



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

APR 10 1981

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE April 6 1981

Surface Owner WV Farming Commission
c/o George Stickler, New Martinsville WV 26155
Address

Company BERG Petroleum Inc.
Address P. O. Box 782 Cambridge, OH 43725

Mineral Owner WV Dept. of Mental Health
c/o William Richards, St. Marys, WV 26170
Address

Farm State Farm Acres 694
Location (waters) Ohio River

Coal Owner -No Coal in Pleasants County-
Address

Well No. State Farm #21-81 Elevation 1071'
District Union County Pleasants

Coal Operator
Address

Quadrangle Raven Rock

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for Drilling. This permit shall expire if operations have not commenced by 12-23-81.

INSPECTOR
TO BE NOTIFIED Phillip Tracy

ADDRESS Middlebourne, WV 26149

PHONE (304) 758-4573

Fred B. Smith
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated October 27 19 80 by Donald M. Robinson made to BERG Petroleum Inc. and recorded on the 14 day of November 19 80, in Pleasants County, Book 159 Page 216

XXX NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators, or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address
of
Well Operator

Very truly yours, BERG Petroleum, Inc.
(Sign Name) Brodley Adams, President
Well Operator

P. O. Box 782
Street
Cambridge
City or Town
Ohio 43725
State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-073- 1182

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by _____

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XXX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Adams Well Service NAME J. Ellen Adams
 ADDRESS P. O. Box 858, Cambridge, OH 43725 ADDRESS P.O. Box 131, Glenville, WV 26351
 TELEPHONE (614) 432-7923 TELEPHONE (304) 462-5475
 ESTIMATED DEPTH OF COMPLETED WELL: 5500' ROTARY XXX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Devonian Shale
 TYPE OF WELL: OIL _____ GAS _____ COMB. XXX STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WFL.	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	350'	350'	To Surface
7			
5 1/2			
4 1/2		5500'	400 Sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET _____ SALT WATER NA FEET _____
 APPROXIMATE COAL DEPTHS None _____
 IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal and this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

 For Coal Company

 Official Title

Date 8 April 19 81
 Well No. STATE FARM # 21-81
 API No. 47 - 073 - 1182
 State County Permits

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name BERG Petroleum Inc Designated Agent J. Ellen Adams
 Address P.O. Box 782, Cambridge, Ohio Address P.O. Box 131, Glenville, W. Va.
 Telephone 614-432-5533 Telephone 304-462-5475
 Landowner STATE FARMING COMM. Soil Cons. District _____

Revegetation to be carried out by BERG (Agent)

This plan has been reviewed by Upper Ohio SCD. All corrections and additions become a part of this plan. 4/9/81 (Date) Renneth R. Green (SCD Agent)

Access Road

Structure NO CONCRETE Needs (A)
 Spacing _____
 Page Ref. Manual h8

Structure Rip Rap (B)
 Spacing _____
 Page Ref. Manual NA

Structure _____ (C)
 Spacing _____
 Page Ref. Manual _____

Location

Structure _____
 Material _____
 Page Ref. Manual _____

Structure _____
 Material _____
 Page Ref. Manual _____

Structure _____
 Material _____
 Page Ref. Manual _____

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All structures should be inspected regularly and repaired if necessary.

Revegetation

Treatment Area I

Lime _____ Tons/acre
 or correct to pH 6.5

Fertilizer 500 lbs/acre
 (10-20-20 or equivalent)

