



January 26, 2009

**INFORMATION LETTER # OGC 09-02**

**Subject: Electronic Submission of Directional Survey Data**

**To: Industry Clients**

**Effective Date: February 1, 2009**

**Background:**

On January 1, 2009 changes to the Deep Royalty Program were implemented by the Ministry of Energy, Mines and Petroleum Resources (MEMPR). Qualification for the Deep Royalty Program now requires directional survey data for all qualifying wells spudded after February 1, 2009.

Directional survey data can be submitted via a new menu item on the Rich Client Applications on the Oil and Gas Commission (OGC) website. The Drilling Results Reporting System is used for weekly submission of drilling activity. Data can be uploaded to the Drilling Results Application after the rig release is reported. Detailed instructions are available using the help button in the application.

Industry clients without a web account enabling them to “LOGIN TO OGC WEB APPLICATIONS / KERMIT” will first need to set up a web account and password. New accounts can be created by visiting the OGC’s website at [www.ogc.gov.bc.ca](http://www.ogc.gov.bc.ca) and selecting “FIRST TIME USER” on the home page. Directional survey data submission privileges are then obtained by contacting your Company Administrator and obtaining “DRILLING RESULTS REP” security privileges.

**Requirement:**

Industry will now be required to electronically submit directional survey data for all wells spudded after February 1, 2009.

Directional surveys must be submitted in both text and PDF format. Cross section and plan view graphic plots must be included when available and a Measurement While Drilling (MWD) log is to be submitted in LAS format when available. All related files must be submitted concurrently via the OGC website.

To facilitate proper identification of submitted data, a file naming convention is required. Files must be named using the following method prior to submission:

Description of File Naming Convention: **WANUM\_DE\_DIR\_XX.TYPE**

**WANUM** – Assigned five-digit Well Authorization (WA) Number.

**DE** – Two-digit Drilling Event Number; this number defines the well bore

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chronologically and corresponds to the last two digits of the unique well identifier (UWI) . Acceptable values are 00 to 99, omitting 01. (NOTE: The Commission may be unable to present this number at the time of submission - please use your best judgment).

**DIR** – Submission classification. (NOTE: DIR stands for directional survey).

**XX** – Version identifier; two-digit number between 00 and 99 (00 applies to the original submission). Revisions or corrections to the original submission are subsequently identified 01 to 99.

**TYPE** - File type (TXT, PDF or LAS).

**Example of File Naming Convention:**

Original directional survey data submission for WA 24195, Drilling Event 00

24195\_00\_DIR\_00.PDF for the PDF file

24195\_00\_DIR\_00.LAS for the LAS file

24195\_00\_DIR\_00.TXT for the text file

The following file specifications support the majority of data standards and formatting currently used by industry clients:

- PDF files must be searchable, as created by Adobe Acrobat.
- LAS files must be formatted as per industry standard.
- Text files must be loosely formatted as defined below.

Text files must contain a minimum of three columns with space or tab column delimiters; values can contain up to two decimal places. The first three columns must be Measured Depth (meters, referenced to Kelly Bushing), Inclination (degrees) and Azimuth (degrees, corrected to true north) in specific order. Header data, column titles and additional columns to those specified above can also be included in the file. The data component of the file must be contiguous from where the data starts to the end of the file and should not be interrupted by repeating header information or column titles.

The last point on the directional survey must be the Total Measured Depth of the well bore. This allows the OGC to link the directional survey with the correct drilling event.

*Appendix A* illustrates a formatted sample text file.

**If you have any questions regarding the above, please contact:**

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**Original signed by:**

Alex Ferguson  
 Commissioner  
 BC Oil and Gas Commission

**APPENDIX A**

HEADER INFORMATION

Company: Oil and Gas Company  
 Field: Field (NAD 83) Canadian UTM Zones (NAD83/GRS80)  
 North Ref: True  
 Site/Location: Oil and Gas Company Field Loc UTM Zone 10, North 126W to 120W Mag.Corr. +17.66  
 EAST  
 Well: Location GRS 1980 Depth Units:m  
 Wellpath: 2090  
 Survey Name: Actual Wellpath (As Drilled)

WELLHEAD LOCATION

BOTTOM HOLE LOCATION

Well Northing: #####.## Lat: ##°##'##.###N Rig K.B: 781.92  
 BHL Md 3630.00  
 Well Easting: #####.## Long: ###°##'##.###W Vsec Az: 343.51  
 BHL Tvd 2181.09

SURVEY LIST

MD	INC	AZI	TVD	NS	EW	VSEC	DLS	S/STVD	Northing	Easting	Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-781.92	6138053.28		670205.10
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	-431.92	6138053.28		670205.10
367.16	0.88	46.39	367.16	0.09	0.10	0.06	1.54	-414.76	6138053.38		670205.20
423.35	0.81	18.52	423.34	0.77	0.53	0.58	0.22	-358.58	6138054.07		670205.61
479.15	0.88	13.89	479.14	1.56	0.76	1.27	0.05	-302.78	6138054.87		670205.81
535.22	1.00	356.89	535.20	2.46	0.84	2.12	0.16	-246.72	6138055.77		670205.85
591.62	0.81	335.77	591.59	3.32	0.65	3.00	0.20	-190.33	6138056.62		670205.63
647.95	1.38	329.14	647.91	4.26	0.14	4.05	0.31	-134.01	6138057.55		670205.08
704.10	0.63	8.39	704.05	5.15	-0.16	4.98	0.52	-77.87	6138058.42		670204.74
760.25	1.19	277.89	760.20	5.53	-0.70	5.50	0.72	-21.72	6138058.78		670204.20
816.25	0.63	257.64	816.19	5.55	-1.57	5.77	0.34	34.27	6138058.76		670203.32
873.37	1.44	251.76	873.30	5.26	-2.56	5.77	0.43	91.38	6138058.43		670202.34
930.71	1.19	236.64	930.63	4.70	-3.74	5.57	0.22	148.71	6138057.84		670201.18
988.14	0.94	284.14	988.05	4.49	-4.70	5.64	0.46	206.13	6138057.59		670200.24
1045.23	0.25	336.89	1045.13	4.72	-5.20	6.00	0.43	263.21	6138057.80		670199.73
1102.52	0.50	109.01	1102.42	4.75	-5.01	5.98	0.36	320.50	6138057.84		670199.91
1159.93	0.69	147.64	1159.83	4.38	-4.59	5.50	0.23	377.91	6138057.48		670200.35
1217.16	0.38	168.76	1217.06	3.90	-4.37	4.98	0.19	435.14	6138057.01		670200.59
1274.31	2.44	167.14	1274.19	2.53	-4.06	3.58	1.08	492.27	6138055.65		670200.95
1331.62	1.63	157.39	1331.46	0.59	-3.48	1.55	0.46	549.54	6138053.73		670201.61
1389.08	0.81	197.14	1388.91	-0.56	-3.28	0.40	0.59	606.99	6138052.60		670201.84
1446.33	1.25	247.39	1446.15	-1.18	-3.98	0.00	0.50	664.23	6138051.95		670201.17
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3607.50	90.20	356.70	2181.07	1445.77	-365.14	1489.95	2.63	1399.15	6139483.90		669784.49
3616.00	89.90	354.90	2181.06	1454.25	-365.76	1498.26	6.44	1399.14	6139492.35		669783.54
3630.00	89.90	354.90	2181.09	1468.20	-367.01	1511.98					<b>Extrapolated to TD @ 3630mMD</b>