Labiche 2006 2D

NEB Final Report

GOA # 9211-E144-001P

Acquisition: September and October 2006

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Enclosures

- Program Map
- Shot Point Maps
- Section
- DVD Containing: SEG P1, Shot Point Map, Section TIFF, Report

Summary

In July of 2006,Veritas DGC Land was awarded a dynamite 2D contract to record 23.3 kilometers of seismic in the Labiche area of the NWT and Yukon for Explor Data.

At this point, mitigation was put in place for the risk assessment, emergency response plan and a time line.

On the week of August 1st, bids were sent out for the following services.

The services that were required included:

- Survey
- Drilling
- Medics

Other services that were required included camps, catering, line clearing, barging and a water truck for camp, which were given to the Beaver Enterprises from Ft.Liard. We also used a line clearing crew from Liard First Nations along with a local company from Ft Liard.

While the crew was in the area they used the town of Ft Liard for supplies and fuel.

The recording crew contracted local labor from Nahanni Butte to work with the line crews and stayed in the Beaver camp in Ft Liard while the advance crew finished up in Pointed Mountain and then demobbed the camp due to restrictions on the barge timing.

Logistics

Upon arrival of the Project Manager in Ft Liard on Sept 11th, meetings were held with the regulators and contractors to go over the equipment and the logistics of the program.

The advance crew used the camp from Beaver Enterprises located at Pointed Mountain to support the program.

An additional sleeper, water tank and incinerator had to be trucked in to get the camp up to operating standards.

Upon flying the line, the terrain was mostly alpine with tree cover on the east and west portion of the line.

Before completion of the job the crews encountered snow and wind, which delayed the program by two weeks.

At the end of the advance portion of the program, the PM worked with Beaver Enterprises to demob the camp back to Ft.Liard, via the Pointed Mountain road and then barging along the Liard River to the town of Ft.Liard.

Timeline

Project Manager	Sept 11 2006 to Oct 21 2006
HSE Advisor	Sept 11 2006 to Oct 25 2006
Monitors	Sept 13 2006 to Oct 04 2006
Medics	Sept 11 2006 to Oct 25 2006
Survey	Sept 14 2006 to Oct 05 2006
Line Clearing/Slashing	Sept 15 2006 to Oct 04 2006
Drills	Oct 04 2006 to Oct 13 2006
Recording	Oct 07 2006 to Oct 25 2006

Equipment

Project Manager / HSE Advisor	2 4x4 Trucks
Survey	2 4x4 Trucks
Medics	1 4x4 Truck with shelter
Camps	1 20 man camp with additional sleeper
Helicopters	1 Bell 204 1 Bell 212 1 A-Star B3
Drills	5 Heliportable Drill Units and supplies 1 crew van 1 enviro tanker and shop trailer
Recording Crew	5 4x4 Trucks 1 40 Foot High Boy 1 Heliportable Recorder with Generator 1 Battery Charging Unit

Crew Members

Recording Crew	(includes Project Manager/HSE Advisor)	**31**
Medics		**1**
Monitors		**1**
Advance Man		**1**
Survey		**2**
Slashers		**13**
Drills		**16**
Drill Push		**1**
Aircraft Personnel		**6**
Camp Personnel		**6**

Production

The ***survey*** production for a total of 23.3 kilometers was averaged out to 1.05 kilometers per day. This included control points and travel from Calgary to Ft LIard.Low production was due to the weather.

The ***line clearing*** production for a total of 23.3 kilometers was averaged out to 1.165 kilometers per day, higher alpine areas and local content played a huge part in higher production than the survey crews.

The ***drill crew*** had a total of 260 heli holes and the average production per day was at 26 holes per day, low production was also due to weather and strong winds.

The ***recording crew*** production for the 23.3 kilometers was at 1.22 kilometers, which included mob and demob. The line crew also encountered bad weather with snow and strong winds along with fog at the airport in Ft Liard.

Weather

The weather throughout the program was from 25°C to -13 °C, daily temperature and precipitation reports for September and October, 2006 follow.

Daily Data Report for September 2006											
Day	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days °C	Cool Deg Days °C	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's Deg	Spd of Max Gust km/h
01	24.8	6.5	15.7	2.3	0.0	0.0	0.0	0.0	0		
02	25.2	10.4	17.8	0.2	0.0	0.0	0.0	0.0	0		
03	16.2	11.3	13.8	4.2	0.0	0.0	0.0	0.0	0		
04	16.8	12.3	14.6	3.4	0.0	0.0	0.0	0.0	0		
05	18.7	11.4	15.1	2.9	0.0	1.8	0.0	1.8	0		
06	23.6	8.8	16.2	1.8	0.0	0.2	0.0	0.2	0		
07	23.1	5.5	14.3	3.7	0.0	0.0	0.0	0.0	0		
08	20.2	6.0	13.1	4.9	0.0	0.0	0.0	0.0	0		
09	20.5	8.1	14.3	3.7	0.0	0.0	0.0	0.0	0		
10	18.7	6.2	12.5	5.5	0.0	0.0	0.0	0.0	0		
11	19.3	6.8	13.1	4.9	0.0	0.0	0.0	0.0	0		
12	20.0	1.4	10.7	7.3	0.0	1.8	0.0	1.8	0		
13	8.8	0.0	4.4	13.6	0.0	2.0	0.0	2.0	0		
14	10.9	-1.4	4.8	13.2	0.0	0.0	0.0	0.0	0		
15	10.1	-3.4	3.4	14.6	0.0	0.0	0.0	0.0	0		
16	11.3	0.2	5.8	12.2	0.0	0.0	0.0	0.0	0		
17	15.2	-2.5	6.4	11.6	0.0	0.0	0.0	0.0	0		
18	7.2	-2.0	2.6	15.4	0.0	3.0	0.0	3.0	0		
19	11.6	4.3	8.0	10.0	0.0	0.0	0.0	0.0	0		
20	13.7	1.3	7.5	10.5	0.0	0.0	0.0	0.0	0		
21	13.4	2.5	8.0	10.0	0.0	0.8	0.0	0.8	0		
22	12.1	3.7	7.9	10.1	0.0	0.0	0.0	0.0	0		
23	17.1	3.5	10.3	7.7	0.0	0.0	0.0	0.0	0		
24	16.5	3.7	10.1	7.9	0.0	0.2	0.0	0.2	0		
25	9.6	6.7	8.2	9.8	0.0	10.0	0.0	10.0	0		
26	10.4	3.3	6.9	11.1	0.0	0.0	0.0	0.0	0		
27	15.5	3.7	9.6	8.4	0.0	0.0	0.0	0.0	0		
28	18.6	10.6	14.6	3.4	0.0	0.0	0.0	0.0	0		
29	19.1	7.1	13.1	4.9	0.0	0.0	0.0	0.0	0		
30	12.2	3.7	8.0	10.0	0.0	17.8	0.0	17.8	0		
Sum				**229.2**	**0.0**	**37.6**	**0.0**	**37.6**			
Avg	**16.0**	**4.7**	**10.4**								
Xtrm	**25.2**	**-3.4**									

