REPORT AND INDEX OF

UNDERWAY MARINE GEOPHYSICAL DATA

WESTWARD EXPEDITION

LEG 0 (Test Trip)

R/V Melville

(Issued March 1994)

San Diego, Calif. (17 November 1993)
to
San Diego, Calif. (19 November 1993)

Chief Scientist:

Chief Scientist - Capt. Tom Althouse, SIO

Resident Marine Technician - Gene Pillard

Computer Technician - Jim Charters

Sea Beam/Underway Processor - Stuart M. Smith

Post-Cruise Processing and Report Preparation by the
Geological Data Center, Scripps Institution of Oceanography
La Jolla, California 92093

Data Collection and Processing Funded by:

GDC Cruise I.D.# 266

INFORMAL REPORT AND INDEX OF NAVIGATION AND UNDERWAY GEOPHYSICAL DATA

Processed by the Geological Data Center
Scripps Institution of Oceanography

Contents:

Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts - annotated with dates and hour ticks.

Profiles - depth, magnetic anomaly and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile).

Sample Index - list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines if collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise leg.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, CA 92093-0223. Phone (619)534-2752. Fax (619)534-5306. Internet Email:ssmith@ucsd.edu

1. Files on Exabyte, DAT or 1/2 inch magnetic tape:
   a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
   b) These same data in a merged ASCII file in the MGD77 Exchange format.
   c) SeaBeam depth data (binary, Sun byte order) in SIO Swath Bathymetry format (not available on 1/2" tape).
   d) SeaBeam Sidescan data (not available on 1/2" tape).

2. Microfilm (35mm flowfilm) or Xerox copies of:
   a) Underway Watch log book.
   b) SeaBeam vertical beam profile/Sidescan records.
   c) Echosounder records - 3.5 kHz frequency.
   d) Magnetometer records.
   e) Seismic reflection profiler records.

3. Navigation listing with times and positions of fixes and course and speed changes.

4. Plots:
   a) Copies of archived 1.2"/degree scale trackplots.
   b) Copies of archived 8"/degree scale SeaBeam depth plots.
   c) Custom plots in Mercator projection:
      1) Track plots.
      2) SeaBeam depth contour plots.
      3) Depth, magnetic or gravity values printed or profiled along track.

SeaBeam 2000 Data Collection

This was a short test-cruise prior to Westward Expedition with testing of the Sea Beam 2000 and other ship's equipment the main purpose rather than scientific data collection.

A survey was conducted for W. Macha (NRAD) on the shelf just west of Point Loma.

The Sea Beam data remain proprietary to the SIO Shipboard Technical Support Group.

March 1994

SIO SeaBeam 2000 Data Information

The following forms are available, subject to approval of the cruise leg chief scientist:

1) Hardcopy of realtime contour swath records and records with vertical beam and sidescan grayscale display are available for inspection at the data center.

