Physical Properties Instrumentation

Multi-sensor Track (whole core)

Whole Core Multisensor track

GEOTEK Gamma Ray Attenuation

Bartington MS2C Magnetic Susceptibility

ODP Natural Gamma Radiation

GEOTEK P-wave velocity logger

Discrete Measurements (whole or split core)

TK04 Thermal Conductivity

VSR Track

ODP P-wave velocity (PWS1, PWS2, PWS3)

ODP Vane Shear (AVS)

Discrete Measurments (extracted samples)

Quantachrome penta-pycnometer

Cahn Balance

WC-MST Subsystems

Parker/Compumotor Indexer w/VM50Terminal Strip

Parker/Compumotor Microstep Drive - S Series

EG&G NIM Bin w/12 module Connectors &160 watt Power Supply

EG&G Preamplifier SCA

EG&G MST Module - Multi Channel Buffer w/ Option 5 Card

EG&G High Voltage Power Supply

Bicron Detectors - NAI

Perkin Elmer Internal Card - PCI, Trump-PCI-2K

Magma Bus Expander - 7 slot PCI Expansion System

EG&G ADCAM Multichannel Buffer (917-918A Option E)

Parker/Compumotor Step Motor

National Inst. Signal Breakout Box

EG&G Pulser

Water Pump

EG&G Photomultiplier

EG&G High Voltage Fan-Out

EG&G Dual Spectroscopy Amplifier

EG&G Dual Sum and Inverter Amplifier

VSR-Track Subsystems

Nulogic Motion Control Board - PCI Step-4CL, 4 axis closed loop

Panametrics Ultrasonic Pulser-Receiver

Magnetek Linear Voltage Displacement Transducer (LVDT)

OMEGA Digital Thermometer

National Inst. Oscilloscope Boards

National Inst. PCI 4A Encoder Interface Board

OMEGA Linear Velocity Transducer Signal Conditioner

OMEGA Panel Meter

A	Instrument	Whole Core Multisensor Track	
	ODP #	04027	
	Model	N/A	
	Vendor	ODP Fabricated	
	Date of purchase	7/26/1995	
	Date of installation	Leg 163, Sept. 95	
B	Vendor manual	N/A	
	schematic	N/A	
C	Cookbook (STD)	Physical Properties Tech Help	
	Cookbook (special)	WC-MST IMS User's Manual v. 188	
D	Software	LabVIEW IMS WC-MST application	
	version	188	
	installation date	Leg 188, Jan. 00	
E	Instrument hardware setup		
	Instrument upgrade		
F	Maintenance log		
	vendor repair log		
G	Appliaction/operational use	Track supports NGR, GRAPE, P-wave, and Magnetic Susceptibility Measurements	
	sample type	Whole Core	
	specification/accuracy	N/A	
H	Spare parts		
	Consumables		
	Supporting system	N/A	
	Comments		

A	**Instrument**	Gamma Ray Attenuation Densiometer Shield and Detector	
	ODP #	04800	04801
	Model	N/A	
	Vendor	GEOTEK	
	Date of purchase	3/16/1999	
	Date of installation	Leg 188, Jan. 00	
B	**Vendor manual**	N/A	
	schematic	N/A	
C	**Cookbook (STD)**	Physical Properties Tech Help	
	Cookbook (special)	WC-MST IMS User's Manual v. 188	
D	**Software**	LabVIEW IMS WC-MST application	
	version	188	
	installation date	Leg 188, Jan. 00	
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Gamma Ray Attenuation Measurement on whole core	
	sample type	Whole Core	
	specification/accuracy	N/A	
H	**Spare parts**		
	Consumables		
	Supporting system	WC-MST Track	
	Comments		

