

(+) 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 INT OF RTES 2&2/1
ELEV 860

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) Bud Smith
 R.P.E. 6988 L.L.S. _____

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE JUNE 29, 1984
 OPERATOR'S WELL NOW WESTBROOK #3
 API WELL NO. _____

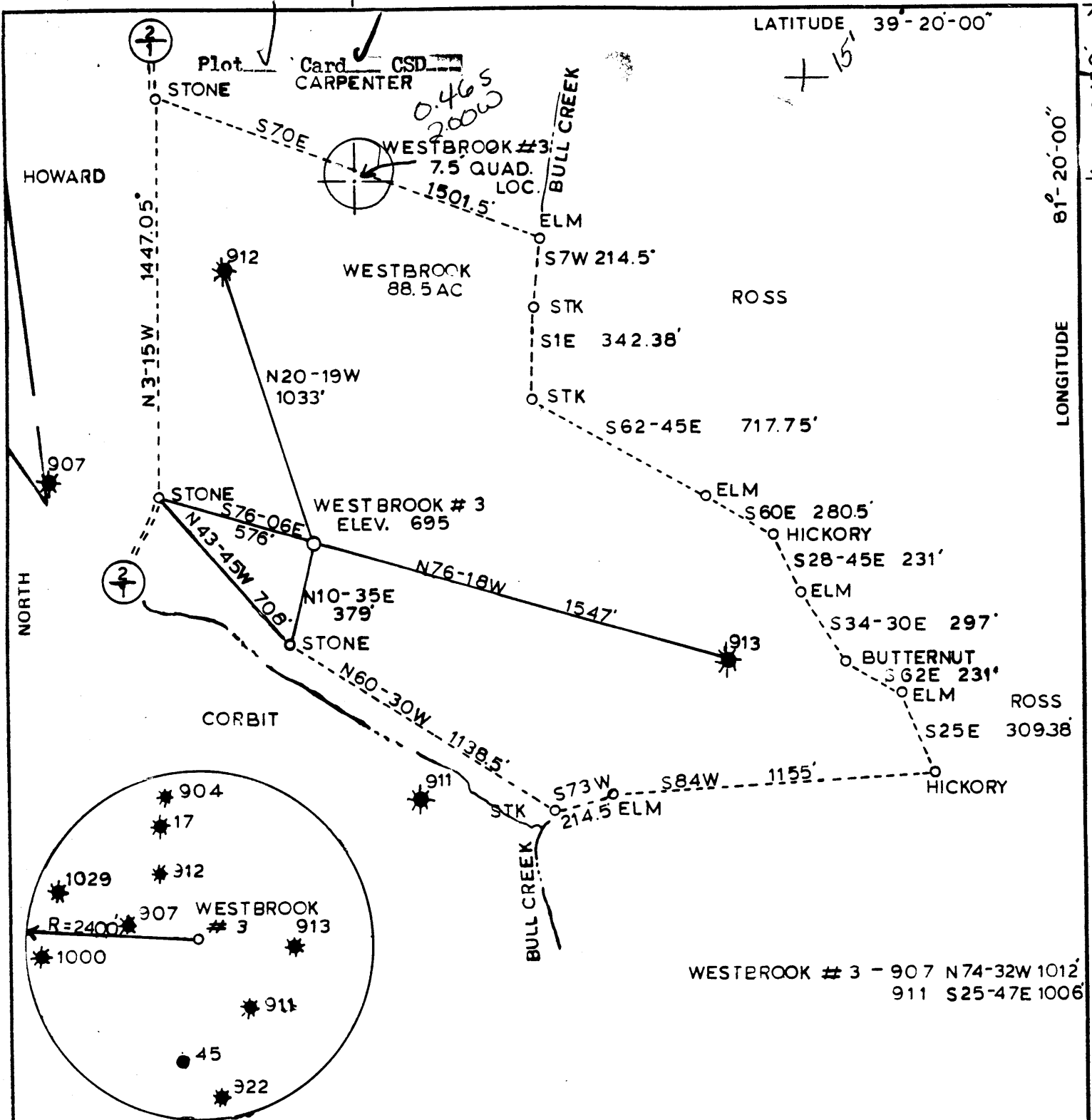
WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 860 WATERSHED BULL CREEK
 DISTRICT UNION 8 COUNTY WOOD
 QUADRANGLE WILLOW ISLAND 626 MARIETTA 073 SC8
 SURFACE OWNER NELLIE JANE WESTBROOK ACREAGE 88.5 AC
 OIL & GAS ROYALTY OWNER NELLIE JANE WESTBROOK LEASE ACREAGE 88.5 AC
 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 GORDON ESTIMATED DEPTH 2500
 WELL OPERATOR BEREA OIL & GAS CORP 081 DESIGNATED AGENT MARK SCHMACHER
 ADDRESS 901 CHEMICAL BANK BLDG, 69 DELAWARE AVE ADDRESS ONE BEREA PLAZA
BUFFALO, NY 14202 BRIDGEPORT, WV 26301