Mulch Hay or Straw 2 Tons/Acre

Seed* KY 31 Fescue 35 lbs/acre
RED TOP 3 lbs/acre
 _____ lbs/acre

Treatment Area II

Lime _____ Tons/Acre
 or correct to pH 6.5

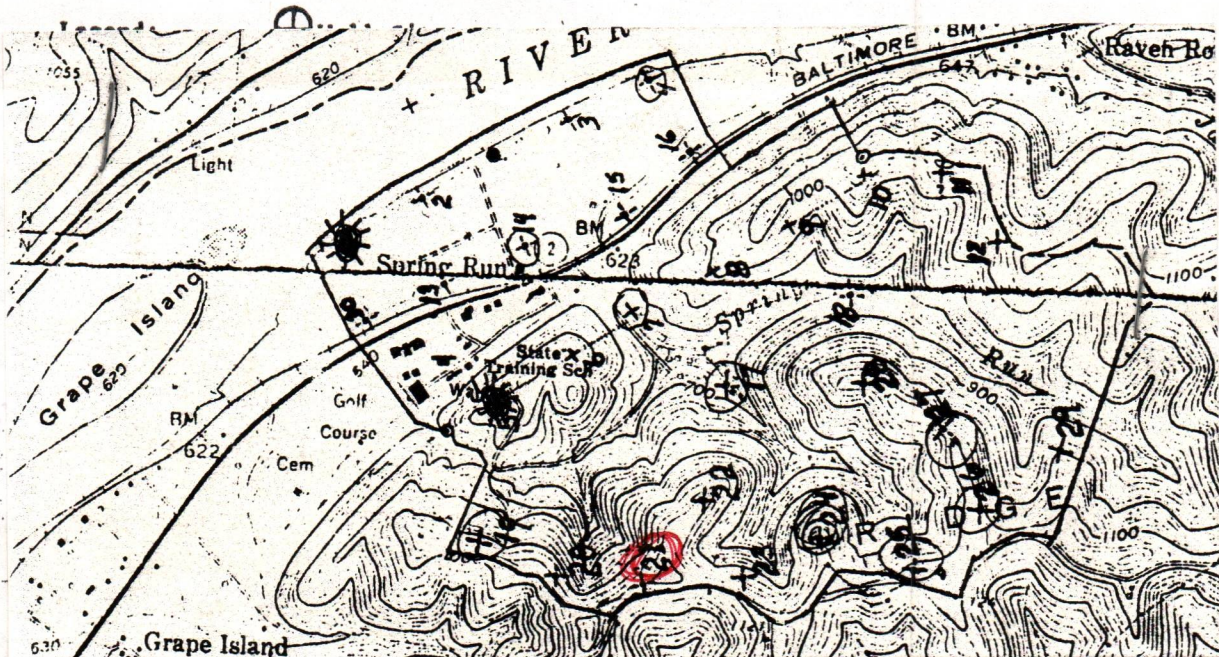
Fertilizer 500 lbs/acre
 (10-20-20 or equivalent)

Mulch Hay or Straw 2 Tons/Acre

Seed* KY 31 FESCUE 35 lbs/acre
RED TOP 3 lbs/acre
 _____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

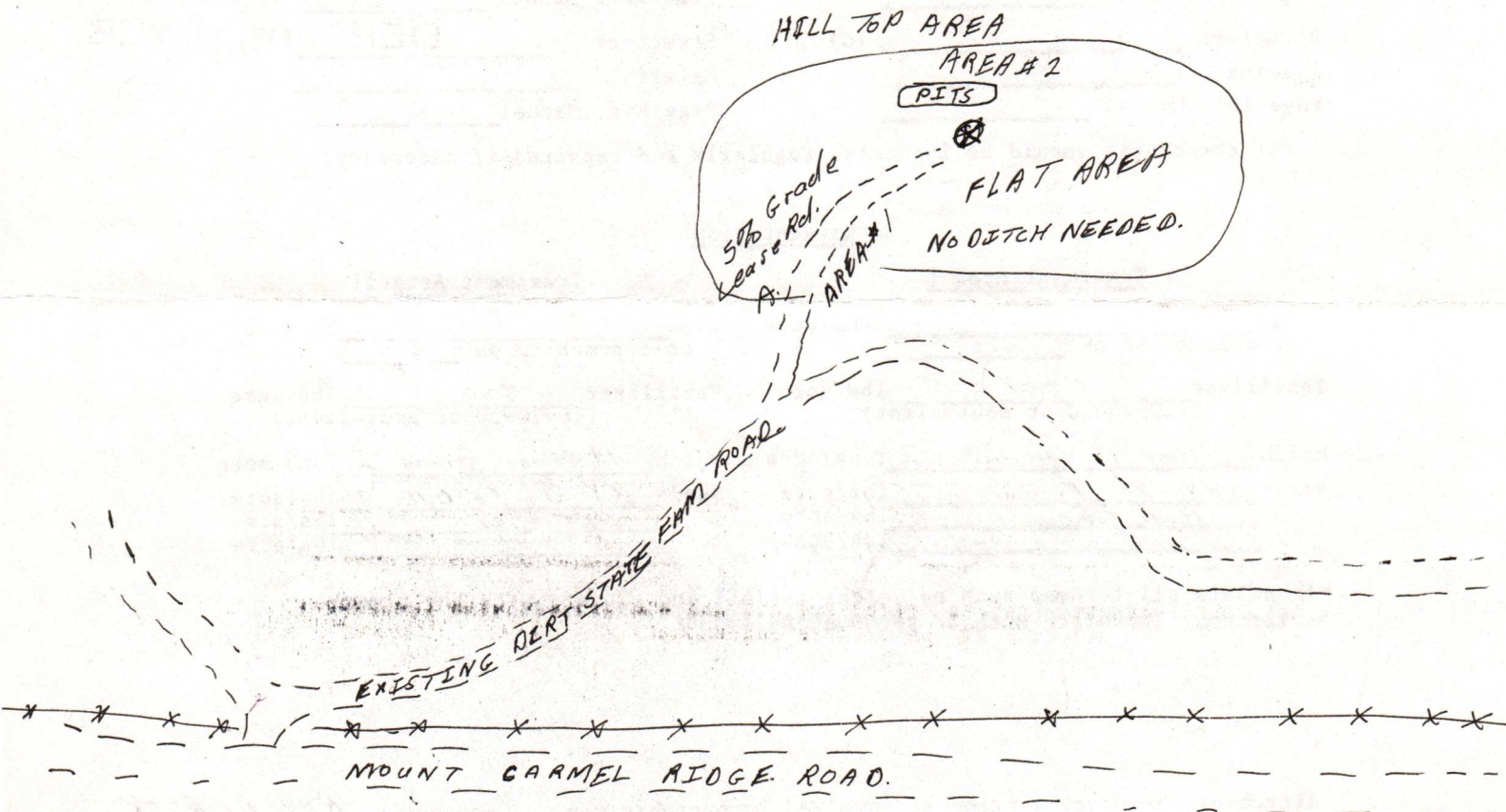
Attach or photocopy section of involved Topographic map. Quadrangle RAVEN ROCK.



