



# Manning Alberta Carbonate Heavy Oil Prospects

# TAMM OIL & GAS CORP.



# Forward Looking Statements

This presentation contains forward-looking statements. The words or phrases "would be," "will" "intends to," "will likely result," "are expected to," "will continue," "is anticipated," "estimate," or similar expressions are intended to identify "forward-looking statements." Actual results could differ materially from those projected in TAMM Oil & Gas Corp.'s ("TAMM" or "Corporation") proposed oil and gas related business. The Corporation's business is subject to various risks, which are discussed in the Corporation's filings with the US Securities and Exchange Commission and with Canadian securities commissions. The Corporation's filings may be accessed at [www.sec.gov](http://www.sec.gov).

The information in the Engineering Report referred to herein contains the terms "prospective resources". TAMM advises investors that, although these terms are recognized and required by Canadian securities regulations (under National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities), the US Securities and Exchange Commission does not recognize these terms. Investors are cautioned not to assume that any part or all of the resources in this category will ever be converted into reserves. In addition, "prospective resources" have a great amount of uncertainty as to their existence, and economic and legal feasibility. It cannot be assumed that any part of a prospective resource will ever be upgraded to a higher category. Under Canadian rules, estimates of prospective resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for a "preliminary assessment" as defined under National Instrument 51-101. Under US rules, investors are cautioned not to assume that part or all of a prospective resource exists, or is economically or legally recoverable.

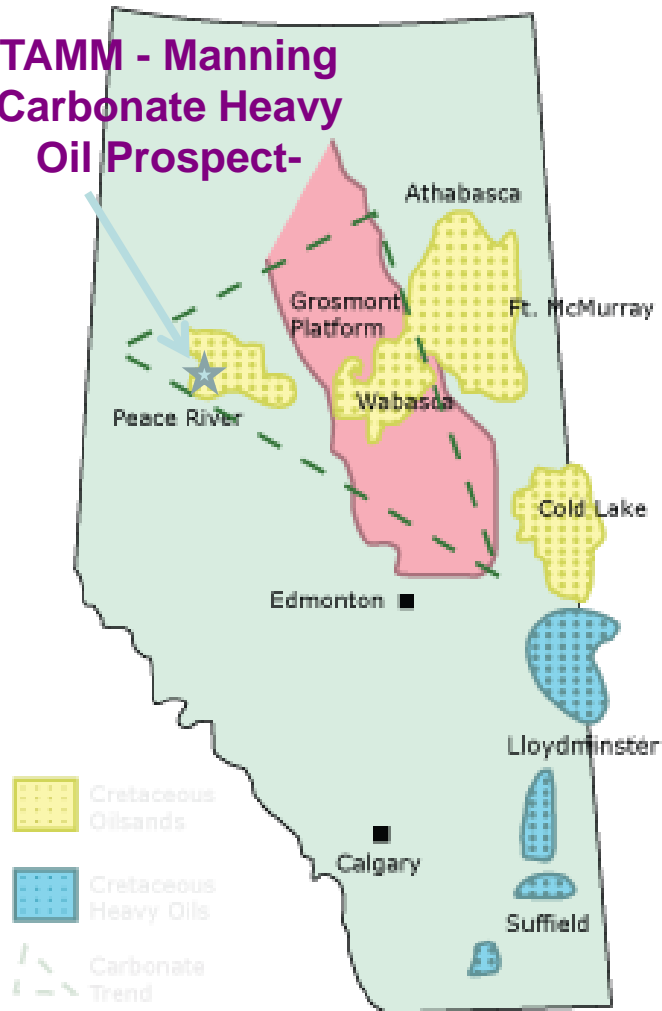
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# An Emerging Carbonate Heavy Oil Play

## TAMM - Manning Carbonate Heavy Oil Prospect-



Source: Alberta Geological Survey

### Carbonate Triangle

Considerable attention is currently focused on the large heavy oil deposits within the "Carbonate Triangle" of northcentral Alberta. The Upper Devonian Grosmont formation has been the main focus of interest because of its enormous heavy oil reserves, estimated in the range of 300+ billion barrels OOIP.

