

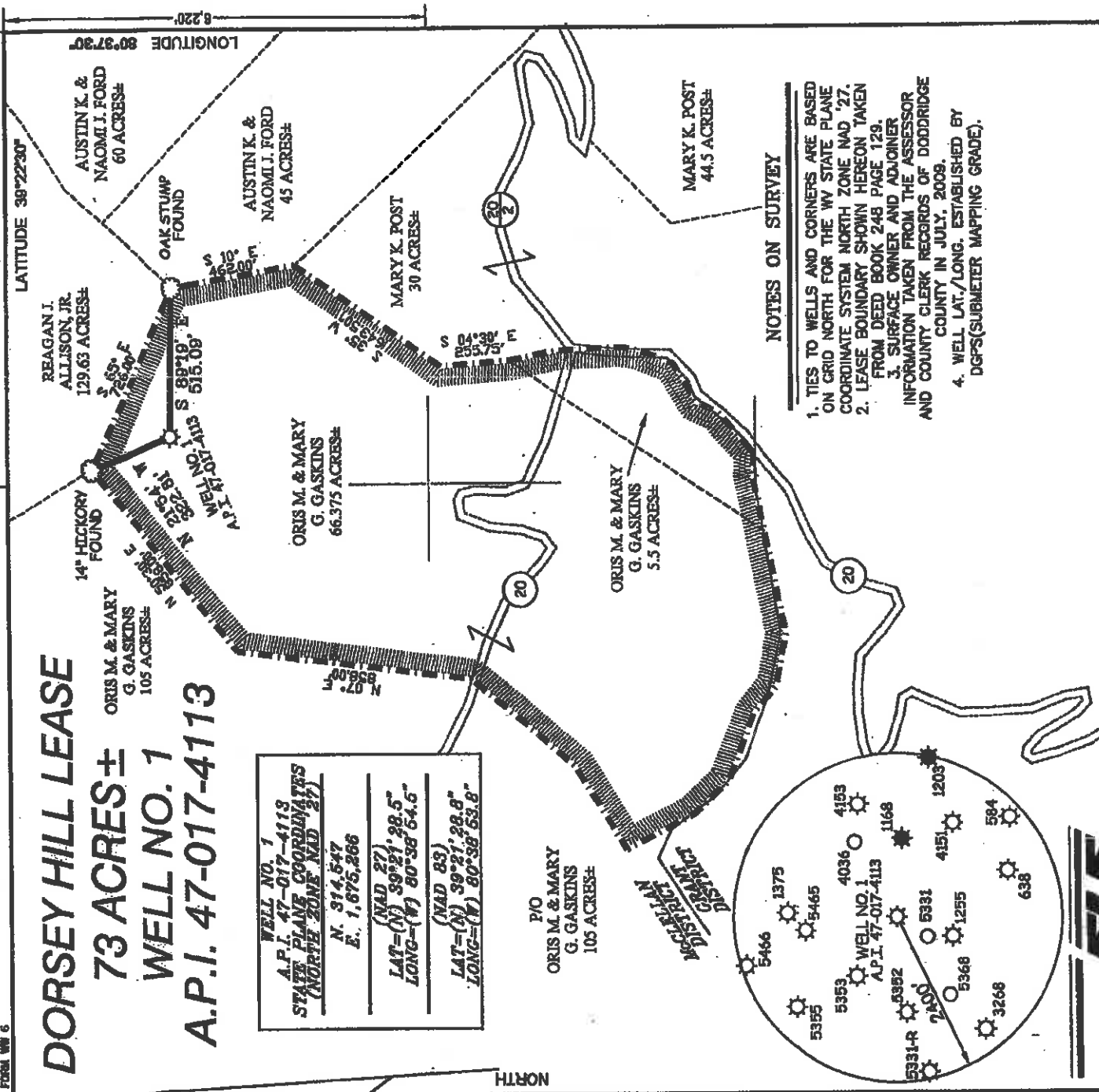
# DORSEY HILL LEASE

## 73 ACRES ±

### WELL NO. 1

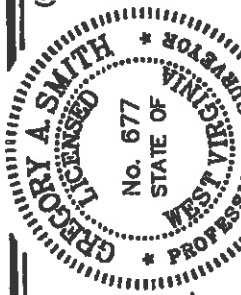
### A.P.I. 47-017-4113

WELL NO. 1  
A.P.I. 47-017-4113  
STATE PLANE COORDINATES  
(NORTH ZONE NAD 83)  
N. 314.547  
E. 1,675.266  
(NAD 22)  
LAT=(N) 39°21'28.5"  
LONG=(W) 80°38'54.5"  
(NAD 83)  
LAT=(N) 39°21'28.8"  
LONG=(W) 80°38'53.8"



