

Dennis Blacklaws 22

LOWER HUTT:

10 Laings Road, Lower Hutt, 5010, New Zealand
Phone & Fax (04) 566-3668

Email: dennis.blacklaws@gemlink.co.nz Website: www.gemlink.co.nz

Resident Appraiser/Valuer: Dennis D. Blacklaws

Gems & Jewellery Specialist - Appraiser/Valuer - Graduate Gemologist



Appraisal prepared for

Address



AppraisalPlus DBL06001

Ref No: 21669DB/LH24830

© Copyright 2021 All rights reserved
Dennis Blacklaws Ltd

Date: 9 March, 2021

ARTICLE

ITEM 1. CONTINUED .../

Surround Diamonds, (MRSBC) modern, and (Round) shaped "Brilliant" cut; CONTINUED .../

This Laboratory has applied various "in-situ" type "method/s" to "identify" the type and/or origin of the submitted Diamond/s and may include the use of some (if not all) of the following; Microscopy "examination", including analysis with cross-Nicol polarized Filters (Polariscope) (CPF) and/or the Gemtrix PL Inspector and/or the use of "SEF classic illuminator" and/or (Neodymium) rare-earth Magnetism and/or GL Gem Spectrometer.
For the purposes of this Appraisal these Diamonds have been appraised/valued as (Natural - Earth Mined).

N.B. (Natural) Ruby and Diamonds graded in mounts (*in-situ*).
Diamonds est Total (Est 0.510ct).
Immersion Microscopy analysis indicates Ruby of (Natural) (Mong-Hsu) origin.
(Natural) Ruby length→ & width→ & depth↓ and Diamonds diameterØ & depth↓
dimension measurements estimated due to mounts.
Diamonds colour graded under an (ultraviolet-free) colour/grading environment.
Diamonds body colour Masked due to mounts.
(MRSBC) Diamonds of G.I.A. Very Good cut/grade.
Diamonds NEED to be removed from mounts for more accurate Weight, Colour and Clarity grading and to identify if Clarity enhanced.

Diamonds presenting inert (Nil) and (Faint) weak - strong
and cloudy - translucent with Violetish/Bluish and Bluish
and Fluorescent and colour reaction to L.w.U.v. radiation.

Ring Total Weight (4.92grams) with Total Metal Weight (4.58grams).
Ring presenting as 'New' and Safe condition.
Finger size (T) centre. Photographs (X2/1.).

R.M.V.N. \$7,960.00

I.M.V. \$7,960.00



Item No 1. for (courtesy) "WIKIPEDIA" REFERENCES CONTINUED .../

CONTINUED ...//



EDINBURGH ASSAY OFFICE



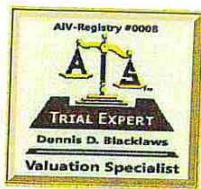
GIA
GEMOLOGICAL
INSTITUTE OF
AMERICA

8/30



Dennis D. Blacklaws
Dennis D. Blacklaws

This Appraisal has been prepared in conformity with accepted professional ethics of Appraisers International Society™ (USA) & The Jewellery Appraisers Society of N.Z. Inc.



Dennis Blacklaws Ltd

LOWER HUTT:

10 Laings Road, Lower Hutt, 5010, New Zealand
Phone & Fax (04) 566-3668

Email: dennis.blacklaws@gemlink.co.nz Website: www.gemlink.co.nz

Resident Appraiser/Valuer: Dennis D. Blacklaws

Gems & Jewellery Specialist - Appraiser/Valuer - Graduate Gemologist



Appraisal prepared for
Address



AppraisalPlus DBL06001

Ref No: 21669DB/LH24830

© Copyright 2021 All rights reserved
Dennis Blacklaws Ltd

Date: 9 March, 2021

ARTICLE

ITEM 1. CONTINUED .../

Central **Ruby**, modified, and "Oval" shaped, (mixed) cut; CONTINUED/

GIA ColorMaster® Notation **D:36:00:33** with **Colour grade (7)**

GIA GemSet® colour Analysis

(1) (single) and (Natural) Ruby presenting Good - Fair *symmetry* and *proportions*, with off-centre *culet* and High surface *polish* and presenting (Nil) Window effect, with colour *Banding* and colour *Zoning* and presenting a number of internal *relic melt residue Fluid Healing-Fracture* and *Discoid iridescence fracture* and a number of of *Positive* and *Negative* type *Crystallites* and *Epitaxially inter-grown syngenetic (in-complete interrupted) Rutile* and *Polysynthetic Twin Lamellae*, *Turbulence* and *Zones & Nebulous* and *Phantom* type *Cloud inclusion scenes*, applying (*oblique lighting*) and (*immersion microscopy*) technique, presented in mount.

N.B. Check **Spectrometer** Analysis.

It is an **internationally** recognised trade practice to **treat/enhance** gems of this **variety**, by various **methods** to **enhance** the **colour** and/or **clarity** - applying immersion **Microscopy** technique indicates **SOME** evidence of **Significant/Substantial** amount of "Residue" from standard **Thermal-Heat/Annealing** treatment is **Immediately** apparent - Research also **indicates** this treatment **may/does** also involves the use of the more **NON-Traditional** type **treatment/enhancement** process with the **addition** of a **Filler** type **clarity** - **enhancement** of a **propriety-process** type **treatment** is immediately apparent with-in this **Gem**.
Extent: **Significant/Substantial** Stability: Stable under normal wearing conditions. Prevalence: **Never/Rarely/Commonly/Usualy**

N.B. **Positive Provenance/Origin** Identification may alter assessed value of submitted **Ruby**.
This can only be established by an **International** recognised **Gemological Laboratory** i.e. (**G.I.A.**) (**Gubelin**) and/or (**GRS/SWISSLAB**) specialising in (**Origin**) identification and/or including: (**LA-ICP-MS**) = (**Laser Ablation Inductively Coupled Plasma Mass Spectrometry**) and/or (**LIBS** = **Laser Induced Breakdown Spectroscopy**), and/or (**FTIR** = **Fourier Transformed Spectroscopy**) and is determined on the basis of **concordant** indications.
For the **purposes** of this Appraisal the **Ruby** has been appraised/valued as (**Medium**) **quality**.
Applying assignment-specific research including examining 'facts - in - evidence' and have been appraised at **current market value** (as is) with cognisance to the presented **authentication** - physical nature, origin and quality and evaluation of the above.

N.B. **Statement/s** of "Geographical Origin" included within this Appraisal are submitted by 'expert-opinion' including accumulative and analytical "**Observations**" and "**Data**" and the **experience** of the practitioner.

Surround **Diamonds**, (MRSBC) modern, and (Round) shaped "Brilliant" cut;

10 x est 2.44-2.36mmØ x 1.45-1.40mm†

Est by Formula (10 x est 0.053-0.049ct) (H or Higher) (SL)

N.B. The (10) Ten presented **Diamonds** have by application and "in-situ" and applied type **examination** and **analysis** using "Ultra-Spectrum Optical Filtering" (USOF) and/or "The Diamond Trading Co" V2.03 **Diamond-Sure™** and/or "SmartPro™" screening "instruments" to separate **Cultured (LGD)** **Laboratory-Grown** **Diamond** of (HPHT) High-Pressure High Temperature and/or (CVD) Chemical Vapour Deposition **Cultured (LGD)** (**Laboratory-Grown**) and/or (**treated**) **Diamonds** - also known as (**Created/Man-Made**) from "**Natural-Untreated**" - "**Earth-Mined**" **Diamonds** have indicated a **Pass/Positive** result for "**Natural-Untreated**" - "**Earth-Mined**" **Diamonds**.