A	**Instrument**	Magnetic Susceptibility Sensor Loop (2)	
	ODP #	04052	04702
	Model	MS2C	MS2
	Vendor	Bartington	Bartington
	Date of purchase	7/8/1995	1/13/1997
	Date of installation	Leg 163, Sept. 95	
B	**Vendor manual**	Barington Operations Manual for MS2 Magnetic Susceptibility System	
	schematic	Yes	
C	**Cookbook (STD)**	Physical Properties Tech Help	
	Cookbook (special)	WC-MST IMS User's Manual v. 188	
D	**Software**	LabVIEW IMS WC-MST application	
	version	188	
	installation date	Leg 188, Jan. 00	
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Magnetic Susceptibility Measurement on Whole Core	
	sample type	Whole Core	
	specification/accuracy	N/A	
H	**Spare parts**		
	Consumables		
	Supporting system	WC-MST Track	
	Comments		

A	**Instrument**	Natural Gamma Ray Detection System with Shield	
	ODP #	02379	
	Model	N/A	
	Vendor	EG&G Instuments	
	Date of purchase	9/15/1992	
	Date of installation	Leg 148, Jan. 92	
B	**Vendor manual**	N/A	
	schematic	N/A	
C	**Cookbook (STD)**	Physical Properties Tech Help	
	Cookbook (special)	WC-MST IMS User's Manual v. 188	
D	**Software**	LabVIEW IMS WC-MST application	Maestro (Used for tuning NGR)
	version	188	V. 5.31
	installation date	Leg 188, Jan. 00	
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Measurement of Natural Gamma Radiation of Whole Core	
	sample type	Whole Core	
	specification/accuracy	N/A	
H	**Spare parts**		
	Consumables		
	Supporting system	WC-MST Track	
	Comments		

A	Instrument	P-wave Velocity Logger	
	ODP #	N/A	
	Model	N/A	
	Vendor	ODP Fabrication w/ GEOTEK parts	
	Date of purchase	N/A	
	Date of installation	Leg 188, Jan. 00	
B	Vendor manual	N/A	
	schematic	N/A	
C	Cookbook (STD)	Physical Properties Tech Help	
	Cookbook (special)	WC-MST IMS User's Manual v. 188	
D	Software	LabVIEW IMS WC-MST application	
	version	188	
	installation date	Leg 188, Jan. 00	
E	Instrument hardware setup		
	Instrument upgrade		
F	Maintenance log		
	vendor repair log		
G	Appliaction/operational use	P-wave velocity measurement on whole cores	
	sample type	Whole Core	
	specification/accuracy	N/A	
H	Spare parts		
	Consumables	GEOTEK PWL Transducers	
		Neumatics Air Control Valves	
	Supporting system	WC-MST Track	
	Comments		

A	**Instrument**	Non-Contact Resistivity Meter and Control Electronics
	ODP #	N/A
	Model	NCR
	Vendor	GEOTEK
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	Physical Properties Tech Help
	Cookbook (special)	WC-MST IMS User's Manual v. 188
D	**Software**	LabVIEW IMS WC-MST application
	version	188
	installation date	Leg 188, Jan. 00
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Resistivity Measurement
	sample type	Whole Core
	specification/accuracy	N/A
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	Thermal Conductivity Meter w/ VLQ Needle Probe	
	ODP #	03364	
	Model	TK04	
	Vendor	TeKa	
	Date of purchase	4/27/1995	
	Date of installation		
B	**Vendor manual**	TK04 Thermal Conductivity Meter Software	
	schematic	N/A	
C	**Cookbook (STD)**	Physical Properties Tech Help	
	Cookbook (special)	Thermal Conductivity Cookbook	
D	**Software**	TK04 Thermal Conductivity Meter Software	
	version	3.20	
	installation date		
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Thermal Conductivity	
	sample type	Whole Core or Split Core	
	specification/accuracy	N/A	
H	**Spare parts**		
	Consumables		
	Supporting system	N/A	
	Comments	Additional Peripheral	ODP#
		TeKa Pressure Device	03365
		TeKa HLQ Probe	03891

