



GPS Survey Equipment

MANUFACTURER IMAGES	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
	<u>GPS:</u> Trimble Pro XT, or XH, Bluetooth receiver with Trimble Nomad, Recon, Ranger, or TSC2, Data collector (based on preference and availability) <u>Detector:</u> Ludlum Model 2221/44-10 (2x2)	Trimble GPS Radiological Survey Data Collection System	Trimble GPS equipment coupled with a radiation detector for collecting geospatially referenced radiological survey and count rate data with sub meter accuracy. This rental includes Trimble GPS unit, Trimble data logger with Trimble Terrasync Software, Ludlum model 44-10, (2x2 NaI) Ludlum model 2221 with 1 second digital rate dump modification and 9 pin RS-232 connector, antenna rod, backpack, all associated cables, charger, and waterproof hard case.	\$485	\$1,790
	<u>GPS:</u> Trimble Pro XT, or XH, Bluetooth receiver with Trimble Nomad, Recon, Ranger, or TSC2, Data collector (based on preference and availability) <u>Detector:</u> Ludlum Model 2221/44-20 (3x3)	GPS Radiological Survey Data Collection System	Trimble GPS equipment coupled with a radiation detector for collecting geospatially referenced radiological survey and count rate data with sub meter accuracy. This rental includes Trimble GPS asset surveyor unit, Trimble data logger with Terrasync Software, Ludlum model 44-20, (3x3 NaI) or equivalent, Ludlum model 2221 with 1 second digital rate dump modification and 9 pin RS-232 connector, antenna, receiver, backpack, all associated cables, charger, and waterproof hard case.	\$590	\$1,960
	<u>GPS:</u> Trimble Pro XT, or XH Bluetooth receiver with Trimble Nomad, Recon, Ranger, or TSC2, Data collector (based on preference and availability) <u>Detector:</u> Ludlum Model 2221/FIDLER (F)ield (I)nterface for (D)etecting (L)ow (E)nergy (R)adiation	GPS Radiological Survey Data Collection System	Trimble GPS equipment coupled with a radiation detector for collecting geospatially referenced radiological survey and count rate data with sub meter accuracy. This rental includes Trimble GPS asset surveyor unit, Trimble data logger with Terrasync Software, FIDLER probe, Ludlum model 2221 with 1 second digital rate dump modification and 9 pin RS232 connector, receiver, backpack, all associated cables and charging electronics, and waterproof hard case.	\$710	\$2,390
	<u>GPS:</u> Trimble Pro XT, or XH Bluetooth receiver with Trimble Nomad, Recon, Ranger, or TSC2, Data collector (based on preference and availability) <u>Detector:</u> Exploranium GR -130 MiniSpec	GPS Radiological Survey Data Collection System with Nuclide Identifier, count rate, dose rate	Exploranium GR-130 coupled to a GPS for detailed mapping with sub meter accuracy. The GR-130 may be operated in 3 Primary Modes. Survey mode, displaying the current COUNT RATE in counts/sec. Dose mode, displays the current DOSE RATE (in selectable units and quantities) as well as ACCUMULATED DOSE. NUCLIDE IDENTIFICATION (ANALYSIS) mode analyses spectral data in terms of emitted energy and net count contribution and the nuclides are identified by comparison to a nuclide library. Rental includes, instrument computer cable, HP laptop with Spec view software, hard-shell waterproof case.	\$700	\$1,900
	<u>GPS:</u> CF-30 Panasonic Toughbook Laptop, Trimble Pro XT or XH Bluetooth GPS receiver with <u>Detector:</u> Ludlum Model 2221/44-10 (2x2)	GPS Radiological Survey Data Collection System	Trimble GPS equipment for collecting geospatially referenced survey and count rate data. This rental includes Trimble GPS Pro XT Bluetooth unit, which transmits directly to a Panasonic CF-30 Toughbook laptop with a 13.3 inch touchscreen. The Toughbook comes with TerraSync software installed, waterproof, freeze proof, shock proof	\$650	\$1,880
	<u>GPS: Receiver</u> Trimble Pro XT or XH Bluetooth GPS receiver with <u>Data logger:</u> Trimble Recon, Ranger, Nomad or TSC2 (based on preference and availability)	GPS Survey System Bluetooth	Trimble GPS equipment for collecting geospatially referenced survey and count rate data. This rental includes Trimble GPS asset surveyor unit, TSCe data logger with Trimble Terrasync Software, antenna, receiver, backpack, all associated cables and charging electronics, and waterproof hard case.	\$350	\$990
	<u>GPS:</u> Trimble Pro XT Bluetooth with CF-30 Panasonic Toughbook Laptop	GPS Survey System Bluetooth	Trimble GPS equipment for collecting geospatially referenced survey and count rate data. This rental includes Trimble GPS Pro XT Bluetooth unit, which transmits directly to a Panasonic CF-30 Toughbook laptop with a 13.3 inch touchscreen. The Toughbook comes with TerraSync software installed, waterproof, freeze proof, shock proof.	\$350	\$1,200

