISIP 800 psig

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Same as previously		submitted.			

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY

Well Operator

By:

Ronald Rust

Date: January 22, 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 coal, encountered in the drilling of a well."

DETAILS OF PERFORATED INTERVALS, FRACTURES OR STIMULANTS, FILTRATION CHANGE, ETC.

- 10/20/82: Perforated the Oriskany Sandstone from 4398'-4406' with 24 holes, 0.39" diameter.
- 10/22/82: Cross-Link fractured the Oriskany with 60,000# 20/40 sand, 833 bbl fluid, 350,000 SCF of nitrogen; average pressure 1200 psig; ISIP: 1350 psig.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Soil & Shale			0	220	
Siltstone & Shale			220	591	
Sand			591	642	
Sand & Shale			642	700	
Siltstone & Shale			700	1052	
Sand			1052	1092	
Shale			1092	1114	
Sand			1114	1144	
Sand & Shale			1144	1236	
Shale			1236	1408	
Sand			1408	1450	
Shale			1450	1576	
Salt Sands			1576	1765	
Shale			1765	2080	
Coffee Shale (Sunbury)			2080	2104	
Berea Sand			2104	2108	Slt. show gas
Shale			2108	3560	Show gas @ 2670, 2770
Brown Shale			3560	3752	Show gas @ 3745
Shale			3752	4082	
Marcellus Shale			4082	4292	
Onondaga Lime			4292	4384	
Oriskany Sand			4384	4418	Show gas @ 4385
Helderberg Lime			4418	4504	
Total Depth			4504		

(Attach separate sheets as necessary)

Kaiser Exploration and Mining Company
Well Operator

By: RA Pa

Date: January 31, 1983

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 coal, encountered by the drilling of a well."

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Associates, Inc.

Address P. O. Box 388
Elkview, WV 25071

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well, 4500' feet Rotary x / Cable tools /

Approximate water strata depths: Fresh, feet; salt, feet.

Approximate coal seam depths: Is coal being mined in the area? Yes / No /

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
Conductor							Kinds	
Fresh Water	10 3/4"					250'	250'	150 sks class A (to surface)
Coal								Sizes
Intermediate	7"					2016'	2016'	65 sks 50/50 pozmix 100 sks Class A
Production	4 1/2"					4500'	4500'	225 sks 50/50 pozmix 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 4-12-83
BY [Signature]

[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
Its