### Cretaceous Oilsands

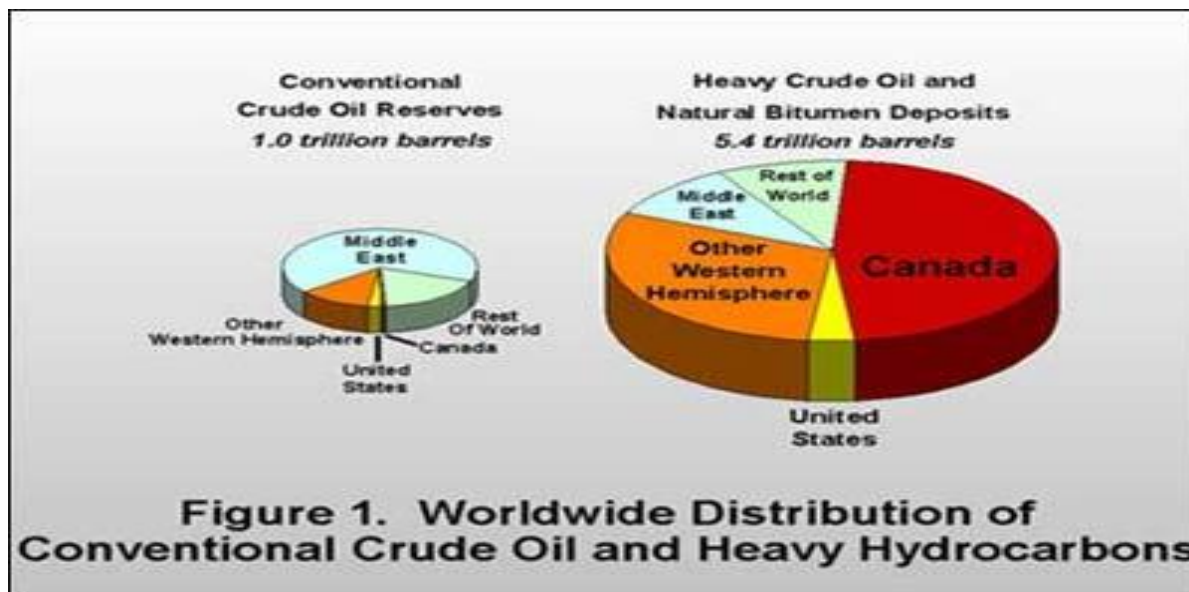
Extensive research is being directed at new solutions to recover bitumen from carbonates, which has recently shown considerable promise in similar reservoirs in other parts of the world.

### Cretaceous Heavy Oils

Effective new solutions are rapidly emerging due to ongoing research,, increased Oil Prices, narrow discounts to conventional crude oil.

In global markets of high energy pricing and demands, industry is focused on innovative solutions to address effective exploitation of heavy oil from carbonate reservoirs, as was successfully accomplished with heavy oil sands. Recently developed in situ bitumen extraction techniques will allow industry to leap-frog through this challenge.

