

|                                                                                                                    |  |                 |                                                                              |                                      |
|--------------------------------------------------------------------------------------------------------------------|--|-----------------|------------------------------------------------------------------------------|--------------------------------------|
| <b>DRILLING LOG</b>                                                                                                |  | <b>DIVISION</b> | <b>INSTALLATION</b>                                                          | <b>SHEET 1</b><br><b>OF 1 SHEETS</b> |
| <b>1. PROJECT</b><br>McFaddin Sand Search<br>Jefferson County, TX                                                  |  |                 | <b>9. SIZE AND TYPE OF BIT</b> 3.0 In.                                       |                                      |
| <b>2. BORING DESIGNATION</b><br>JCVC-15-02                                                                         |  |                 | <b>10. COORDINATE SYSTEM/DATUM</b><br>Texas South Central                    |                                      |
| <b>3. DRILLING AGENCY</b><br>American Vibracore Services, Inc.                                                     |  |                 | <b>11. MANUFACTURER'S DESIGNATION OF DRILL</b><br>Alpine Pneumatic Vibracore |                                      |
| <b>4. NAME OF DRILLER</b><br>Brian McCord                                                                          |  |                 | <b>12. TOTAL SAMPLES</b><br>DISTURBED<br>UNDISTURBED (UD)                    |                                      |
| <b>5. DIRECTION OF BORING</b><br><input checked="" type="checkbox"/> VERTICAL<br><input type="checkbox"/> INCLINED |  |                 | <b>13. TOTAL NUMBER CORE BOXES</b>                                           |                                      |
| <b>6. THICKNESS OF OVERBURDEN</b> 0.0 Ft.                                                                          |  |                 | <b>14. ELEVATION GROUND WATER</b>                                            |                                      |
| <b>7. DEPTH DRILLED INTO ROCK</b> 0.0 Ft.                                                                          |  |                 | <b>15. DATE BORING</b> 01-26-15 08:38<br><b>COMPLETED</b> 01-26-15 08:43     |                                      |
| <b>8. TOTAL DEPTH OF BORING</b> 20.0 Ft.                                                                           |  |                 | <b>16. ELEVATION TOP OF BORING</b> -23.7 Ft.                                 |                                      |
|                                                                                                                    |  |                 | <b>17. TOTAL RECOVERY FOR BORING</b> 18.8 Ft.                                |                                      |
|                                                                                                                    |  |                 | <b>18. SIGNATURE AND TITLE OF INSPECTOR</b><br>KM                            |                                      |

| ELEV.<br>(ft) | DEPTH<br>(ft) | LEGEND | CLASSIFICATION OF MATERIALS<br>Depths and elevations based on measured values | %<br>REC. | BOX OR<br>SAMPLE | REMARKS                                                                                   |
|---------------|---------------|--------|-------------------------------------------------------------------------------|-----------|------------------|-------------------------------------------------------------------------------------------|
| -23.7         | 0.0           |        |                                                                               |           |                  |                                                                                           |
| -25.8         | 2.1           |        | CLAY, little sand, trace shell hash, grayish brown (2.5Y-5/2), (CL).          |           | 1                | Sample #1, Depth = 1.0'<br>Mean (mm): 0.09, Phi Sorting: 0.68<br>Fines (230): 83.52% (CL) |
| -26.6         | 2.9           |        | Sandy CLAY, light olive brown (2.5Y-5/3), (CL).                               |           | 2                | Sample #2, Depth = 2.4'<br>Mean (mm): 0.10, Phi Sorting: 0.95<br>Fines (230): 60.27% (CL) |
| -27.7         | 4.0           |        | SAND, fine grained, quartz, some clay, light olive brown (2.5Y-5/4), (SC).    |           | 3                | Sample #3, Depth = 3.4'<br>Mean (mm): 0.11, Phi Sorting: 0.38<br>Fines (230): 28.38% (SC) |
|               |               |        |                                                                               |           | T1               | Sample #T1, Depth = 6.5'<br>Ave. Field Vane (tsf): 0.47                                   |
|               |               |        |                                                                               |           | T2               | Sample #T2, Depth = 11.5'<br>Ave. Field Vane (tsf): 0.51                                  |
|               |               |        |                                                                               |           | T3               | Sample #T3, Depth = 15.5'<br>Ave. Field Vane (tsf): 0.53                                  |
| -42.5         | 18.8          |        |                                                                               |           |                  |                                                                                           |
| -43.7         | 20.0          |        | No Recovery.                                                                  |           |                  |                                                                                           |
|               |               |        | End of Boring                                                                 |           |                  |                                                                                           |



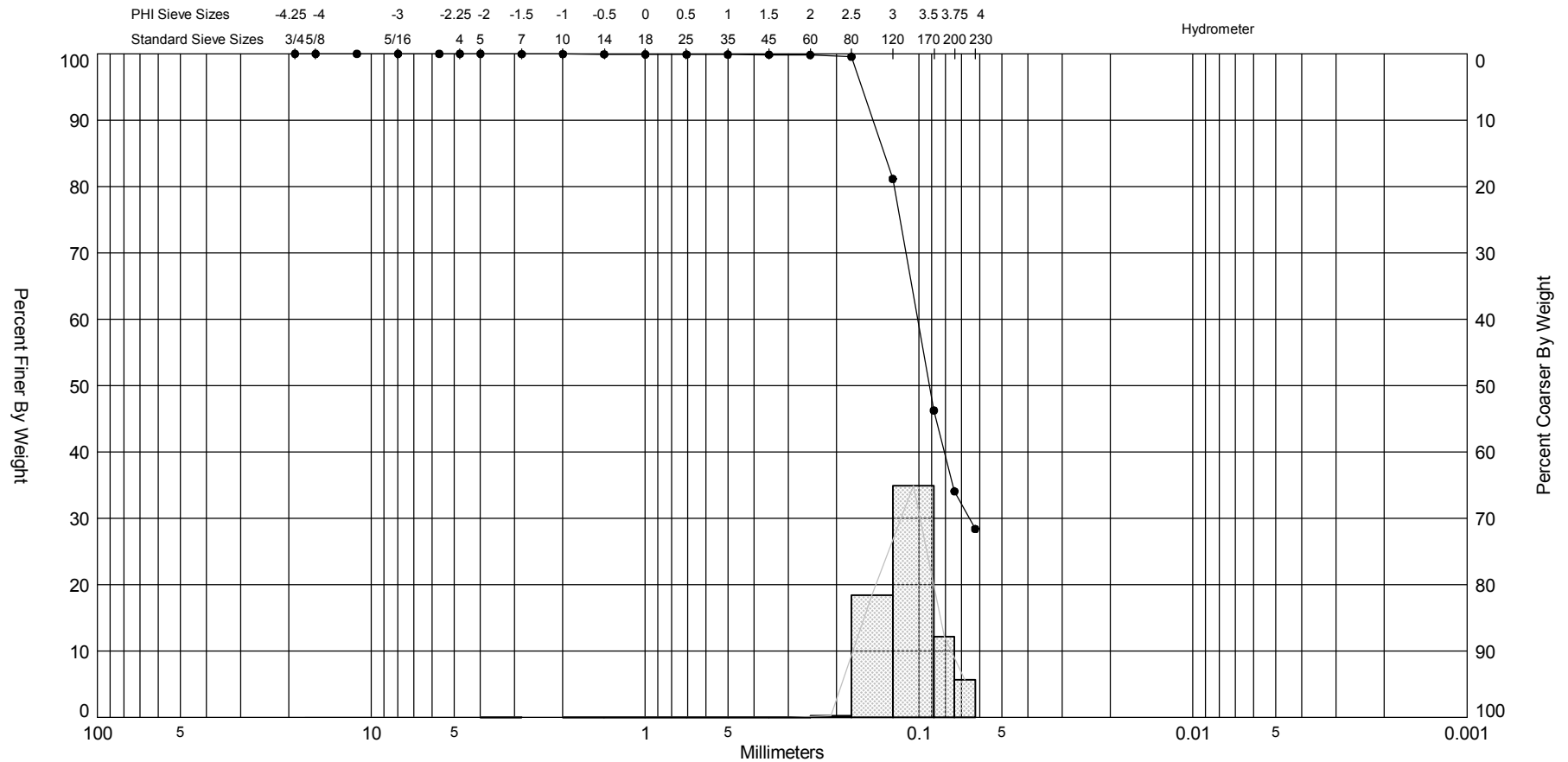
Silt and Clay



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ph (561) 391 8102

|        |      |        |        |      |               |
|--------|------|--------|--------|------|---------------|
| Gravel |      | Sand   |        |      | Silt and Clay |
| Coarse | Fine | Coarse | Medium | Fine |               |

| Sample                                                                              | Symbol                                                                              | Elev. (ft) | USCS | % Fines                      | % Organics | % Carbonates                                                                                                          | Median | Mean | Skew  | Kurt  | Sort | Sample Information |                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|------|------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------|--------|------|-------|-------|------|--------------------|----------------------|
| JCVC-15-02 #2                                                                       |  | -26.1      | CL   | #200 - 69.69<br>#230 - 60.27 |            |                                                                                                                       |        | 3.27 | -3.55 | 16.24 | 0.95 | Project Name:      | McFaddin Sand Search |
| Comments:                                                                           |                                                                                     |            |      |                              |            |                                                                                                                       |        |      |       |       |      | Analysis Date:     | 02-20-15             |