Prices correct as of October 2017

Instruments

MANUFACTURER IMAGE	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
	Exploranium GR -130 MiniSpec	Nuclide Identifier, count rate, dose rate	GR-130 may be operated in 3 Primary Modes. Survey mode as a scintillometer, or Survey Meter, displaying the current COUNT RATE in counts/sec. Dose mode displays the current DOSE RATE (in selectable units and quantities) as well as ACCUMULATED DOSE from the time the mode was enabled. NUCLIDE IDENTIFICATION (ANALYSIS) mode analyses spectral data in terms of emitted energy and net count contribution and the nuclides are identified by comparison to a nuclide library. Instrument has an RS232 output cord and can be coupled to a computer or GPS. Rental includes, instrument computer cable, HP laptop with Spec view software, hard-shell waterproof case.	\$300	\$600
	Ludlum Model 12	Survey Rate meter	General purpose survey meter compatible with several probes. Measures count rates, has an adjustable high voltage (HV) and threshold.	\$40	\$75





10		Ludlum Model 177	Alarming Rate meter	Stationary meter, typically used with 44-9 GM detector or alpha probe at CRZ frisking station or other table top applications. Uses 110V power supply.	\$30	\$80
11		Ludlum Model 19	Micro-R Survey Meter	Used to collect dose rate, gamma ray exposure measurements. (0 - 5mR/hr.)	\$70	\$150
12		Ludlum Model 2221	Digital Rate meter/ Scaler	Single channel analyzer, general survey meter compatible with multiple probes, measures count rates. Has a digital and analog display as well as adjustable count time and HV.	\$70	\$235
13		Ludlum Model 2221 -RS232	Digital Rate meter/ Scaler	Used for data collection and pairing with GPS and other data logging devices. Single Channel Analyzer, General survey meter compatible with several probes measures count rates. Has a digital and analog display as well as adjustable count time and HV. Also includes an RS232 com 9 pin serial port mounted on the bucket-1 second data dump to digital rate board.	\$100	\$350
14		Ludlum Model 2224	Digital Scaler/Rate meter Alpha/Beta	Digital rate meter capable of discriminating between alpha and beta when paired with proportional or phoswich detectors.	\$75	\$150
15		Ludlum Model 2241	Digital Scaler/Rate meter	Digital rate meter capable of discriminating between alpha and beta when paired with proportional or phoswich detectors.	\$45	\$120
16		Ludlum Model 2929	Digital Scaler/Rate meter	Dual channel analyzer capable of discriminating between alpha and beta. Stationary table top instrument requires standard 110v power supply. Typically paired with Ludlum 44-10-1 tray counter.	\$110	\$320
17		Ludlum Model 3030	Digital Scaler/Rate meter	Dual channel analyzer capable of discriminating between alpha and beta. Has a shielded internal counting tray, programmable, and PC compatible Stationary table top instrument requires standard 110v power supply. Includes 10 planchets.	\$120	\$380
18		Ludlum Model 2360	Digital Scaler/Rate meter	Data collector capable of discriminating between alpha and beta when used with phoswich detector. Capable of continuous data dump to RS-232, 9 pin Com port and/or logging and storing over data points internally.	\$60	\$150
19		Ludlum Model 2401-P	G-M Probe Pancake	Meter and probe housed in one small aluminum casing. Internal G-M tube (15 cm2 active area) with opening used for alpha, beta/gamma survey. Includes belt case	\$50	\$90
20		Bicron RSO 50E	Beta/Gamma/Ion Chamber	Bicron (Thermo) Beta gamma survey meter. Has beta window in bottom of the bucket for easy beta detection.	\$90	\$130







