

GW14174  
D OH# 170018-06

OK

Coded By 0 10/15/91  
Checked By JPS 10/28/92  
Entered By JPS  
Date 9-22-92  
U.S. GEOLOGICAL SURVEY  
WATER RESOURCES DIVISION  
MISSISSIPPI DISTRICT

E-Log No. 52  
County DESOTO  
Agency

Well No. C20

304

WELL RECORD

Pleasant Hill Quad

Agency Code U S G I S Site Id 1345811310895844011 Project No. 5

Station Name 12 CO2101 SOUTH AVENUE Latitude 9 34 58 11 31 Longitude 10 08 19 58 44 1

Lat/Long Ac. 11 S 17 T 1 M Dist 6=28 State 7=28 County SW SW Land Net 13 SW N E 1 S 3 D T 10 1 S 1 R 10 7 W 1 z

Location Map 14 PLEASANT HILL ALI Altitude 335 Met/Meas 17 A L M Accuracy 18 15 Hydrologic Unit 20 08 10 10 12 11 11

Agency Use 803 A I O Date Inventoried 711 10 15 1991 Station Type 4 Data Type 804

Instru. 805 806 Relia. 3 C L M U 2 W X M4

Date of Construction 21 10 15 1991 Well Use 23 W Water Use 24 P Primary Aquifer 714 124 SPIRT Hole Depth 27 159 21

Well Depth 29 44 Water Level 30 165 Water Level Date 31 12 10 1991 Method 34 Status 37 Source 33 D

CONSTRUCTION DATA

Construction Date 60 12 10 1991 Contractor 63 02 11 Name Herndon Method 65 H Finish 66 S

CONSTRUCTION CASING DATA

R=76	T=A	725#1	59#1	77 10 1	78 139 5	79 16 1
R=76	T=A	725#2	59#1	77 134 5	78 139 5	79 110 1

CONSTRUCTION OPENINGS DATA

R=32	T=A	726#1	59#1	83 139 5	84 144 4	87 110 1	85 S	89	88 103 0
R=32	T=A	726#2	59#1	83	84	87	85 S	89	88

CONSTRUCTION LIFT DATA

R=42 T=A 254#1 Lift Type 43 T Date 38 12 10 1991 Intake 44 128 21

Power 45 H.P. 46 110 0 Serial No. 49

MISCELLANEOUS OWNER DATA

Date of Ownership 159 12 10 1991 Owner Name 161 SOUTH AVENUE

MISCELLANEOUS OTHER ID DATA

E-Log No. 190 052 Assigner 191 M I S S I D I S I T

MISCELLANEOUS GW DATA

R=192	T=A	738#1	Date of Measurement 1934 / /	Aquifer Sampled 1954	Temp 196#00010	Value 1974
R=192	T=A	738#2	Date of Measurement 1934 / /	Aquifer Sampled 1954	Sp Cond 196#00095	Value 1974
R=192	T=A	738#3	Date of Measurement 1934 / /	Aquifer Sampled 1954	pH 196#00400	Value 1974

MISCELLANEOUS LOGS DATA

R=198	T=A	739#1	Loc Type 199#E	Req. Depth 200# 140	End Depth 201# 159/21
R=198	T=A	739#1	Loc Type 199#D	Req. Depth 200# 110	End Depth 201# 159/01

MISCELLANEOUS NETWORK DATA *706 = GW WL WD \**

R=114	T=A	730#1	Sec. Year 1154 1 9	End Year 1164 1 9	Agency Source 120#A 117#	Freq. 118#
R=121	T=A	730#2	Sec. Year 1154 1 9	End Year 1164 1 9	Agency Source 117#	Freq. 118#

MISCELLANEOUS REMARKS DATA

R=183	T=A	311#1	Date of Remarks 1844 / /	Remarks 185#
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DISCHARGE DATA

R=146	T=A	Pump/Flow 147#1	Date 148# 11/21 / 10/11 / 11/9/11	Type 703# (P) F	Discharge 150# 111/30	Sp. Capacity 272#
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GEOHYDROLOGIC DATA

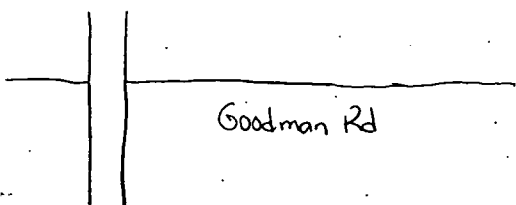
R=90	T=A	721#1	Depth Top 91# 14/0/0	Depth Bot. 92# 14/4/5	Unit Id 93# 12HSP RIT	304#
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HYDRAULIC DATA

