Case Study - Course IRM Retirement

National Oil Company - Background

National Oil Company (NOC) is a large well-established company that services oil wells all over the country of Gevrey. NOC has been in existence for over 30 years and has more than 10,000 full-time salaried and union hourly employees and up to a further 5,000 non-skilled seasonal employees during the non-winter months. Approximately one-half of the seasonal employees return for another season. The full-time workforce is reasonably stable, but turnover in the last 5 years has been greater than desired, due to competitors recruiting NOC's employees.

Normally, an undergraduate degree is a minimum requirement to obtain entry to the salaried workforce and many employees have graduate degrees. About half of NOC's salaried employees are recruited directly from university with the other half coming from competitors.

The company's financial position varies with the price of oil. As oil prices rise, oil companies become increasingly active and in turn require the services of NOC. Conversely, activity slows as oil prices drop. Despite this, the company is usually in a taxable position.

NOC has managed to be successful by staying on the cutting edge of technology. NOC prides itself in being state of the art in processes and software relevant to its industry. This has helped it to stave off competition from both inside and outside of Gevrey. Although NOC is the largest player in the industry within Gevrey, there are larger players from outside of the country, with which NOC has to compete. From time to time, there are rumors of a takeover of NOC.

Country of Gevrey – Background

Gevrey is a modern developed country with a simplified tax system. Both corporations and individuals are subject to income tax at a flat rate of 40%. Reasonable operating expenses, including contributions to Eligible Retirement Plans (ERPs), reduce taxable income.

No pension legislation exists apart from the rules outlined herein.

Rules that apply to gain ERP status are as follows:

General

- if a company has one or more ERPs, then all employees are entitled to be in at least one of the company's ERPs.

Defined Benefit Plans (DB ERPs)

- employer contributions may not exceed those recommended by an actuary, in accordance with generally accepted actuarial practice
- employer contributions are an eligible expense to reduce the employer's taxable income
- periodic pensions may not exceed $3,000 per annum for each year of service regardless of form or commencement age
- periodic pensions cannot commence prior to age 55

- investment earnings generated by the ERP pension fund are not taxable
- pension payments are taxed as received in the hands of the recipient
- no employee contributions are permitted
- plan sponsors have unconditional rights to a refund of surplus assets

Defined Contribution Plans (DC ERPs)

- employer contributions for any individual plan member cannot exceed $20,000 annually
- employer contributions are an eligible expense to reduce the employer's taxable income
- investment earnings generated by the ERP pension fund are not taxable until withdrawn
- benefit distributions are taxed as received in the hands of the recipient
- employer contributions may or may not be dependent on employee contributions
- individuals may contribute up to $20,000 annually
- such contributions are tax deductible to the individual

The tax assistance available under each of the above two arrangements does not depend on the extent of participation under the other one. For example, an individual could participate in a DC ERP and, if eligible under the plans' rules, also a DB ERP of his or her employer.

Supplemental Retirement Plans (SRPs)

Contributions to a retirement plan that does not meet ERP status are not tax-deductible. Benefits paid to participants under such plans are tax deductible to the company and are taxable to participants, when paid to participants. Such a plan is known as a Supplemental Retirement Plan (SRP). An example of an SRP is a plan that restores the benefits lost by the imposition of the ERP maximums.

Retiree Health Care Plans

Employers in Gevrey may provide health care benefits to retirees and their spouses through a separate plan which is not intended to qualify for ERP status. Benefits (including insurance premiums) paid under such plans are tax deductible to the company when paid on behalf of participants. Benefits payable as an indemnity for health related services are not taxable to plan participants at any time.

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No social security pension system exists in Gevrey and there are no state-provided life or health-care benefits.

The investment market in Gevrey is well developed, with substantial trading in government and corporate bonds and equities.

Summary of National Oil's Retirement Benefits

NOC maintains three retirement programs:

1. a final-average pay defined benefit (DB) RPP for its full-time salaried employees;
2. a flat dollar DB RPP for its full-time hourly union staff;
3. a defined contribution (DC) RPP for its part-time workforce

NOC - Statement of Funding Policies and Procedures - Defined Benefit plans - Excerpts

Following are excerpts from the Statement of Funding Policies and Procedures ("Statement") for the Salaried and Hourly defined benefit plans.