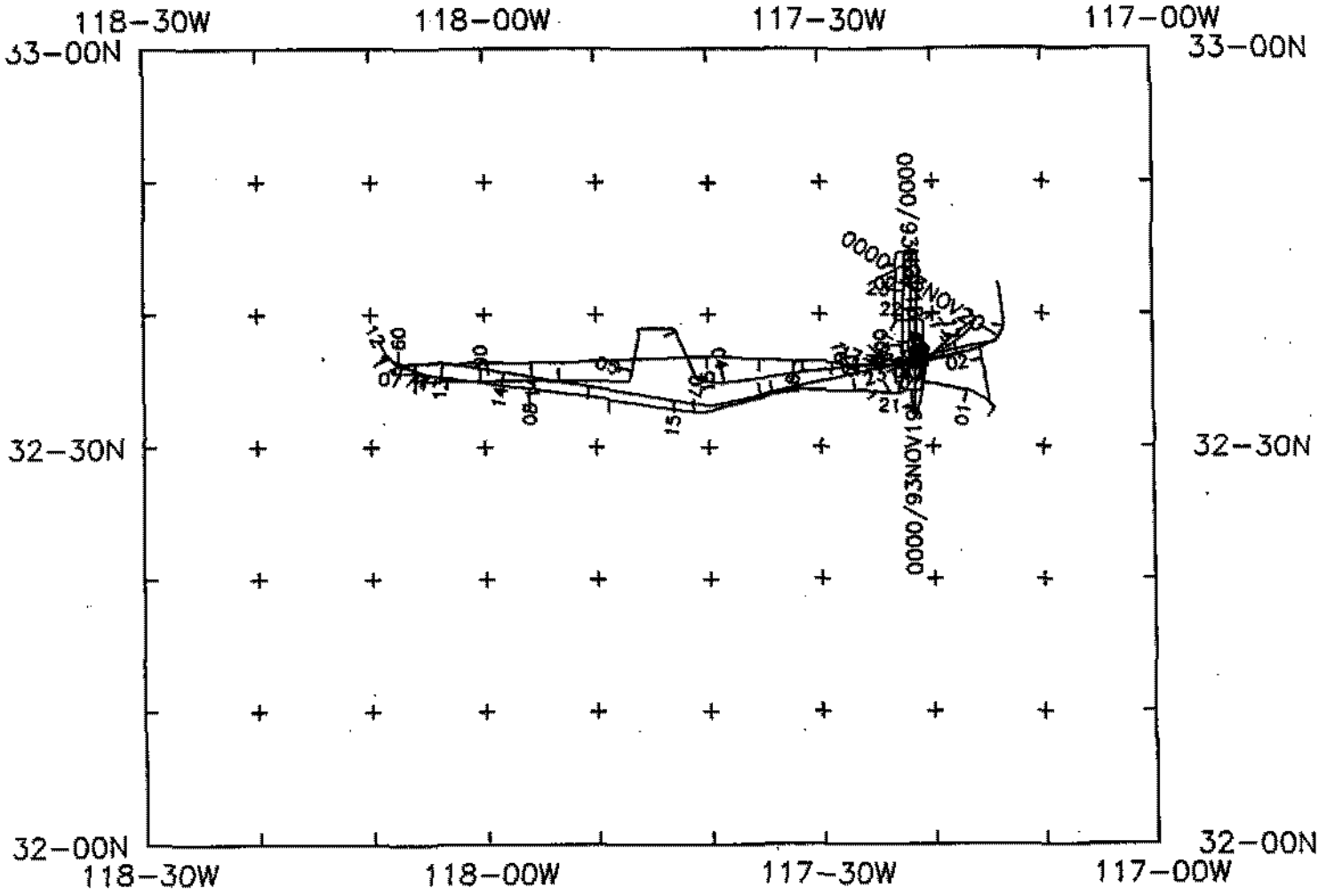
2) Microfilm (35mm flowfilm) of vertical beam/sidescan records.

3) Sea Beam merged tapes - Sea Beam data merged with GPS-based navigation. (Navigation is edited to the extent that DR courses and speeds are edited and poor fixes are removed after inspection of speeds and drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)

4) Archive contour plots - 8"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.

5) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

Revised February 1993

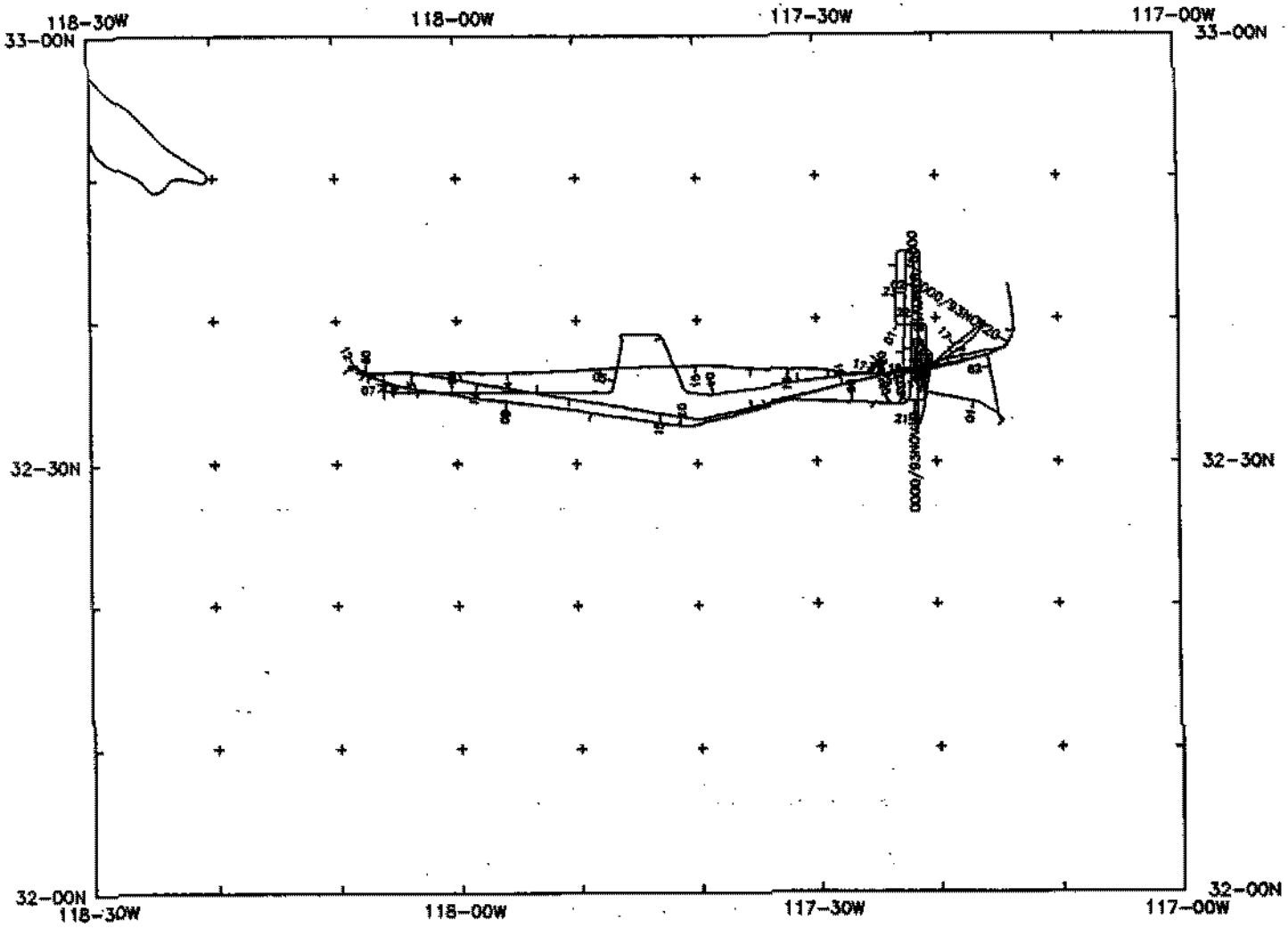


WEST EXPEDITION LEG 0 (Test Trip)

CHIEF SCIENTIST: Capt. Tom Althouse, SIO
PORTS: San Diego - San Diego, Cal.
DATES: 17-19 November 1993
SHIP: R/V Melville

