



entered into
WACS
11/4/04
AA

October 27, 2004

RECEIVED
OCT 28 2004
Central Disl.

Mr. James N. Bradner, P.E.
Program Manager, Solid Waste Section
Florida Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803

**RE: Buttrey Development Class III Landfill
Groundwater Monitoring Wells Installation
WACS # 87081**

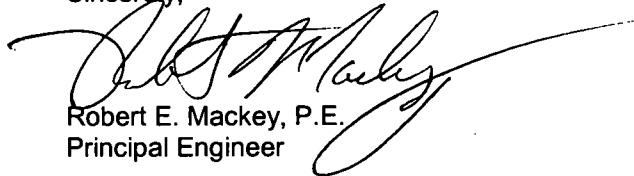
Dear Mr. Bradner:

Enclosed please find the Installation Reports for the groundwater monitoring wells for the Buttrey Development Class III Landfill, in accordance with the MPIS for the facility. One (1) monitoring well (MW-2A) was installed by Universal Engineering Sciences in May 1999 as part of the preliminary assessment of the site. This monitoring well was designated MW-2 in the Universal Report. Please note that only the relevant pages of this report for the installation of MW-2 are enclosed. This report was previously submitted to the Department in the permit application for the facility.

The remaining seventeen (17) groundwater monitoring wells were installed in April 2004 by The Colinas Group. A signed and sealed copy of the installation report from the Colinas Group is enclosed.

If you have any questions, please feel free to contact me at 407-475-9163.

Sincerely,



Robert E. Mackey, P.E.
Principal Engineer

Enclosure
REM/aa

cc: John Cook – WMIF

J:\S2Li PROJECTS\WM-Central FL\04-170 Buttrey Startup Assistance\Correspondence\Bradner GW Well Installation Report.doc



UNIVERSAL ENGINEERING SCIENCES

**SLUG TEST RESULTS AND GROUNDWATER FLOW
MEASUREMENT
B&B #91 - KEENE ROAD BURROW PIT/LANDFILL**

Project No. 17862-085-01
Report No. 63003
Date: May 1999

RECEIVED
OCT 28 2004
Central Dist. - DE

Prepared For:

**Bishop & Buttery, Inc.
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810**

Prepared By:

**Universal Engineering Sciences, Inc.
3532 Maggie Boulevard
Orlando, Florida 32811
(407) 423-0504**



UNIVERSAL

ENGINEERING SCIENCES

Consultants in: Geotechnical Engineering • Threshold Inspection •
Environmental Sciences • Construction Materials Testing

May 26, 1999

Offices in

- Orlando
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- West Palm Beach
- Jacksonville
- Ocala
- Tampa
- Debary

Bishop & Buttrey, Inc.
6239 Edgewater Drive, Suite D-1
Orlando, Florida 32810

Attention: Mr. Ed Chesney, P.E.

Reference: Slug Test Results And Groundwater Flow Measurement
B&B #91 - Keene Rd. Burrow Pit / Landfill
UES Project No. 17862-085-01 (63003)

Dear Mr Chesney:

Universal Engineering Sciences, Inc. (UES) has prepared this report to provide results of aquifer slug test data and groundwater flow measurement performed at the referenced site.

Monitor Well Installation

UES installed water table monitor wells MW-1, MW-2, and MW-3 on May 11, 1999. Figure 1 shows the monitor well locations on the site plan. The wells were installed to depths of 40 to 50 feet below land surface using hollow stem augers (10.25-inch outer diameter, 6.25-inch inner diameter). Soil boring logs for monitor wells MW-1, MW-2, and MW-3, soils within the surficial aquifer include discontinuous layer of sands, sands with fines, and clays. Well construction diagrams and soil boring logs are provided in Appendix A. Table 1 contains a summary of monitor well construction.

Piezometer PZ-1, shown on the site plan, was installed by others.