| Depths and elevations based on measured values                                      |                                                                                     |            |      |                              |            |                                                                                                                       |        |      |       |       |      | Analyzed By:       | GS                   |
|  |                                                                                     |            |      |                              |            | CB&I<br>Coastal Planning & Engineering, Inc.<br>2481 NW Boca Raton Blvd.<br>Boca Raton, FL 33431<br>ph (561) 391 8102 |        |      |       |       |      | Easting (X, ft):   | 3,473,817            |
|                                                                                     |                                                                                     |            |      |                              |            |                                                                                                                       |        |      |       |       |      | Northing (Y, ft):  | 13,787,402           |
|                                                                                     |                                                                                     |            |      |                              |            |                                                                                                                       |        |      |       |       |      | Horizontal System: | NAD 1983             |
|                                                                                     |                                                                                     |            |      |                              |            |                                                                                                                       |        |      |       |       |      | Vertical System:   | NAVD 88              |



| Gravel |      | Sand   |        |      | Silt and Clay |
|--------|------|--------|--------|------|---------------|
| Coarse | Fine | Coarse | Medium | Fine |               |

| Sample                                                                              | Symbol | Elev. (ft) | USCS | % Fines                      | % Organics | % Carbonates | Median                                                                                                                | Mean | Skew  | Kurt  | Sort | Sample Information |                      |
|-------------------------------------------------------------------------------------|--------|------------|------|------------------------------|------------|--------------|-----------------------------------------------------------------------------------------------------------------------|------|-------|-------|------|--------------------|----------------------|
| JCVC-15-02 #3                                                                       | —●—    | -27.1      | SC   | #200 - 34.06<br>#230 - 28.38 |            |              | 3.45                                                                                                                  | 3.22 | -1.78 | 22.28 | 0.38 | Project Name:      | McFaddin Sand Search |
| Comments:                                                                           |        |            |      |                              |            |              |                                                                                                                       |      |       |       |      | Analysis Date:     | 02-20-15             |
| Depths and elevations based on measured values                                      |        |            |      |                              |            |              |                                                                                                                       |      |       |       |      | Analyzed By:       | GS                   |
|  |        |            |      |                              |            |              | CB&I<br>Coastal Planning & Engineering, Inc.<br>2481 NW Boca Raton Blvd.<br>Boca Raton, FL 33431<br>ph (561) 391 8102 |      |       |       |      | Easting (X, ft):   | 3,473,817            |
|                                                                                     |        |            |      |                              |            |              |                                                                                                                       |      |       |       |      | Northing (Y, ft):  | 13,787,402           |
|                                                                                     |        |            |      |                              |            |              |                                                                                                                       |      |       |       |      | Horizontal System: | NAD 1983             |
|                                                                                     |        |            |      |                              |            |              |                                                                                                                       |      |       |       |      | Vertical System:   | NAVD 88              |

|                                                                                |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
|--------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------|-----------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                                  |                                                                |                                | <br>CB&I<br>Coastal Planning & Engineering, Inc.<br>2481 NW Boca Raton Blvd.<br>Boca Raton, FL 33431<br>ph (561) 391 8102 |                     |                                         |                 |
| Project Name: McFaddin Sand Search                                             |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
| Sample Name: JCVC-15-02 #1                                                     |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
| Analysis Date: 02-20-15                                                        |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
| Analyzed By: GS                                                                |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
| Easting (ft):<br><b>3,473,817</b>                                              |                                  | Northing (ft):<br><b>13,787,402</b>                            |                                | Coordinate System:<br><b>Texas South Central</b>                                                                                                                                                             |                     | Elevation (ft):<br><b>-24.7 NAVD 88</b> |                 |
| USCS:<br><b>CL</b>                                                             |                                  | Munsell: Wet - 2.5Y-5/2<br>Dry - 2.5Y-8/2<br>Washed - 2.5Y-8/1 |                                | Comments:                                                                                                                                                                                                    |                     |                                         |                 |
| Dry Weight (g):<br><b>148.58</b>                                               | Wash Weight (g):<br><b>48.40</b> | Pan Retained (g):<br><b>23.74</b>                              | Sieve Loss (%):<br><b>0.12</b> | Fines (%):<br><b>#200 - 91.76</b><br><b>#230 - 83.52</b>                                                                                                                                                     | Organics (%):       | Carbonates (%):                         | Shell Hash (%): |
| Sieve Number                                                                   | Sieve Size (Phi)                 | Sieve Size (Millimeters)                                       | Grams Retained                 | % Weight Retained                                                                                                                                                                                            | Cum. Grams Retained | C. % Weight Retained                    |                 |
