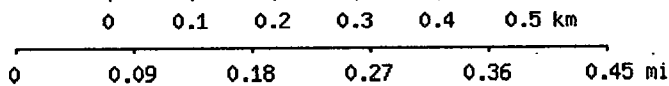


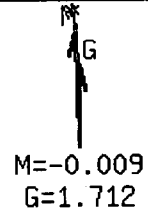
0170018-03  
 6W04123  
 B32



Map center is 34° 59' 19"N, 90° 00' 58"W (WGS84/NAD83)

**Horn Lake** quadrangle

Projection is UTM Zone 15 NAD83 Datum





HORN LAKE QUADRANGLE  
MISSISSIPPI-TENNESSEE  
7.5 MINUTE SERIES (TOPOGRAPHIC)

769

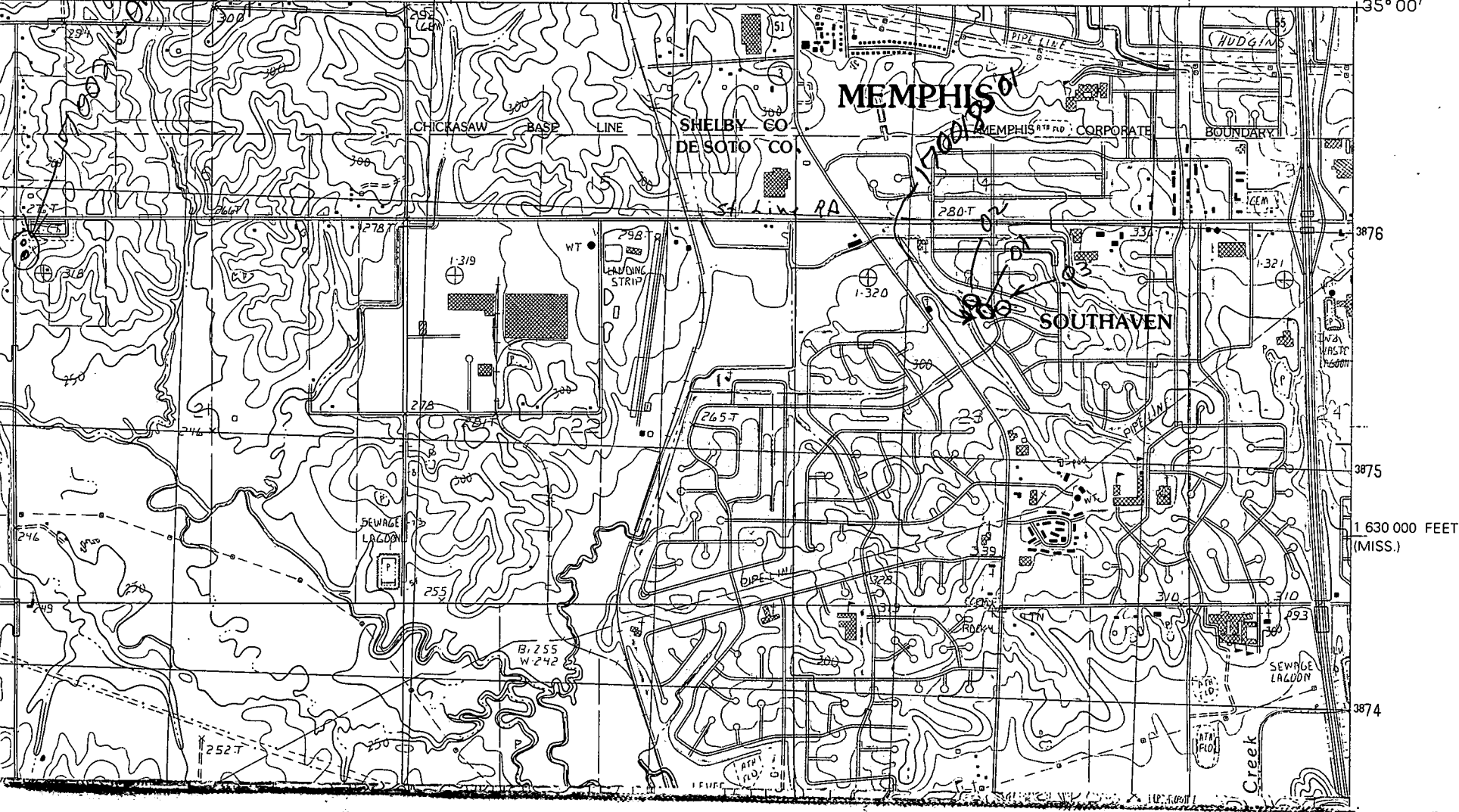
2' 30"

1 590 000 FEET (MISS.)