R=98	T=A	790#1	Unit Tested 100#	103#
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DESCRIPTION OF FORMATIONS ENCOUNTERED	FROM		TO	
	FROM	TO	FROM	TO
Brown Clay	0	20	Sand, Few Clay Breaks	390 590
Coarse Brown & Yellow				
Sand	20	80		
Gravel	80	95		
Blue Clay & Sand Strks	95	180		
Rock 2"		180		
Blue Clay & Sand Strks	180	240		
Sand, Few Clay Breaks	240	275		
Blue Clay & Sand Strks	275	330		
Rock 3"		330		
Blue Clay & Sand Strks	330	390		

Greenbrook Subdivision



Goodman Rd

I55

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES

Bureau of Land and Water Resources

P.O. Box 10631

Jackson, Mississippi 39209

WATER WELL DRILLERS LOG

COUNTY WELL LOCATED DeSoto	
WELL NUMBER Greenbrook #3	CODED <input checked="" type="checkbox"/>
DATE WELL COMPLETED 12/19/91	

PERMIT NUMBER
NAME OF DRILLING FIRM Herndon Well & Supply
Shannon, MS

NAME & MAILING ADDRESS OF LANDOWNER City of Southaven		
P. O. Box 425		
Southaven, MS		
WELL LOCATION: SEC	TOWNSHIP	RANGE
30	1	7
DISTANCE		DIRECTION
Inside City Limits		S
OTHER LANDMARK Greenbrook Parkway		
WELL PURPOSE: Home, Irrigation, Municipal, Industrial, Fish Pond, etc. Municipal		

100 HP PUMP DATA		
PUMP TYPE (Circle One): Submersible, <u>Turbine</u> , Jet, Flowing Well, Other (Describe)		
POWER TYPE (Circle One): <u>Electric</u> , Tractor, Diesel, Gasoline, Butane, Other (Describe)		
Pump Capacity (GPM)	No. of Stages	Setting Depth
1130	5	282 FT.
PUMP TEST		
Well yielded <u>1130</u> GPM with a drawdown of <u>49</u> ft. after <u>8</u> hours of pumping		

WELL DATA		
Well Depth	Casing Diameter (In.)	Casing Length (Ft.)
446	16	395
Type of Casing	Hole Depth	Depth to Static Water Level
Steel	590'	165'
TYPE OF COMPLETION: (Circle One or More): <u>Gravel Packed</u> , <u>Underreamed</u> , <u>Telescoped</u> , Natural Development, Open Hole, Other (Describe)		
Top of Lap Pipe or Reduction in Casing 345 FEET		
IF TELESCOPED OR MORE THAN ONE SCREEN: USE BACK PAGE		

LOG DATA	
TYPE OF LOG RUN (Circle One): <u>Electric</u> , <u>Gamma Ray</u> , Density, Sonic, Neutron, Other (Describe)	
Name of Organization Running Log Herndon Well & Supply, Inc.	

SCREEN DATA		
Diameter - Inches	Length - Feet	Slot Size - Inches
10	51	.030
Screen Type	Depth to Bottom - Feet	
SS Ribbed	446	

GEOLOGIC DATA (Office Use Only)			
Surface Elev.	Geologic Unit	Unit Thickness	Depth to Top
Subs. SWL	Date	Analysis	Aquifer Test
Driller's Remarks  745 3/5			

DESCRIPTION OF FORMATIONS ENCOUNTERED	FROM	TO	FORMATIONS (Continued)	FROM	TO
Brown Clay	0	20	Sand, Few Clay Breaks	290	590
Coarse Brown & Yellow Sand	20	80			
Gravel	80	95			
Blue Clay & Sand Strks	95	180			
Rock 2"		180			
Blue Clay & Sand Strks	180	240			
Sand, Few Clay Breaks	240	275			
Blue Clay & Sand Strks	275	330			
Rock 3"		330			
Blue Clay & Sand Strks	330	390			

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JAN 09 1992

Dept. of Environmental Quality  
Bureau of Land & Water Resources

IF MORE SPACE IS NEEDED, USE BACK

SPK1

AMM

C20

Issued: <u>5/12/92</u>	Expires: <u>5/12/02</u>	Fee Paid: <input checked="" type="checkbox"/>	Permit No. <u>GW-14174</u>
Lat. <u>345815</u>	Long. <u>895850</u>	Elev. <u>335</u>	USGS No.
Quad <u>Pleasant Hill</u>	Dist.		Basin No. <u>08010211</u>
STAC			Dam Inv. No.
			Dam appl. No.