Slug Tests

UES performed slug-out tests on May 19, 1999 at water table monitor wells MW-1, MW-2, and MW-3 to hydraulic conductivity of the surficial aquifer at the site. The water in each well was pumped out and the recovery of the water level in each well was measured over time. Table 2 contains a summary of water level measurements. The water level recovery at each well was recorded using a 15 pounds per square inch (psi) transducer probe and an electronic data logger. The data collected from the slug out tests were analyzed using the Bouwer and Rice Method updated by Bouwer in 1989. Monitor well MW-1 was analyzed as fully penetrating a perched aquifer zone. Monitor wells MW-2 and MW-3 were evaluated as partially penetrating the surficial aquifer above the Hawthorn. Based on regional geology, the top of the Hawthorn is at an elevation of approximately 0 feet NGVD in the site vicinity.

The calculated hydraulic conductivities (K) are 0.94 ft/day at MW-1, 101.29 ft/day at MW-2, and 1.03 ft/day at MW-3. The field data, graphs, and hydraulic conductivity calculations are presented in Appendix B. Comparison of the slug test results to the soil lithologic logs and well construction logs in Table 1 and Appendix A, and water level data in Table 2, indicates the hydraulic conductivity measured at MW-1 is representative of a saturated zone of silty sand perched above a clay layer. The hydraulic conductivity measured at MW-2 is representative of surficial aquifer sands. The hydraulic conductivity measured at MW-3 is representative of surficial aquifer sandy clay.

The transmissivity (T) of the surficial aquifer can be estimated by the product of the hydraulic conductivity (K) and the aquifer thickness (B). Transmissivity varies across the site with changes in soil lithology. A transmissivity of 2.82 ft²/day was measured at MW-1, using perched aquifer thickness of 3 feet. A transmissivity of 4,356 ft²/day was measured at MW-2, using an estimated aquifer thickness of 43 feet. A transmissivity of 48 ft²/day was measured at MW-2, using an estimated aquifer thickness of 47 feet.

Groundwater Flow

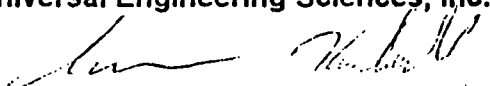
Groundwater elevation information obtained at the site are provided on Table 2. Groundwater elevations from May 10, 1999 were plotted and contoured on Figure 2. Shallow groundwater flow was measured toward the southwest at a hydraulic gradient of 0.0018, based a distance of 560 feet between the 47.50 and 48.50 groundwater elevation contours.

The groundwater flow velocity at the site was measured using an average effective porosity (ne) at the shallow surficial aquifer of 0.4, an observed average hydraulic gradient of 0.0018 (I), and average hydraulic conductivity (K) at the water table of 51 ft/day. The average horizontal groundwater flow velocity (Vh) at the site is then estimated by the Darcian Equation $V_h = K \cdot I / n_e$ to be 0.23 ft/day or 84 feet per year. The groundwater flow velocity varies across the site due to variable hydraulic conductivity.

If you have any questions concerning the work performed or results, please call

Respectfully Submitted;