772

773

90° 00'  
35° 00'





✓

DEPARTMENT OF ENVIRONMENTAL QUALITY - OLWR  
PUBLIC SUPPLY WELLS PROJECT

GPS LOG

USER NAME(S): SHB + PEG 7-24-96  
~~LAR / DLR~~ DATE: 7/28/96

UNIT DEQ #: 84090 FILE #: 8072815B  
8072417A

HEALTH DEPT. #: 170018-03 ELEV. 280

USGS #: 490 B-32 OLWR #: MS-GW-04123

OWNER: City of Southaven / Whitworth Water Pt. 1

LOCATION: SW/NW/NE S 23 T 15 R 8W COUNTY: DeSoto

Hoxo Lt. Quad

LOCATION DESCRIPTION: Well in small square fence.

CASING DIA: 10" PUMP TYPE & SIZE: Turbine 175

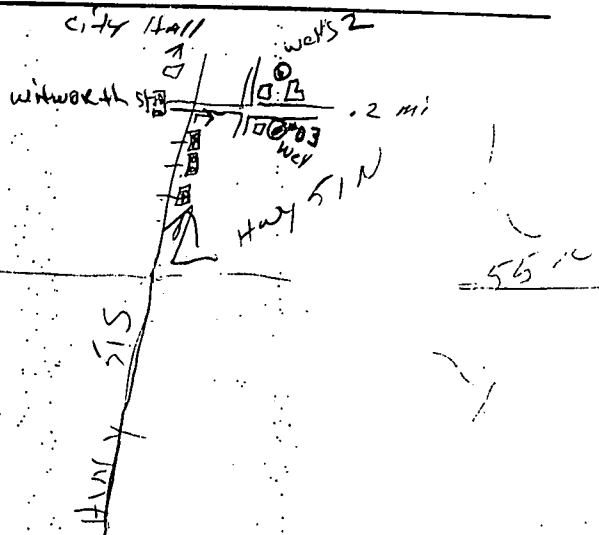
GPS FIELD LOCATION: LAT. 34-59-33.5 LONG. 90-01-58 W  
34° 59' 19.9"

GPS CORRECTED LOCATION: LAT. 34.98856263 LONG. 90.01622765  
90° 00' 59.0"

REMARKS: across from fire station

Located at Five Sta. .2 mi. S. St. Line RD

City Hall at 302 Hwy



**SECTION C** (to be completed for SURFACE WATER SOURCE)

1. Source of water is from \_\_\_\_\_ which drains into \_\_\_\_\_  
which drains into \_\_\_\_\_  
(major stream or river)
2. Description of pump/diversion works:  
Pump (size & type): \_\_\_\_\_ Power Unit (size & type): \_\_\_\_\_  
Lift: \_\_\_\_\_ feet Maximum capacity: \_\_\_\_\_ gallons per minute
3. \_\_\_\_\_ acre-feet per year at a maximum rate of \_\_\_\_\_ gallons per minute

**SECTION D** (to be completed for SURFACE WATER IMPOUNDMENTS (DAMS) on continuously flowing streams)

1. Name of storage reservoir: \_\_\_\_\_ Dam Height: \_\_\_\_\_ feet
2. Surface area at normal pool: \_\_\_\_\_ Storage capacity at normal pool: \_\_\_\_\_ acre-feet