ITEM 1. CONTINUED .../

CONTINUED .../

7/30



EDINBURGH ASSAY OFFICE

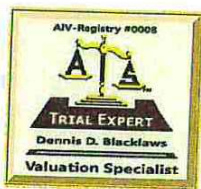


GIA
GEMOLOGICAL
INSTITUTE OF
AMERICA



Dennis D. Blacklaws

This Appraisal has been prepared in conformity with accepted professional ethics of Appraisers International Society™ (USA) & The Jewellery Appraisers Society of N.Z. Inc.



Dennis Blacklaws Ltd

LOWER HUTT:

10 Laings Road, Lower Hutt, 5010, New Zealand
Phone & Fax (04) 566-3668

Email: dennis.blacklaws@gemlink.co.nz Website: www.gemlink.co.nz

Resident Appraiser/Valuer: Dennis D. Blacklaws

Gems & Jewellery Specialist - Appraiser/Valuer - Graduate Gemologist



Appraisal prepared for

Address:



AppraisalPlus DBL06001

Ref No: 21669DB/LH24830

© Copyright 2021 All rights reserved
Dennis Blacklaws Ltd

Date: 9 March, 2021

ARTICLE

1. Branded, (Reproduction) Cast/Fabricated, - (10) Bezel, with - (single) (1) species; **Corundum** variety; **Ruby** object: (faceted Gemstone) synthesis: (Natural) phenomena: transparent/translucent treatment: (Enhanced) analysis: **Filler -Thermal** origin: **Myanmar/Burma (Mong-Hsu)** and (10) species: **Diamond** object: (faceted) variety: **Colourless** synthesis: (Natural - Earth mined) treatment: (Non-enhanced) origin: **Un-Known** with vintage and contemporary/modernist type (double-tier) and (Halo) design (Cluster) style Ring.

Ring Metal composition analysed as 18ct Yellow gold and Rhodium-plated on top of White gold alloy, and 'laser-inscribed' with 750 style hall/mark, and MHJ style brand/makers mark.

Ring presented with Yellow gold and plain, with flat (section) to "reverse" and "Taper" shape, 'polish-finish' with 2.11mm x 1.48mm x 1.17-4.30mm dimension and "Seamless" style shank.

Ring presented with Yellow gold, and flow-on to cut-out, plain and 'inverted' to "Point" shaped, 'solid' and "Buttress" style "shoulder" setting, placed and applied to either side.

Ring presented with Rhodium-Plated on top of White gold, and Elevated, with (1) (single) and separate Ruby, with (4) claw and (4) pillar, flush and inset, with cut-out and pierced, "in-situ" and 'single' separate "Bezel" design, with "Oval" and "Parallel" shaped, Tension inset, type central style mount 8.10mm x 6.00mm x 2.01mm dimension and "Assembly" setting.

Ring presented with Rhodium-Plated on top of White gold, and Elevated, with (10) (single) and 'alternate' and separate Diamonds, with (10) x (5) claw and (10) x (5) pillar, and flush and inset, cut-out and pierced, "in-situ" and 'single' separate "Bezel" design, 'semi-scallop' and 'dome' shaped, with 'split-level' and 'immediate' and "surround" and "Parallel" and "Plaque" shaped, Tension inset, type 'pierced-back' and "Assembly" style mount "Assembly" setting.

Ring presented with 12.58mm x 10.58mm x 6.87mm dimension and "Assembly" setting applied across top of Rhodium-Plated on top of White gold, with (10) separate "wire" type "cage-back" style 'base' and mm height setting, placed and applied and inset between shank ends.

Centre Ruby, modified, and "Oval" shaped, (mixed) cut;

1 x est 7.09 x 5.01mmØ x 3.63mm L.W. Ratio 1.415:1

Est by Formula 1 x est 1.191ct

(1) (single) and (Natural) Ruby presenting semi-translucent/transparent (vivid) (very) slightly Purplish/Reddish - Reddish Hue, with Tone (5-7) with Saturation (4/5) and Clarity (SI-I.).