Allocation of Responsibilities

The Company has delegated the management of plans' funding as follows:

The Company, acting through Management, will:

Establish, review and amend, as required, the Statement of Funding Policies and Procedures

Select the Pension Consultant and the Actuary;

Review funding reports prepared by the Actuary regarding the funding of the plan; and

Be responsible for the assumption or delegation of any responsibilities not specifically mentioned

The Pension Consultant and Actuary will:

Assist, as required, the Company in the preparation of the Statement of Funding Policies and Procedures

Present to the Company, as required by the Statement of Funding Policies and Procedures, reviews and reports regarding the funding of each of the plans; and

Comment to the Company on any changes in plan design, contribution flow or pension legislation that may affect the funding of the plans.

Funding Policy Principles

The Company is the primary risk bearer under the plans. As a result, the funding objective of the Company is the accumulation of assets which will secure the benefits in respect of service already rendered.

The accumulation of assets should be reasonable, without significant volatility or further recourse to the Company's assets.

The Company believes management of the plans on an ongoing basis is the most suitable means to achieve these objectives.

Surplus, subject to any legislative restrictions, can be applied against the Company's Normal Actuarial Cost

NOC - Statement of Funding Policies and Procedures - Defined Benefit plans - Excerpts

Management of Risks

The Company has adopted the following policies to mitigate their risks:

Actuarial valuations are to be prepared using best estimate assumptions adjusted to include margins for adverse deviation. The Company will consult with the Pension Consultant and Actuary regarding the adoption of margins for adverse deviation.

Emerging experience will differ from the assumptions made for actuarial valuation purposes. The Pension Consultant and Actuary will monitor emerging experience and recommend revisions to the actuarial assumptions as appropriate.

Plan provisions are managed to mitigate, to the extent possible, demographic and economic risks. Benefit improvements will be made with due regard to each plan's funded status.

Investment activity will be carried out with due regard to the liability structure of the fund, to the cash flow requirements of the fund, and to the risks and rewards inherent in the defined benefit investments.
The Statement of Investment Policies and Procedures documents the Company's policies regarding investment risk.

Funding Target

The funding target for each of the plans is to have a funded ratio (assets divided by liabilities) of 100%.

Funding Risks

The Company bears the following funding risks:

Demographic experience may differ from best-estimate assumptions. Both plans provide for subsidized early retirement provision and bear the risk of overutilization of the provision by the members.

Economic experience may differ from best-estimate assumptions. In addition to investment risks, the Company bears the risks associated with providing a final average earnings benefit in the Salaried Plan.

The Plans' liabilities are debt-like in nature and have a long term to maturity. As a result of the current investment strategy and nature of the Plans' liabilities, there is the risk of an asset-liability mismatch.

NOC Statement of Investment Policies and Procedures - Defined Benefit plans - Excerpts

Following are excerpts from the Statement of Investment Policies and Procedures for NOC's Salaried and Hourly defined benefit plans.

Investment Risk

Investment risk is borne by the Company

Allocation of Responsibilities

The Company, acting through Management, will:

Establish, review and amend, as required, the Statement of Investment Policies and Procedures;

Select one or more fund managers (“Fund Managers”), the Pension Consultant and the Actuary;

Select the Custodian to hold pension fund assets;

Review the performance of the Fund and the Fund Managers at least annually; and

Be responsible for the assumption or delegation of any responsibilities not specifically mentioned

The Fund Managers will:

Manage the asset mix and select securities within each Investment Fund Option, subject to applicable legislation and the constraints set out in this Statement.

The Pension Consultant and Actuary will:

Assist, as required, the Company in the preparation of the Statement of Investment Policies and Procedures; and

Comment to the Company on any changes in plan design or contribution flow that may affect the investment of assets.

The Custodian will:

Fulfill the regular duties required by law of the Custodian in accordance with the Plan;

Present to the Company, at least annually, reviews and reports of investment performance of the Fund Managers;

Provide the Company with monthly updates on the performance of the Fund Managers;

Provide the Company with information, on an ongoing basis, about changes at the Fund Managers that could affect investment performance;

Present to the Company, at least annually, reviews and reports of all investment Fund assets and transactions for the period;

Monitor actual investments as appropriate to ensure compliance with legislation; and

Rebalance the Plan portfolios as requested by the Company.

Investment Objectives

Preserve the capital;

Provide sufficient funds to meet payments as they become due; and

Maintain sufficient assets over actuarial requirements to meet unforeseen liabilities.

