

Client.....  
Field.....

Well.....  
API number.....  
Engineer.....

COUNTY:.....  
STATE:.....

Spud date.....  
Last survey date..... 16-Dec-08  
Total accepted surveys... 3  
MD of first survey..... 0.00 m  
MD of last survey..... 197.16 m

----- Survey calculation methods-----  
Method for positions.....: Minimum curvature  
Method for DLS.....: Mason & Taylor

----- Depth reference -----  
Permanent datum.....: GROUND LEVEL  
Depth reference.....  
GL above permanent..... -15240.00 m  
KB above permanent..... -15240.00 m  
DF above permanent..... -15240.00 m

----- Vertical section origin-----  
Latitude (+N/S-)..... 0.00 m  
Departure (+E/W-)..... 0.00 m

----- Platform reference point-----  
Latitude (+N/S-)..... 0.00 m  
Departure (+E/W-)..... 0.00 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----  
Magnetic model.....: BGGM version 2008  
Magnetic date.....: 15-Dec-2008  
Magnetic field strength... 1214.44 HCNT  
Magnetic dec (+E/W-)..... 9.87 degrees  
Magnetic dip..... -69.62 degrees

----- MWD survey Reference Criteria -----  
Reference G..... 1000.02 mGal  
Reference H..... 1214.44 HCNT  
Reference Dip..... -69.62 degrees  
Tolerance of G..... (+/-) 2.50 mGal  
Tolerance of H..... (+/-) 6.00 HCNT  
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----  
Magnetic dec (+E/W-)..... 9.87 degrees  
Grid convergence (+E/W-).. -0.03 degrees  
Total az corr (+E/W-)..... 9.90 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...:  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction  
S=Shell Magnetic Correction  
F=Failed Axis Correction  
R=Magnetic Resonance Tool Correction  
D=Dmag Magnetic Correction

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| Seq<br># | Measured<br>depth<br>(m) | Incl<br>angle<br>(deg) | Azimuth<br>angle<br>(deg) | Course<br>length<br>(m) | TVD<br>depth<br>(m) | Vertical<br>section<br>(m) | Displ<br>+N/S-<br>(m) | Displ<br>+E/W-<br>(m) | Total<br>displ<br>(m) | At<br>Azim<br>(deg) | DLS<br>(deg/<br>10m) | Srvy<br>tool<br>type | Tool<br>Corr<br>(deg) |
|----------|--------------------------|------------------------|---------------------------|-------------------------|---------------------|----------------------------|-----------------------|-----------------------|-----------------------|---------------------|----------------------|----------------------|-----------------------|
| 1        | 0.00                     | 0.00                   | 0.00                      | 0.00                    | 0.00                | 0.00                       | 0.00                  | 0.00                  | 0.00                  | 0.00                | 0.00                 | TIP                  | None                  |
| 2        | 167.75                   | 1.24                   | 1.78                      | 167.75                  | 167.74              | 1.81                       | 1.81                  | 0.06                  | 1.82                  | 1.78                | 0.07                 | PUP                  | None                  |
| 3        | 197.16                   | 0.28                   | 58.77                     | 29.41                   | 197.14              | 2.17                       | 2.17                  | 0.13                  | 2.17                  | 3.37                | 0.38                 | PUP                  | None                  |

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