| 3/4"                                                                           | -4.25                            | 19.03                                                          | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 5/8"                                                                           | -4.00                            | 16.00                                                          | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 7/16"                                                                          | -3.50                            | 11.31                                                          | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 5/16"                                                                          | -3.00                            | 8.00                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 3.5                                                                            | -2.50                            | 5.66                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 4                                                                              | -2.25                            | 4.76                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 5                                                                              | -2.00                            | 4.00                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 7                                                                              | -1.50                            | 2.83                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                                    |                 |
| 10                                                                             | -1.00                            | 2.00                                                           | 0.12                           | 0.08                                                                                                                                                                                                         | 0.12                | 0.08                                    |                 |
| 14                                                                             | -0.50                            | 1.41                                                           | 0.10                           | 0.07                                                                                                                                                                                                         | 0.22                | 0.15                                    |                 |
| 18                                                                             | 0.00                             | 1.00                                                           | 0.11                           | 0.07                                                                                                                                                                                                         | 0.33                | 0.22                                    |                 |
| 25                                                                             | 0.50                             | 0.71                                                           | 0.07                           | 0.05                                                                                                                                                                                                         | 0.40                | 0.27                                    |                 |
| 35                                                                             | 1.00                             | 0.50                                                           | 0.16                           | 0.11                                                                                                                                                                                                         | 0.56                | 0.38                                    |                 |
| 45                                                                             | 1.50                             | 0.35                                                           | 0.04                           | 0.03                                                                                                                                                                                                         | 0.60                | 0.41                                    |                 |
| 60                                                                             | 2.00                             | 0.25                                                           | 0.00                           | 0.00                                                                                                                                                                                                         | 0.60                | 0.41                                    |                 |
| 80                                                                             | 2.50                             | 0.18                                                           | 0.36                           | 0.24                                                                                                                                                                                                         | 0.96                | 0.65                                    |                 |
| 120                                                                            | 3.00                             | 0.13                                                           | 0.90                           | 0.61                                                                                                                                                                                                         | 1.86                | 1.26                                    |                 |
| 170                                                                            | 3.50                             | 0.09                                                           | 3.75                           | 2.52                                                                                                                                                                                                         | 5.61                | 3.78                                    |                 |
| 200                                                                            | 3.75                             | 0.07                                                           | 6.63                           | 4.46                                                                                                                                                                                                         | 12.24               | 8.24                                    |                 |
| 230                                                                            | 4.00                             | 0.06                                                           | 12.24                          | 8.24                                                                                                                                                                                                         | 24.48               | 16.48                                   |                 |
| Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.        |                                  |                                                                |                                |                                                                                                                                                                                                              |                     |                                         |                 |