Rate of Return Objectives

Achieve an average annual rate of return, net of investment expenses, of at least the funding valuation rate of return (currently 5.5%) per year, measured over moving, four- year periods;

NOC Statement of Investment Policies and Procedures - Defined Benefit plans - Excerpts

Achieve top third performance, relative to the peer group of fund managers, measured over moving, four-year periods;

Exceed the passive benchmark for the Pension Fund by 1.00% per annum, measured on a four-year moving average basis; and

Achieve at least the increase in the Consumer Price Index plus 3%, on a four-year moving average basis.

Asset Allocation Guidelines

The following normal policy allocation, and associated range for strategic deviation at any time, has been adopted by the Company:

Percentages of Fund at Market Value

	Target	Minimum	Maximum
Domestic Large Cap Equities	30%	20%	40%
Domestic Small Cap Equities	5%	0%	10%
Domestic Fixed Income	40%	25%	55%
International Equities	20%	10%	30%
Real Estate	3%	0%	6%
Cash	2%	0%	5%
Total	100%		

Within the ranges noted above, the Fund Managers may actively vary the asset mix in an effort to achieve the investment objectives of the Company.

Passive Benchmark

The passive return shall be set equal to the sum of:

(a) 40.0% of the Gevrey Large Cap Equities Index return for the year;
(b) 20.0% of the MSCI EAFE Index return for the year; and
(c) 40.0% of the Gevrey Aggregate Bond Index return for the year.

Rebalancing

The Company will direct the re-balancing of the assets in the component pooled funds, when it deems rebalancing to be appropriate.

Extracts of Retirement Benefits Provisions and Financial Information

National Oil Full-Time Salaried Pension Plan

Eligibility	Immediate
Vesting	Immediate
Normal Retirement Age	65
Early Retirement Age	55
Best Average Earnings	Average annual earnings during 60 consecutive months in which earnings were highest
Earnings	Base pay, excluding overtime and bonuses
Normal Retirement Benefit	2% of best average earnings times years of service, subject to legislative maximum
Accrued Benefit	Benefit calculated as under the normal retirement benefit formula using best average earnings and service as of date of calculation
Early Retirement Benefit	Accrued benefit reduced by 0.25% per month that early retirement precedes age 62 for actives participants and actuarial equivalent for terminated participants
Form of Benefit	If with spouse, 60% joint & survivor benefit, without reduction. If without spouse, single life annuity
Optional Forms of Benefit	None
Indexing	None
Termination Benefit	(1) Lump sum value equal to actuarial present value of accrued pension payable at age 65; or (2) Deferred pension
Pre-Retirement Death Benefit	Lump sum value equal to actuarial present value of accrued pension payable at age 65 to named beneficiary
Disability Benefit	Accrual of service while on long term disability and immediate pension without a reduction upon permanent and total disability

National Oil Full-Time Salaried Pension Plan
Reconciliation of Plan Participants (2010 - 2013)

	Active	*Pensioners/ Beneficiaries*	*Total*
1. Participants as of January 1, 2010	**4,251**	**720**	**4,971**
- New Entrants/Rehires	100	-	100
- Terminated Nonvested	(100)	-	(100)
- Terminated Vested (Lump Sum Cashout)	(120)	-	(120)
- Retirement	(50)	50	-
- Death w/ Beneficiary	(5)	5	-
- Death w/o Beneficiary	-	(2)	(2)
- Net change	(175)	53	(122)
2. Participants as of January 1, 2011	**4,076**	**773**	**4,849**
- New Entrants/Rehires	250	-	250
- Terminated Nonvested	(100)	-	(100)
- Terminated Vested (Lump Sum Cashout)	(130)	-	(130)
- Retirement	(45)	45	-
- Death w/ Beneficiary	(5)	5	-
- Death w/o Beneficiary	-	(2)	(2)
- Net change	(30)	48	18
3. Participants as of January 1, 2012	**4,046**	**821**	**4,867**
- New Entrants/Rehires	200	-	200
- Terminated Nonvested	(80)	-	(80)
- Terminated Vested (Lump Sum Cashout)	(90)	-	(90)
- Retirement	(40)	40	-
- Death w/ Beneficiary	(4)	4	-
- Death w/o Beneficiary	-	(14)	(14)
- Net change	(14)	30	16
4. Participants as of January 1, 2013	**4,032**	**851**	**4,883**