Well Site Plan

- | | | | |
|--------------------------|--|------------|--|
| Legend: Property Boundry | | Diversion | |
| Road | | Spring | |
| Existing Fence | | Wet Spot | |
| Planned Fence | | Building | |
| Stream | | Drain Pipe | |
| Open Ditch | | Waterway | |

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with first part of this plan. Include all natural drainage.



Comments: Location On Level Hill Top Minimum Grading Required.
Average Slope Of Access Rd = 5% Location Has Small Trees
And Light Brush On It Trees Will Be Pilled Of Loc. + Used By Farm.
 Signature: Ralph J. Smith P.O. Box 782, Cambridge, Oh. 614-432 5533
 Agent Address Phone Number

Please request landowners cooperation to protect new seeding for one growing season.
 EXISTING EXIT WILL BE STONED

April 8, 1981

Mr. Fred Burdette
WV Department of Mines
Oil & Gas Division
1613 Washington Street, East
Charleston, WV 25311

RE: State Farm #21-81 Well
State Farm #25-81 Well
State Farm #27-81 Well
G. W. Varner #1-81 Well

Dear Fred:

Please find enclosed the required filings for making application for drilling permits for the above-captioned wells, along with BERG's check number 528 to cover the permit fees.

Mr. Kenneth E. Mason, SCD Agent, has assured us that he is mailing to you, this date, the completed Reclamation Plans covering the above. Hopefully, you will receive these simultaneously.

As usual, we are in a "bind" for these. Anything you can do to expedite the permit numbers will be appreciated. Thank you again.

Very truly yours,

Jackie

Jackie Adams

ja

Enclosures

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OIL & GAS DIVISION
DEPT. OF MINES

WASHED THRU	<input type="checkbox"/> YES	<input type="checkbox"/> NO	TO	PSI	<input checked="" type="checkbox"/> NO	CEMENT CIRCULATED TO SURF.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
TYPE OF WELL	<input checked="" type="checkbox"/> OIL	<input type="checkbox"/> STORAGE		FT. MEASURED	<input checked="" type="checkbox"/> DISPLACEMENT	CEMENT LEFT IN PIPE:		
	<input checked="" type="checkbox"/> GAS	<input type="checkbox"/> INJECTION			<input type="checkbox"/> WIRELINE	<input checked="" type="checkbox"/> AS PLANNED	<input type="checkbox"/> UNAVOIDABLE	FT.
		<input type="checkbox"/> BRINE/WATER		CUSTOMER REPRESENTATIVE		DOES CUSTOMER CONSIDER SERVICE:		
		<input type="checkbox"/> WILDCAT		<i>Dave Lauer</i>		<input checked="" type="checkbox"/> SATISFACTORY	<input type="checkbox"/> UNSATISFACTORY	<input type="checkbox"/> UNKNOWN