**NOTES ON SURVEY**

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 248 PAGE 129.
2. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2009.
3. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677  
*Gregory A. Smith*

(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE APRIL 16, 2010  
OPERATORS WELL NO. DORSEY HILL #1  
API WELL NO. 47-017-0413 F  
STATE COUNTY PERMIT



STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

MINIMUM DEGREE OF ACCURACY 1/200  
FILE NO. 7408P1 (300-16)  
SCALE 1" = 500'  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)

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

LOCATION: ELEVATION 1,296' WATERSHED RIGGINS RUN  
DISTRICT MCCLELLAN COUNTY DODDRIDGE

SURFACE OWNER ORIS M. & MARY G. GASKINS QUADRANGLE SMITHBURG 7.5  
ROYALTY OWNER DROSEY HILL HEIRS ACREAGE 66.375±  
LEASE NO. 73±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD  
FORMATION  PERFORATE NEW FORMATION  REDRILL  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION KEENER, INJUN, GORDON  
ESTIMATED DEPTH 3,712'

WELL OPERATOR PDC MOUNTAINEER, LLC DESIGNATED AGENT ALAN H. SMITH  
ADDRESS 120 GENESIS BOULEVARD  
BRIDGEPORT, WV 26330

# DORSEY HILL LEASE

## 73 ACRES±

### WELL NO. 1

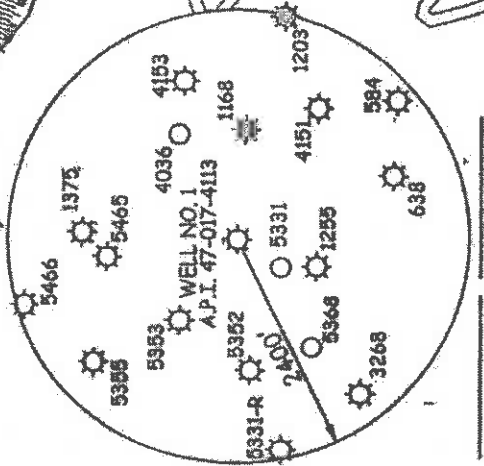
#### A.P.I. 47-017-4113

WELL NO. 1  
A.P.I. 47-017-4113  
STATE PLANE COORDINATES  
(NORTH ZONE NAD 83)  
N. 314.647  
E. 1,675.268  
LAT=(N) 39°21'29.5"  
LONG=(W) 80°38'54.6"  
(NAD 83)  
LAT=(N) 39°21'29.8"  
LONG=(W) 80°38'54.8"

NORTH

P/O  
ORIS M. & MARY  
G. GASKINS  
105 ACRES±

ADJUTANT  
GENERAL  
OF DISTRICT

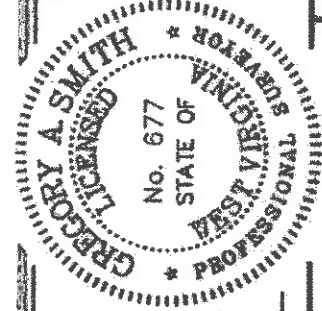


### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 248 PAGE 129.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIEGE COUNTY IN JULY, 2009.
4. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 DIVISION OF ENVIRONMENTAL PROTECTION.

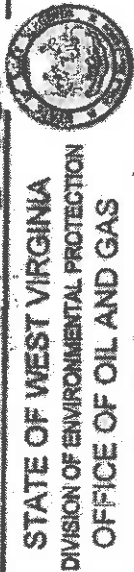
P.S.  
677  
*Gregory A. Smith*



(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE APRIL 16, 2010  
OPERATORS WELL NO. DORSEY HILL #1

WELL NO. 47-017-0413 F  
STATE PERMIT CANCELLED



MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)  
FILE NO. 7408PI (300-18)  
SCALE 1" = 500'