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Probes/Detectors





MANUFACTURER IMAGE	MANUFACTURER & MODEL	Detection	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
21 	FIDLER	Low Energy Gamma Probe	(F)ield (I)nstrument for (D)etecting (L)ow (E)nergy (R)adiation. 5" NaI scintillator for the detection of low energy Gamma	\$300	\$600
22 Image not Available	Bicron/ Saint Gobain BC412	Gamma Probe	3x3 equivalent. Scintillator uses a Bicron/Saint-Gobain BC412 Polyvinyl Toluene & Organic Fluors (Plastic) Scintillation Crystal for Gamma Radiation Detection. The crystal 3 inch diameter by 2-1/4 thick, polished on all sides and coated with a specially formulated reflective coating before coupling to the PMT. The PMT is a high quality Photonis XP5312 3" Photomultiplier Tube, and includes a 130 MegOhm dynode chain Probe Dimensions: Length: ~7.75 inches - 195 mm (including BNC connector), Diameter: ~3 inches - 78 mm, Weight: ~1 lb. 4 oz. - 550 grams	\$50	\$125
23 	Ludlum 239-1F	Alpha/beta	Floor Monitor Cart, Gas Proportional Probe, and Ludlum 2221 or 2360 Detector. Gas proportional (582cm2 active area) used for floor / surface contamination monitoring. Requires P-10 gas. Includes meter, probe cart and regulator. User must provide P-10 gas cylinder not included with rental.	\$350	\$700
24 	Ludlum 43-5	Alpha Probe	alpha probe with 76 cm2 active surface area, typically used for personnel scans and surface contamination monitoring .	\$40	\$60
25 	Ludlum 43-89	Alpha/Beta Probe	Probe capable of discriminating between alpha and beta, 126 cm2 active area Mylar window, typically used for surface contamination monitoring.	\$75	\$125

26		Ludlum 43-93	Alpha/Beta Phoswich Probe	Probe capable of discriminating between alpha and beta, 100 cm2 active area Mylar window, typically used for surface contamination monitoring.	\$50	\$110
27		Ludlum 44-10	Gamma Probe	2"x2" Sodium Iodide (NaI) probe with gamma scintillator used for high energy gamma surveys.	\$40	\$100
28		Ludlum 44-20	Gamma Probe	3"x3" Sodium Iodide NaI probe with gamma scintillator used for high energy gamma surveys.	\$160	\$430
29		Ludlum 44-2	Gamma Probe	Sodium Iodide (NaI) 1" diameter x 1" thick gamma scintillation detector	\$40	\$75
30		Ludlum 44-62	Gamma Probe	Sodium Iodide (NaI) 1/2" diameter x 1" thick gamma scintillation detector	\$40	\$75
31		Ludlum 44-9	Alpha/beta/gamma	Geiger Meuler G-M tube housed in an aluminum ergonomic probe, (15 cm2 active area) used for alpha, beta/gamma survey and personnel scans.	\$30	\$40
32	Image not Available	Scionix Holland 38B57 1.5M NaI(Tl) Thallium doped	Gamma Probe, Gamma spec	Thallium doped Sodium Iodide NaI(Tl) Scintillation Crystal 57mm Long (2-1/4 inch) by 38mm diameter (1-1/2 inch) and able to respond to a wide range of energies. The PMT used in this detector is a high quality Hamamatsu R980 Photomultiplier Tube, and includes a newly installed 120 MegOhm dynode chain. Grounded Mu-Metal shield surrounding the PMT itself. Crystal has 5 times the volume of a Ludlum 44-2	\$60	\$90




