

927-128-12E

Bele

DRIFT STATION MODELED BY WESTERN

46587 R748.08

LINE 8615  
V.P. 101-922  
STRUCTURAL STACK

NORMAL POLARITY  
SOUTH-EAST

# PETRO-CANADA INC.

PROCESSED BY WESTERN GEOPHYSICAL DIVISION OF LITTON INDUSTRIES

AREA: THEED LAKE, N.W.T.

SURVEY DATE: DECEMBER 1985  
PROCESSING DATE: FEBRUARY 1986  
RECORDED BY: WESTERN GEOPHYSICAL CO. LTD.  
REPLACEMENT VELOCITY: 6000 M/SEC  
DATUM ELEVATION: 305 METERS

## RECORDING INFORMATION

SOURCE:  
ENERGY SOURCE: VIBROSEIS  
VIBRATOR MODEL: LRS-305  
SWEPT FREQUENCY: 20-100 HZ LINEAR  
SWEPT LENGTH: 6 SEC  
NUMBER OF SWEPTS: 8  
RING LENGTH: 80 M  
SOURCE TO FIRST RECEIVER: 80 M  
VIB. POINT INTERVAL: 40 M  
GROUPS DROPPED IN GAP: 7

INSTRUMENTS:  
AMPLIFIER: DFS V  
FILTER: OUT-128 HZ  
SAMPLING INTERVAL: 2 MS  
RECORD LENGTH: 9 SEC  
60 HZ NOTCH FILTER: OUT  
TYPE: FORMER

RECEIVERS:  
GEOPHONE TYPE: LRS-101 14 HZ  
GEOPHONES PER GROUP: 9 OVER 20 M  
GROUP INTERVAL: 20 M  
PERCENT COVERAGE: 2400 %

SPREAD GEOMETRY:  
SOURCE: 1 48 48 96  
TRACE: 1020 M 80 M 80 M 1020 M  
DISTANCE: 1020 M 80 M 80 M 1020 M

## PROCESSING SEQUENCE AND PARAMETERS

PROCESSING SAMPLE INTERVAL 2 MS.

1. DEMULTIPLY:  
VIBROSEIS CORRELATION  
PROCESSED TO 3.0 SECONDS
2. TRACE EDIT:  
VISUAL QC OF EVERY RECORD
3. GEOMETRY COMPUTATIONS:  
ELEVATION AND DISTANCES
4. 60 HZ NOTCH FILTER
5. F-K DOMAIN FILTER:  
ATTENUATE DIPS OF  
4 - 12.5 M/SEC
6. PHASE COMPENSATION:  
180-101 14 HZ GEOPHONES
7. AMPLITUDE COMPENSATION:  
TIME FUNCTION EXPONENTIAL VALUE OF 2.5
8. ZERO-PHASE FREQUENCY DECONVOLUTION:  
NO. OF WINDOWS: 1  
NEAR TRACE START TIME: 200 MS  
START TIME VELOCITY: 6000 M/SEC  
WINDOW LENGTH: 1000 MS  
PERCENT PRE-WHITENING: 0.1 %
9. PREDICTIVE DECONVOLUTION:  
TYPE: WINDOW PHASE INVERSE FILTER  
NO. OF WINDOWS: 1  
NEAR TRACE START TIME: 200 MS  
START TIME VELOCITY: 6000 M/SEC  
WINDOW LENGTH: 1000 MS  
MINIMUM PREDICTION DISTANCE: 20 MS  
OPERATOR LENGTH: 100 MS  
PERCENT PRE-WHITENING: 0.1 %
10. C.D.F. SORT
11. STATIC COMPUTATIONS:  
MODEL BASED REFRACTION  
DRIFT AND WEATHERING CORRECTIONS
12. AUTOMATIC STATION NUMBERING:  
WINDOW: 250 - 1000 MS  
DRIFT LIMIT: 17.24 MS
13. VELOCITY ANALYSIS (VELANAL):  
DISTANCE (METERS): TIME (MS):  
100 0  
200 100  
300 200  
400 300  
500 400  
600 500  
700 600  
800 700  
900 800  
1000 900
14. NORMAL MOVEOUT CORRECTION
15. MUTE PATTERN:  
DISTANCE (METERS): TIME (MS):  
100 0  
200 100  
300 200  
400 300  
500 400  
600 500  
700 600  
800 700  
900 800  
1000 900
16. STACK:  
1400 3. EQUAL WEIGHTS  
WITH CDP CORRELATION TRIM STATICS
17. TIME VARIANCE FILTER:  
TIME (MS): FILTER APPLIED  
0-1000 20-70 HZ 18/48 DB/OCTAVE  
1200-2000 20-70 HZ 18/48 DB/OCTAVE
18. REFLECTION STRENGTH GAIN:  
MAXIMUM STRENGTH AFTER GAIN: 2.0
19. RMS GAIN:  
100/1000 MS WINDOWS