National Oil Full-Time Salaried Pension Plan
Age/Svc/Earnings as of January 1, 2013

			Service (Years)					
			< 5	5-10	10-15	15-20	>20	Totals
Age (Years)	< 25	# Participants	190	90	-	-	-	280
		Average Salary	36,600	47,800	-	-	-	40,200
	25-35	# Participants	250	130	85	20	-	485
		Average Salary	48,400	58,900	66,500	70,500	-	55,300
	35-45	# Participants	190	200	180	180	100	850
		Average Salary	61,000	68,300	74,200	80,600	82,100	72,100
	45-55	# Participants	180	160	175	310	650	1,475
		Average Salary	64,500	66,900	75,000	78,000	79,800	75,600
	55-65	# Participants	170	100	90	100	450	910
		Average Salary	64,200	67,500	72,000	78,200	78,500	73,900
	> 65	# Participants	3	10	5	4	10	32
		Average Salary	58,200	65,000	67,000	70,000	78,000	69,400
	Totals	# Participants	983	690	535	614	1,210	4,032
		Average Salary	54,300	63,400	72,800	78,500	79,500	69,500

Avg Age	46.0
Avg Svc	14.7
Avg Salary	69,500

National Oil Full-Time Salaried Pension Plan

Historical Actuarial Valuation Results

Participant Summary - January 1

	2010	2011	2012	2013
Active Participants				
(a) count	4,251	4,076	4,046	4,032
(b) average age	45.4	45.2	45.1	46.0
(c) average service	15.3	15.4	15.0	14.7
(d) average future working lifetime	11.0	11.0	11.0	11.0
(e) average plan earnings (prior year)	66,300	67,400	68,000	69,500
Deferred Vested Participants				
(a) count	-	-	-	-
Pensioners (incl beneficiaries)				
(a) count	720	773	821	851
(b) average age	68.2	68.0	67.0	67.7
(c) average annual benefit	21,800	22,000	22,500	22,800

Plan Assets (numbers in $000's) *

	2010	2011	2012	2013
Change in Plan Assets during Prior Year:				
Market Value of Assets at January 1 of prior year	602,863	633,966	748,481	832,957
Employer Contributions during prior year	92,000	92,000	99,000	100,000
Benefit Payments during prior year	(21,000)	(21,000)	(22,000)	(22,200)
Expenses during prior year	-	-	-	-
Investment return during prior year	(39,898)	43,515	7,476	58,240
Market Value of Assets at January 1 of current year	633,966	748,481	832,957	968,997
Rate of return during prior year	-6%	6.5%	1.0%	6.7%
Average Portfolio Mix During Prior Year:				
(a) Domestic Large Cap Equities	32%	30%	30%	32%
(b) Domestic Small Cap Equities	25%	10%	10%	8%
(c) Domestic Fixed Income	23%	35%	40%	40%
(d) International Equities	15%	20%	15%	16%
(e) Real Estate	3%	0%	0%	0%
(f) Cash	2%	5%	5%	4%
(g) Total	100%	100%	100%	100%
Asset Class Returns during Prior Year:				
(a) Domestic Large Cap Equities	-12%	12%	-9%	7%
(b) Domestic Small Cap Equities	-5%	5%	-5%	7%
(c) Domestic Fixed Income	1%	1%	14%	4%
(d) International Equities	-10%	10%	-10%	14%
(e) Real Estate	3%	3%	3%	8%
(f) Cash	1%	1%	1%	1%

