

# • Minelab • Times •

## I always wanted a Kilo

By Queensland Sandy

My mate and I have been detecting ten years plus and we take it fairly seriously, getting away every chance we get. I don't show off the nuggets I get, but a few good friends get to see them. I've been reasonably successful over the years and have had my share of 3 and 5 ounce pieces but just recently one of my friends teased me that I'd never jagged a kilo.

Now my mate and I have owned a good few Minelab detectors but we recently bought the new GP 3000, now let me tell you, that's a bonza machine. Runs really quiet and you can hear those faint little whispers.

We decided to detect a spot that I recon every detector in Queensland has been over, and ours included, but I had a new big coil and I thought that the big coil and the GP together might be just what was needed.

The morning was spent detecting and all we got was one small piece along with a few bullets. Stopped for lunch then try

a spot just to the side of the main workings. After a while, I got a very faint signal that sounded just like another bullet. I dig away for a while then my mate comes over to lend a hand. We were in hard clay and gravel, the pick near bounced back at you so we took turns digging and pinpointing. As it happens, our pinpointing wasn't spot on with the big coil and we hit it with the pick,- ouch! one gouge. We finally unearthed it and I measured the depth at one hand spread less than the length of my pick, about 22 inches.

Well I'd found my kilo piece. Final weight is 1520 grams and a pretty specimen at that.



## What a beauty - WA Gold

55oz of glorious Western Australian gold.

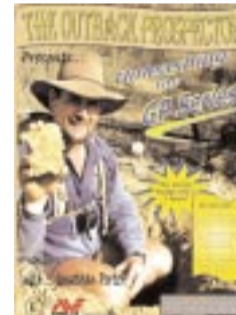
Also found in the same area, these

two weigh a further 58 ounces.

Unfortunately the finder wants to remain anonymous but has allowed us to

show off these great finds

Total weight found from the patch was a little over 180 ounces.



### The Outback Prospector.

Recently a new DVD / Video was released in Australia called "The Outback Prospector".

Well known prospector Jonathan Porter has spent the last six months filming & editing to create this excellent DVD, but in some respects it could be said that this is the culmination of almost 20 years professional prospecting. Jonathan has made his living from gold detecting in most states of Australia and now explains a lot of his techniques to you the viewer.

The DVD is not just a simple 15 min. instruction tape, Jonathan spends 3 hours of detailed explanation in, not just how to use the various knobs and switches but why. Anyone viewing this, beginner or experienced, will learn handy hints and gain understanding of when and why you should set up their detector in one way in one location and differently in another.

Grab a copy from your local detector dealer, its not only instructional but a lot of fun.

## Minelab Detector Range

### GP 3000 – \$ 5,390 rr

The GP 3000 is the top-of-the range Gold Prospecting detector. The combination of Dual-voltage with MPS technology makes the GP 3000 the deepest and most sensitive detector we have ever made. Includes automatic ground balance, ferrous discrimination, soil and boost switches and coil configuration switch for the ultimate in versatility for all conditions.

### SD 2200 v2 – \$ 3,990 rr

The SD 2200v2 is an excellent gold prospecting detector using standard MPS technology. Includes automatic ground balance, ferrous discrimination and auto tune.

### SD 2100v2 – \$ 2,990 rr

The SD 2100v2 is an excellent gold detector using standard MPS technology, with manual ground balance and manual tune controls. A very powerful no-fuss detector.

### Eureka Gold – \$ 1,590 rr

The Eureka Gold is our top gold prospecting detector using continuous wave technology. It has automatic ground balance and ferrous discrimination, and has 3 frequencies (6.4 ; 20 & 60 khz ) to operate in.

### Explorer II – \$ \$ 1,825 rr

The Explorer II is the ultimate in coin and treasure detecting. The Explorer II is the only detector able to analyse and identify the target using the conductivity and ferrous characteristics and then supply to the operator the two identifying numbers. Target ID and precise elimination of junk has never been easier. Operating in multi-frequency, the FBS technology gives impressive depth, finding targets that most other brands often miss.