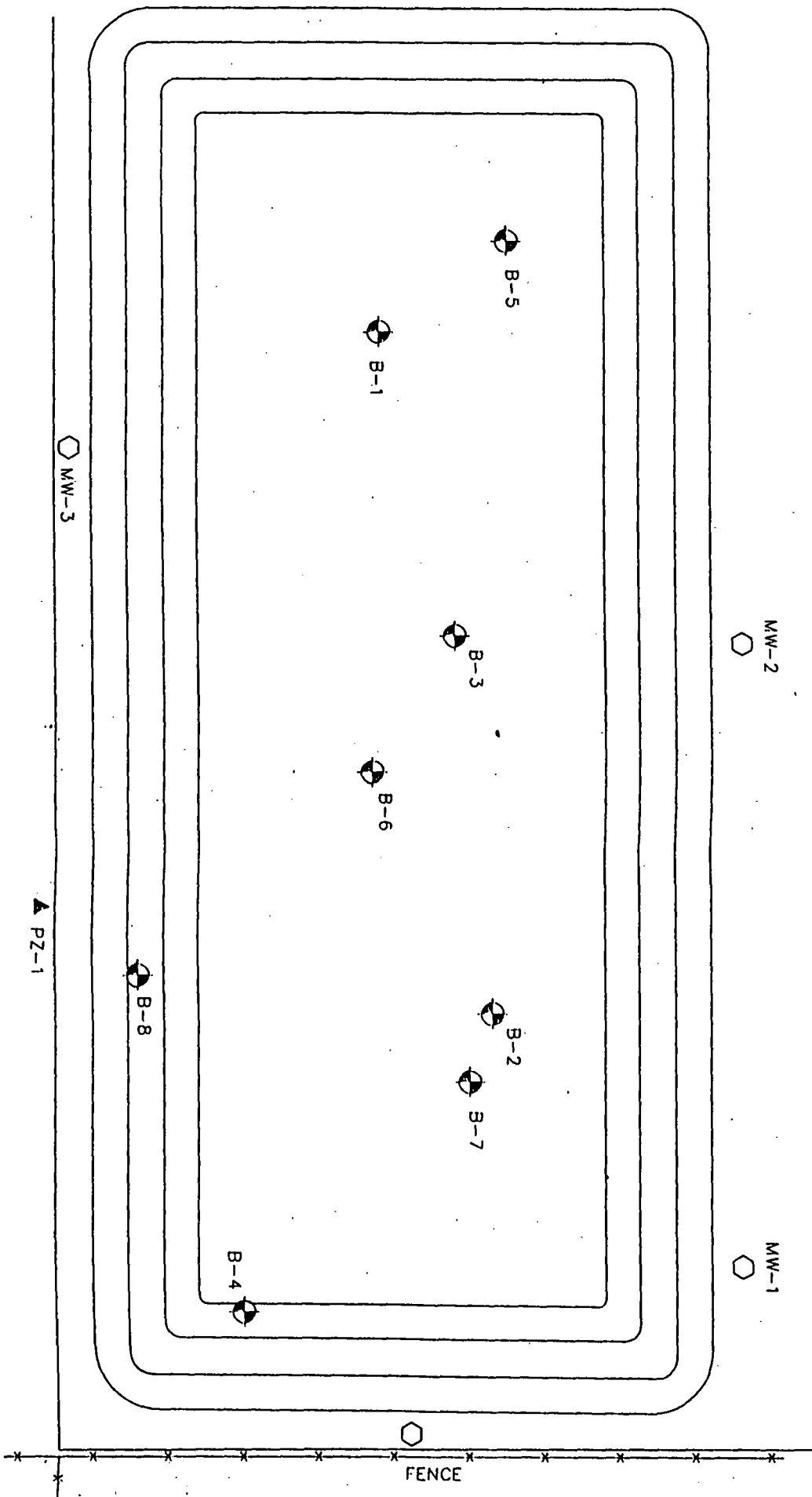
Universal Engineering Sciences, Inc.


Eric Krebill, P.G.
Project Manager
Florida License No. 0001162

Enc: Figure 1 - Site Plan
Figure 2 - Groundwater Elevation 5/10/99
Table 1 - Monitor Well Construction Summary
Table 2 - Groundwater Elevation Data
Appendix A - Soil Boring Logs and Monitor Well Construction Details
Appendix B - Slug Test Data

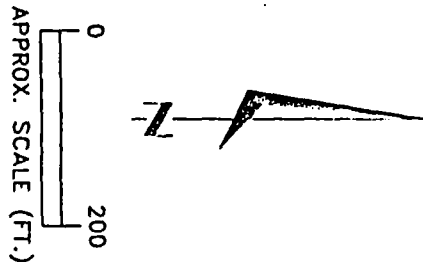


FIGURES



LEGEND

- MONITOR WELL LOCATION
- ▲ PIEZOMETER LOCATION
- ⊕ SOIL BORING LOCATION



BISHOP & BUTTREY NO. 91
KEENE ROAD BORROW PIT/LANDFILL
ORANGE COUNTY, FLORIDA

SITE PLAN

FOR:

BISHOP & BUTTREY

DRAWN BY: R.K.S.	DATE: 5/24/99
CHECKED BY: <i>AKC</i>	DATE: 5/25/99
REPORT NO: 63003	SCALE: AS SHOWN
PROJECT NO: 17862-085-01	



UNIVERSAL
ENGINEERING SCIENCES

PAGE NO:

THIS DRAWING REPRODUCED FROM PLAN PROVIDED BY CLIENT.

Figure 1

TABLES

TABLE 1
MONITOR WELL CONSTRUCTION SUMMARY
B&B #91 - KEENE ROAD BORROW PIT / LANDFILL
ORANGE COUNTY, FLORIDA

WELL #	INSTALL DATE	DIAMETER (IN)	SCREEN DEPTH (FT) AND SLOT SIZE (IN)
MW-1	5/11/99	2	26-46, 0.01
MW-2	5/11/99	2	27 -42, 0.001
MW-3	5/11/99	2	37 -52, 0.01
PZ-1	Unknown	2	Total Depth 50'

TABLE 2
GROUNDWATER ELEVATION DATA
B&B #91 - KEENE ROAD BORROW PIT / LANDFILL
ORANGE COUNTY, FLORIDA

WELL	DATE	CASING ELEVATION (FT NGVD)*	WATER LEVEL (FT)	GROUNDWATER ELEVATION (FT)
MW-1	5/10/99	109.26	27.45	81.81
	5/19/99		27.36	81.90
MW-2	5/10/99	85.67	36.91	48.76
	5/19/99		37.01	48.66
MW-3	5/10/99	95.92	48.62	47.30
	5/19/99		48.48	47.44
PZ-1	5/10/99	79.68	31.76	47.92

*Well Casing Elevations and 5/10/99 data provided by B&B

Well	date	DTW	GW elevation
MW-1	12/14/99	23.40'	85.86'
MW-2	12/14/99	30.37'	55.30'
MW-3	12/14/99	42.32'	53.60'
PZ-1	12/14/99	25.55'	54.13'

APPENDIX A



PAGE NO.:

[illegible]

HORIZONTAL HYDRAULIC CONDUCTIVITY (k) CALCULATION SPREADSHEET

PARTIALLY PENETRATING SYSTEM
BASED ON THE BOUWER AND RICE EQUATION:

$$\ln Re/Rw = \frac{1}{[(1.1/(\ln(Lw/Rw))) + ((A + B(\ln\{H-Lw/Rw\}))/(\ln Le/Rw))]}$$

WHERE:

$$k = Rc(\ln Re/Rw)/2Le * (1/t) * (\ln Yo/Yt) * 86,400$$

PROJEC Keene Road Landfill

STATION MW-2 DEPTH(ft) 42.48 SCREEN I 2", 27.4 to 42.4

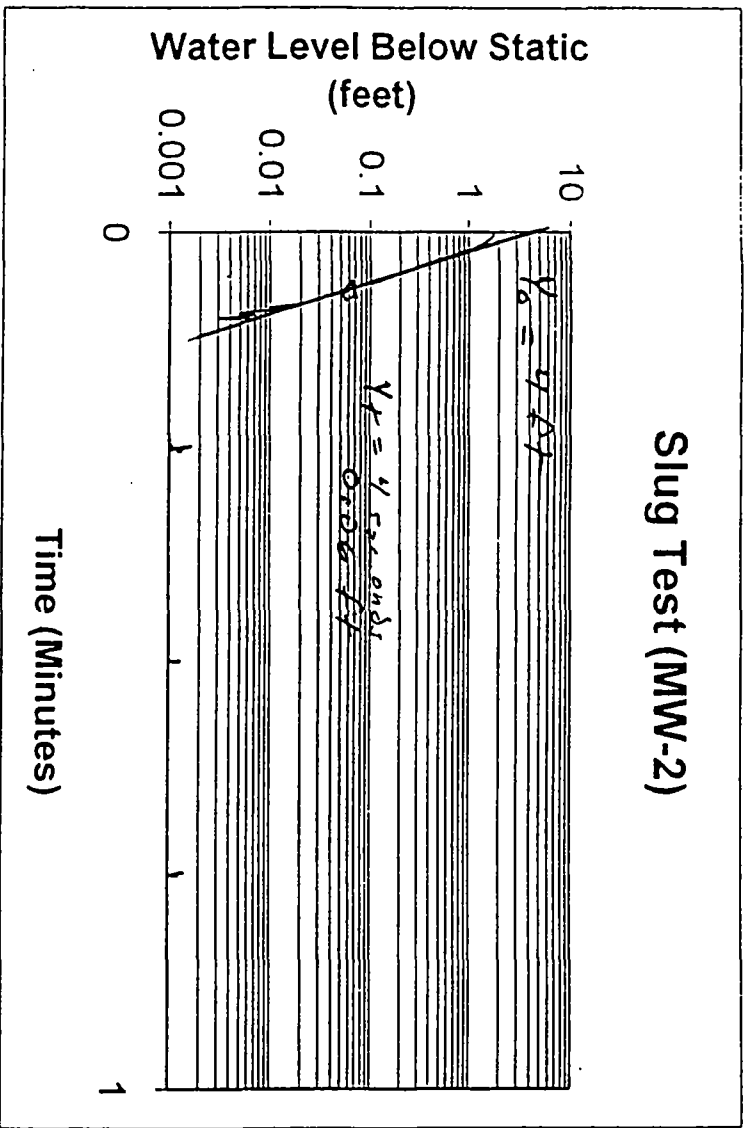
Casing Elevation = 85.67

dtw:37.01

Aquifer thickness is 43 feet, using top of the Hawthorn lying at 0 feet NGVD.

EQUATIO VARIABLE	VARIABLE VALUE	HYDRAULIC CONDUCTIV CALCULATIONS
Lw =	5.4700	$\ln =$ <div> <div>(Re/Rw)</div> <div>1.7605</div> <div>1.760E+00</div> </div>
Rw =	0.3000	
H =	43.0000	
Le =	5.4700	
Rc =	0.0833	
t =	4.0000	$k =$ <div> <div>(ft/sec)</div> <div>1.172E-03</div> <div>(ft/day)</div> <div>101.2917</div> </div>
Yo =	4.0000	
Yt =	0.0600	
A =	2.0000	
B =	0.3000	
Le/Rw =	18.23	

Slug Test (MW-2)



Keen Road Landfill Site

MW-2

Field Data

Time Recovery

0.002	2.265
0.005	2.276
0.007	2.355
0.01	2.466
0.012	2.565
0.015	2.687
0.017	2.812
0.02	2.957
0.022	3.1
0.025	3.231
0.027	3.339
0.03	3.439
0.032	3.527
0.035	3.6
0.037	3.662
0.04	3.711
0.042	3.754
0.045	3.798
0.047	3.828
0.05	3.862
0.053	3.885
0.055	3.911
0.058	3.929
0.06	3.952
0.063	3.971
0.065	3.978
0.068	3.992
0.07	3.996
0.073	4.01
0.075	4.017
0.078	4.019
0.08	4.024
0.083	4.029
0.085	4.033
0.088	4.042
0.09	4.038
0.093	4.045
0.095	4.047
0.097	4.045
0.1	4.049
0.102	4.045
0.105	4.045
0.107	4.052