** numbers may not add due to rounding*

National Oil Full-Time Salaried Pension Plan

Historical Actuarial Valuation Results

Actuarial Valuation - January 1 (numbers in $000's) *

	2010	**2011**	**2012**	**2013**	**2013 Interest Rate Sensitivity**
1. Actuarial Accrued Liability:					
(a) Active participants	692,620	776,554	756,002	915,409	1,293,137
(b) Deferred vested participants	-	-	-	-	-
(c) Pensioners	185,213	210,874	229,059	252,236	279,400
(d) Total	877,833	987,429	985,061	1,167,645	1,572,537
2. Actuarial Value of Assets	633,966	748,481	832,957	968,997	968,997
3. Unfunded Actuarial Accrued Liability: (1d)-(2)	243,867	238,948	152,104	198,648	603,540
4. Normal Cost (beg. Of year)	45,269	50,426	50,400	62,273	87,969
5. Change in Unfunded AAL during prior year:					
(a) Unfunded AAL at prior valuation date	309,436	243,867	238,948	152,104	
(b) Adjustment for Interest	20,113	15,851	14,337	9,126	
(c) Normal Cost w/interest less contributions	(43,202)	(46,778)	(48,519)	(49,576)	
(d) (Gain)/Loss on investment	81,391	-	39,743	(5,929)	
(e) (Gain)/Loss on termination	(17,000)	(20,000)	(25,000)	5,000	
(f) (Gain)/Loss on salary increases less than expected	(100,000)	(25,000)	(30,000)	(14,000)	
(g) (Gain)/Loss on mortality	(6,900)	2,000	2,000	(3,000)	
(h) (Gain)/Loss on retirement	25,000	23,000	(5,000)	4,000	
(i) (Gain)/Loss on assumption changes	20,000	40,000	-	104,000	
(j) (Gain)/Loss on expenses	-	-	-	-	
(k) (Gain)/Loss on all other factors	(44,972)	6,007	(34,404)	(3,078)	
(l) Unfunded AAL at current valuation date	243,867	238,948	152,104	198,648	
6. Actuarial Basis					
(a) Interest	6.50%	6.00%	6.00%	5.50%	4.50%
(b) Salary scale	4.00%	4.00%	4.00%	4.00%	4.00%
(c) Consumer Price Index	2.50%	2.50%	2.50%	2.50%	2.50%
(d) Mortality	1994 Uninsured Pensioner Mortality - Generational	1994 Uninsured Pensioner Mortality - Generational	1994 Uninsured Pensioner Mortality - Generational	1994 Uninsured Pensioner Mortality - Generational	1994 Uninsured Pensioner Mortality - Generational
(e) Turnover	Based on NOC experience for 1996-2006				
(f) Retirement age	Age 62				
(g) Proportion married and age difference	80% married, husbands 3 years older than wives				
(h) Expenses	Assume all expenses paid by company				
(i) Asset Valuation Method	Market value of assets				
(j) Actuarial Cost Method	Projected unit credit				

** numbers may not add due to rounding*

National Oil Full-Time Hourly Union Pension Plan

Eligibility	Immediate
Vesting	Immediate
Normal Retirement Age	65
Early Retirement Age	55
Normal Retirement Benefit	$80 per month times all years of service for terminations/retirements after 2004
Accrued Benefit	Benefit calculated as under the normal retirement benefit formula based on service and multiplier as of date of calculation
Early Retirement Benefit	Unreduced benefit at 62 with 30 years of service, otherwise reduced by 0.25% per month that early retirement precedes Normal Retirement Age for active participants and actuarial equivalent for terminated participants
Form of Benefit	With a spouse, 60% joint & survivor benefit without reduction Without a spouse, single life annuity.
Optional Forms of Benefit	None
Post-Retirement Indexing	Lesser of 1% or CPI each year after pension commencement
Termination Benefit	(1) Lump sum value equal to actuarial present value of accrued pension payable at age 65; or (2) Deferred pension
Pre-Retirement Death Benefit	Lump sum value equal to actuarial present value of accrued pension payable at age 65 to named beneficiary
Disability Benefit	None

National Oil Full-Time Hourly Union Pension Plan
Reconciliation of Plan Participants (2010 - 2013)

	Active	*Pensioners/ Beneficiaries*	*Total*
1. Participants as of January 1, 2010	**6,395**	**1,120**	**7,515**
- New Entrants/Rehires	50	-	50
- Terminated Nonvested	(50)	-	(50)
- Terminated Vested (Lump Sum Cashout)	(120)	-	(120)
- Retirement	(50)	50	-
- Death w/ Beneficiary	-		-
- Death w/o Beneficiary	-	(35)	(35)
- Net change	(170)	15	(155)
2. Participants as of January 1, 2011	**6,225**	**1,135**	**7,360**
- New Entrants/Rehires	300	-	300
- Terminated Nonvested	(50)	-	(50)
- Terminated Vested (Lump Sum Cashout)	(130)	-	(130)
- Retirement	(60)	50	(10)
- Death w/ Beneficiary	-		-
- Death w/o Beneficiary	-	(35)	(35)
- Net change	60	15	75
3. Participants as of January 1, 2012	**6,285**	**1,150**	**7,435**
- New Entrants/Rehires	250	-	250
- Terminated Nonvested	(40)	-	(40)
- Terminated Vested (Lump Sum Cashout)	(120)	-	(120)
- Retirement	(70)	70	-
- Death w/ Beneficiary	(5)	5	-
- Death w/o Beneficiary	-	(35)	(35)
- Net change	15	40	55
4. Participants as of January 1, 2013	**6,300**	**1,190**	**7,490**