**SECTION E WATER USE DATA** (ALL APPLICATIONS - complete section related to beneficial use)

1. **IRRIGATION:** List the number of acres of each crop to be irrigated: Rice \_\_\_\_\_; Cotton \_\_\_\_\_; Oats \_\_\_\_\_; Corn \_\_\_\_\_; Soybeans \_\_\_\_\_; Pasture \_\_\_\_\_; Truck \_\_\_\_\_; Wheat \_\_\_\_\_; Grain Sorghum \_\_\_\_\_; Other (specify) \_\_\_\_\_ Acres \_\_\_\_\_  
A. Method of Irrigation (circle one) - Center Pivot  Flood  Furrow   
B. Land Condition (circle one) - Precision Land Formed  Smoothed   
C. ASCS Farm No. \_\_\_\_\_ Tract No. \_\_\_\_\_
2. **FISH CULTURE:** Explain how water will be used: \_\_\_\_\_  
How often will reservoir (s) be emptied and refilled? \_\_\_\_\_
3. **MUNICIPAL, WATER ASSOCIATION, or PRIVATE WATER SYSTEM**  
Chose "a" or "b". (a) The number of people served is 22455 or (b) The number of connections is 8317  
What is the estimated average daily consumption during periods of maximum use at the end of each five-year period during the next twenty (20) years? 3.4 MGD 2000; 3.6 MGD 2005; 3.9 MGD 2010; 4.2 MGD 2020  
(Volume) (Year) (Volume) (Year) (Volume) (Year) (Volume) (Year)
4. **INDUSTRIAL:** If the water is to be released into a watercourse, indicate the amount released each year \_\_\_\_\_  
Rate of release \_\_\_\_\_; NPDES Permit No. \_\_\_\_\_  
Explain any changes in quality of water to be released: \_\_\_\_\_  
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: \_\_\_\_\_
6. **OTHER USE:** Explain in detail (if needed, attach another page): \_\_\_\_\_
7. **REMARKS:** \_\_\_\_\_

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

J.A. CATES, MAYOR  
(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. For irrigation and fish culture use, an ASCS photograph is required. The TEN DOLLAR (\$10.00) permit fee is enclosed herewith.

J. A. Cates  
(Signature)

Subscribed and sworn to before me this 21st day of May, 1997, at Southaven County of DeSoto  
NOTARY PUBLIC STATE OF MISSISSIPPI AT LARGE.  
MY COMMISSION EXPIRES: Apr. 6, 2001  
My commission expires 2001 THRU NOTARY PUBLIC UNDERWRITERS.  
Sherry W. Bennett Notary Public.

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

**RENEWAL**

JUN 18 1997

DEPARTMENT OF ENVIRONMENTAL QUALITY, OFFICE OF LAND AND WATER RESOURCES  
P.O. BOX 10631, JACKSON, MS 39289-0631; (601) 961-5202

This box is for office use only. 10-28-97 AGN.

Mississippi Department of Environmental Quality  
Office of Land & Water Resources  
FORM OLWR-AP-2 (REV. 9/94)

Issued: <u>11-24-87</u>	Expires: <u>10-28-2007</u>	Fee Paid: <u>X</u>	Permit No.
Lat. <u>34-59-18</u>	Long. <u>90-00-059</u>	Elev. <u>300</u>	USGS No.
Quad. <u>HORN LAKE</u>	ASCS Farm No.	STAC.	MSDOH No.
Aquifer: <u>SPRT</u>	Tract No.		Basin No.
Remarks:			Dam Inv. No.

THIS APPLICATION IS FOR (Circle one): RENEWAL PERMIT NO. MS-GW-04123

THIS APPLICATION IS FOR (Circle one): GROUNDWATER - COMPLETE A,B,E  
SURFACE WATER - COMPLETE A,C,D,E

BENEFICIAL USE (Circle one or more): 1) Public Supply - Municipal, Rural Water, or Private Water 2) Irrigation  
3) Industrial 4) Fish Culture 5) Recreation 6) Institutional (eg. Church, School) 7) Commercial (eg. Hotel, Casino, Restaurant) 8) Fire Protection 9) Livestock 10) Flood Protection 11) Other: \_\_\_\_\_

**SECTION A** (to be completed by ALL APPLICANTS)

LANDOWNER: CITY OF SOUTHAVEN 64-064-2403  
(Name) (SSN or Tax ID No.)