AUG 13 1984

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

COUNTY NAME PERMIT

626 Marietta (71)



WESTBROOK # 3 - 907 N74-32W 1012'
 911 S25-47E 1006'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION INT OF RTES. 2 & 2/1
ELEV. 620

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) Burl J. Smith
 R.P.E. 6988 L.L.S. _____

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE SEPTEMBER 14, 19 83
 OPERATOR'S WELL NO. WESTBROOK #3
 API WELL NO. _____
47 - 107 - 1297
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 695 WATER SHED BULL CREEK
 DISTRICT UNION COUNTY WOOD
 QUADRANGLE WILLOW ISLAND Marietta 151SC
 SURFACE OWNER NELLIE JANE WESTBROOK ACREAGE 88.5AC
 OIL & GAS ROYALTY OWNER NELLIE JANE WESTBROOK LEASE ACREAGE 88.5AC
 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 19 1983

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION GORDON ESTIMATED DEPTH 2500
 WELL OPERATOR BEREA OIL & GAS CORP. DESIGNATED AGENT MARK SCHUMACHER
 ADDRESS 901 CHEMICAL BANK BLDG; 69 DELAWARE AVE ADDRESS ONE BEREA PLAZA
BUFFALO, NY 14202 BRIDGEPORT, WV 26301

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OIL & GAS DIVISION

DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date September 19, 1984
Operator's
Well No. Westbrook #3
Farm Nellie Jane Westbrook
API No. 47 - 107 - 1297

IV-35
(Rev 8-81)

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

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

LOCATION: Elevation: 860' Watershed Bull Creek
District: Union County Wood Quadrangle Willow Island

COMPANY Berea Oil & Gas Corp.
ADDRESS P.O.Box 299, Bridgeport, WV 26330
DESIGNATED AGENT Thomas E. Riley, P.E
ADDRESS P.O.Box 399, Bridgeport, WV 26330
SURFACE OWNER Nellie Jane Westbrook
ADDRESS Rt. 1, Parkersburg, WV 26105
MINERAL RIGHTS OWNER Nellie Jane Westbrook
ADDRESS Rt. 1, Parkersburg, WV 26105
OIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Rt. 1 #6 Mineralwells, WV
PERMIT ISSUED 8-7-84
DRILLING COMMENCED 8-24-84
DRILLING COMPLETED 8-27-84
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	330'	301'	170 sks.
7			
5 1/2			
4 1/2	2353'	2294.8'	165 sks.
3			
2x1 1/2"		2185'	---
Liners used			

GEOLOGICAL TARGET FORMATION Gordon Depth 2500 feet
Depth of completed well 2353 feet Rotary X / Cable Tools
Water strata depth: Fresh 20' feet; Salt 1790' feet
Coal seam depths: N/A Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Berea Pay zone depth See well treatment details feet
Gas: Initial open flow 250 Mcf/d Oil: Initial open flow 3' Bbl/d
Final open flow 219 Mcf/d Final open flow 3 Bbl/d
Time of open flow between initial and final tests 72 hours
Static rock pressure 260 psig (surface measurement) after 2 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

(Continue on reverse side)

OCT 29 1984

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

9/5/84 Perf. Berea

2202' - 2209' (15 holes)