# An Emerging Carbonate Heavy Oil Play



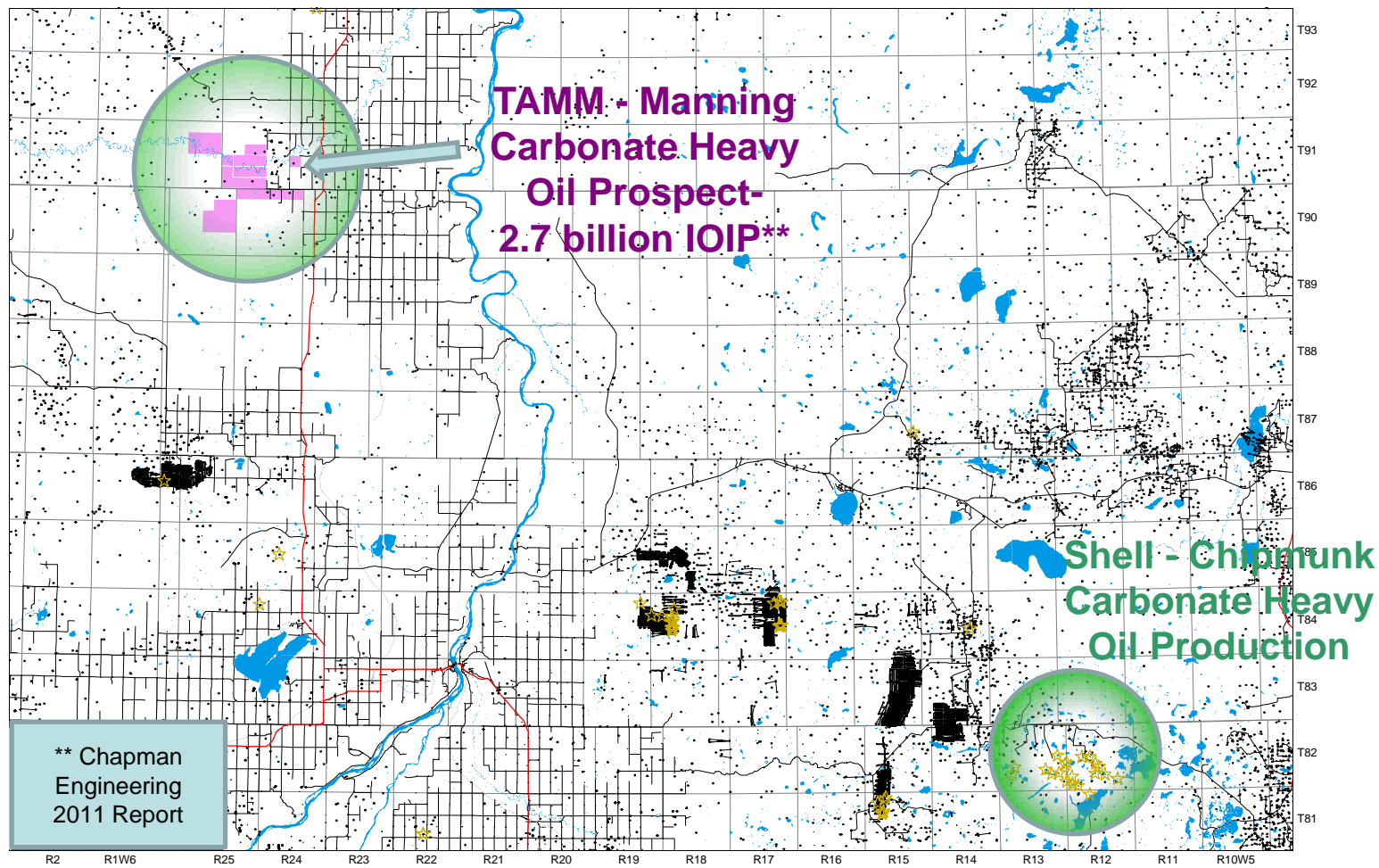
The figure shown above illustrates Western Canadian bitumen reserves represent approximately 45% of the world total. Although the large majority of these heavy oil reserves are in Cretaceous sands, considerable reserves are also hosted within carbonate rocks.

It is expected that Alberta will become the largest heavy oil production and development center in the world.

New heavy oil production is currently being established from Mississippian carbonates in the Peace River region at Chipmunk, Seal and Cadotte/Carmon Creek. Several companies have become aggressively involved in the emerging Peace River Mississippian carbonate heavy oil play in, seismic, exploratory and delineation drilling, reservoir stimulation testing, and heavy oil production. This is especially prevalent with new lease acquisitions of over 6 million dollars in the Manning area in April, 2011.



# Carbonate Heavy Oil Prospects





# An Emerging Carbonate Heavy Oil Play

## LOWER DEBOLT & ELKTON HEAVY OIL

TAMM OS-
April 20 land auction OS
private company OS
April 6 land auction OS
Cougar 2011 Farm in

**TAMM - Manning  
Carbonate Heavy  
Oil Prospect-  
2.7 billion IOIP \*\***

## Manning

- Oil recovered from 5-17-90-24W5 was reported at 14-18 degrees API
- TAMM Manning properties range from 10-35 meters thick with 9-25% porosity
- Carbonate porosity at Manning appears more widespread (over ~ 64,000 acres)
- April 2011 land sales took approx. 7 townships in adjacent lands ( 489 sections or 312,960 acres) for a series of bids totaling 5.9 mill
- Cougar Oil and Gas Canada, Inc to drill to earn 2 section farm in on adjacent lands.
- Cougar Oil and Gas Canada, Inc to farm in on TAMM lands – spend 9 mill to develop properties and earn 50% working interest.