Daily Data Report for October 2006											
Day	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days °C	Cool Deg Days °C	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's Deg	Spd of Max Gust km/h
01	9.3	4.1	6.7	11.3	0.0	4.8	0.0	4.8	0		
02	14.5	1.8	8.2	9.8	0.0	0.0	0.0	0.0	0		
03	15.6	-0.8	7.4	10.6	0.0	0.0	0.0	0.0	0		
04	12.9	2.0	7.5	10.5	0.0	0.0	0.0	0.0	0		
05	16.0	1.8	8.9	9.1	0.0	0.0	0.0	0.0	0		
06	15.1	-0.9	7.1	10.9	0.0	0.0	0.0	0.0	0		
07	13.5	-2.0	5.8	12.2	0.0	0.0	0.0	0.0	0		
08	14.6	-3.5	5.6	12.4	0.0	0.0	0.0	0.0	0		
09	8.7	0.2	4.5	13.5	0.0	0.4	0.0	0.4	0		
10	3.4	1.4	2.4	15.6	0.0	1.4	0.0	1.4	0		
11	10.6	2.2	6.4	11.6	0.0	0.0	0.0	0.0	M		
12	9.6	-1.6	4.0	14.0	0.0	0.2	0.0	0.2	M		
13	5.8	-1.8	2.0	16.0	0.0	1.2	0.0	1.2	M		
14	2.4	0.5	1.5	16.5	0.0	6.8	0.0	6.8	M		
15	1.1	-0.2	0.5	17.5	0.0	0.0	4.0	0.6	M		
16	4.3	-3.5	0.4	17.6	0.0	0.2	0.0	0.2	M		
17	-1.0	-4.8	-2.9	20.9	0.0	0.0	0.0	0.0	M		
18	-0.3	-3.2	-1.8	19.8	0.0	0.0	0.0	0.0	M		
19	1.7	-1.3	0.2	17.8	0.0	0.0	0.0	0.0	M		
20	0.1	-1.3	-0.6	18.6	0.0	0.0	0.0	0.0	M		
21	2.6	-4.0	-0.7	18.7	0.0	0.0	0.0	0.0	M		
22	5.6	-2.3	1.7	16.3	0.0	0.0	0.0	0.0	M		
23	6.1	-3.7	1.2	16.8	0.0	0.0	0.0	0.0	M		
24	3.9	-0.7	1.6	16.4	0.0	0.0	4.6	4.6	M		
25	0.2	-3.9	-1.9	19.9	0.0	0.0	4.4	4.4	M		
26	6.3	-5.5	0.4	17.6	0.0	0.0	0.6	0.6	M		
27	3.6	-5.0	-0.7	18.7	0.0	0.0	0.0	0.0	M		
28	-2.4	-4.8	-3.6	21.6	0.0	0.0	0.0	0.0	M		
29	0.7	-7.4	-3.4	21.4	0.0	0.0	0.2	0.2	M		
30	0.1	-12.9	-6.4	24.4	0.0	0.0	0.0	0.0	M		
31	-5.0	-15.3	-10.2	28.2	0.0	0.0	0.0	0.0	M		
Sum				**506.2**	**0.0**	**15.0**	**13.8**	**25.4**			
Avg	**5.8**	**-2.5**	**1.7**								
Xtrm	**16.0**	**-15.3**									

http://www.climate.weatheroffice.ec.gc.ca/climateData/dailydata_e.html

Processing

Data was processed by Thrust Belt Imaging, Calgary using the following processing sequence:

Surface consistent decon 160ms
FX Coherent Noise Attenuation
Velocity Analysis
Velocity Scanning
Two passes Surface consistent residual statics
Velocity analysis
Velocity Scanning
Stack
Kirchhoff Post Stack Migration 90% Velocity
Time Variant Filter

Instruments

Survey Leica 1230 RTK

Recording Sercel 408 FDU's with 18-meter extension
OYO 10 Hertz's 6 per Marsh Geophones

Parameters

23.3 kilometers

Receiver Spacing	15 meters
Source Spacing	90 meters
Number or Traces Recorded	600
Coverage	5000 %
Receiver array	6 phones over 15 meters
Record Length	8 seconds
Sample Rate	2 Milliseconds
Channels on Crew	1320