| Phi 5                                                                          | Phi 16                           | Phi 25                                                         | Phi 50                         | Phi 75                                                                                                                                                                                                       | Phi 84              | Phi 95                                  |                 |
|                                                                                |                                  |                                                                |                                |                                                                                                                                                                                                              | 3.99                | 3.57                                    |                 |
| Moment                                                                         | Mean Phi                         | Mean mm                                                        | Sorting                        | Skewness                                                                                                                                                                                                     | Kurtosis            |                                         |                 |
| Statistics                                                                     | 3.55                             | 0.09                                                           | 0.68                           | -4.52                                                                                                                                                                                                        | 27.2                |                                         |                 |

|                                                                                |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
|--------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------|-----------------|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                                  |                                                                |                                | <br><b>CB&amp;I</b><br>Coastal Planning & Engineering, Inc.<br>2481 NW Boca Raton Blvd.<br>Boca Raton, FL 33431<br>ph (561) 391 8102 |                            |                                         |                 |
| Project Name: McFaddin Sand Search                                             |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
| Sample Name: JCVC-15-02 #2                                                     |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
| Analysis Date: 02-20-15                                                        |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
| Analyzed By: GS                                                                |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
| Easting (ft):<br><b>3,473,817</b>                                              |                                  | Northing (ft):<br><b>13,787,402</b>                            |                                | Coordinate System:<br><b>Texas South Central</b>                                                                                                                                                                        |                            | Elevation (ft):<br><b>-26.1 NAVD 88</b> |                 |
| USCS:<br><b>CL</b>                                                             |                                  | Munsell: Wet - 2.5Y-5/3<br>Dry - 2.5Y-7/3<br>Washed - 2.5Y-8/1 |                                | Comments:                                                                                                                                                                                                               |                            |                                         |                 |
| Dry Weight (g):<br><b>65.51</b>                                                | Wash Weight (g):<br><b>31.04</b> | Pan Retained (g):<br><b>4.89</b>                               | Sieve Loss (%):<br><b>0.17</b> | Fines (%):<br><b>#200 - 69.69</b><br><b>#230 - 60.27</b>                                                                                                                                                                | Organics (%):              | Carbonates (%):                         | Shell Hash (%): |
| <b>Sieve Number</b>                                                            | <b>Sieve Size (Phi)</b>          | <b>Sieve Size (Millimeters)</b>                                | <b>Grams Retained</b>          | <b>% Weight Retained</b>                                                                                                                                                                                                | <b>Cum. Grams Retained</b> | <b>C. % Weight Retained</b>             |                 |
| 3/4"                                                                           | -4.25                            | 19.03                                                          | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 5/8"                                                                           | -4.00                            | 16.00                                                          | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 7/16"                                                                          | -3.50                            | 11.31                                                          | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 5/16"                                                                          | -3.00                            | 8.00                                                           | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 3.5                                                                            | -2.50                            | 5.66                                                           | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 4                                                                              | -2.25                            | 4.76                                                           | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 5                                                                              | -2.00                            | 4.00                                                           | 0.00                           | 0.00                                                                                                                                                                                                                    | 0.00                       | 0.00                                    |                 |
| 7                                                                              | -1.50                            | 2.83                                                           | 0.13                           | 0.20                                                                                                                                                                                                                    | 0.13                       | 0.20                                    |                 |
| 10                                                                             | -1.00                            | 2.00                                                           | 0.31                           | 0.47                                                                                                                                                                                                                    | 0.44                       | 0.67                                    |                 |