### Quattro – \$ 1,395 rr

The New Quattro is a very easy to use coin and treasure detector using FBS multi-frequency technology for great depth. Discrimination is multi-notch with an accept/reject button for simple selection. Four factory preset modes, make this a powerful, turn on and go detector.

### Sovereign Elite – standard model \$ 1,280 rr

The latest version of the very popular Sovereign series detectors. Using Broad Band Spectrum technology operating in 17 frequencies, the Sovereign Elite is a well respected coin & treasure hunting detector. Easy to use control knobs, discrimination and notch controls, and water proof coil. Target ID meter available as an accessory.

### Sovereign Elite – economy model \$ 1,100 rr

The Sovereign Elite – economy is exactly the same as the standard model except it comes with the 8" coil and does not include a few of the accessory items that the standard model has.

### Musketeer Advantage –Pro – \$ 725 rr

The Musketeer Advantage Pro is a great little versatile detector, suitable for coin & treasure hunting and can be also used for gold detecting. Has fixed and manual ground balance, variable discrimination. Supplied with 10" coil and rechargeable NiMH battery & charger.

### Musketeer Advantage – standard – \$ 580 rr

The Musketeer Advantage standard is the same machine as the Pro except it comes with the smaller light weight 8" coil and standard Alkaline batteries. A very powerful, economy detector.

### Excalibur – \$ 1,695 rr

The Excalibur is a fully submersible detector, pressure tested to 250ft depth. Ideal for a treasure hunter wanting to wade on the beach or the diver who wants to search deeper water. Available with either 10" or 8" coil.

# Coils ain't Coils

With the huge influx of coils on the market many people are getting confused with what to buy, and the major part of this confusion is in not knowing what sort of performance to expect from a coil. In simple terms, the depth and sensitivity of a coil depends on the size of its electromagnetic field but other factors such as ground balance, target orientation, detector model used etc. also come into play.

One thing that a lot of operators don't realise is the importance of a smooth threshold. If the threshold you are listening to is quite chattery, your chances of hearing a faint target signal are greatly reduced. For this reason, it is essential that you choose a coil to suit the conditions you are detecting in, and the stability of your detector in very important in this.

Double-D coils have two overlapping D shaped windings. One of the windings is used to transmit an electromagnetic field, and one is used to receive the signal back from the ground. In a Monoloop coil a single winding around the edge does the job of both the Transmit and Receive function (See diagram below). Be aware that in a Double-D coil, the width of the transmit winding is half the width of the coil plus a small amount for the overlap. In a round 18" DD the actual dimensions of the transmit winding are approx. 18 inches long, and approx. 10 inches wide, compared to an 18" Mono whose transmit winding is 18" wide. This is one reason why a Monoloop coil can achieve better depth compared to a Double-D of the same size. This is also the reason that elliptical coils tend not to have the depth of the same size round coil.

However, depth is not directly proportional to the size of the Transmit coil, and as mentioned before, if by going to a larger coil your threshold stability becomes erratic, then you can loose the extra depth you may gain. Double- D coils will normally run smoother than an equivalent sized Monoloop.

The other important factor in estimating coil performance is coil shape. As a general rule a round coil has the capability of more depth compared to an equivalently sized elliptical coil. This is due to a wider transmit winding, and the way the electromagnetic field is transmitted into the ground. However, elliptical coils have their own advantages, they tend to give sharper signal to shallower targets, are often lighter weight and can be more manoeuvrable than a round equivalent, which is why they make very good patch finding coils.