PO BOX 425  
(Address)

SOUTHAVEN, MS. 38671 (601) 393-5931  
(City) (State & Zip) (Telephone No.)

APPLICANT, AGENT, OR LESSEE (if different from Landowner):

\_\_\_\_\_  
(Name) (SSN or Tax ID No.)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City) (State & Zip) (Telephone)

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

NW NE 1/4 of the NE NW 1/4 of Section 23, Township 015, Range 08W, County DE SOTO

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 number. TWO OTHER WELLS & PLANT  
GW-04124 GW-04122

**SECTION B** (to be completed for GROUNDWATER SOURCE)

1. AQUIFER: SPARTA SAND MISSISSIPPI DEPARTMENT OF HEALTH NO.: 170018-03

2. Proposed work will begin on \_\_\_\_\_, 19\_\_\_\_, and will be completed by \_\_\_\_\_, 19\_\_\_\_  
If well has already been drilled, when was well completed (date)? SEPT., 1968 Under whose name was well originally drilled (if known)? \_\_\_\_\_

3. Description of proposed or completed well:

- (a) DEPTH OF WELL: 324 feet. DRILLER: CARLOSS WELL SUPPLY CO.
- (b) SURFACE CASING: Length 320 feet; Diameter 16 inches; Type BLACK WELDED
- (c) SCREEN: Length 72 feet; Diameter 10 inches; Type STAINLESS STEEL
- (d) PUMP: Type VERTICAL TURBINE; Size 12"; Capacity 1200 gallons per minute; Setting depth 173 feet
- (e) POWER UNIT: Type ELECTRIC; Size 75 horsepower

4. PERMITTED VOLUME :

- (a) \_\_\_\_\_ acre-feet per year at a maximum rate of \_\_\_\_\_ gallons per minute
- (b) .600 million gallons per day at a maximum rate of 1200 gallons per minute

0.60 BB  
8-21-97

(CONTINUED ON BACK)

1200

*MAP sent*

TRANSMITTED FOR ADS

Well No. 1332

Latitude-longitude \_\_\_\_\_  
d m s N S d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD Physiographic Province: \_\_\_\_\_ Section: 03

Drainage Basin: D 16R Subbasin: \_\_\_\_\_

Topo of well site: (D) (C) (E) (F) (H) (K) (L) depression, stream channel, dunes, flat, hilltop, sink, swamp, (O) (P) (S) (T) (U) (V) offshore, pediment, hillside, terrace, undulating, valley flat \_\_\_\_\_

MAJOR AQUIFER: system \_\_\_\_\_ series TE aquifer, formation, group SS

Lithology: \_\_\_\_\_ Origin: 2 Aquifer Thickness: \_\_\_\_\_ ft

Length of well open to: \_\_\_\_\_ ft 72 Depth to top of: \_\_\_\_\_ ft

MINOR AQUIFER: system \_\_\_\_\_ series \_\_\_\_\_ aquifer, formation, group \_\_\_\_\_

Lithology: \_\_\_\_\_ Origin: \_\_\_\_\_ Aquifer Thickness: \_\_\_\_\_ ft

Length of well open to: \_\_\_\_\_ ft \_\_\_\_\_ Depth to top of: \_\_\_\_\_ ft

Intervals Screened: \_\_\_\_\_

Depth to consolidated rock: \_\_\_\_\_ ft \_\_\_\_\_ Source of data: \_\_\_\_\_

Depth to basement: \_\_\_\_\_ ft \_\_\_\_\_ Source of data: \_\_\_\_\_

Surficial material: \_\_\_\_\_ Infiltration characteristics: \_\_\_\_\_

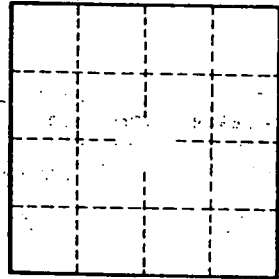
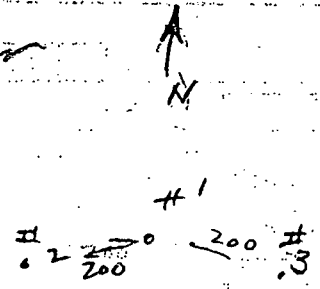
Coefficient Trans: \_\_\_\_\_ gpd/ft \_\_\_\_\_ Coefficient Storage: \_\_\_\_\_

Coefficient Perm: \_\_\_\_\_ gpd/ft<sup>2</sup>; Spec cap: \_\_\_\_\_ gpm/ft; Number of geologic cards: \_\_\_\_\_

320' of 16" screen  
72' of 10" screen

40' Bottom of screen

65 gal/ft



In front of fire station  
See well B7 for location

Well No. 1332



6W04123

DOH # 170018-03

FORM 9-1642 (1-68)

Well No.