HALLIBURTON SERVICES JOB SUMMARY

FORM 2012 R-2

HALLIBURTON DIVISION
WESTON, WV

PITTSBURGH, PA
WESTON, WV

BILLED ON TICKET NO. 105178

WELL DATA

FIELD UNION SEC. _____ TWP. _____ RNG. _____ COUNTY PLEASANTS STATE WV

FORMATION NAME	TYPE	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING		N	9.5	4 1/2	6.2	3985	2100
LINER							
TUBING							
OPEN HOLE							SHOTS/FT.
PERFORATIONS							
PERFORATIONS							
PERFORATIONS							

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

DISC. DATA _____ TOTAL DEPTH 4070

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
LOAD COLLAR		
LOAD SHOE <u>4 1/2</u>	<u>1</u>	<u>Hallco</u>
GUIDE SHOE		
CENTRALIZERS <u>4 1/2</u>	<u>10</u>	<u>Hallco</u>
BOTTOM PLUG		
TOP PLUG <u>4 1/2 LDP</u>	<u>1</u>	<u>Hallco</u>
HEAD <u>4 1/2 PCM</u>	<u>1EA</u>	<u>Hallco</u>
PACKER		
OTHER <u>3 1/16 + 3 5/16 TRAIL RA</u>	<u>1EA</u>	<u>Hallco</u>

MATERIALS

REAT. FLUID _____ DENSITY _____ LB/GAL. API _____

ISPL. FLUID _____ DENSITY _____ LB/GAL. API _____

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

CID TYPE _____ GAL. _____ %

CID TYPE _____ GAL. _____ %

CID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN

EMULSIFYING AGENT TYPE _____ GAL. _____ IN

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN

SEALING AGENT TYPE _____ GAL.-LB. _____ IN

EMULSIFYING AGENT TYPE _____ GAL.-LB. _____ IN

PACKER TYPE _____ GAL.-LB. _____ IN

LOCKING AGENT TYPE _____ GAL.-LB. _____

EMULSIFYING BALLS TYPE _____ QTY. _____

OTHER 10 GAL NIB 4 1/2 LDP RA 41C

OTHER _____

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>5-12-81</u>	DATE <u>5-12-81</u>	DATE <u>5-12-81</u>	DATE <u>5-12-81</u>
TIME <u>0700</u>	TIME <u>1700</u>	TIME <u>0010</u>	TIME <u>0050</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>C.K. Marshall</u>	<u>P10</u>	<u>WESTON</u>
<u>W MURPHY</u>	<u>61-C</u>	<u>"</u>
<u>C. HENRY</u>	<u>TD</u>	<u>"</u>
<u>F. BLOND</u>	<u>TD</u>	<u>"</u>
	<u>1729</u>	<u>"</u>

DEPARTMENT CEMENT

DESCRIPTION OF JOB CEMENT 4 1/2 CASING

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE X [Signature]

HALLIBURTON OPERATOR C. Keith Marshall COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	TYPE	API CLASS	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>925</u>	<u>S/50102</u>	<u>A</u>	<u>Hallco</u>	<u>B</u>	<u>10% SALT 12.5% GILSONITE</u>		

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT 1600

BREAKDOWN _____ MAXIMUM 2100

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

ORDERED _____ AVAILABLE _____ USED _____

HEATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

REASON NONE

SUMMARY

PRESLUSH: BBL.-GAL. _____ TYPE _____

LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. 10

TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 67

CEMENT SLURRY: BBL.-GAL. 115

TOTAL VOLUME: BBL.-GAL. 220

REMARKS SEE TOP LOG

VOLUMES

CUSTOMER

CUSTOMER RECEIVED FROM STATE FORM #21 WELL NO. 421 JOB TYPE CMT 4 1/2 CASING DATE 5-12-81



WORK ORDER CONTRACT AND PRE-TREATMENT DATA

ATTACH TO INVOICE & TICKET NO. 105178

FORM 1908 R-2

A Division of Halliburton Company DUNCAN, OKLAHOMA 73533

DISTRICT WESTON

DATE 5-12-81

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: REEG PETROLEUM (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. #21 LEASE STATE FARM SEC. TWP. RANGE

FIELD UVAIA COUNTY PLEASANTS STATE WV OWNED BY REEG PETRO

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

Table with columns: FORMATION NAME, TYPE, THICKNESS, FROM, TO, PACKER, TYPE, SET AT, TOTAL DEPTH, MUD WEIGHT, BORE HOLE, INITIAL PROD, PRESENT PROD, PERFORATIONS. Includes handwritten data for casing, liner, and tubing.