ITEM 1. CONTINUED .../

CONTINUED ...//

6/30



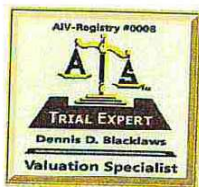
GIA
GEMOLOGICAL
INSTITUTE OF
AMERICA



Dennis D. Blacklaws

This Appraisal has been prepared in conformity with accepted professional ethics of Appraisers International Society™ (USA) & The Jewellery Appraisers Society of N.Z. Inc.





Dennis Blacklaws Ltd

LOWER HUTT:

10 Laings Road, Lower Hutt, 5010, New Zealand
Phone & Fax (04) 566-3668

Email: dennis.blacklaws@gemlink.co.nz Website: www.gemlink.co.nz

Resident Appraiser/Valuer: Dennis D. Blacklaws

Gems & Jewellery Specialist - Appraiser/Valuer - Graduate Gemologist



Appraisal prepared for

Address



AppraisalPlus DBL06001

Ref No: 21669DB/LH24830

© Copyright 2021 All rights reserved
Dennis Blacklaws Ltd

Date: 9 March, 2021

ARTICLE

Item No 1. for (courtesy) "WIKIPEDIA" REFERENCES CONTINUED .../



(courtesy) ref: Wikipedia

A **Ruby** is a pink to blood-red colored gemstone, a variety of the mineral corundum (aluminium oxide). The red colour is caused mainly by the presence of the element chromium, its name comes from *ruber*, Latin for red. Other varieties of gem-quality corundum are called **sapphires**. Prices of rubies are primarily determined by color. After color follows clarity: a clear stone will command a premium, but a ruby without any needle-like rutile inclusions may indicate that the stone has been treated. Cut and carat (weight) are also an important factor in determining the price. Ruby is the traditional birthstone for July and is always lighter red or pink than garnet. Rubies have a hardness of 9.0 on the Mohs scale of mineral hardness.

Among the natural gems only moissanite and diamond are harder, with diamond having a Mohs hardness of 10.0. Ruby is α -alumina (the most stable form of Al_2O_3 in which a small fraction of the aluminium ions are replaced by chromium ions). Each Cr^{3+} is surrounded octahedrally by six O^{2-} ions. This crystallographic arrangement strongly affects each Cr^{3+} , resulting in light absorption in the yellow-green region of the spectrum and thus in the red color of the gem. When yellow-green light is absorbed by Cr^{3+} , it is re-emitted as red luminescence. This red emission adds to the red color perceived by the subtraction of green and violet light from white light, and adds luster to the gem's appearance. When the optical arrangement is such that the emission is stimulated by 694-nanometer photons reflecting back and forth between two mirrors, the emission grows strongly in intensity. This effect was used in 1960 to make the first successful laser, based on ruby.

All natural rubies have imperfections in them, including color impurities and inclusions of rutile needles known as "silk". Gemologists use these needle inclusions found in natural rubies to distinguish them from synthetics, simulants, or substitutes. Usually the rough stone is heated before cutting. Almost all rubies today are treated in some form, with heat treatment being the most common practice. However, rubies that are completely untreated but still of excellent quality command a large premium. Some rubies show a three-point or six-point asterism or "star". These rubies are cut into cabochons to display the effect properly. Asterisms are best visible with a single light source, and move across the stone as the light moves and/or the stone is rotated. Such effects occur when light is reflected off the "silk" (the structurally oriented rutile needle inclusions) in a certain way. This is one example where inclusions increase the value of a gemstone. Furthermore, rubies can show color changes - though this occurs very rarely - as well as chatoyancy or the "cat's eye" effect.

Generally, gemstone-quality corundum in all shades of red, including pink, are called rubies. The Mogok Valley in upper Myanmar (Burma) was for centuries the world's main source for rubies. That region has produced some of the finest rubies ever mined, but in recent years very few good rubies have been found there. In central Myanmar, the area of Mong Hsu began producing rubies during the 1990s and rapidly became the world's main ruby mining area. The New Montepuez in Mozambique is an amphibole-related deposit similar to those near Winza (Tanzania), and Sawze and rarely recently in Africa. Amphibole-type rubies generally have higher iron content than those found in marble-related deposits and lower iron content than those from basalt-related deposits.