A	Instrument	Velocity/Strength/Resistivity Track
	ODP #	03498
	Model	N/A
	Vendor	ODP Fabricated
	Date of purchase	11/30/1994
	Date of installation	Leg 160, March 95
B	Vendor manual	N/A
	schematic	N/A
C	Cookbook (STD)	Physical Properties Tech Help
	Cookbook (special)	IMS Velocity and Shear Strength User's Manual
D	Software	LabVIEW IMS VS application
	version	191
	installation date	Leg 191
E	Instrument hardware setup	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	Appliaction/operational use	Track Supports Velocity and Strength Measurements on Split Core
	sample type	Split Core
	specification/accuracy	N/A
H	Spare parts	N/A
	Consumables	N/A
	Supporting system	N/A
	Comments	

A	**Instrument**	Sonic Velocity (PWS1, PWS2, PWS3)
	ODP #	03539
	Model	N/A
	Vendor	ODP Fabricated
	Date of purchase	12/14/1994
	Date of installation	Leg 160, March 95
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	Physical Properties Tech Help
	Cookbook (special)	IMS Velocity and Shear Strength User's Manual
D	**Software**	LabVIEW IMS VS application
	version	191
	installation date	Leg 191
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Measure P-wave Velocity along and across core axis
	sample type	Split Core
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

A	**Instrument**	Automated Vane Shear
	ODP #	N/A
	Model	N/A
	Vendor	ODP Fabricated
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	Physical Properties Tech Help
	Cookbook (special)	IMS Velocity and Shear Strength User's Manual
D	**Software**	LabVIEW IMS VS application
	version	191
	installation date	Leg 191
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Measures Shear Strength of core
	sample type	Split Core
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	SIMAN
	Supporting system	VSR Track
	Comments	

		Penta-Pycnometer (3)		
A	**Instrument**	Penta-Pycnometer (3)		
	ODP #	05780	03836	03341
	Model	02077-110	994-7	PPY-7
	Vendor	Quantachrome Corp.		
	Date of purchase	6/9/2000	5/10/1995	12/19/1994
	Date of installation	Leg 191,	Leg 160, March 95	
B	**Vendor manual**	Penta-Pycnometer Manual		
	schematic	yes		
C	**Cookbook (STD)**	Physical Properties Tech Help		
	Cookbook (special)	MAD Cookbook		
D	**Software**	MAD application in LabVIEW		
	version	200.3		
	installation date	Leg 200		
E	**Instrument hardware setup**			
	Instrument upgrade			
F	**Maintenance log**			
	vendor repair log			
G	**Appliaction/operational use**	Moisture and Density (MAD) measurements		
	sample type	Extracted Core Sample		
	specification/accuracy			
H	**Spare parts**			
	Consumables	SIMAN		
	Supporting system			
	Comments			

A	**Instrument**	Balance Electro with RS-232-C ports
	ODP #	00359
	Model	C29
	Vendor	Cahn
	Date of purchase	8/1/1984
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	Physical Properties Tech Help
	Cookbook (special)	MAD Cookbook
D	**Software**	MAD application in LabVIEW
	version	200.3
	installation date	Leg 200
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Moisture and Density (MAD) measurements
	sample type	Extracted Core Sample
	specification/accuracy	N/A
H	**Spare parts**	
	Consumables	
	Supporting system	N/A
	Comments	