PREVIOUS TREATMENT: DATE TYPE MATERIALS

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED

CEMENT 4 1/2 CASING

CUSTOMER OR HIS AGENT STATES THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

- As consideration, the above-named Customer agrees: (a) To pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. (b) Halliburton shall not be responsible for and Customer shall secure Halliburton against any liability for damage to property of Customer and of the well owner...

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT.

SIGNED [Signature] CUSTOMER

DATE 5-12-81

TIME 1200 A.M. P.M.

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.

CUSTOMER

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

First Stage Interval: 3940'-3450' 40 shots X.39

Second Stage Interval: 2860'-2520' 36 shots X .39

Two stage frac with 875 sacks of sand and 1,620 mcf Nitrogen

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OIL & GAS DIVISION
DEPT. OF MINES

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, sand & shale			surface	1565	
Maxon			1565	1606	
Shale			1606	1631	
345 Big Lime			1631	1698	
Keener			1698	1749	
Shale			1749	1798	
365 Big Injun			1798	1903	
Shale			1903	1910	
378 Squaw			1910	1938	
Shale			1938	2091	
Wells Stray			2091	2130	
Shale			2130	2284	
395 Berea			2284	2288	
Shale			2288	2366	
Fifty Foot			2366	2406	
Shale			2406	2564	
416 Thirty Foot			2564	2630	
Shale			2630	2678	
Gordon Stray			2678	2692	
Shale			2692	2711	
419 Gordon			2711	2798	
Shale			2798	3516	
Tiona			3516	3538	
Shale			3538	3606	
432 Speechley			3606	3655	
Shale			3655	3745	
433 Balltown			3745	3785	
Shale			3785	4050	

(Attach separate sheets as necessary)

X BERG PETROLEUM, INC.
Well Operator

By: Brodley Adams, President

Date: September 17, 1984

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
STATUS INSPECTION REQUEST
INSPECTOR'S COMPLIANCE REPORT

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OCT 30 1984
OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 073-1182 County. Pleasants
Company. BERG Petroleum Inc. Farm. WV Farming Commission
Inspector. Robert Lowther Well No. 21-81
Date. August 29, 1984 Issued. 4-23-81

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to starting Work	_____	_____
25.04	Prepared before Drilling to prevent Waste	_____	_____
25.03	High-Pressure Drilling	_____	_____
16.01	Required Permits at Wellsite	_____	_____
15.03	Adequate Fresh Water Casing	✓	_____
15.02	Adequate Coal Casing	_____	_____
15.01	Adequate Production Casing	✓	_____
15.04	Adequate Cement Strength	_____	_____
23.02	Maintained Access Roads	✓	_____
25.01	Necessary Equipment to prevent Waste	✓	_____
23.03	Reclaimed Drilling Site	✓	_____
23.04	Reclaimed Drilling Pits	✓	_____
23.05	No Surface or Underground Pollution	✓	_____
7.03	Identification Markings	✓	_____

COMMENTS: [REDACTED]
This well was drilled

I have inspected the above well and (Have/Have Not) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas-Department of Mines of the State of West Virginia.

SIGNED: R.A. Lowther
DATE: oct 25, 1984



RECEIVED

OCT 30 1984

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia

Department of Mines

Oil and Gas Division

Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
October 22, 1984

COMPANY Berg Petroleum, Inc.

PERMIT NO 073-1182

P. O. Box 782

FARM & WELL NO State Farm #21-81

Cambridge, Ohio 43725

DIST. & COUNTY Union/Pleasants

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing	✓	
15.04	Adequate Cement Strenght		
15.05	Cement Type		
23.02	Maintained Access Roads	✓	
25.01	Necessary Equipment to Prevent Waste	✓	
23.04	Reclaimed Drilling Pits	✓	
23.05	No Surface or Underground Pollution	✓	
23.07	Requirements for Production & Gathering Pipelines	✓	
16.01	Well Records on Site		
16.02	Well Records Filed	✓	
7.05	Identification Markings	✓	