Recently found ruby deposit in Myanmar is in Namya (Namyazeik) located in the northern state of Kachin. Rubies have historically been mined in Thailand, the Pailin and Srao districts of Cambodia, Burma, India, Afghanistan and in Pakistan. In Sri Lanka, lighter shades of rubies (often pink sapphires) are more commonly found. After the Second World War ruby deposits were found in Mozambique, Tanzania, Madagascar, Vietnam, Nepal, Tajikistan, and Pakistan.

In the evaluation of colored gemstones, color is the most important factor. Color divides into three components: hue, tone and saturation. Hue refers to "actual color" as we normally use the term. Transparent gemstones occur in the following primary hues: red, orange, yellow, green, blue, violet. These are called *pure spectral hues*. In nature, there are rarely pure hues. So when speaking of the hue of a gemstone, we speak of primary and secondary hues. In nature, tertiary hues. In ruby, the primary hue must be red. All other hues of the gem species corundum are called sapphires. Ruby may exhibit a range of secondary hues: orange, purple, violet and pink are possible. The finest ruby is best described as being a vivid medium-dark toned red. Secondary hues add an additional complication. Pink, orange, and purple are the normal secondary hues in ruby. Of the three, purple is preferred because, firstly, the purple reinforces the red, making it appear richer.

Rubies and Sapphires may be treated by several methods to enhance and improve their clarity and colour. It is common practice to heat natural sapphires to improve or enhance colour. This is done by heating the Rubies and/or sapphires in furnaces to temperatures between 500 and 1800 °C for several hours, or by heating in a nitrogen-deficient atmosphere oven. Evidence of ruby and sapphire and other gemstones being subjected to heating goes back at least to Roman times. Un-heated natural stones are somewhat rare and will often be sold accompanied by a certificate from an independent gemological laboratory attesting to "no evidence of heat treatment".

Improving the quality of gemstones by treating them is common practice. During the late 1990s, a large supply of low-cost materials caused a sudden surge in supply of heat-treated rubies, leading to a downward pressure on ruby prices. Improvements used include color alteration, improving transparency by dissolving inclusions, healing of fractures (cracks) or even completely filling them. The most common treatment is the application of heat. Most, if not all, rubies at the lower end of the market are heat-treated on the rough stones to improve color, remove purple tinge, blue patches and silk. These heat treatments typically occur around temperatures of 1800 °C (3300 °F). Some rubies undergo a process of low-temperature heat, when the stone is heated over charcoal at a temperature of about 1300 °C (2400 °F) for 20 to 30 minutes. The silk is only partially broken as the color is improved. Another treatment, which has become more frequent in recent years, is lead/glass filling. Filling the fractures inside the ruby with lead/glass (or a similar material) dramatically improves the transparency of the stone, making previously unsuitable rubies fit for applications in jewellery.

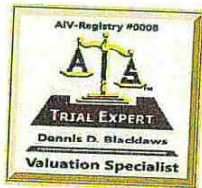
CONTINUED ...//

9/30



[Signature]
Dennis D. Blacklaws

This Appraisal has been prepared in conformity with accepted professional ethics of Appraisers International Society™ (USA) & The Jewellery Appraisers Society of N.Z. Inc.