Dept. of Natural Resources, Bureau of Land and Water Resources, P.O. Box 10631, Jackson, MS 39206

**RECEIVED**

**APPLICATION FOR PERMIT TO DIVERT OR WITHDRAW FOR BENEFICIAL USE  
THE PUBLIC WATERS OF THE STATE OF MISSISSIPPI**

APR 06 1992

This application is for (circle one): GROUNDWATER SURFACE WATER

Beneficial Use (circle one or more): Irrigation Fish Culture Municipal Rural Water Association  
Recreation Institutional (Examples: Church, School) Commercial (Examples: Hotel, Restaurant) Livestock Standby  
Fire Protection Flood Protection Other: \_\_\_\_\_

Dept. of Environmental Quality  
Bureau of Land & Water Resources

**LANDOWNER:**

CITY OF SOUTHAVEN 64-064-2403  
(Name) (S/S or Tax ID No.)  
P. O. BOX 425  
(Address)  
SOUTHAVEN, MS 38671 (601) 393-5931  
(City) (State and Zip) (Telephone Number)

**APPLICANT, AGENT, OR LESSEE (If different from Landowner):**

SAME AS ABOVE For Assistance Call ECO Resources  
(Name) (S/S or Tax ID No.)  
393-3903  
(Address)  
(City) (State and Zip) (Telephone Number)

**Location of diversion/withdrawal point (A suitable location map must accompany this application):**

SW 1/4 of the NE 1/4 of Section 30, Township 1S, Range 7W, County DESOTO

**Volume of water diverted/withdrawn (Choose "a", "b", "c", or "d" ["d" is for units other than those shown in "a", "b", or "c"]):**

- (a) N/A acre-feet per year at a maximum rate of \_\_\_\_\_ gallons per minute
- (b) 0.41 million gallons per day at a maximum rate of 1000 gallons per minute
- (c) N/A acre feet of storage at normal pool
- (d) N/A per \_\_\_\_\_ at a maximum rate of \_\_\_\_\_

Construction of proposed work will begin on (date) 10-07, 1991 and will be completed by (date) 06-07, 1992

Water will be used from (month) JANUARY to (month) DECEMBER each year.

Does the land to which this application pertains have any source(s) of water other than that for which you are now applying (circle one)?  
YES NO If yes, describe the nature and amount of any additional supply and, if applicable, list permit numbers.  
TWO WELLS AND TREATMENT PLANT (SEE ATTACHED SITE PLAN)

**SECTION A (to be completed if application is for surface water source):**

1. Source of water is from N/A which drains into \_\_\_\_\_ which drains into \_\_\_\_\_
2. Description of pump/diversion works:
  - (a) Pump (size and type): \_\_\_\_\_ Power Unit (size and type): \_\_\_\_\_  
Lift: \_\_\_\_\_ feet Maximum capacity: \_\_\_\_\_ gallons per minute.
  - (b) Name of storage reservoir: \_\_\_\_\_ Dam height: \_\_\_\_\_ feet.  
Surface area at normal pool: \_\_\_\_\_ acres. Storage capacity at normal pool: \_\_\_\_\_ acre-feet.

(Continued on back)

**SECTION B** (to be completed if application is for groundwater source)

1. Source of water is SPARTA SAND aquifer.
2. Description of proposed water well:
- (a) DEPTH OF WELL: 446 feet. DRILLER (name): HERNDON WELL & SUPPLY, INC.
- (b) SURFACE CASING: Length: 395 feet. Diameter: 16 inches. Type: STEEL
- (c) SCREEN: Length: 51 feet. Diameter: 10 inches. Type: STAINLESS STEEL RIBBED
- (d) PUMP: Type: TURBINE 12 L.C. Size: 11 1/4" Capacity: 1000 gallons per minute.  
Number of stages: FIVE Setting depth: 282 feet.
- (e) POWER UNIT: Type: VERT. HOLLOW SHAFT 1775RPM Size: 100 horsepower.
- (f) TYPE OF COMPLETION: DEEP WELL TURBINE PUMP-OIL LUBRICATION-ELECTRIC MOTOR

**WATER USE DATA**

If for IRRIGATION, FISH CULTURE or any other areal use, show the number of acres to which water will be applied in the appropriate 40-acre block(s). Acreage must be shown on accompanying location map.