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED R.A. Lowther

DATE Oct 25, 1984

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

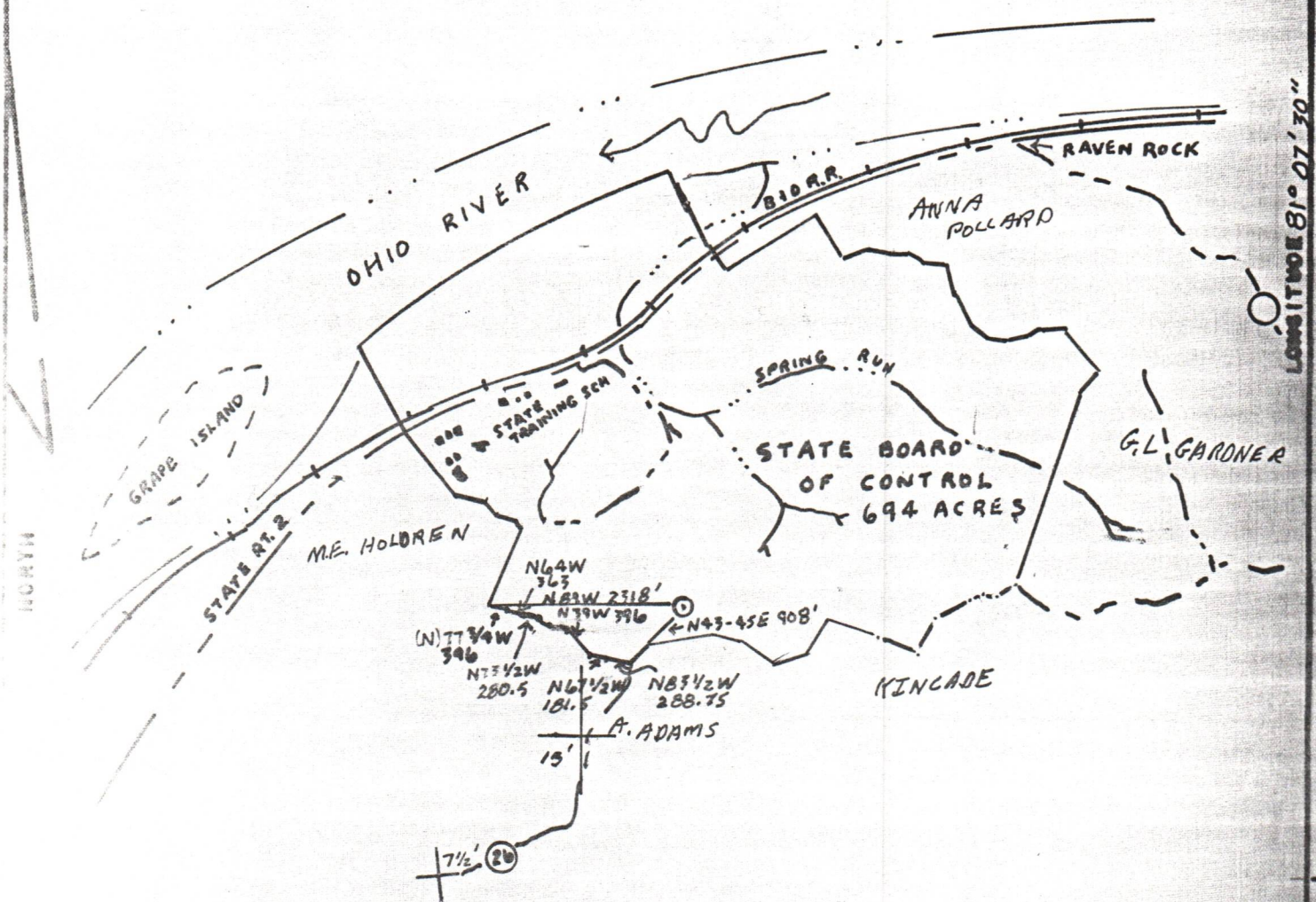
T.L. [Signature]

Administrator-Oil & Gas Division

January 9, 1985

DATE

424
10,250
LATITUDE 39° 27' 30"
12000' SOUTH
10250' WEST



FILE NO. SF21
DRAWING NO. _____
SCALE 1"=2000
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION BM 623

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) William Ambrose
R.P.E. _____ L.L.S. 568