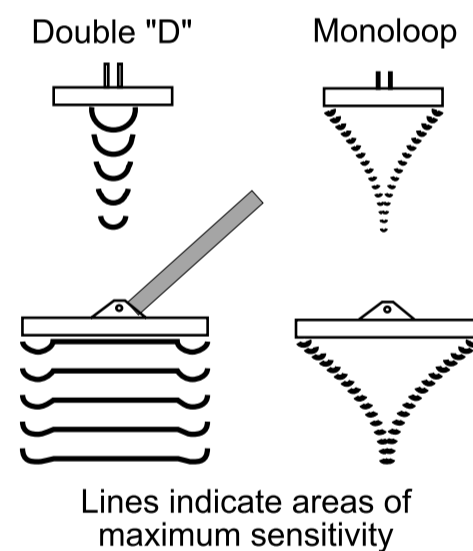
As an example, if we were to take the 18" Mono, and stretch out its winding so that we made

a coil measuring 20 x 16", we should expect the following performance differences. The 20 x 16" would get a bit better ground coverage, due to an elongated field. It would also be more sensitive at the toe and heel, but less sensitive on the edges. As a result, this increase in sensitivity would also increase the response to shallow hot rocks and charcoal. So, the 20 x 16" would be better suited to large open areas when patch finding, and the 18" mono would be better at picking up the larger deeper nuggets that are lurking in most old gold-fields.

## What about running a DD coil in Mono mode on the GP series?

The transmit winding on an 11" DD is approximately 11" x 7", but the transmit winding of an 11" Mono is 11" x 11" which is why it can achieve better depth. However, the 11" DD in Mono mode transmits using the left 11"x7" winding, but receives using the whole coil, which makes it more sensitive than the 11" mono, and because some DD characteristics are retained, it will provide better stability in mineralised soils. Those operators who have experimented with their GP's have reported finding small nuggets at excellent depth in highly mineralised soils, using larger DD coils in Mono mode.

There are other factors that can determine a coils performance, such as wire quality, cross-sectional dimension of the winding, shielding quality, rigidity etc., and a coil cannot be built to be the best at everything, so every coil has compromises in some areas.



## You'll find a Minelab detector almost everywhere

If you think detecting in the Australian bush on a hot day, with flies buzzing around and rusty tin cans to dig up is daunting – think of these US soldiers in Afghanistan with their Minelab F3 mine clearance detectors.

These are not staged shots but photos from the front line, here it really counts. It is for these reasons that the Minelab F1A4 and F3 are the preferred detectors when it really counts.



## Who Knows what you'll find detecting.

Last year and again this year, Stan Veenstra won the detectorist of the year award of the Brisbane Detector Club. He is very methodical and passionate about his detecting, enjoying the hobby for over 15 years. Stan has located an old army hospital site from WW2, now part of a dairy farm, south of Brisbane. The hospital site covers 12-15 acres and Stan uses a spray of paint on the trees every 5-6 meters so he can keep track of where he has detected.



that time Bob was stationed at the US Army hospital site that Stan has recently been detecting. Through lengthy investigation on the internet and through American contacts, Stan was finally able to get in contact with Bob who is now 83, returning the lost dog-tag and picking up an appreciative pen-pal in the process. In addition to this Stan has now found another dog-tag and is again trying to trace its owner a captain in charge of the medical division.



The Sovereign has been a terrific machine for him finding literally thousands and thousands of coins, badges, rings and other artifacts.

One of his most exciting finds has been two US Army dog-tags. Stan has even been able to locate one of the owners and returned the dog tag to him 62 years later.



Bob Lovell was posted to Australia as part of the US Army Red Arrow division. For part of

Stan enjoys the fun of detecting and is still excited by all the various memorabilia that he locates, cleans and catalogues. To vary things he also detects the Gold Coast beaches and does really well with rings and other jewelry. He is now looking at moving up into one of the more modern coin and relic detectors to see what deeper targets he can find.



# The New Minelab Quattro

Introducing the new Quattro, a new Multi-purpose detector from Minelab, designed as an entry-level into the power and advantages of Full-Band Spectrum (FBS) detector technology.

This latest in Minelab's range of detectors, offers the advantages of multi-frequency detecting, giving high sensitivity and great depth with excellent target identification.