TOWN-SHIP	RANGE	SEC-TION	NE1/4				NW1/4				SW1/4				SE1/4				TOTALS
			NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	

1. IRRIGATION: List the number of acres of each crop to be irrigated: Rice \_\_\_\_\_; Cotton \_\_\_\_\_; Soybeans \_\_\_\_\_; Corn \_\_\_\_\_; Pasture \_\_\_\_\_; Truck \_\_\_\_\_; Wheat \_\_\_\_\_; Oats \_\_\_\_\_; Grain sorghum \_\_\_\_\_; Other (specify) \_\_\_\_\_ Acres \_\_\_\_\_

2. FISH CULTURE: Explain how water will be used: \_\_\_\_\_  
How often will reservoir(s) be emptied and refilled? \_\_\_\_\_

3. MUNICIPAL or WATER ASSOCIATION  
Choose "a" or "b". (a) The number of people served is N/A. (b) The number of connections/customers is 6818  
What is the estimated average daily consumption during periods of maximum use at the end of each five-year period during the next twenty years? 3.4 M.G.D. 1997; 3.6 M.G.D. 2002; 3.9 M.G.D. 2007; 4.2 M.G.D. 2012  
(Volume) (Year) (Volume) (Year) (Volume) (Year) (Volume) (Year)

4. INDUSTRIAL: If water is to be released into a watercourse, indicate the amount released each year N/A  
Rate of release \_\_\_\_\_; Location of release point in reference to diversion/withdrawal point \_\_\_\_\_  
Explain any change in quality of water to be released: \_\_\_\_\_  
NPDES Permit No. \_\_\_\_\_

Explain how water will be used: \_\_\_\_\_  
How much groundwater will be used for once-through non-contact cooling? \_\_\_\_\_

5. RECREATION: Explain how water will be used: N/A

6. OTHER use: Explain in detail: N/A

REMARKS: THIS WILL BRING THE EXISTING 3000 G.P.M. TREATMENT PLANT UP TO FULL CAPACITY (TWO EXISTING 1000 G.P.M. WELLS IN USE).

List below the person to be contacted for additional information if required:

Ronald E. Smith, P.E.  
(Name)  
P.O. Box 425  
(Address)  
Southaven, MS 38671  
(City, State, Zip)  
(601) 393-5931  
(Telephone)

The accompanying map is hereby declared a part of this application. The TEN DOLLAR (\$10.00) permit fee is enclosed herewith.

Ronald E. Smith, P.E.  
(Signature)

Subscribed and sworn to before me this 1st day of April, 1992 at MISSISSIPPI  
County of DESOTO. My commission expires Feb 25 1995

Marlene Sprinkle, Notary Public

DEPARTMENT OF ENVIRONMENTAL QUALITY - OLWR  
PUBLIC SUPPLY WELLS PROJECT

SHB+PEG GPS LOG

7-24-96

USER NAME(S): LIAK / DKS DATE: 7/20

UNIT DEQ #: 84090 FILE #: B072415C

HEALTH DEPT. #: 17001P - \* 06 ELEV. 320

USGS #: 493 C-20 OLWR #: MS-GW-14174

OWNER: City of Southaven / Greenbrook Pt. #1

LOCATION: NW/NW/SE S 30 T 15 R 7W COUNTY: DeSoto

LOCATION DESCRIPTION: Pleasant Hill Quad. Well in sm. fence NW outside pt. on Livingston 100' W. of Greenbrook

CASING DIA: 10" PUMP TYPE & SIZE: Turbine 100

GPS FIELD LOCATION: LAT. 34-58-264 N LONG. 89-58-853 W

GPS CORRECTED LOCATION: LAT. 34.97071252 LONG. 89.98048563

REMARKS: See well #4 for location

\* Well has two no. #09 + #06. (Two Tap.) (?)  
On Greenbrook Parkway .5 mi N. of Goodman Rd

CLARINGTON

DRIVE



SCALE 1" = 50'

16'x40'x6' HT. CEDAR FENCE REQ'D.  
DBL 8' CEDAR GATES REQ'D.

WELL NO. 3  
(PERMIT APPLICATION)

45° BEND

EXIST. TREATMENT PLANT

6' CHAIN LINK FENCE

FENCE

WELL & ENGINE  
NO. 1

MASTER METER

16" D.I.