| 14                                                                             | -0.50                            | 1.41                                                           | 0.37                           | 0.56                                                                                                                                                                                                                    | 0.81                       | 1.23                                    |                 |
| 18                                                                             | 0.00                             | 1.00                                                           | 0.14                           | 0.21                                                                                                                                                                                                                    | 0.95                       | 1.44                                    |                 |
| 25                                                                             | 0.50                             | 0.71                                                           | 0.14                           | 0.21                                                                                                                                                                                                                    | 1.09                       | 1.65                                    |                 |
| 35                                                                             | 1.00                             | 0.50                                                           | 0.08                           | 0.12                                                                                                                                                                                                                    | 1.17                       | 1.77                                    |                 |
| 45                                                                             | 1.50                             | 0.35                                                           | 0.08                           | 0.12                                                                                                                                                                                                                    | 1.25                       | 1.89                                    |                 |
| 60                                                                             | 2.00                             | 0.25                                                           | 0.03                           | 0.05                                                                                                                                                                                                                    | 1.28                       | 1.94                                    |                 |
| 80                                                                             | 2.50                             | 0.18                                                           | 0.08                           | 0.12                                                                                                                                                                                                                    | 1.36                       | 2.06                                    |                 |
| 120                                                                            | 3.00                             | 0.13                                                           | 2.80                           | 4.27                                                                                                                                                                                                                    | 4.16                       | 6.33                                    |                 |
| 170                                                                            | 3.50                             | 0.09                                                           | 7.73                           | 11.80                                                                                                                                                                                                                   | 11.89                      | 18.13                                   |                 |
| 200                                                                            | 3.75                             | 0.07                                                           | 7.98                           | 12.18                                                                                                                                                                                                                   | 19.87                      | 30.31                                   |                 |
| 230                                                                            | 4.00                             | 0.06                                                           | 6.17                           | 9.42                                                                                                                                                                                                                    | 26.04                      | 39.73                                   |                 |
| Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.        |                                  |                                                                |                                |                                                                                                                                                                                                                         |                            |                                         |                 |
| <b>Phi 5</b>                                                                   | <b>Phi 16</b>                    | <b>Phi 25</b>                                                  | <b>Phi 50</b>                  | <b>Phi 75</b>                                                                                                                                                                                                           | <b>Phi 84</b>              | <b>Phi 95</b>                           |                 |
|                                                                                |                                  |                                                                |                                | 3.64                                                                                                                                                                                                                    | 3.41                       | 2.84                                    |                 |
| <b>Moment</b>                                                                  | <b>Mean Phi</b>                  | <b>Mean mm</b>                                                 | <b>Sorting</b>                 | <b>Skewness</b>                                                                                                                                                                                                         | <b>Kurtosis</b>            |                                         |                 |
| <b>Statistics</b>                                                              | 3.27                             | 0.10                                                           | 0.95                           | -3.55                                                                                                                                                                                                                   | 16.24                      |                                         |                 |