A	**Instrument**	Compumotor Indexer w/VM50Terminal Strip
	ODP #	03572
	Model	6200
	Vendor	Parker/Compumotor
	Date of purchase	1/6/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Microstep Drive - S Series
	ODP #	03573
	Model	S106-178-E
	Vendor	Parker/Compumotor
	Date of purchase	1/23/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	NIM Bin w/12 module Connectors &160 watt Power Supply
	ODP #	03578
	Model	4001A/4002D
	Vendor	EG&G Ortec
	Date of purchase	1/12/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	Model 4002D 160-W NIM Bin Power Supply Operating Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Preamplifier SCA
	ODP #	03579
	Model	4890
	Vendor	EG&G Ortec
	Date of purchase	1/12/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	Model 4890 Preamplifier/Amplifier/Single Channal Analyzer Operating and Service Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	MST Module - Multi Channel Buffer w/ Option 5 Card
	ODP #	04391
	Model	918A
	Vendor	EG&G
	Date of purchase	9/1/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	High Voltage Power Supply
	ODP #	04404
	Model	556
	Vendor	EG&G
	Date of purchase	9/1/1995
	Date of installation	Leg 163, Sept. 95
B	**Vendor manual**	Model 556 High Voltage Power Supply Operating and Service Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Detectors - NAI
	ODP #	04767
	Model	3M3/3
	Vendor	Bicron
	Date of purchase	2/5/1997
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Internal Card - PCI, Trump-PCI-2K
	ODP #	05816
	Model	N/A
	Vendor	Perkin Elmer - Ortec
	Date of purchase	6/15/2000
	Date of installation	
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Bus Expander - 7 slot PCI Expansion System
	ODP #	50133
	Model	01-04645-01
	Vendor	Magma
	Date of purchase	2/27/2002
	Date of installation	
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of WC-MST track
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	ADCAM Multichannel Buffer (917-918A Option E)	
	ODP #	03516	03577
	Model	917-918A	
	Vendor	EG&G Ortec	
	Date of purchase	2/3/1995	33249
	Date of installation		
B	**Vendor manual**	Model 918A ADCAM Multichannel Buffer Service Package	
		Model 918A ADCAM Multichannel Buffer Operator's Manual	
		ADCAM Model 917 Hardware Operator's Manual	
	schematic	Yes	
C	**Cookbook (STD)**		
	Cookbook (special)		
D	**Software**		
	version		
	installation date		
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Part of WC-MST track	
	sample type		
	specification/accuracy		
H	**Spare parts**		
	Consumables		
	Supporting system		
	Comments		

A	**Instrument**	Step Motor
	ODP #	03514
	Model	S106-178-E
	Vendor	Parker/Compumotor
	Date of purchase	3/9/1995
	Date of installation	
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	
	Comments	

A	**Instrument**	Signal Breakout Box
	ODP #	N/A
	Model	SCB-68
	Vendor	National Instruments
	Date of purchase	
	Date of installation	
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of P-Wave Logger System
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	Pulser
	ODP #	N/A
	Model	480
	Vendor	EG&G Ortec
	Date of purchase	
	Date of installation	
B	**Vendor manual**	Model 480 Pulser Operating and Service Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Test Equipment for NGR and GRAPE
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST
	Comments	

A	**Instrument**	Water Pump
	ODP #	N/A
	Model	FPU-255
	Vendor	
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Used with P-Wave Logger System
	sample type	
	specification/accuracy	
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	Photomultiplier
	ODP #	N/A
	Model	276
	Vendor	EG&G Ortec
	Date of purchase	
	Date of installation	
B	**Vendor manual**	Model 276 Photomultiplier Base Operating and Service Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of NGR & GRAPE system
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	High Voltage Fan-Out
	ODP #	N/A
	Model	HVF
	Vendor	EG&G Ortec
	Date of purchase	
	Date of installation	
B	**Vendor manual**	
	schematic	
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of NGR System
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	Dual Spectroscopy Amplifier	
	ODP #	N/A	
	Model	885	
	Vendor	EG&G Ortec	
	Date of purchase		
	Date of installation		
B	**Vendor manual**	Model 885 Dual Spectroscopy Amplifier Operating and Service Manual	
	schematic	Yes	
C	**Cookbook (STD)**		
	Cookbook (special)		
D	**Software**		
	version		
	installation date		
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Part of NGR & GRAPE system	
	sample type	N/A	
	specification/accuracy	N/A	
H	**Spare parts**		
	Consumables		
	Supporting system	WC-MST Track	
	Comments		