9/7/84 Frac. Berea

Formation brokd @2030#. ISIP 920#,
5 min 840#. Used 1036BW, Avg. pump
rate 30BPM @ 1905#. Used 500 gal 15% FE
acid, 110 gal. Xylene, 1500 gal 25%
methanol, 35,000# 20/40 sand, 15,000#
12/20 sand and 110,000 SCF of nitrogen.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
<u>From Drillers Log:</u>					
Fill			0	10	
Hard Shale			10	45	Hole damp @ 20'
Red Rock & Shale			45	135	
Red Rock			135	140	
Grey Shale			140	175	
Sand & Shale			175	250	
Sand & Shale			250	265	
Red Rock			265	290	
Grey Shale			290	295	
Red Rock			295	340	
Sand & Shale			340	450	
Red Rock & Grey Shale			450	465	
Grey Shale			465	515	
Red Rock			515	520	
Sand & Shale			520	619	
Grey Shale			619	660	
Red Rock			660	665	
Grey Shale			665	670	
Red Rock			670	695	
Grey Shale			695	700	
Red Rock			700	710	
Grey Shale			710	720	
Red Rock			720	750	
Grey Shale			750	770	
Red Rock			770	800	
Grey Shale			800	1680	
<u>FROM CDL LOG:</u>					
Big Injun			1690	1850	3 1/2" - 4" stream SW @ 1790'
Sand & Shale			1850	2168	
Coffee Shale			2168	2186	
Berea Sand			2186	2210	
Silt & Shale			2210	2353	
LTD			2350'		
DTD			2353'		

(Attach separate sheets as necessary)

BEREA OIL & GAS CORP.

Well Operator

By: Thomas E. Riley, P.E., Manager of Engineering

Date: September 19, 1984

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
minerals, encountered in the drilling of a well."



1) Date: July 11, 19 84
 2) Operator's Well No. Westbrook #3
 3) API Well No. 47 107 1297-REV.
 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 / Gas
 B (If "Gas", Production / Underground storage / Deep / Shallow)
 5) LOCATION: Elevation: 860' Watershed: Bull Creek (053)
 District: Union County: Wood Quadrangle: Willow Island
 6) WELL OPERATOR Berea Oil & Gas Corp. 7) DESIGNATED AGENT Mark Schumacher
 Address P.O. Box 569 Address P.O. Box 299
Dover, OH 44622 Bridgeport, WV 26330
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Samuel N. Hushman GLEN ROBINSON Name _____
 Address P.O. Box 66, Smithfield, WV 26178 Address _____
 Phone: (304) 477-3597 489-9162
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, Gordon
 12) Estimated depth of completed well, 2500' feet
 13) Approximate trata depths: Fresh, 2260' N/A feet; salt, _____ feet.
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes No

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OIL & GAS DIVISION
 DEPT. OF MINES

15) 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	8 5/8	J55	20#	X		290-250'	290' 250'	to Surface by Rule 15.05
Coal								Sizes
Intermediate								
Production	4 1/2	J55	15#	X		2500'	2500'	1500' Fillup Depths set or as reg.
Tubing	1 3/8	J55	4.2#	X		1000'		by Rule 15.01
Liners								Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1297-REV. Date August 7 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. August 7, 1986

Permit expires _____ unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: 17 BLANKET	Agent: <u>ls</u>	Plat: <u>mu</u>	Casing: <u>mu</u>	Fee: <u>330.99</u>
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[Signature]
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.



1) Date: September 19, 19 83
 2) Operator's Well No. Westbrook #3
 3) API Well No. 47 - 107 - 1297
 State 47 County 107 Permit 1297

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

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage Deep Shallow)
 5) LOCATION: Elevation: 695' Watershed: Bull Creek
 District: Union County: Wood Quadrangle: Willow Island
 6) WELL OPERATOR Berea Oil & Gas Corp. 7) DESIGNATED AGENT Mark Schumacher
 Address P.O. Box 569 Address P.O. Box 299
Dover, OH 44622 Bridgeport, WV 26330
 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Samuel N. Hushman
 Address P.O. Box 66, Smithville, WV 26178
 Phone: (304)477-3597
 9) DRILLING CONTRACTOR: Name _____ Address _____
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation / Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, Gordon
 12) Estimated depth of completed well, 2500' feet
 13) Approximate strata depths: Fresh, N/A feet; salt, _____ feet.
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No

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OIL & GAS DIVISION
DEPT. OF MINES

15) 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									Kinds
Fresh water	8 5/8	J55	20#	X		250'	250'	to surface	by rule 15.05
Coal									Sizes
Intermediate									
Production	4 1/2	J55	15#	X		2500'	2500'	1500' Fillup	as req.
Tubing	1 1/2	J55	4.2#	X		1000'			by rule 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-107-1297 Date December 12, 1983

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 December 12, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BOND</u>	Agent: <u>✓</u>	Plat: <u>ML</u>	Casing: <u>ML</u>	Fee: <u>30526</u>
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[Signature]
 Administrator, Office of Oil and Gas