National Oil Full-Time Hourly Union Pension Plan
Age/Svc/Earnings as of January 1, 2013

			Service (Years)					
			< 5	5-10	10-15	15-20	>20	Totals
Age (Years)	< 25	# Participants	240	80	-	-	-	320
		Average Salary	41,700	47,000	-	-	-	43,000
	25-35	# Participants	340	100	90	10	-	540
		Average Salary	46,100	48,000	52,900	55,200	-	47,800
	35-45	# Participants	290	310	330	620	420	1,970
		Average Salary	52,100	48,900	56,100	58,300	58,800	55,600
	45-55	# Participants	150	210	320	650	870	2,200
		Average Salary	52,000	51,800	58,800	59,000	60,200	58,300
	55-65	# Participants	75	85	110	200	730	1,200
		Average Salary	51,500	53,100	60,800	61,600	64,100	61,800
	> 65	# Participants	10	15	25	15	5	70
		Average Salary	52,900	54,800	62,800	63,700	65,000	60,000
	Totals	# Participants	1,105	800	875	1,495	2,025	6,300
		Average Salary	47,900	49,900	57,500	59,100	61,300	56,500

Avg Age	46.3
Avg Svc	16.6
Avg Salary	56,500

National Oil Full-Time Hourly Union Pension Plan

Historical Actuarial Valuation Results

Participant Summary - January 1

	2010	2011	2012	2013
Active Participants				
(a) count	6,395	6,225	6,285	6,300
(b) average age	46.1	46.1	45.8	46.3
(c) average service	17.3	17.3	16.8	16.6
(d) average future working lifetime	10.8	10.8	11.0	10.7
(e) average plan earnings (prior year)	51,000	53,100	54,300	56,500
Deferred Vested Participants				
(a) count	-	-	-	-
Pensioners (incl beneficiaries)				
(a) count	1,120	1,135	1,150	1,190
(b) average age	68.0	68.0	67.0	67.8
(c) average annual benefit	13,400	13,400	13,600	14,200

Plan Assets (numbers in $000's) *

	2010	2011	2012	2013
Change in Plan Assets during Prior Year:				
Market Value of Assets at January 1 of prior year	432,988	488,942	606,421	693,567
Employer Contributions during prior year	100,000	100,000	100,000	95,000
Benefit Payments during prior year	(17,000)	(17,000)	(19,000)	(19,500)
Expenses during prior year	-	-	-	-
Investment return during prior year	(27,046)	34,479	6,146	48,852
Market Value of Assets at January 1 of current year	488,942	606,421	693,567	817,919
Rate of return during prior year	-6%	6.5%	1.0%	6.7%
Average Portfolio Mix During Prior Year:				
(a) Domestic Large Cap Equities	30%	30%	30%	32%
(b) Domestic Small Cap Equities	10%	10%	10%	8%
(c) Domestic Fixed Income	35%	35%	40%	40%
(d) International Equities	20%	20%	15%	16%
(e) Real Estate	0%	0%	0%	0%
(f) Cash	5%	5%	5%	4%
(g) Total	100%	100%	100%	100%
Asset Class Returns during Prior Year:				
(a) Domestic Large Cap Equities	-12%	12%	-9%	7%
(b) Domestic Small Cap Equities	-5%	5%	-5%	7%
(c) Domestic Fixed Income	1%	1%	14%	4%
(d) International Equities	-10%	10%	-10%	14%
(e) Real Estate	3%	3%	3%	8%
(f) Cash	1%	1%	1%	1%

** numbers may not add due to rounding*

National Oil Full-Time Hourly Union Pension Plan
Historical Actuarial Valuation Results