Dennis Blacklaws Ltd

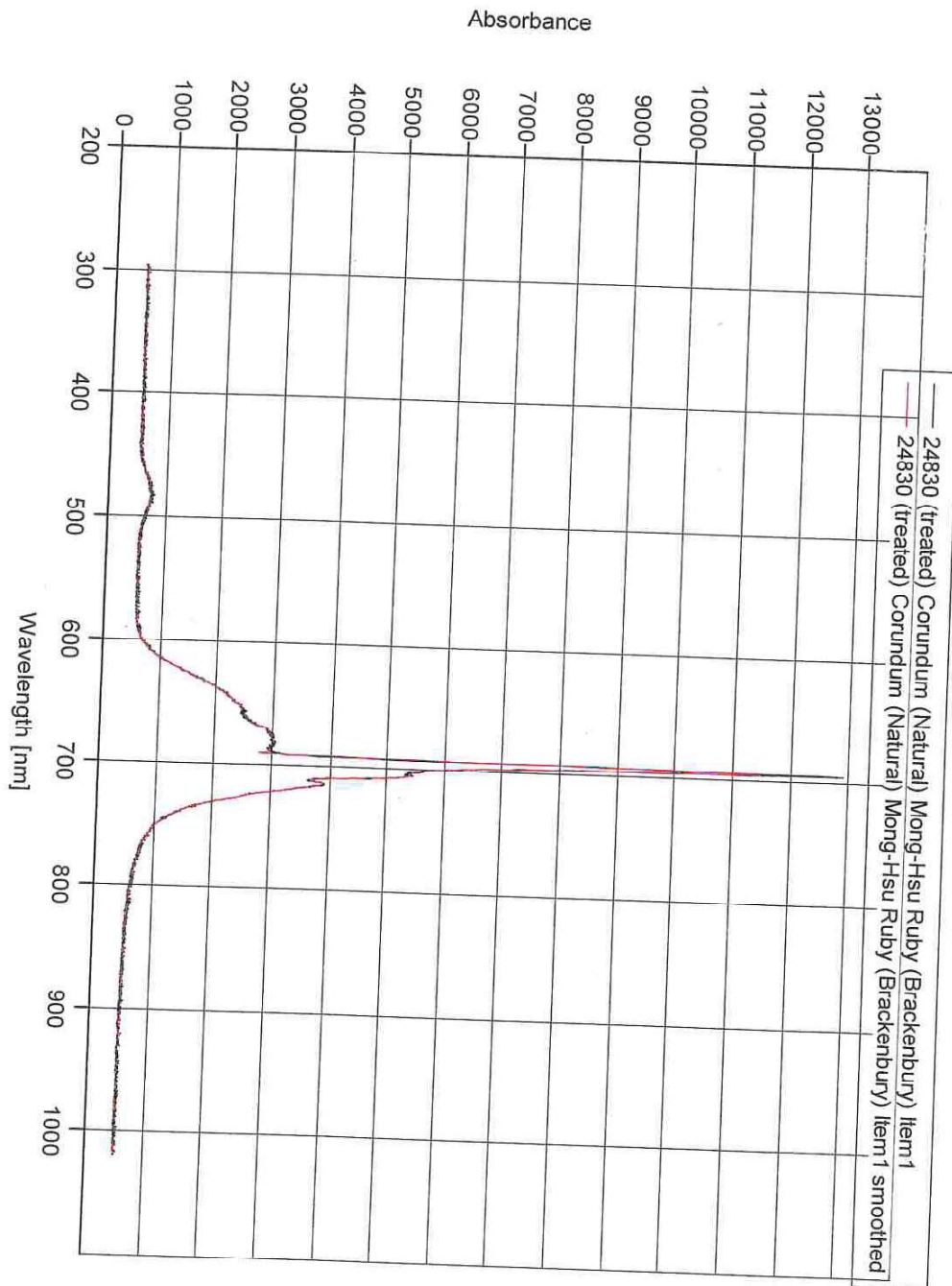
LOWER HUTT:

10 Laings Road, Lower Hutt, 5010, New Zealand
Phone & Fax (04) 566-3668

Email: dennis.blacklaws@gemlink.co.nz Website: www.gemlink.co.nz

Resident Appraiser/Valuer: Dennis D. Blacklaws

Gems & Jewellery Specialist - Appraiser/Valuer - Graduate Gemologist



EDINBURGH ASSAY OFFICE



GIA
GEMOLOGICAL
INSTITUTE OF
AMERICA