## Full-Band Spectrum Detecting

Anyone who has been detecting for some years knows that a low frequency detector has the tendency to detect deeper, while a high frequency detector will tend to give greater sensitivity to small targets. In the very early 80's Garrett detectors made two detectors to try to offer this versatility, the Garrett Deepseeker was built in 5.5khz and their Groundhog or A2B were built in 15khz. Fisher detectors went one better in building their first Goldbug in 19.8khz followed years later by the Goldbug II in 71khz. Minelab made their first interchangeable frequency detector, the XT17000 in 1993 to work in either 6.4 or 32khz and their current Eureka Gold now offers 3 frequencies - 6.4; 20 and 60khz. The advantages of being able to change the frequency of your detector allows the operator to select the most appropriate one for the area being detected - low frequency for deep targets and high frequency for shallow smaller targets.

The ultimate to this is to have technology, which searches in numerous frequencies all at once.

A further advantage to searching in multiple frequencies is the accuracy of target identification. By testing a targets characteristics using numerous frequencies rather than just one, the targets conductivity along with other characteristics can be better analysed and improved target identification can be achieved.

The envy of most detector manufacturers is Minelab's patented FBS technology, which was first introduced in the world famous Explorer XS and now Explorer II. These detectors offered for the first time a 2-dimensional target identification system. By testing a targets conductivity and ferrous properties, targets which share a similar conductivity can be further separated using the second identifying characteristic of the ferrous content.

The depths of detecting, achieved using FBS technology is truly astounding. There are numerous stories of customers detecting areas, that have been previously detected using conventional detectors, and finding new targets at greater depths than before.

## Factory Preset Programs

The Quattro is an ultra-easy detector to use with four factory pre-set programs that allow the operator to just turn on and start detecting within a matter of a few minutes. Each program is designed for hunting for different targets in different areas:-



- Coin mode is designed for the coin hunter who wants the minimum of trash targets;
- Coin / Jewellery mode: has slightly less discrimination programmed and as the

name implies, is set to detecting coins and jewellery;

- Relic mode; eliminates most ferrous targets but does allow the detection of more interesting relics;
- All Metal mode; is the non-discriminating mode for finding all targets.

## Target Identification

Added to this is the ability to easily create your own discrimination pattern, to accept or reject just what you want or don't want.



When a target is located by the Quattro, the meter will indicate the likely type of target by highlighting a target icon, the target identification number and a cursor appears on the bar graph on the bottom of the screen.

All this information adds up to indicate to you the most likely target type you have detected. Your only decision is to decide to dig up the target or not..

The range of target identification numbers is from -10 for high ferrous targets to + 40 for highly conductive metals. Providing you with a range of over 50 target identifying numbers. Changing and selecting your own discrimination pattern is easy by selecting the number that you want to discriminate and pressing the reject button. This allows you to notch out all the junk items and still retain the more valuable items.

Changing threshold, sensitivity and other settings is easy and simple with just a press of the button.

A further feature of the Quattro identification system is the signal tone ID. Depending on the mode of detecting, the targets audio signal, heard as you pass over the item will change in pitch. If searching in Coin or Coin / Jewellery modes, the target signal will be higher pitch for highly conductive metals and lower for low conductive metals. If searching in Relic or All Metal modes, a low pitch target signal will mean that the target is made from high ferrous metal and a high pitch if it is low ferrous metal.

## Pin-Pointing

The Quattro has been designed to be easy to use for everyone. The new pinpointing feature makes finding the target very accurate. In pinpoint mode the meter shows a graphic bar-graph display when you are on top of the target, so knowing where to dig couldn't be easier.