WELL TYPE: OIL \_\_\_ GAS  LIQUID WASTE DISPOSAL \_\_\_ IF "GAS" PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW

LOCATION: ELEVATION 1,298' WATERSHED RIGGINS RUN  
DISTRICT McCLELLAN COUNTY DODDRIEGE  
SURFACE OWNER ORIS M. & MARY G. GASKINS  
ROYALTY OWNER DROSEY HILL HEIRS  
ACREAGE 66.375±  
LEASE ACREAGE 73±  
LEASE NO. \_\_\_\_\_

PROPOSED WORK:  
DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ CLEAN OUT AND REPLUG \_\_\_ OTHER \_\_\_  
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION KEENER, INJUN, GORDON  
ESTIMATED DEPTH 3,712'

WELL OPERATOR PDC MOUNTAINEER, LLC DESIGNATED AGENT ALAN H. SMITH  
ADDRESS 120 GENESIS BOULEVARD ADDRESS 120 GENESIS BOULEVARD  
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

PERMIT 03/28/2014

LATITUDE 39°22'30"  
LONGITUDE 80°37'30"  
6.630  
6.220

REAGAN J. ALLISON, JR.  
129.63 ACRES±  
AUSTIN K. & NAOMI J. FORD  
60 ACRES±

AUSTIN K. & NAOMI J. FORD  
45 ACRES±

MARY K. POST  
30 ACRES±

MARY K. POST  
44.5 ACRES±

ORIS M. & MARY G. GASKINS  
66.375 ACRES±

ORIS M. & MARY G. GASKINS  
5.5 ACRES±

14" HICKORY FOUND  
N 27°54' 14" E 322.61'  
A.P. 47-017-110-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000



Jamal  
3/21/94

Archer  
105 ac.

Ford  
50 ac.

Kelley  
59 ac.

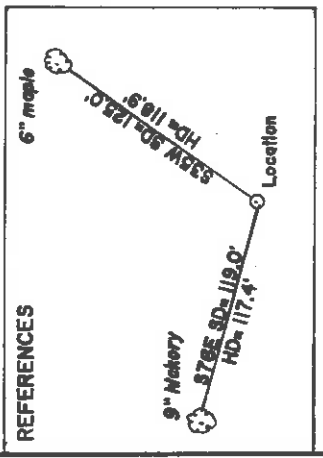
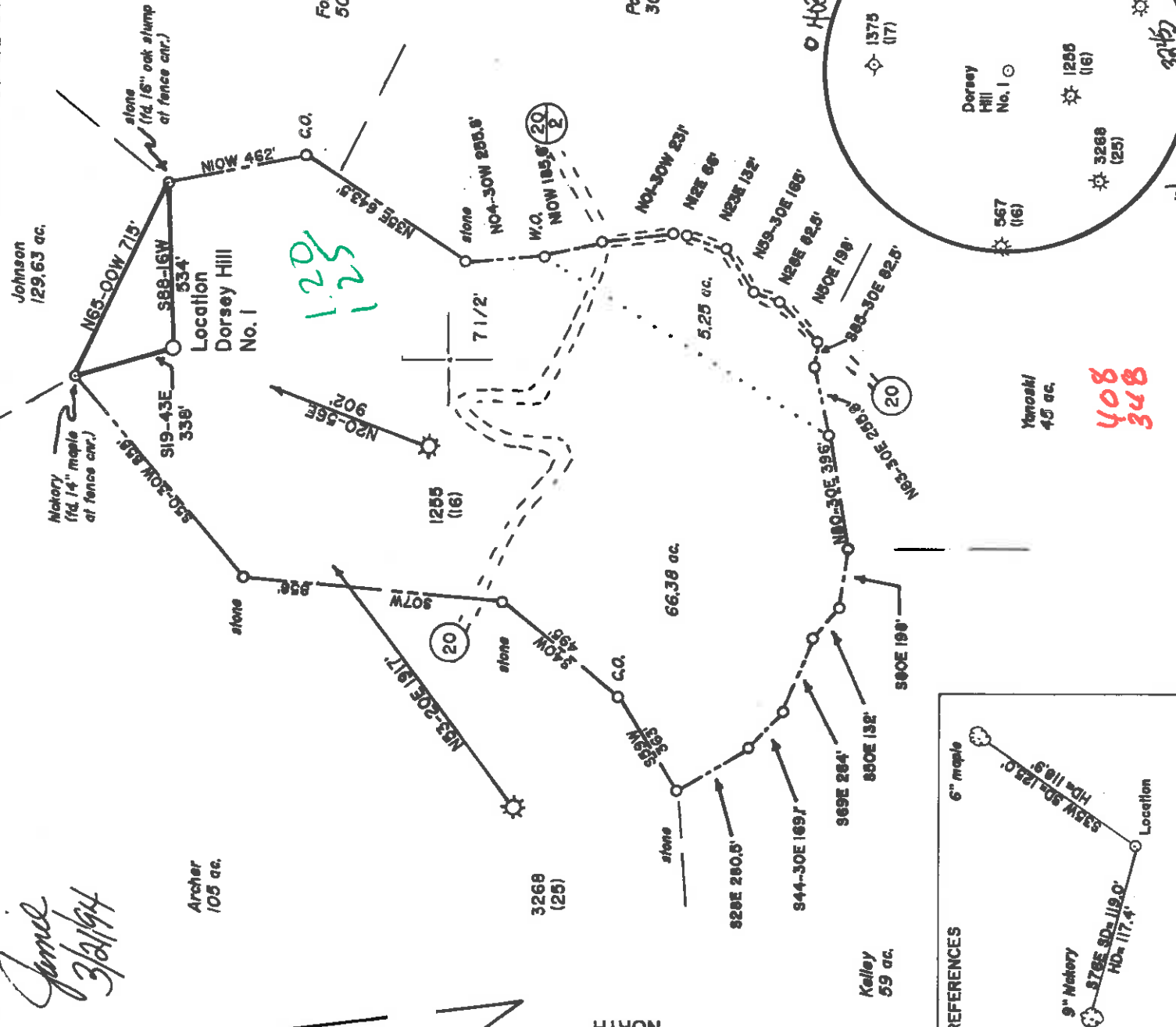
NORTH