A	**Instrument**	Dual Sum and Inverter Amplifier
	ODP #	N/A
	Model	533
	Vendor	EG&G Ortec
	Date of purchase	
	Date of installation	
B	**Vendor manual**	Model 533 Dual Sum and Inverter Amplifier Operating and Service Manual
	schematic	Yes
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of NGR & GRAPE system
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	
	Consumables	
	Supporting system	WC-MST Track
	Comments	

A	**Instrument**	Motion Control Board - PCI Step-4CL, 4 axis closed loop
	ODP #	04912
	Model	N/A
	Vendor	Nulogic
	Date of purchase	8/28/1997
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of VSR-Track
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

A	**Instrument**	Ultrasonic Pulser-Receiver	
	ODP #	50249	
	Model	5077PR	
	Vendor	Panametrics	
	Date of purchase	6/26/2003	
	Date of installation		
B	**Vendor manual**	N/A	
	schematic	N/A	
C	**Cookbook (STD)**		
	Cookbook (special)		
D	**Software**		
	version		
	installation date		
E	**Instrument hardware setup**		
	Instrument upgrade		
F	Maintenance log		
	vendor repair log		
G	**Appliaction/operational use**	Part of VSR-Track	
	sample type	N/A	
	specification/accuracy	N/A	
H	**Spare parts**	N/A	
	Consumables	N/A	
	Supporting system	VSR Track	
	Comments		

A	**Instrument**	Linear Voltage Displacement Transducer (LVDT)
	ODP #	N/A
	Model	P-200A
	Vendor	Magnetek
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Measures transducer displacement for PWS3
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

A	**Instrument**	Digital Thermometer	
	ODP #	N/A	
	Model	DP41-TC	
	Vendor	Omega	
	Date of purchase		
	Date of installation		
B	**Vendor manual**	DP41-TC/DP41-RTD High Performance Temperature Indicator Operator's Manual	
	schematic	Yes	
C	**Cookbook (STD)**	Phys.Props. Tech Help	
	Cookbook (special)		
D	**Software**		
	version		
	installation date		
E	**Instrument hardware setup**		
	Instrument upgrade		
F	**Maintenance log**		
	vendor repair log		
G	**Appliaction/operational use**	Part of VSR Track	
	sample type	N/A	
	specification/accuracy	N/A	
H	**Spare parts**	N/A	
	Consumables	N/A	
	Supporting system	VSR Track	
	Comments		

A	**Instrument**	Oscilloscope Boards
	ODP #	N/A
	Model	N/A
	Vendor	National Instruments
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Digitizes received acoustic signal from PWS stations and LVDT
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

A	**Instrument**	PCI 4A Encoder Interface Board
	ODP #	N/A
	Model	PCI 4A
	Vendor	Natioanl Instuments
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Interface to three encoders for position and Vane Shear
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

		Linear Velocity Transducer Signal Conditioner
A	**Instrument**	
	ODP #	N/A
	Model	LDX-3A
	Vendor	OMEGA
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	**Maintenance log**	
	vendor repair log	
G	**Appliaction/operational use**	Part of VSR Track
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	

A	**Instrument**	Panel Meter
	ODP #	N/A
	Model	DP41-TC-S2AR
	Vendor	OMEGA
	Date of purchase	
	Date of installation	
B	**Vendor manual**	N/A
	schematic	N/A
C	**Cookbook (STD)**	
	Cookbook (special)	
D	**Software**	
	version	
	installation date	
E	**Instrument hardware setup**	
	Instrument upgrade	
F	Maintenance log	
	vendor repair log	
G	**Appliaction/operational use**	Part of VSR Track
	sample type	N/A
	specification/accuracy	N/A
H	**Spare parts**	N/A
	Consumables	N/A
	Supporting system	VSR Track
	Comments	