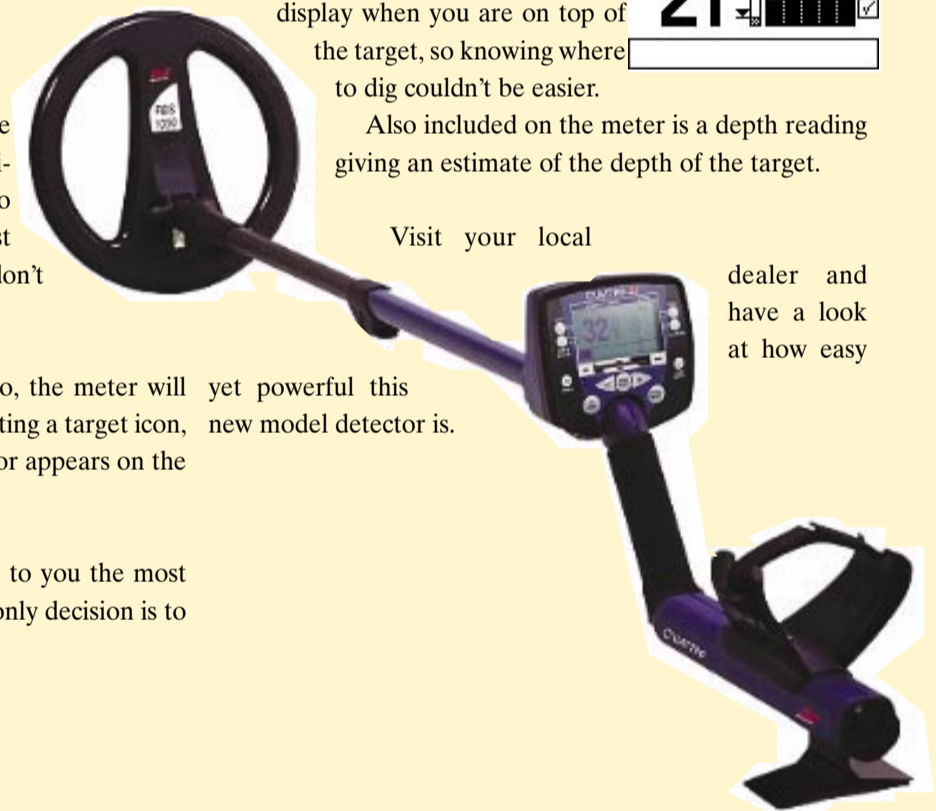


Also included on the meter is a depth reading giving an estimate of the depth of the target.

Visit your local

dealer and have a look at how easy

yet powerful this new model detector is.



# Detecting the North.

I have used 3 Minelab Detectors for coin detecting and all are top detectors.

## Excalibur.

First detector was an Excalibur submersible. It was always in the back of my vehicle but never much used. That was until I was in Port Headland, WA and I wasn't having any luck picking up a job. I was down to my last \$50 and no dole. I saw a small side show on part of an oval and started thinking about money they might drop around the stalls.



Two days later they were gone and I was there Excalibur in hand. I had a smile on my face from that day on \$40 for 4 hours. My first time, trying to learn as I go.

From that day on the days just got better. For six weeks I detected 2 beaches, 5 sports grounds, 2 parks and 2 race tracks between Port Headland and Karratha. I found a total of just over \$3,000 in \$1 and \$2 coins, 17 rings, 22 pendants and 20 odd dollars of 1 and 2 cent pieces. Approximately \$50 in silver, mostly 50c pieces (once I got the hang of the discriminator). Plus 34 pre-decimal coins, lead sinkers - I stopped counting at 150.

For six weeks I was completely in awe with what I was finding so easily I didn't even give a thought to getting a job. I had the best time. My fuel, food, scotch coke & ice cost me nothing.

I drove home to Kal along the way and I made 2 stops which got me another \$60. I arrived in Kal with over \$300 left and all the other goodies, it was an amazing trip.

My thoughts on this machine... nothing to fault except it's bloody heavy and needs to be hip-mounted. It would then have minimal drag in the water and be extra light on land and beach. To me it's my multipurpose detector. You can detect with this, rain, hail or shine. You can drop it in the sand, water or mud. It should be re-birthed as the all terrain.