B32

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

PUNCHED

MASTER CARD

Record by L.A. Callahan Source of data Leslie Carless Date 10/17/71 Map Horn Lake

State 28 County (or town) De Soto 17

Latitude: 34<sup>deg</sup> 59<sup>min</sup> 30<sup>sec</sup> N Longitude: 090<sup>deg</sup> 01<sup>min</sup> 29<sup>sec</sup> W Sequential number: 1

Lat-long accuracy: 2<sup>0</sup> T 1<sup>N</sup> R 8<sup>E</sup> Sec 23<sup>SW</sup> SW NW NE

Local well number: 5032BAR2301508W Other number: #3 B & M

Local use: 5032BAR2301508W Owner or name: Southaven Utility District

Owner or name: SOUTHAVEN Address: \_\_\_\_\_

Ownership: County, Fed Gov't, City, Corp or Co, Private, State Agency, Water Dist MU 17

Use of Air cond, Bottling, Comm, Dewater, Power, Fire, Dom, Irr, Med, Ind, P S, Rec, water: \_\_\_\_\_

Stock, Insatit, Unused, Repressure, Recharge, Desal-P S, Desal-other, Other P

Use of well: Anode, Drain, Seismic, Heat Res, Obs, Oil-gas, Recharge, Test, Unused, Withdraw, Waste, Destroyed. W

DATA AVAILABLE: Well data  Freq. W/L meas.:  Field aquifer char.

Hyd. lab. data:

Qual. water data; type:

Freq. sampling:  Pumpage inventory:  yes no, period: \_\_\_\_\_

Aperture cards: SPRT yes

Log data:

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 402 ft Meas. 3 accuracy

Depth cased: (first perf.) 330 ft Casing type: \_\_\_\_\_; Diam. 16X in 1.6

Finish: porous concrete, gravel w. (perf.), gravel w. (screen), horiz. gallery, open end, (H) (P) (S) (T) (W) (X) (Z) G

Method: Drilled: (A) (B) (C) (D) (H) (J) (P) (R) (T) (V) (W) (Z) H

Date Drilled: 968 Pump intake setting: \_\_\_\_\_ ft 30 30

Driller: Carless well, \_\_\_\_\_ address

Lift (type): (A) (B) (C) (J) (L) (M) (N) (P) (R) (S) (T) (Z) T Deep  Shallow

Power (type): diesel, elec, gas, gasoline, hand, gas, wind; H.P. 75  Trans. or meter no. \_\_\_\_\_

Descrip. MP 300 ft above below LSD, Alt. MP \_\_\_\_\_

Alt. LSD: 315 Accuracy: (source) 3

Water Level: \_\_\_\_\_ ft above below MP; \_\_\_\_\_ ft above below LSD. Accuracy: \_\_\_\_\_

Date meas: 968 Yield: 03 gpm 1300 Method determined

Drawdown: \_\_\_\_\_ ft 20 Accuracy: \_\_\_\_\_ Pumping period: \_\_\_\_\_ hrs \_\_\_\_\_

QUALITY OF WATER DATA: Iron \_\_\_\_\_ ppm Sulfate \_\_\_\_\_ ppm Chloride \_\_\_\_\_ ppm Hard. \_\_\_\_\_ ppm

Sp. Conduct \_\_\_\_\_ K x 10<sup>6</sup> Temp. \_\_\_\_\_ °F Date sampled \_\_\_\_\_

Taste, color, etc. \_\_\_\_\_

DEC 9 1974

TRANSMITTED FOR ADP

Well No. B32