WELL & ENGINE  
NO. 2

10" D.I. MECH. JOINT PIPE

1901

1902

1903

GREENBROOK PARKWAY

EXIST 12" C.I. WATER MAIN

GW-  
14174

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SCALE 1" = 50'

Dept. of Environmental Quality  
Bureau of Land & Water Resources

# GREENBROOK WATER PLANT SITE PLAN

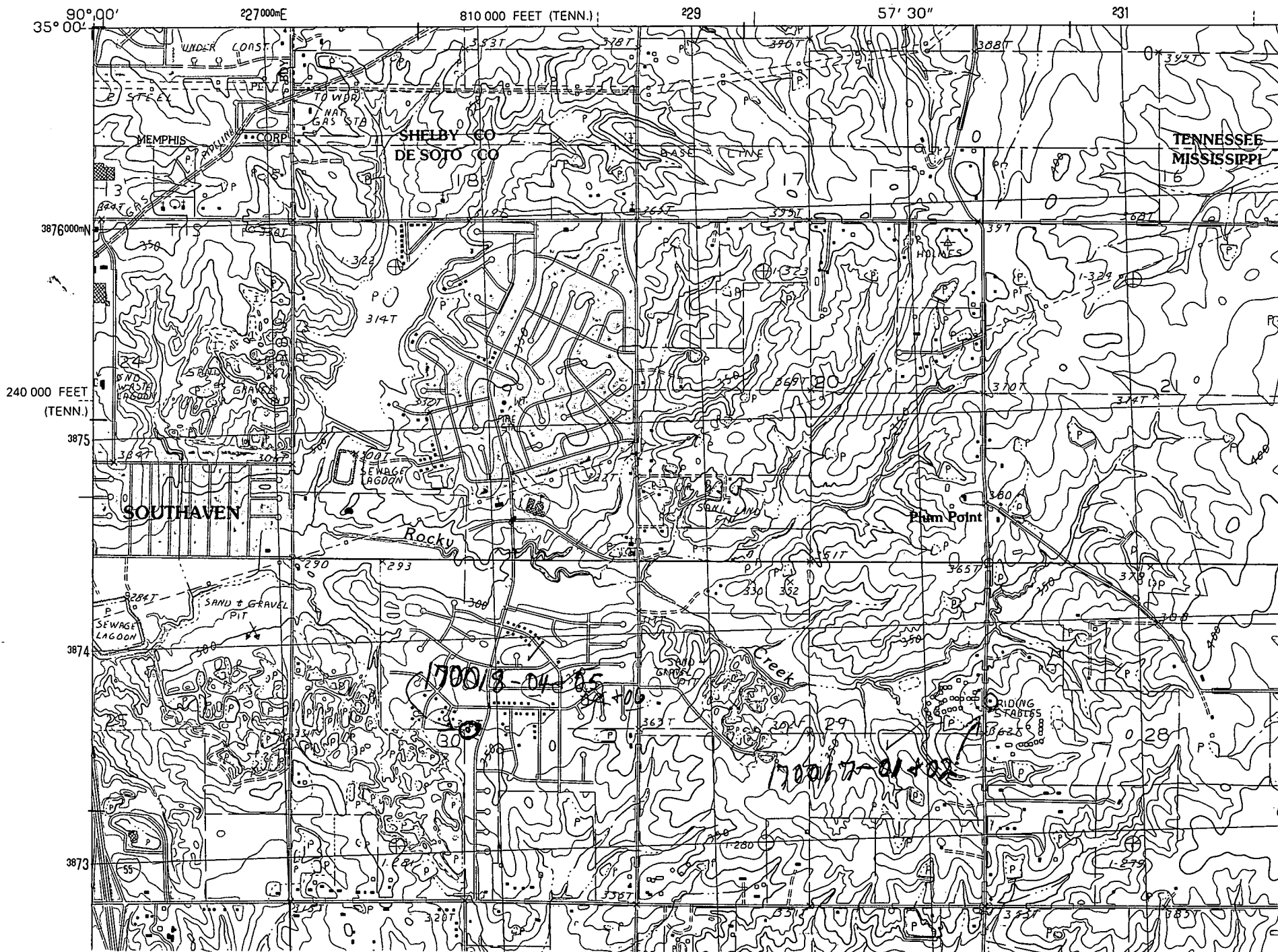
RECEIVED