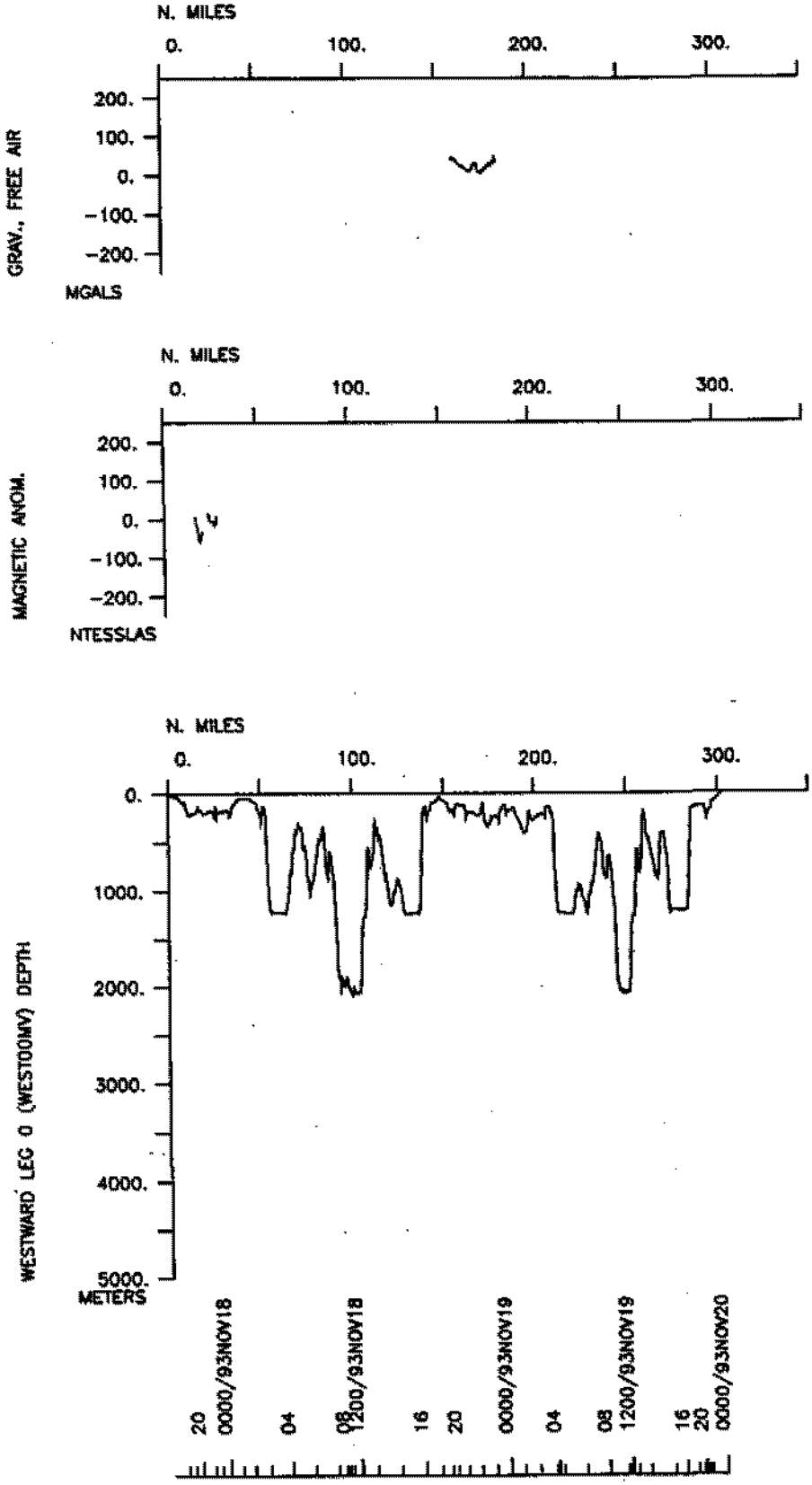
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 305 miles	Magnetics - 10 miles some tests
Bathymetry - 300 miles	Seismic Reflection - ~~none collected~~
Sea Beam - 300 miles	Gravity - 25 miles



Westward, Leg 00 (WEST00MV) test trip

R/V Melville, (SIO)


N. MILES
0.
100.
200.
300.
GRAV., FREE AIR
200.
100.
0.
-100.
-200.
MGALS
N. MILES
0.
100.
200.
300.
MAGNETIC ANOM.
200.
100.
0.
-100.
-200.
NTESSLAS
N. MILES
0.
100.
200.
300.
WESTWARD LEG 0 (WEST00MV) DEPTH
0.
1000.
2000.
3000.
4000.
5000.
METERS
20
0000/93NOV18
04
08
1200/93NOV18
16
20
0000/93NOV19
04
08
1200/93NOV19
16
20
0000/93NOV20

S.I.O. SAMPLE INDEX

(Issued March 1994)

WESTWARD EXPEDITION

Leg 0 (Test Trip)

R/V Melville

San Diego, Calif. (17 November 1993)
to
San Diego, Calif. (19 November 1993)

Chief Scientist: Capt. Tom Althouse, SIO

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident marine technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 266

#*** Ports ***

1600 171193 0 GPT B San Diego, Calif. 32-42.36N 117-14.12W g WEST00MV
0005 201193 0 GPT E San Diego, Calif. 32-38.80N 117-13.68W g WEST00MV