|                                                                                |                  |                                                                |                |                                                                                                                                                                                                              |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
|--------------------------------------------------------------------------------|------------------|----------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|--|-----------------------------------------|--|-----------------|--|-----------------|--|-----------------|--|
| <b>Granularmetric Report</b><br>Depths and elevations based on measured values |                  |                                                                |                | <br>CB&I<br>Coastal Planning & Engineering, Inc.<br>2481 NW Boca Raton Blvd.<br>Boca Raton, FL 33431<br>ph (561) 391 8102 |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Project Name: McFaddin Sand Search                                             |                  |                                                                |                |                                                                                                                                                                                                              |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Sample Name: JCVC-15-02 #3                                                     |                  |                                                                |                |                                                                                                                                                                                                              |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Analysis Date: 02-20-15                                                        |                  |                                                                |                |                                                                                                                                                                                                              |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Analyzed By: GS                                                                |                  |                                                                |                | Easting (ft):                                                                                                                                                                                                |                     | Northing (ft):       |  | Coordinate System:                      |  | Elevation (ft): |  |                 |  |                 |  |
| 3,473,817                                                                      |                  | 13,787,402                                                     |                | Texas South Central                                                                                                                                                                                          |                     | -27.1 NAVD 88        |  |                                         |  |                 |  |                 |  |                 |  |
| USCS: SC                                                                       |                  | Munsell: Wet - 2.5Y-5/4<br>Dry - 2.5Y-7/4<br>Washed - 2.5Y-8/2 |                | Comments:                                                                                                                                                                                                    |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Dry Weight (g): 113.30                                                         |                  | Wash Weight (g): 85.19                                         |                | Pan Retained (g): 3.93                                                                                                                                                                                       |                     | Sieve Loss (%): 0.12 |  | Fines (%): #200 - 34.06<br>#230 - 28.38 |  | Organics (%):   |  | Carbonates (%): |  | Shell Hash (%): |  |
| Sieve Number                                                                   | Sieve Size (Phi) | Sieve Size (Millimeters)                                       | Grams Retained | % Weight Retained                                                                                                                                                                                            | Cum. Grams Retained | C. % Weight Retained |  |                                         |  |                 |  |                 |  |                 |  |
| 3/4"                                                                           | -4.25            | 19.03                                                          | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 5/8"                                                                           | -4.00            | 16.00                                                          | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 7/16"                                                                          | -3.50            | 11.31                                                          | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 5/16"                                                                          | -3.00            | 8.00                                                           | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 3.5                                                                            | -2.50            | 5.66                                                           | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 4                                                                              | -2.25            | 4.76                                                           | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 5                                                                              | -2.00            | 4.00                                                           | 0.00           | 0.00                                                                                                                                                                                                         | 0.00                | 0.00                 |  |                                         |  |                 |  |                 |  |                 |  |
| 7                                                                              | -1.50            | 2.83                                                           | 0.04           | 0.04                                                                                                                                                                                                         | 0.04                | 0.04                 |  |                                         |  |                 |  |                 |  |                 |  |
| 10                                                                             | -1.00            | 2.00                                                           | 0.00           | 0.00                                                                                                                                                                                                         | 0.04                | 0.04                 |  |                                         |  |                 |  |                 |  |                 |  |
| 14                                                                             | -0.50            | 1.41                                                           | 0.03           | 0.03                                                                                                                                                                                                         | 0.07                | 0.07                 |  |                                         |  |                 |  |                 |  |                 |  |