Actuarial Valuation - January 1 (numbers in $000's) *

	2010	2011	2012	2013	2013 Interest Rate Sensitivity
1. Actuarial Accrued Liability:					
Active Multiplier	**$ 80**	**$ 80**	**$ 80**	**$ 80**	**$ 80**
(a) Active participants	543,526	587,192	574,865	688,339	937,781
(b) Deferred vested participants	-	-	-	-	0
(c) Pensioners	172,592	182,508	193,936	221,364	243,331
(d) Total	716,118	769,700	768,801	909,703	1,181,112
2. Actuarial Value of Assets	488,942	606,421	693,567	817,919	817,919
3. Unfunded Actuarial Accrued Liability: (1d)-(2)	227,176	163,279	75,235	91,784	363,193
4. Normal Cost (beg. Of year)	31,418	33,942	34,218	41,466	56,493
5. Change in Unfunded AAL during prior year:					
(a) Unfunded AAL at prior valuation date	209,588	227,176	163,279	75,235	
(b) Adjustment for Interest	13,623	14,766	9,797	4,514	
(c) Normal Cost w/interest less contributions	(72,165)	(69,790)	(67,022)	(61,579)	
(d) (Gain)/Loss on investment	57,888	-	32,670	(4,973)	
(e) (Gain)/Loss on termination	(8,000)	12,000	8,000	7,000	
(f) (Gain)/Loss on salary increases less than expected	-	-	-	-	
(g) (Gain)/Loss on mortality	(3,900)	(28,000)	(21,000)	(9,000)	
(h) (Gain)/Loss on retirement	(600)	(26,000)	(26,000)	(6,000)	
(i) (Gain)/Loss on assumption changes	-	33,000	-	80,000	
(j) (Gain)/Loss on expenses	-	-	-	-	
(k) (Gain)/Loss on all other factors	30,742	127	(24,489)	6,587	
(l) Change in active benefit multiplier	-	-	-	-	
(m) Unfunded AAL at current valuation date	227,176	163,279	75,235	91,784	
6. Actuarial Basis					
(a) Interest	6.50%	6.00%	6.00%	5.50%	4.50%
(b) Salary scale	N/A	N/A	N/A	N/A	N/A
(c) Consumer Price Index	2.50%	2.50%	2.50%	2.50%	2.50%
(d) Mortality	GAM 1994	GAM 1994	GAM 1994	GAM 1994	GAM 1994
(e) Turnover	Based on NOC experience for 1996 - 2006				
(f) Retirement age	Age 62, with the appropriate early retirement reduction, if				
(g) Proportion married and age difference	80% married, husbands 3 years older than wives				
(h) Expenses	Assume all expenses paid by company				
(i) Post-retirement indexing	1%				
(j) Asset Valuation Method	Market value of assets				
(k) Actuarial Cost Method	Unit credit				

** numbers may not add due to rounding*

National Oil Part-Time DC Pension Plan

Eligibility	Immediate
Vesting	Immediate
Employer Contributions - Base	3% of base pay
Employer Contributions - Match	100% on the first 3% and 50% thereafter
Employee Contributions	Up to 6% of base pay
Plan Fund	The employer invests the contributions in a balanced fund. There are no employee investment choices.
Account Balance	Contributions are accumulated in member's individual account earning investment income at the rate of return earned by the Plan Fund.
Benefit on Termination or Retirement	Account balance is transferred to a LIRA/LIF for the member after one year from date of termination or retirement, unless employee has since returned to employment with NOC.
Benefit on Death	Account balance is payable to named beneficiary

National Oil Part-Time DC Pension Plan

Historical Results - January 1

Participant Summary

	2010	2011	2012	2013
(a) number participating during prior year	7,000	6,800	7,200	7,100
(b) average age	29.2	30.8	31.0	31.4
(c) average base pay	30,000	31,000	31,000	31,900

Plan Assets (numbers in $000's) *

	2010	2011	2012	2013
Change in Plan Assets during Prior Year:				
Market Value of Assets at January 1 of prior year	71,556	96,044	119,341	137,575
Employee Contributions during prior year	8,400	8,432	8,928	9,060
Company Contributions during prior year	13,650	13,702	14,508	14,722
Benefit Payments during prior year	(6,300)	(6,120)	(6,480)	(7,881)
Expenses during prior year	-	-	-	-
Investment return during prior year	8,737	7,284	1,278	7,276
Market Value of Assets at January 1 of current year	96,044	119,341	137,575	160,752
Rate of return during prior year	11%	7%	1%	5%

** numbers may not add due to rounding*