\*\* Chapman Engineering May 2011 report



# Chapman Engineering Reports

Report Date	Elkton OOIP	Pay Thickness	Porosity	Water Saturation
November 2009	1,744,490 Elkton 1,395,592 Debolt	50 ft Elkton 40 ft Debolt	20% Elkton 20% Debolt	23% Elkton 23% Debolt
May 2011	1,264,000 Elkton 1,449,000 Debolt	51 ft Elkton 32 ft Debolt	18% Elkton 20% Debolt	38% Elkton 22% Debolt

November 2009 – 30,800 acres – 47 sections –using 6-34-9024W5 (15 deg API)- Original Oil In Place for a total 3.14 Billion STB Gross OOIP.

Released - May 2011 – Updated report and feasibility study using new cutoffs (updated definitions) – and results from 6-34-90-24W5 – total of 2.7 IOIP billion barrels.

May 2011 - Feasibility Study results - using a 4 section block – a 2011 oil price \$69.47/bbl

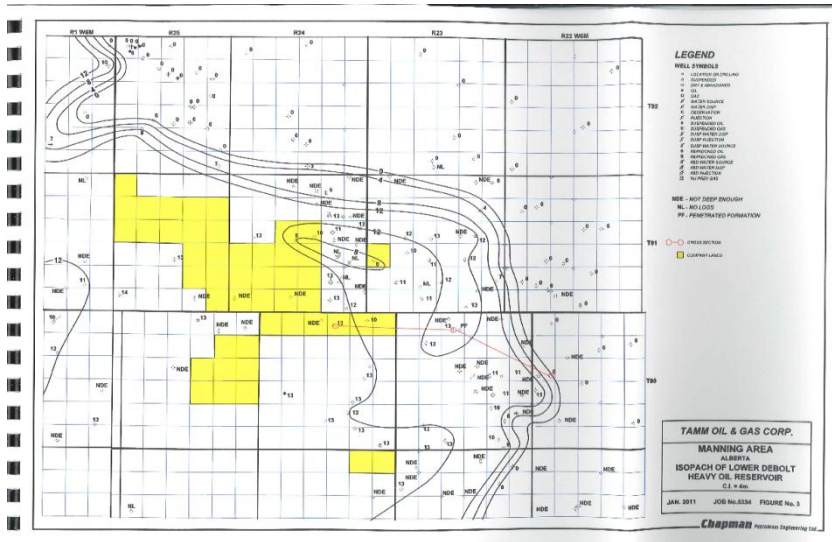
Recovery Factor	MSTB Recoverable on typical 4 Sections	NPV Discounted 10% for <b>typical 4 section Block</b>	
		Before Risk	After Risk
10%	21,247	\$632,903,000	\$130,000,000
15%	30,897		
25%	50,212		