## Sovereign XS-2a Pro

I had a great time with this machine. I was only going to buy a second-hand Excalibur in case my other one broke. But I ended buying a new Sov. XS-2a Pro for \$950.

I was working in Tom Price when I bought this. Three nights at two to three hours a night after work got me \$62 in \$2 and \$1 coins. A bit later I had 2 weeks R&R and drove up to my old Excalibur grounds between Port Headland. I had 13 days off with pay (you beauty!).



Well within 12 days I had found enough gold coins to pay for the detector. Thirteen days of detecting with the XS-2a Pro got me over \$1,000 in gold coins in the same areas which I'd already been over with the Excalibur. My best with this detector is \$403 in six hours. Detecting a grassed area near a swimming pool I would have got more but my ears were ringing after six hours so I walked away.



I have detected Esperance in 3 places for another \$600 + dollars and more rings and pre-decimal coins. A place called Bridgetown got me another \$80.

A top machine. \$2 coins have a distinct sound and as with the Excalibur, minimal trash.

## Sovereign Elite

This to me is much the same as the XS2a Pro except it has a few extras. Sometimes I think I may be getting a tad more depth with the Sovereign Elite. I haven't used this as much as the XS-2a, which I traded in on the Elite but it's doing extremely well.

I detected 2 different swimming pools for a total of \$560 dollars. 3 race tracks for \$223 and 2 spots on the same ground as the XS-2a Pro for \$94. In Whim Creek I found \$20 on the pub lawn and 9 pre-decimal coins from 1880 to 1920.

I've stopped counting the coins now. I just love the hobby/lifestyle. I know I can go travelling, fishing, detecting and it's not going to cost me a red cent. It doesn't get any better than that but then again who knows what riches you will find. There are bucket loads out there.

The reason I was sceptical about giving up my experience was the concern of people who follow not doing the right thing. I do not dig holes on grassed areas. I use a screwdriver and prod for the coin. Once pin-pointed there's no need to dig holes and if you do, you'll stuff it up for me and everybody else.

I could rabbit on for hours about the things I learnt about these machines the amount of coins still amazes me. There are bucket loads of them out there old and new. Research in local libraries led me to a lot of old coins and finding coins over 100 years old is the biggest buzz of detecting for me.

## World Gold Panning Championship.

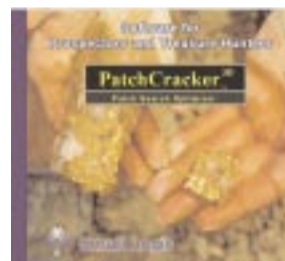
This year the World Gold Panning Championships were held in Slovakia with about 600 competitors representing 20 nations. Finland achieved 1st and 2nd in the skilled men's division. Kim Hillier (Qld) picking up the 1st place and Fred Ollson (Qld) the 2nd place in the Enduro event. This required panning 75kg of gravel in the shortest time and the most accuracy.

A team of 8 Australians attended the championships with final team results bringing Australia in at 8th place.



## PatchCracker Software

Minelab recently had the opportunity to review an innovative new product named PatchCracker3D. PatchCracker3D is a computer program that gives electronic prospectors and treasure hunters the systematic search techniques to confidently search for a nugget patch in one 20th of the time it would take to grid the area. The system allows for different search techniques and can factor in the different search pattern of various coils.



Excellent results have been reported by the inventor during its field testing with a 105 oz patch located using the combination of a Minelab GP Extreme and a PatchCracker3D optimised systematic search.

PatchCracker3D from your local detector dealer.

To find out more visit their web site at [www.smartlogic.com.au](http://www.smartlogic.com.au).

Minelab reserves the right to respond to ongoing technical progress by introducing changes in design, equipment and technical features at any time. Certain descriptions and illustrations may differ from the exact model purchased.



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