| 18                                                                             | 0.00             | 1.00                                                           | 0.02           | 0.02                                                                                                                                                                                                         | 0.09                | 0.09                 |  |                                         |  |                 |  |                 |  |                 |  |
| 25                                                                             | 0.50             | 0.71                                                           | 0.01           | 0.01                                                                                                                                                                                                         | 0.10                | 0.10                 |  |                                         |  |                 |  |                 |  |                 |  |
| 35                                                                             | 1.00             | 0.50                                                           | 0.01           | 0.01                                                                                                                                                                                                         | 0.11                | 0.11                 |  |                                         |  |                 |  |                 |  |                 |  |
| 45                                                                             | 1.50             | 0.35                                                           | 0.02           | 0.02                                                                                                                                                                                                         | 0.13                | 0.13                 |  |                                         |  |                 |  |                 |  |                 |  |
| 60                                                                             | 2.00             | 0.25                                                           | 0.03           | 0.03                                                                                                                                                                                                         | 0.16                | 0.16                 |  |                                         |  |                 |  |                 |  |                 |  |
| 80                                                                             | 2.50             | 0.18                                                           | 0.33           | 0.29                                                                                                                                                                                                         | 0.49                | 0.45                 |  |                                         |  |                 |  |                 |  |                 |  |
| 120                                                                            | 3.00             | 0.13                                                           | 20.86          | 18.41                                                                                                                                                                                                        | 21.35               | 18.86                |  |                                         |  |                 |  |                 |  |                 |  |
| 170                                                                            | 3.50             | 0.09                                                           | 39.53          | 34.89                                                                                                                                                                                                        | 60.88               | 53.75                |  |                                         |  |                 |  |                 |  |                 |  |
| 200                                                                            | 3.75             | 0.07                                                           | 13.81          | 12.19                                                                                                                                                                                                        | 74.69               | 65.94                |  |                                         |  |                 |  |                 |  |                 |  |
| 230                                                                            | 4.00             | 0.06                                                           | 6.43           | 5.68                                                                                                                                                                                                         | 81.12               | 71.62                |  |                                         |  |                 |  |                 |  |                 |  |
| Shell Hash calculated from visual estimate of shell <4.75mm and >2.8mm.        |                  |                                                                |                |                                                                                                                                                                                                              |                     |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Phi 5                                                                          | Phi 16           | Phi 25                                                         | Phi 50         | Phi 75                                                                                                                                                                                                       | Phi 84              | Phi 95               |  |                                         |  |                 |  |                 |  |                 |  |
|                                                                                |                  |                                                                | 3.45           | 3.09                                                                                                                                                                                                         | 2.92                | 2.62                 |  |                                         |  |                 |  |                 |  |                 |  |
| Moment                                                                         | Mean Phi         | Mean mm                                                        | Sorting        | Skewness                                                                                                                                                                                                     | Kurtosis            |                      |  |                                         |  |                 |  |                 |  |                 |  |
| Statistics                                                                     | 3.22             | 0.11                                                           | 0.38           | -1.78                                                                                                                                                                                                        | 22.28               |                      |  |                                         |  |                 |  |                 |  |                 |  |