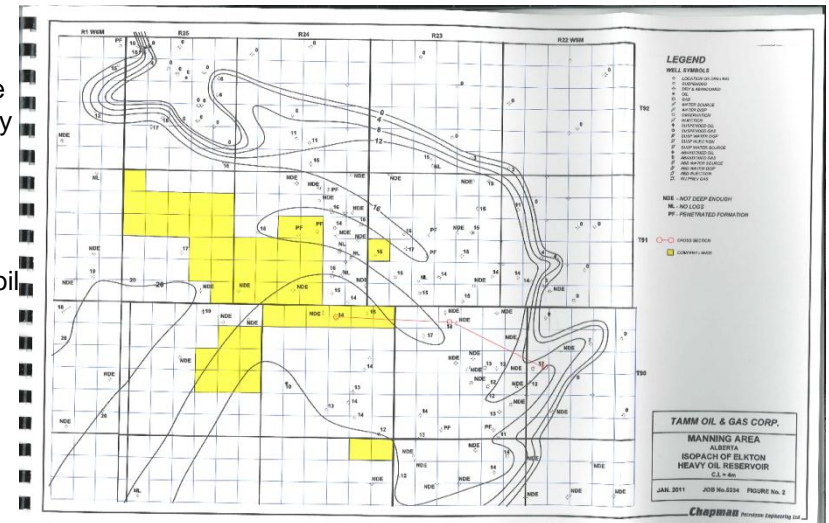
# Chapman Engineering Reports

## Geology – excerpt from May 2011 report.

The Manning area contains the updip edge of a number of shallowing upward carbonate cycles in the Debolt and Elkton formations of Mississippian Age. These formations were deposited on a carbonate rich shallow passive continental margin. The clean upper portions of each cycle have been preserved as porous limestone with abundant crinoids for the most part though dolomitization has often occurred at the erosional unconformity. The Elkton and Lower Debolt cycles have appreciably thicker and better quality heavy oil reservoirs than the thinner cycles of the Upper Debolt. The entire Mississippian section dips gently to the southwest. These porous heavy oil reservoirs have been sealed by the Lower Cretaceous shales of the Bullhead Group, whose southward transgression commenced by the deposition of the marine clastics of the Bluesky Formation.



The heavy oil reservoir of the two thickest zones in the heavy oil saturated Mississippian were mapped; the Elkton Formation is illustrated in Figure 2 and the Lower Debolt in Figure 3. Both maps show the TAMM property located in proximity of the erosional updip edge of both formations. There is a regional downdip water line for both zones but it is not present on this map area as both the Elkton and Lower Debolt formations are saturated with heavy oil in this area. The isopach mapping of these heavy oil reservoirs excluded transitional zones of appreciably less porosity in the lower parts of each unit so that only the highest quality heavy oil reservoir has been mapped. The excellent reservoir parameters including good porosity and high resistivity of both zones is illustrated on both the cross-section and the pay zones as shown on the log analysis of well 6-34-90-24W5M





# Recent Press Releases of Interest

Dec-23-2010

## **Steam injection commences at the Saleski Grosmont Carbonate Oil Sands Pilot**

Laricina Energy Ltd. announces it has commenced the injection of steam into the Grosmont carbonate formation at its Saleski pilot project (Saleski Pilot). Laricina believes that the Saleski Pilot, which has an approved capacity of up to 1,800 barrels per day, is the world's first steam-assisted gravity drainage (SAGD) project in the Grosmont carbonate formation, one of Alberta's largest in situ bitumen resources.

Nov-29-2010

## **Osum Completes \$100 million Private Placement**

Osum Oil Sands Corp. is pleased to announce that it has closed its previously announced private placement to a wholly-owned subsidiary of Korea Investment Corporation of 7,692,308 common shares at \$13.00 per share for total gross proceeds of approximately \$100 million. The proceeds from this financing together with Osum's existing working capital will be invested directly in the Company's in situ projects and used for general corporate purposes.

Nov-23-2010

## **Thailand latest player in oilsands scene through \$2.28-billion Statoil deal**

Thailand has joined the parade of Asian energy firms investing in the oilsands, snapping up a minority stake in Statoil's largely undeveloped holdings in northern Alberta.

Norway-based Statoil announced it would farm out a 40 per cent stake to PTT Exploration and Production, Thailand's sole oil and gas company, for US\$2.28 billion.

"This acquisition provides the company access to a highly attractive oilsands deposit in Canada and a strong platform for future growth into unconventional resources, including the opportunity to form a partnership with Statoil, one of the world's leading companies on heavy oil and deepwater exploration and production," PTT said.

Sinopec had already grabbed a foothold in the oilsands through its 50 per cent stake in Total E&P Canada's Northern Lights project.

China Investment Corp., a state-run sovereign wealth fund, said in May it would kick in \$1.25 billion to help Penn West Energy Trust develop some of its oilsands leases.

Another state-owned Chinese energy firm, PetroChina, announced in 2009 it would make a \$1.9-billion investment in two projects operated by Athabasca Oil Sands Corp.