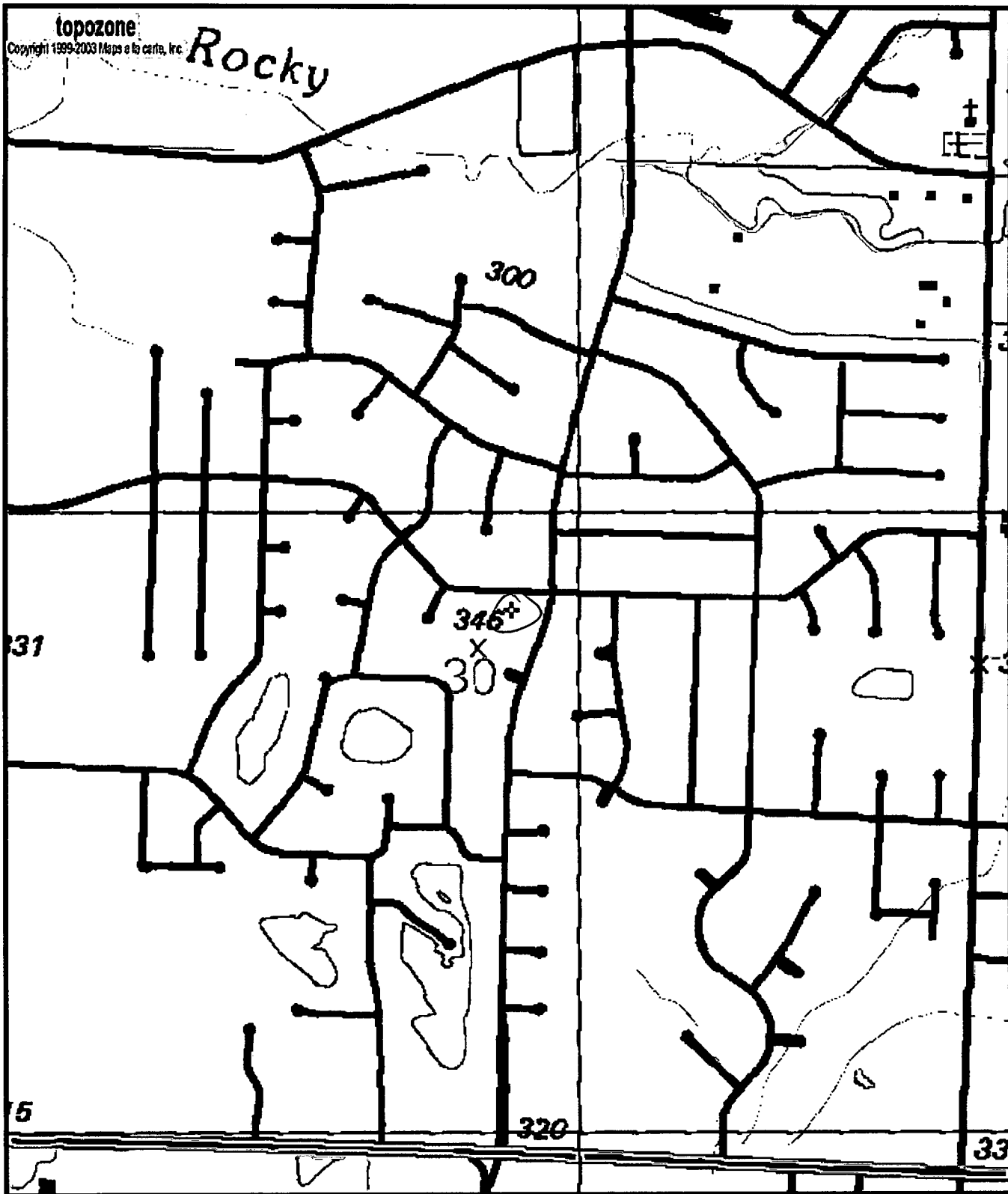
APR 20 1965

Bureau of Land & Water Research  
Dept. of Environmental Control

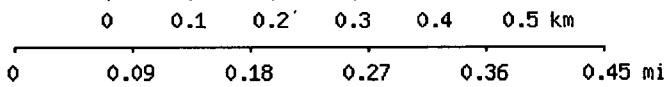


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY





0170018-06  
6W14174  
C20



Map center is 34° 58' 15"N, 89° 58' 50"W (WGS84/NAD83)

**Pleasant Hill** quadrangle

Projection is UTM Zone 16 NAD83 Datum