Graph Data

Time Recovery

0.002	1.787
0.005	1.776
0.007	1.697
0.01	1.586
0.012	1.487
0.015	1.365
0.017	1.24
0.02	1.095
0.022	0.952
0.025	0.821
0.027	0.713
0.03	0.613
0.032	0.525
0.035	0.452
0.037	0.39
0.04	0.341
0.042	0.298
0.045	0.254
0.047	0.224
0.05	0.19
0.053	0.167
0.055	0.141
0.058	0.123
0.06	0.1
0.063	0.081
0.065	0.074
0.068	0.06
0.07	0.056
0.073	0.042
0.075	0.035
0.078	0.033
0.08	0.028
0.083	0.023
0.085	0.019
0.088	0.01
0.09	0.014
0.093	0.007
0.095	0.005
0.097	0.007
0.1	0.003
0.102	0.007
0.105	0.007

THE COLINAS GROUP, INC.
ENGINEERING AND ENVIRONMENTAL CONSULTANTS

November 24, 2004

Ms. Deborah Helle, P.G.
Florida Department of Environmental Protection
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803-3767

RECEIVED
NOV 29 2004
Central Dist. - DEP

Subj: Buttrey Landfill Parcel
Orange County, Florida
Facility WACS ID. 87081
TCG Project No. P-260

Dear Ms. Helle:

Enclosed please find Monitoring Well Completion Reports (DEP Form 62-522.900(3)) for each of the seventeen (17) new monitoring wells installed at the Buttrey Parcel earlier this year. These reports replace the original WCR forms previously submitted using an outdated Department form.

Please let me know if you have any questions or need further information concerning these wells.

Very truly yours,
THE COLINAS GROUP, INC.


Richard L. Potts, Jr., P.G.
Principal Consultant
Fl. P.G. Reg. No. 1113

cc: John Cook, P.E.
Bob Mackey, P.E.

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19335 WACS TESTSITE SITE NAME: MW-1A

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 20, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 69.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 52.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 49.0 ft. TO 69.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 47.0 ft. TO 69.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 46.0 ft. TO 47.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 46.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 109.47 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19336 WACS TESTSITE SITE NAME: MW-1B

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 20, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 96.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 89.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 86.0 ft. TO 96.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 83.0 ft. TO 96.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 82.0 ft. TO 83.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 82.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 109.53 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19338 WACS TESTSITE SITE NAME: MW-2B

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 20, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 73.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 66.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 63.0 ft. TO 73.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 61.0 ft. TO 73.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 60.0 ft. TO 61.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 60.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 88.46 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19339 WACS TESTSITE SITE NAME: MW-3A

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 13, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 56.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 39.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 36.0 ft. TO 56.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 34.0 ft. TO 56.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 33.0 ft. TO 34.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 33.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 92.87 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19340 WACS TESTSITE SITE NAME: MW-3B

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 13, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 83.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 76.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 73.0 ft. TO 83.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 71.0 ft. TO 83.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 70.0 ft. TO 71.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 70.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 93.06 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19341 WACS TESTSITE SITE NAME: MW-4A

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 14, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 42.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 25.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 22.0 ft. TO 42.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 20.0 ft. TO 42.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 19.0 ft. TO 20.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 19.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 83.04 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19342 WACS TESTSITE SITE NAME: MW-4B

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 14, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 69.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 62.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 59.0 ft. TO 69.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 57.0 ft. TO 69.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 56.0 ft. TO 57.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 56.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 83.18 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19343 WACS TESTSITE SITE NAME: MW-5A

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 14, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 40.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 17.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 20.0 ft. TO 40.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 18.0 ft. TO 40.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 17.0 ft. TO 18.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 17.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 81.86 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19344 WACS TESTSITE SITE NAME: MW-5B

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 14, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 67.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 60.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 57.0 ft. TO 67.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 55.0 ft. TO 67.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 54.0 ft. TO 55.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 54.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 81.27 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr. ,P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19345 WACS TESTSITE SITE NAME: MW-6A