# Other Peace River Activity

**Andora** – Sawn Lake oil sands – Approval for Steam Pilot – 88 gross sections of 3P with estimated 214 million barrels (best case) contingent resources 2C NPV 10% estimate of \$415.3 Mill (best case)

**Strata** – 124,542 acres in Peace Area – Cadotte Project – 29 sections – 2 billion barrels OOIP. Contingent reserve march 2011 - net present value (discounted at 10%) of cash flows before income taxes of USD \$1.3 billion.

**Drakkar Energy Ltd** – 6.53 billion OOIP gross manning area – 117 sections

**Laricina Saleski Grosmount project** – 67 sections estimate resource OBIP of 10 billion bares – SAGD project approved and solvent over steam project

**Shell** – acquired Saleski/Grosmont carbonate oilsands for \$467 mill – underground electric heaters to convert bitumen to higher grade crude and gas underground - Shell acquired Black Rock for \$2.4 billion – 603 recoverable bbls.

**China Investment Corp** – invested \$312 mill initial and commitment of \$505 mill for future capital costs for 45% in PennWest Project– • 237,000 net acres or \$7660 / acre• 2700 boepd or \$ 245,300 / flowing barrel• 6.9 mmoeb 2P reserves 5 – 6 billion barrels of bitumen in place - spending plans to commit \$150 to \$250 to increase production up to 10,000 bbl/d

## Active Operations in the Caddotte Area

Shell Oil, Husky Oil, Baytex, Devon, Murphy, IOL, PennWest

### Shell Chipmunk 2009.

- Approximately 20 wells producing from Mississippian Carbonates at 35 to 150 bopd (~11-12 API degrees) on primary production
- Average cumulative Carbonate Heavy Oil production per well at Chipmunk ranges from <1000 to 150,000 bbls. after only a few years
- Chipmunk producing zones up to 50 meters thick with 9-25% porosity (over ~ 20,000 acres)



# Links to Information of Interest

## **Alberta Carbonates: Prime candidate for the 3rd Trillion and beyond**

Ian J. Potter PhD Vice President Energy - SPE R&D Conference San Antonio

<http://www.spe.org/spe-site/spe/spe/meetings/RDC/2007/potter2.pdf>

## **Overview of the Oil Sands and Carbonate Bitumen of Alberta: Regional Geologic Framework and Influence of Salt-Dissolution Effects**

By F.J. Hein, R.A. Marsh, and M.J. Boddy - Search and Discovery Article #10145 (2008)

<http://www.searchanddiscovery.net/documents/2008/08017hein/index.htm>

## **Sources of Hidden Value in Canadian Oil Sands Equities**

[http://www.energy.gov.ab.ca/LandAccess/pdfs/OilSands\\_Projects.pdf](http://www.energy.gov.ab.ca/LandAccess/pdfs/OilSands_Projects.pdf)

## **An Exploratory Study - Low Carbon Futures**

Carbonate Triangle and Conventional Heavy Oil – Lowest GHG Production Scenario

<http://www.ptac.org/cho/dl/chop0701s.pdf>

## **Carbonate Klondike – The Next Oilsands?**

Pat Roche – July 2006

[http://www.cbp.ca/eventsPages/PDF/KRW07/W5\\_NTM\\_CarbonateKlondike.pdf](http://www.cbp.ca/eventsPages/PDF/KRW07/W5_NTM_CarbonateKlondike.pdf)

## **Canada's Oil Sands - A World-Scale Hydrocarbon Resource**

Prepared by: R.B. (Bob) Dunbar, P. Eng. - August 2008

[http://www.strategywest.com/downloads/StratWest\\_OilSands.pdf](http://www.strategywest.com/downloads/StratWest_OilSands.pdf)

## **Alberta Carbonates – the third trillion**

About one-third of the world's oil resources are found in carbonate reservoirs.

[www.kgu.or.kr/download.php?tb=bbs\\_017&fn...pdf&rn=925.pdf](http://www.kgu.or.kr/download.php?tb=bbs_017&fn...pdf&rn=925.pdf)



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