## DISPLAY PARAMETERS

HORIZONTAL SCALE: 24 TRACES PER INCH  
VERTICAL SCALE: 7.5 INCHES PER SECOND  
PLOTING GAIN: 12 DB

| TIME (S) | WAVELENGTH (M)       | VELOCITY (M/SEC)     | PERIOD (S) |
|----------|----------------------|----------------------|------------|
| 0.00     | 5000                 | 5000                 | 0.00       |
| 0.25     | 4000                 | 4000                 | 0.25       |
| 0.50     | 3000                 | 3000                 | 0.50       |
| 0.75     | 2000                 | 2000                 | 0.75       |
| 1.00     | 1500                 | 1500                 | 1.00       |
| 1.25     | 1000                 | 1000                 | 1.25       |
| 1.50     | 750                  | 750                  | 1.50       |
| 1.75     | 500                  | 500                  | 1.75       |
| 2.00     | 300                  | 300                  | 2.00       |
| 2.25     | 200                  | 200                  | 2.25       |
| 2.50     | 150                  | 150                  | 2.50       |
| 2.75     | 100                  | 100                  | 2.75       |
| 3.00     | 75                   | 75                   | 3.00       |
| 3.25     | 50                   | 50                   | 3.25       |
| 3.50     | 30                   | 30                   | 3.50       |
| 3.75     | 20                   | 20                   | 3.75       |
| 4.00     | 15                   | 15                   | 4.00       |
| 4.25     | 10                   | 10                   | 4.25       |
| 4.50     | 7.5                  | 7.5                  | 4.50       |
| 4.75     | 5                    | 5                    | 4.75       |
| 5.00     | 3                    | 3                    | 5.00       |
| 5.25     | 2                    | 2                    | 5.25       |
| 5.50     | 1.5                  | 1.5                  | 5.50       |
| 5.75     | 1                    | 1                    | 5.75       |
| 6.00     | 0.75                 | 0.75                 | 6.00       |
| 6.25     | 0.5                  | 0.5                  | 6.25       |
| 6.50     | 0.3                  | 0.3                  | 6.50       |
| 6.75     | 0.2                  | 0.2                  | 6.75       |
| 7.00     | 0.15                 | 0.15                 | 7.00       |
| 7.25     | 0.1                  | 0.1                  | 7.25       |
| 7.50     | 0.075                | 0.075                | 7.50       |
| 7.75     | 0.05                 | 0.05                 | 7.75       |
| 8.00     | 0.0375               | 0.0375               | 8.00       |
| 8.25     | 0.025                | 0.025                | 8.25       |
| 8.50     | 0.01875              | 0.01875              | 8.50       |
| 8.75     | 0.0125               | 0.0125               | 8.75       |
| 9.00     | 0.009375             | 0.009375             | 9.00       |
| 9.25     | 0.00625              | 0.00625              | 9.25       |
| 9.50     | 0.0046875            | 0.0046875            | 9.50       |
| 9.75     | 0.003125             | 0.003125             | 9.75       |
| 10.00    | 0.00234375           | 0.00234375           | 10.00      |
| 10.25    | 0.0015625            | 0.0015625            | 10.25      |
