

**SPRING 2012**

**EXAM DP-RC**

**Design and Pricing  
Retirement Benefits  
Canada**

**CASE STUDY**

**DP-RC afternoon**



## **Case Study - Course DP Retirement - Canada**

### **National Oil Company - Background**

National Oil Company (NOC) is a large well-established company that services oil wells all over Canada. Most of NOC's employees are employed in the province of Ontario. NOC has been in existence for over 30 years and has more than 10,000 full-time salaried and union hourly employees and over 6,000 part-time employees. 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 Canada. Although NOC is the largest player in the industry within Canada, 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.

Canadian legislation and social programs will apply to NOC in this case study.

### **Summary of National Oil's Retirement Benefits**

NOC maintains five 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; and
4. a non-registered pension plan (referred to as the SERP) for its executives that is supplemental to the salaried RPP. This plan has no assets.
5. a retiree health and welfare plan for the full-time salaried and union retirees. This plan has no assets.

## 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**  
Historical Going Concern Actuarial Valuation Results

2008 2009 2010 2011

**Participant Summary - January 1**

<i>Active Participants</i>				
(a) count	4,268	4,286	4,251	4,076
(b) average age	45.6	45.5	45.4	45.2
(c) average service	15.2	15.4	15.3	15.4
(d) average future working lifetime	11.0	11.0	11.0	11.0
(e) average plan earnings (prior year)	65,000	65,000	66,300	67,400
<i>Deferred Vested Participants</i>				
(a) count	-	-	-	-
<i>Pensioners (incl beneficiaries)</i>				
(a) count	665	695	720	773
(b) average age	70.9	69.8	68.2	68.0
(c) average annual benefit	19,700	20,100	21,800	22,000

**Plan Assets (numbers in \$000's) \***

<i>Change in Plan Assets during Prior Year:</i>				
Market Value of Assets at January 1 of prior year	772,639	756,844	602,863	633,966
Employer Contributions during prior year	10,000	40,000	92,000	92,000
Benefit Payments during prior year	(20,500)	(20,500)	(21,000)	(21,000)
Expenses during prior year	-	-	-	-
Investment return during prior year	(5,295)	(173,480)	(39,898)	43,515
Market Value of Assets at January 1 of current year	756,844	602,863	633,966	748,481
Rate of return during prior year	-1%	-23%	-6%	6.5%
<i>Average Portfolio Mix During Prior Year:</i>				
(a) Domestic Large Cap Equities	29%	30%	32%	30%
(b) Domestic Small Cap Equities	28%	27%	25%	10%
(c) Domestic Fixed Income	27%	27%	23%	35%
(d) International Equities	11%	11%	15%	20%
(e) Real Estate	3%	3%	3%	0%
(f) Cash	2%	2%	2%	5%
(g) Total	100%	100%	100%	100%
<i>Asset Class Returns during Prior Year:</i>				
(a) Domestic Large Cap Equities	-3%	-30%	-12%	12%
(b) Domestic Small Cap Equities	-2%	-45%	-5%	5%
(c) Domestic Fixed Income	4%	8%	1%	1%
(d) International Equities	-5%	-35%	-10%	10%
(e) Real Estate	5%	5%	3%	3%
(f) Cash	3%	3%	1%	1%

\* numbers may not add due to rounding

**National Oil Full-Time Salaried Pension Plan**  
Historical Going Concern Actuarial Valuation Results

2008 2009 2010 2011

**Going Concern Valuation - January 1 (numbers in \$000's) \***

<b>1. Actuarial Accrued Liability:</b>				
(a) Active participants	737,486	748,857	692,620	776,554
(b) Deferred vested participants	-	-	-	-
(c) Pensioners	153,276	163,443	185,213	210,874
(d) Total	890,762	912,300	877,833	987,429
<b>2. Actuarial Value of Assets</b>				
	756,844	602,863	633,966	748,481
<b>3. Unfunded Actuarial Accrued Liability: (1d)-(2)</b>				
	133,918	309,436	243,867	238,948
<b>4. Normal Cost (beg. Of year)</b>				
	48,519	48,627	45,269	50,426
<b>5. Change in Unfunded AAL during prior year:</b>				
(a) Unfunded AAL at prior valuation date	(41,464)	133,918	309,436	243,867
(b) Adjustment for Interest	(2,799)	8,705	20,113	15,851
(c) Normal Cost w/interest less contributions	32,137	10,373	(43,202)	(46,778)
(d) (Gain)/Loss on investment	57,094	223,309	81,391	-
(e) (Gain)/Loss on termination	(15,400)	(14,000)	(17,000)	(20,000)
(f) (Gain)/Loss on salary increases less than expected	(23,700)	(50,000)	(100,000)	(25,000)
(g) (Gain)/Loss on mortality	(6,800)	(6,800)	(6,900)	2,000
(h) (Gain)/Loss on retirement	63,000	50,000	25,000	23,000
(i) (Gain)/Loss on assumption changes	-	-	20,000	40,000
(j) (Gain)/Loss on expenses	-	-	-	-
(k) (Gain)/Loss on all other factors	71,850	(46,068)	(44,972)	6,007
(l) Unfunded AAL at current valuation date	133,918	309,436	243,867	238,948
<b>6. Actuarial Basis</b>				
(a) Interest	6.50%	6.50%	6.50%	6.00%
(b) Salary scale	4.50%	4.50%	4.00%	4.00%
(c) Consumer Price Index	3.00%	3.00%	2.50%	2.50%
(d) Mortality	UP 1994 AA15	UP 1994 AA15	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 Salaried Pension Plan**  
*Solvency Valuation Results*