LONGITUDE 80-37-30 W

6,675

LATITUDE 39-22-30 N

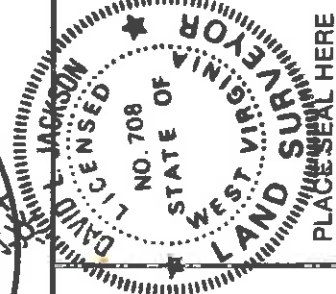
6,250



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Road Junction 1,500'  
South of Location; elev. 1,184'

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) David J. Jackson  
 R.P.E. L.L.S. 708



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE February 22, 19 94  
 OPERATOR'S WELL NO. Dorsey Hill No. 1  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

LOCATION: ELEVATION 1289 WATER SHED Riggins Run  
 DISTRICT McClellan COUNTY Doddridge

QUADRANGLE Smithburg 7 1/2' SURFACE OWNER John W. Archer et ux  
 OIL & GAS ROYALTY OWNER Dorsey Hill heirs

LEASE NO. 483300 LEASE ACREAGE 73 ACREAGE 71.63

PROPOSED WORK: DRILL  CONVERT  CLEAN OUT AND REPLUG   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW  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 Benson ESTIMATED DEPTH 5000  
 WELL OPERATOR Petroleum Development Corp. DESIGNATED AGENT Eric R. Stearns  
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

STATE COUNTY PERMIT  
47 017 4113



RECEIVED

0000

M 2 7 94

Drilling  
of Oil

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: ARCHER, JOHN & BETTY Operator Well No.: DORSEY HILL #1

LOCATION: Elevation: 1,289.00 Quadrangle: SMITHBURG

District: MCCLELLAN County: DODDRIDGE  
Latitude: 6250 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 6675 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: PETROLEUM DEVELOPMENT COR  
P. O. BOX 26  
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD  
Permit Issued: 03/21/94  
Well work Commenced: 06/29/94  
Well work Completed: 07/09/94  
Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary Cable \_\_\_\_\_  
Total Depth (feet) 5494'  
Fresh water depths (ft) \_\_\_\_\_  
85; 1685  
Salt water depths (ft) \_\_\_\_\_  
n/a  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 645-648; 885-889

Casing & Tubing Size	Used in	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	177'	177'	105 sks
8 5/8"	1982'	1982'	490 sks
4 1/2"	5453'	5453'	548 sks

OPEN FLOW DATA

Producing formation Benson  
 Gas: Initial open flow 119 MCF/d Oil: Initial open flow 0 Bbl/d  
 Final open flow 333 MCF/d Final open flow 0 Bbl/d  
 Time of open flow between initial and final tests 4 Hours  
 Static rock Pressure 1600 psig (surface pressure) after 72 Hours