LIBRARY
PLACE SEAL HERE

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



DATE 6 APRIL, 1981
OPERATOR'S WELL NO. SF 21-81
API WELL NO. _____
47 - 073 - 1182
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 1071 WATER SHED SPRING RUN OF OHIO RIVER
DISTRICT UNION COUNTY PLEASANTS
QUADRANGLE RAVEN ROCK
SURFACE OWNER STATE BOARD OF CONTROL ACREAGE 694
OIL & GAS ROYALTY OWNER STATE FARMING COMM. LEASE ACREAGE 694
LEASE NO. S.F. # 21-81
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 5500'
WELL OPERATOR BERG Petroleum Inc. DESIGNATED AGENT J. Ellen Adams
ADDRESS P.O. BOX 782 ADDRESS P.O. BOX 131
Cambridge, Ohio 43725 Glennville, W. Va. 26351

CEMENTING SERVICE REPORT



TREATMENT NUMBER **440** DATE **5-7-81**
 STAGE **Permit # 1182**

Inc. # 440

WELL NAME AND NO. **State Farm # 21-81** LOCATION-POOL-FIELD **Union District**
 FORMATION **Surface** REPRESENTATIVE **Don Kemp ec**
 COUNTY **Pleasant s** STATE **WVa**

RIG NAME **Pan Eastern # 7**
 WELL DATA
 HOLE SIZE **11"** CASING OR LINER **A** B C D
 DEPTH **398** SIZE-WEIGHT **85/8** **20#**
 ROT CABLE TOP
 BHST BOTTOM
 BHLT GRADE & THREAD **8rd** **REG**
 BHCT CAPACITY **24.5**

NAME **BERG PETROLEUM**

MUD. TYPE _____ WT. _____ VISC. _____
 FLOAT TYPE _____ DEPTH _____
 SHOE TYPE _____ DEPTH _____
 STAGE TOOL TYPE _____ DEPTH _____

AND _____
 ADDRESS _____
 ZIP CODE _____

TBG D.P. HEAD & PLUGS SQUEEZE JOB
 SIZE DOUBLE TYPE
 WEIGHT SINGLE DEPTH
 GRADE SWAGE TAIL PIPE: IN. FT.
 THREAD KNOCKOFF PERF INTERVAL FT.
 NEW USED TOP R W
 DEPTH BOT R W TO
 CAPACITY OTHER TO

PRESSURE LIMIT **500** PSI BUMP PLUG TO _____ PSI MIN
 ROTATE RPM RECIPROCATE FT CENTRALIZERS NO.

JOB SCHEDULED FOR: TIME **2359** DATE **5-6** ARRIVED ON LOCATION: TIME **0001** DATE **5-7**
 LEFT LOCATION: TIME _____ DATE **5-7-81**

TIME	PRESSURE		VOLUME PUMPED	INJECT. RATE	SERVICE LOG DETAIL
	TBG. OR D.P.	CASING			
0001					Arrive Loc Spot + Hook up units.
0405	0			2-4	Pump H ₂ O pad
0410	0	15	3		H ₂ O pad in, Begin Cmt @ 15.6 ppq
0424			24	0-4	Cmt Mixed + pumped, SHUT Down Fill Displ. tank.
0425	0			4	BEGIN Displ.
0441	150	25	2-4		Displ. in, SHUT Down, Close valve, on Swage + Bleed line.
0442					REG Down
0600					Job Complete.

REMARKS _____

SYSTEM CODE	NO. OF SACKS	YIELD CU. FT./SK	COMPOSITION OF CEMENTING SYSTEMS		SLURRY MIXED	
			VOL	WT	VOL	WT
1.	120	1.18	Class A + 40% Calc		24	156
2.						
3.						

BREAKDOWN FLUID WT. _____ SACKS MIXED **120** PUMPED **All** PRESSURE MAX: _____ MIN: _____
 HESITATION SQ. RUNNING SQ. CIRCULATION LOST YES NO CEMENT CIRCULATED TO SURF. YES NO
 BREAKDOWN PSI FINAL PSI _____ CEMENT LEFT IN PIPE: _____ FT.
 WASHED THRU YES NO TO _____ FT. MEASURED DISPLACEMENT WIRELINE AS PLANNED UNAVOIDABLE
 TYPE OF WELL OIL STORAGE BRINE/WATER GAS INJECTION WILDCAT CUSTOMER REPRESENTATIVE **Dave Lauer** DOES CUSTOMER CONSIDER SERVICE: SATISFACTORY UNSATISFACTORY UNKNOWN