#*** Personnel ***

#		******* Name *******	***** Title *****	**** Affiliation ***	* CRID *
PESP	MARF	Capt. Tom Althouse	Chief Scientist	Scripps Institution	WEST00MV
PESP	SIX	Richard Bachman	Geologist	Naval Res.& Dev.	WEST00MV
PESP	STS	Jim Charters	Computer Tech,	Scripps Institution	WEST00MV
PESP	MARF	Terry Clark	Elec. Tech.	Scripps Institution	WEST00MV
PESP	STS	Earl Heckman	Dev. Eng.	Scripps Institution	WEST00MV
PESP	OSU	Mike Kosro	ADCP Expert	Oregon State Univ.	WEST00MV
PESP	SIX	Bill Macha	Engineer	Naval Res.& Dev.	WEST00MV
PESP	STS	Jeanne Milostan	Prog. Analyst	Scripps Institution	WEST00MV
PESP	STS	Gene Pillard	Res. Tech.	Scripps Institution	WEST00MV
PESP	STS	Todd Porteous	Prog. Analyst	Scripps Institution	WEST00MV
PESP	SIX	Joe Rice	Engineer	Naval Res.& Dev.	WEST00MV
PESP	STS	Jeff Skinner	Dev. Eng.	Scripps Institution	WEST00MV
PESP	STS	Stuart Smith	Specialist	Scripps Institution	WEST00MV
PESP	STS	Perry Crampton	Engineer	Scripps Institution	WEST00MV
PESP	MARF	Capt. Al Arsenault	Master (retired)	Scripps Institution	WEST00MV
PESP	SIX	Scott Rutherford	Engineer	SIMRAD, Inc.	WEST00MV
PESP	SIX	Tore Flobakk	Engineer	SIMRAD, Inc.	WEST00MV
PESP	SIX	Bill Goodwin	Engineer	SeaBeam Instruments	WEST00MV
PESP	SIX	Rick Kilgore	Engineer	SIMRAD, Inc.	WEST00MV
PESP	SIX	Don Robertston	Engineer	NAVSEA, Inc.	WEST00MV
PESP	SIO	Mark McDonald	Student	Scripps Institution	WEST00MV
PESP	SIX	Mellis Eidsness	Engineer	NAVSEA, Inc.	WEST00MV
PESP	SIX	Don Rolland	Engineer	JJMA, Inc.	WEST00MV
PESP	SIX	Richard Willington	Engineer	JJMA, Inc.	WEST00MV
PESP	SIX	David McMullan	Engineer	Ross Hill, Inc.	WEST00MV
PEVL	SIX	Sara Bueren	Volunteer	Non-SIO employee	WEST00MV
PESP	SIX	Sam Weatherall	Technician	SIMRAD, Inc.	WEST00MV
PESP	SIX	Robert Wilson	Res. Tech.	Scripps Institution	WEST00MV

#*** Notes ***
#An 'x' in the (b)egin/(e)nd column following the sample code indicates no
#sample or data recovered. A 'C' indicates continuation of data collection
#from before the beginning or after the end of a particular leg, (moored
#bottom instruments, for example). The number appearing in the columns
#between the Sample Identifier and the Disposition Code, for many sample
#entries, is the water depth in corrected meters.

```
#GMT ddmmyy    Samp B Sample                Disp                          P Cruise
#Time Date  tz Code E Identifier            Code Latitude  Longitude      C Leg-Ship
#--------- -- ------------------------------ ---- --------- ---------- - --------

#*** Underway Data Curator - S. M. Smith  ext. 42752 ***

#*** SeaBeam Records (vertical beam and sidescan) ***

1700 171193  0 MBRB B v.beam&sidescan r-01 GDC  32-37.00N 117-17.80W g WESTOOMV
0000 201193  0 MBRB E v.beam&sidescan r-01 GDC  32-38.20N 117-14.05W g WESTOOMV

#*** Echo Sounder Records ***

0000 181193  0 DPR3 B 3.5 kHz  r-01        GDC  32-38.20N 117-21.36W g WESTOOMV
0326 191193  0 DPR3 E 3.5 kHz  r-01        GDC  32-34.08N 117-23.83W g WESTOOMV

#*** Seismic Reflection Records ***

2111 181193  0 SPRF B airgun, 4Sec r-01    GDC  32-33.87N 117-21.53W g WESTOOMV
0248 191193  0 SPRF E airgun, 4Sec r-01    GDC  32-35.18N 117-22.17W g WESTOOMV

2108 181193  0 SPRS B airgun, 2Sec r-01    GDC  32-33.55N 117-21.55W g WESTOOMV
0248 191193  0 SPRS E airgun, 2Sec r-01    GDC  32-35.18N 117-22.17W g WESTOOMV

#*** Magnetics (Earth Total Field) Records ***

2000 171193  0 MGRA B Magnetic analog r-01 GDC  32-37.93N 117-20.92W g WESTOOMV
2324 171193  0 MGRA E Magnetic analog r-01 GDC  32-37.77N 117-21.15W g WESTOOMV

#                          End Sample Index                            WESTOOMV
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