Second producing formation  
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  
 Final open flow MCF/d Final open flow Bbl/d  
 Time of open flow between initial and final tests Hours  
 Static rock Pressure psig (surface pressure) after 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: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns  
Date: July 25, 1994

DORSEY HILL #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13 (5345' - 5348')	50	400	500	60

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	2040	1/2" water @ 85'
Maxton	2040	2108	Coal @645'-648'; 885'-889'
sand, shale	2108	2225	Hole damp 1685'
Big Lime	2225	2311	gas chk @ 2130' No Show
sand, shale	2311	2314	
Big Injun	2314	2435	gas chk @ 2318' No Show
sand, shale	2435	2585	
Weir	2585	2640	gas chk @2569' 10/10 thru 1"/water
sand, shale	2640	2804	
Berea	2804	2812	gas chk @2723' 8/10 thru 1"/water
sand, shale	2812	3003	
Gordon	3003	3021	gas chk @2908' 6/10 thru 1"/water
sand, shale	3021	3712	
5th	3712	3762	gas chk @3158' 6/10 thru 1"/water
sand, shale	3762	4015	gas chk @3465' 6/10 thru 1"/water
Warren	4015	4104	
sand, shale	4104	4200	gas chk @4085' 19/10 thru 1"/water
Speechley	4200	4460	
sand, shale	4460	4490	
Balltown	4490	4816	
sand, shale	4816	4835	
Bradford	4835	4964	gas chk @5141' 20/10 thru 1"/water
sand, shale	4964	5055	gas chk @5299' 20/10 thru 1"/water
Riley	5055	5300	gas chk @5361' 8/10 thru 2"/water
sand, shale	5300	5349	gas chk @TD 8/10 thru 2"/water
Benson	5349	5411	gas chk @COLLARS 2/10 thru 2"/water
sand, shale		5486	Drillers TD
		5494	Logger TD

87781

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION  
Well Operator: 687 PDC 38200 5 611

Operator's Well Number: Dorsey Hill # 1 3) Elevation: 1289

Well type: (a) Oil    / or Gas XX

(b) If Gas: Production XX / Underground Storage    /  
Deep    / Shallow XX /

5) Proposed Target Formation(s): Benson Sand

6) Proposed Total Depth: 5600 feet

7) Approximate fresh water strata depths: 134' 256' 390' 1657' 1874'

8) Approximate salt water depths: None Reported

9) Approximate coal seam depths: 869'

10) Does land contain coal seams tributary to active mine? Yes    / No XX

11) Proposed Well Work: Drill & Stimulate New Well.

12)

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOOTAGE INTERVALS	CEMENT
Conductor	11 3/4"	H-40	42#	30' / 175' <u>30CS11.3</u>	Left in well - / 175' SURFACE
Fresh Water				<u>30CS11.3</u>	<u>OK</u>
Coal				<u>30CS11.3</u>	<u>None</u>
Intermediate	8 5/8"	H-40	20/23#	970' / 1925'	970' / 1925' SURFACE
Production	4 1/2"	J-55	10.5#	5600'	5600' 450 sks
Tubing					
Linings					<u>30CS11.3</u>

PACKERS : Kind    / Sizes    / Depths set   

Fee(s) paid:    Well Work Permit    Reclamation Fund    WPCP  
 State of West Virginia  
 Division of Oil and Gas Use Only  
 Bond Blanket (Type)  
 Agent



1) Date: Feb. 24, 1994  
2) Operator's Well number: Dorsey Hill #1  
3) API Well No: 47 - 0017 - 4113  
State - County - Permit

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name John W. and Betty J. Archer  
Address 306 Canton Road  
Marietta, OH 45750
- (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name No Declaration on record  
Address \_\_\_\_\_
- Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
Address Rt. 2, Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043

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 XX 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)  
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 am 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.



OFFICIAL SEAL  
NOTARY PUBLIC  
STATE OF WEST VIRGINIA  
JANET S. GABBERT  
RT 2, BOX 714, APT. 6-F  
BRIDGEPORT, WV 26330  
My Commission Expires July 7, 2003

Well Operator  
BY: [Signature] **PETROLEUM DEVELOPMENT CORPORATION**  
Its: \_\_\_\_\_ Geologist  
Address \_\_\_\_\_ P O Box 26  
Bridgdeport, WV 26330  
Telephone 842-6256

Subscribed and sworn before me this 14<sup>TH</sup> day of FEBRUARY, 1994

[Signature] Notary Public  
My commission expires July 7, 2003