| 10.50    | 0.001171875          | 0.001171875          | 10.50      |
| 10.75    | 0.00078125           | 0.00078125           | 10.75      |
| 11.00    | 0.0005859375         | 0.0005859375         | 11.00      |
| 11.25    | 0.000390625          | 0.000390625          | 11.25      |
| 11.50    | 0.00029296875        | 0.00029296875        | 11.50      |
| 11.75    | 0.000197265625       | 0.000197265625       | 11.75      |
| 12.00    | 0.000147953125       | 0.000147953125       | 12.00      |
| 12.25    | 0.00011096484375     | 0.00011096484375     | 12.25      |
| 12.50    | 0.000083224609375    | 0.000083224609375    | 12.50      |
| 12.75    | 0.00006241846875     | 0.00006241846875     | 12.75      |
| 13.00    | 0.00004681384375     | 0.00004681384375     | 13.00      |
| 13.25    | 0.000035110390625    | 0.000035110390625    | 13.25      |
| 13.50    | 0.000026332796875    | 0.000026332796875    | 13.50      |
| 13.75    | 0.000019749609375    | 0.000019749609375    | 13.75      |
| 14.00    | 0.0000147953125      | 0.0000147953125      | 14.00      |
| 14.25    | 0.000011096484375    | 0.000011096484375    | 14.25      |
| 14.50    | 0.0000083224609375   | 0.0000083224609375   | 14.50      |
| 14.75    | 0.000006241846875    | 0.000006241846875    | 14.75      |
| 15.00    | 0.000004681384375    | 0.000004681384375    | 15.00      |
| 15.25    | 0.0000035110390625   | 0.0000035110390625   | 15.25      |
| 15.50    | 0.0000026332796875   | 0.0000026332796875   | 15.50      |
| 15.75    | 0.0000019749609375   | 0.0000019749609375   | 15.75      |
| 16.00    | 0.00000147953125     | 0.00000147953125     | 16.00      |
| 16.25    | 0.0000011096484375   | 0.0000011096484375   | 16.25      |
| 16.50    | 0.00000083224609375  | 0.00000083224609375  | 16.50      |
| 16.75    | 0.0000006241846875   | 0.0000006241846875   | 16.75      |
| 17.00    | 0.0000004681384375   | 0.0000004681384375   | 17.00      |
| 17.25    | 0.00000035110390625  | 0.00000035110390625  | 17.25      |
| 17.50    | 0.00000026332796875  | 0.00000026332796875  | 17.50      |
| 17.75    | 0.00000019749609375  | 0.00000019749609375  | 17.75      |
| 18.00    | 0.000000147953125    | 0.000000147953125    | 18.00      |
| 18.25    | 0.00000011096484375  | 0.00000011096484375  | 18.25      |
| 18.50    | 0.000000083224609375 | 0.000000083224609375 | 18.50      |
| 18.75    | 0.00000006241846875  | 0.00000006241846875  | 18.75      |
| 19.00    | 0.00000004681384375  | 0.00000004681384375  | 19.00      |
| 19.25    | 0.000000035110390625 | 0.000000035110390625 | 19.25      |
| 19.50    | 0.000000026332796875 | 0.000000026332796875 | 19.50      |
| 19.75    | 0.000000019749609375 | 0.000000019749609375 | 19.75      |
| 20.00    | 0.0000000147953125   | 0.0000000147953125   | 20.00      |

|             |         |       |  |
|-------------|---------|-------|--|
| ST 355.0    |         | CDF 1 |  |
| TIME(S)     | RWS VEL | DI    |  |
| 0.00        | 5500    | 5     |  |
| 0.35        | 4710    | 4     |  |
| 0.43        | 4145    | 4     |  |
| 0.61        | 4165    | 4     |  |
| 0.71        | 4115    | 4     |  |
| 0.91        | 4820    | 6     |  |
| 2.00        | 6000    | 6     |  |
| DATUM CORR= |         | -38   |  |