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Multi Channel Analyzers

MANUFACTURER IMAGE	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
33	 Canberra Osprey	Multi Channel Analyzer (MCA)	The Osprey is a high-performance, fully-integrated multi-channel analyzer (MCA) tube base that contains everything needed to support scintillation spectrometry. Designed for both laboratory and field use, this one compact unit contains a high-voltage power supply (HVPS), preamplifier and a full-featured digital MCA. Osprey can be controlled through either USB or Ethernet with no need to purchase two separate units – an industry first. USB or Ethernet, there is only one cable connecting the Osprey to the control and data acquisition system.	\$1,760	\$4,780
34	 Exploranium GR-130 MiniSpec	Multi Channel Analyzer, Nuclide Identifier, count rate, dose rate	GR-130 may be operated in 3 Primary Modes. Survey mode as a scintillometer, or Survey Meter, displaying the current COUNT RATE in counts/sec. Dose mode displays the current DOSE RATE (in selectable units and quantities) as well as ACCUMULATED DOSE from the time the mode was enabled. NUCLIDE IDENTIFICATION (ANALYSIS) mode analyses spectral data in terms of emitted energy and net count contribution and the nuclides are identified by comparison to a nuclide library. Instrument has an RS232 output cord and can be coupled to a computer or GPS. Rental includes, instrument computer cable, HP laptop with Spec view software, hard-shell waterproof case.	\$300	\$600

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Air Monitoring Equipment

MANUFACTURER IMAGE	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
35	 F & J DL28B	Digital Air Sampling system	The F & J Model DL-28BV.2 Air Sampling System is a microprocessor controlled low volume air sampler consisting of an ¼ H.P. oil-less carbon vane vacuum pump with a constant air flow regulator for use where a nearly constant air flow is desirable. The pump is mounted within a weather resistant aluminum environmental enclosure having four rubber feet. Handles are provided on the enclosure to facilitate transportation. It utilizes wide temperature range electronic components for use in extreme ambient conditions. The DL-28BV.2 Air Sampling System is designed for continuous indoor or outdoor use. The typical operating flow range is 0.5 to 4 CFM (14 – 115 LPM)	\$90	\$200
36	 F & J Model LV-1	Low Volume Air Sampler	low volume portable air sampler designed for continuous indoor use. Adjustable flow range 10 -100LPM. Can be used outdoors if protected from the elements. Unit comes with a 47mm filter holder.	\$75	\$125
37	 SKC Aircheck 224-PC3	Universal sample pump.	Universal Sample Pump, breathing Zone (BZ), Lapel Air Samplers a constant flow (from 5 to 5000 ml/min). Charger, tigon tubing, sampler holder included	\$60	\$90

38		SKC Aircheck 224-PCXR3	Universal sample pump.	Universal Sample Pump, breathing Zone (BZ), Lapel Air Samplers a constant flow (from 5 to 5000 ml/min). Charger, tigon tubing, sampler holder included	\$70	\$98
39		SKC Aircheck 224-PCXR4	Universal sample pump.	Universal Sample Pump, breathing Zone (BZ), Lapel Air Samplers a constant flow (from 5 to 5000 ml/min). Charger, tigon tubing, sampler holder included	\$70	\$98
40		SKC Aircheck 52 Model 224-52	Universal sample pump.	Lightweight universal Sample Pump, breathing Zone (BZ), Lapel Air Sampler. Battery pack, tigon tubing, sampler holder included.	\$40	\$85
41		Q- Rea Multi-gas Monitoring Kit	Multi gas Monitoring Kit	Hand-held Portable Multi-gas chemical exposure monitor. Includes four internal sensors (oxygen, combustible, hydrogen sulfide, and carbon monoxide). Eight hour runtime on internal Li ion battery, includes AA adapter. Rental includes meter, software, all cables and charge cords, filters, operating manuals and hard-shell carrying case.	\$75	\$100