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 15, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 61.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 44.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 41.0 ft. TO 61.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 39.0 ft. TO 61.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 38.0 ft. TO 39.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 38.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 101.94 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19346 WACS TESTSITE SITE NAME: MW-6B

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 15, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 88.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 81.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 78.0 ft. TO 88.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 76.0 ft. TO 88.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 75.0 ft. TO 76.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 75.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 101.98 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19347 WACS TESTSITE SITE NAME: MW-7A

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 20, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 69.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 53.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 20.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 49.0 ft. TO 69.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 47.0 ft. TO 69.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 46.0 ft. TO 47.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 46.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 109.26 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19348 WACS TESTSITE SITE NAME: MW-7B

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Lower Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 19, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 96.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 89.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 86.0 ft. TO 96.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 84.0 ft. TO 96.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 83.0 ft. TO 84.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 83.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 109.13 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19868 WACS TESTSITE SITE NAME: MW-8

WELL TYPE: BACKGROUND X DETECTION _____ COMPLIANCE _____

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Shallow Surficial

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 23, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 60.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 53.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 50.0 ft. TO 60.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 48.0 ft. TO 60.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 47.0 ft. TO 48.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 47.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 99.70 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG:
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

(BLS) = BELOW LAND SURFACE

Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19879 WACS TESTSITE SITE NAME: MW-FL1

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Upper Floridan

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 13, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 125.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 118.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 115.0 ft. TO 125.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 112.0 ft. TO 125.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 111.0 ft. TO 112.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 111.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 93.16 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19880 WACS TESTSITE SITE NAME: MW-FL2

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Upper Floridan

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 22, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 130.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 123.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 120.0 ft. TO 130.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 117.0 ft. TO 130.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 116.0 ft. TO 117.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 116.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 87.40 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr. P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1929

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Florida Department of Environmental Protection

3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767

MONITORING WELL COMPLETION REPORT

DATE: July 17, 2004

FACILITY NAME: Buttrey Parcel

DER PERMIT NO.: _____ WACS FACILITY ID: 87081

WACS TESTSITE ID.: 19881 WACS TESTSITE SITE NAME: MW-FL3

WELL TYPE: BACKGROUND _____ DETECTION _____ COMPLIANCE X

LATITUDE AND LONGITUDE (seconds to two decimal places): _____

AQUIFER MONITORED: Upper Floridan

DRILLING METHOD: Hollow Stem Auger DATE INSTALLED: April 21, 2004

INSTALLED BY: Environmental Drilling Service, Inc.

BORE HOLE DIAMETER: nom. 6 inches TOTAL DEPTH: 140.0 ft. (BLS)

CASING TYPE: Sch. 40 PVC CASING DIAMETER: 2 in. CASING LENGTH: 133.0 ft.

SCREEN TYPE: continuous slot SCREEN SLOT SIZE: 0.006 in. SCREEN LENGTH: 10.0 ft.

SCREEN DIAMETER: 2 in. SCREEN INTERVAL: 130.0 ft. TO 140.0 ft. (BLS)

FILTER PACK TYPE: Graded silica sand FILTER PACK GRAIN SIZE: 30/45

INTERVAL COVERED: 127.0 ft. TO 140.0 ft. (BLS)

SEALANT TYPE: fine sand SEALANT INTERVAL: 126.0 ft. TO 127.0 ft. (BLS)

GROUT TYPE: Portland Type II neat GROUT INTERVAL: 0.0 ft. TO 126.0 ft. (BLS)

TOP OF CASING ELEVATION (NGVD): 97.49 ft. GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Pumping and surging with 12-volt submersible pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: _____

NAME OF PERSON PREPARING REPORT: Richard L. Potts, Jr., P.G. / The Colinas Group, Inc. / (407) 622-8176

(Name, Organization, Phone No.)

NOTE ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.
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