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Sources


MANUFACTURER IMAGE	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	WEEKLY RATE	MONTHLY RATE
Image not Available	Thorium- Th-230 Source	Electroplated Source Disk (alpha)	Used in instrumentation quality control and or response checks. (DOT) Title 49 CFR 170.436 Exempt quantity	\$50	\$100
Image not Available	Technetium- Tc-99 Source	Electroplated Source Disk (Beta)	Used in instrumentation quality control and or response checks. (DOT) Title 49 CFR 170.436 Exempt quantity	\$50	\$100
	Cesium- Cs-137 Source	Embossed Button Source (Gamma)	Used in instrumentation quality control and or response checks. (DOT) Title 49 CFR 170.436 Exempt quantity	\$50	\$100

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Miscellaneous

MANUFACTURER IMAGE	MANUFACTURER & MODEL	INSTRUMENT	DESCRIPTION	Purchase Price	MONTHLY RATE
	Lead Shield, Collimator	N/A	Lead shield used with Ludlum Model 44-10.	N/A	\$50
Image not Available	Smear samples	N/A	47 mm , 1 3/4" diameter cloth smears mounted on label folders. Box of 500.	\$75	N/A
Image not Available	37mm Air filter	N/A	37mm glass fiber filter media. Box of 100.	\$50	N/A
Image not Available	37mm Air filter cartridge	N/A	Plastic cartridge to hold 37mm air filter, typically used for BZ/lapel sample collection. Package of 10.	\$50	N/A
Image not Available	47mm Air filter	N/A	47mm Glass Fiber Filter. Box of 100.	\$50	N/A
	47mm Planchetts	N/A	Tray counter planchets 47mm. Package of 100.	\$50	N/A
Image not Available	SKC 37mm Air filter cassette	N/A	3 piece metal cartridge, pre loaded, pre banded, 37mm air filter. Package of 5.	\$50	N/A
	Torch set	N/A	Torch set includes torch, gauges, hoses, tips, cleaner, striker, goggles, portable case. Oxygen and acetylene tanks not included with rental.	N/A	\$75
	Survey trike	N/A	Trike used for GPS surveys, fixed wheel with canopy	\$50	\$100
	Sampling auger	N/A	"T" handle, 3' shaft extension, and 3" diameter sampling auger head	\$100	\$200



55	Image not Available	Sampling push probe	N/A	"T" handle, shaft extension, and sampling push probe head	\$50	\$100
56		Carbon Fiber Survey Rod	N/A	2 piece carbon fiber survey rod with level bubble, antenna mount, and clamp on Data logger clamp.	\$25	\$75
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Rental

Rental duration begins the date equipment leaves the NOE office of origin and stops the date equipment arrives back at the NOE office of return.

Weekly rental period is defined as 7 calendar days.

Minimum rental period is one week, 7 calendar days.

After 7 days equipment is charged at a prorated daily rate equal to the weekly rate divided by 7 days.

Monthly rental period is defined as 28 calendar days (4 -7 day- weeks).

After 28 days equipment is charged at a prorated daily rate equal to the monthly rate divided by 28 days.

Payments received later than 30 days from the invoice date will incur a 1.5% fee per month plus any applicable collection fees, unless otherwise stated in the executed agreement

Shipping

All shipping charges will be at renters expense

Equipment must be insured with shipper at replacement value

Equipment loss or damage

Lost equipment will be charged at current manufacturer purchase price.

Repair charges will be passed on to renter at actual costs.

Excessively dirty equipment (paint, marker, etc.) may incur cleaning or component replacement charges.

Rental duration may continue while equipment is at repair facility.

Contaminated equipment will be returned to client and rental duration will resume.