2009                      2010                      2011

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

<b>1. Actuarial Accrued Liability:</b>			
(a) Active participants	704,581	732,286	725,185
(b) Deferred vested participants	-		
(c) Pensioners	188,588	222,883	239,785
(d) Total	893,169	955,169	964,970
<b>2. Market Value of Assets</b>			
	602,863	633,966	748,481
<b>3. Solvency Deficiency: (1d)-(2)</b>			
	290,306	321,203	216,489
<b>4. Actuarial Basis</b>			
(a) Interest - Benefit paid by lump sum	3.8% for 10 years 5.4% thereafter	3.7% for 10 years 5.4% thereafter	3.7% for 10 years 5% thereafter
(a) Interest - Benefit settled by annuity purchase	4.85%	4.5%	4.5%
(b) Mortality	UP 1994 AA15	UP 1994 AA20	UP 1994 AA20
(c) Retirement age	The age that produces the largest value		
(d) Proportion married and age difference	80% with spouse, Male spouses are 3 years older		
(e) Asset Valuation Method	Market value of assets		
(f) Actuarial Cost Method	Unit Credit		

\* numbers may not add due to rounding

**National Oil Full-Time Salaried Pension Plan  
Reconciliation of Plan Participants (2008 - 2011)**

	<u>Active</u>	<u>Pensioners/ Beneficiaries</u>	<u>Total</u>
<b>1. Participants as of January 1, 2008</b>	<b>4,268</b>	<b>665</b>	<b>4,933</b>
- New Entrants/Rehires	300	-	300
- Terminated Nonvested	(130)	-	(130)
- Terminated Vested (Lump Sum Cashout)	(115)	-	(115)
- Retirement	(35)	35	-
- Death w/ Beneficiary	(2)	2	-
- Death w/o Beneficiary	-	(7)	(7)
- Net change	18	30	48
<b>2. Participants as of January 1, 2009</b>	<b>4,286</b>	<b>695</b>	<b>4,981</b>
- New Entrants/Rehires	250	-	250
- Terminated Nonvested	(120)	-	(120)
- Terminated Vested (Lump Sum Cashout)	(130)	-	(130)
- Retirement	(30)	30	-
- Death w/ Beneficiary	(5)	5	-
- Death w/o Beneficiary	-	(10)	(10)
- Net change	(35)	25	(10)
<b>3. Participants as of January 1, 2010</b>	<b>4,251</b>	<b>720</b>	<b>4,971</b>
- 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)
<b>4. Participants as of January 1, 2011</b>	<b>4,076</b>	<b>773</b>	<b>4,849</b>



**National Oil Full-Time Salaried Pension Plan**  
**Age/Svc/Earnings as of January 1, 2011**

		<b>Service (Years)</b>						
		< 5	5-10	10-15	15-20	>20	Totals	
<b>Age (Years)</b>	< 25	# Participants	180	120	-	-	-	300
		Average Salary	35,900	46,100	-	-	-	40,000
	25-35	# Participants	210	140	90	55	-	495
		Average Salary	47,100	58,000	62,000	65,100	-	54,900
	35-45	# Participants	175	198	176	201	201	951
		Average Salary	59,400	66,300	70,200	76,300	77,800	70,300
	45-55	# Participants	164	153	175	290	739	1,521
		Average Salary	62,600	65,200	72,000	75,600	77,800	73,800
	55-65	# Participants	168	77	77	75	399	796
		Average Salary	61,200	64,100	68,100	73,900	74,200	69,900
	> 65	# Participants	4	3	1	2	3	13
		Average Salary	47,000	52,100	47,000	57,600	53,900	51,400
	Totals	# Participants	901	691	519	623	1,342	4,076
		Average Salary	52,700	60,600	69,000	74,600	76,700	67,400
		Avg Age	45.2					
		Avg Svc	15.4					
		Avg Salary	67,400					

National Oil Full-Time Salaried Supplemental Executive Retirement Plan (SERP)

Eligibility	Immediate
Normal Retirement Age	65
Early Retirement Age	55
Accrued Benefit	Accrued Benefit calculated under the provisions of the Salaried Pension Plan without regard to legislative maximums <u>less</u> actual Accrued Benefit under the Salaried Pension Plan
Normal Retirement Benefit	Accrued Benefit
Early Retirement Benefit	Accrued benefit reduced by 0.25% per month that early retirement precedes age 62 for actives participants
Commencement Date and Form of Benefit	Must be same as under Salaried Pension Plan
Indexing	None
Termination Benefit	None
Pre-Retirement Death Benefit	None
Disability Benefit	None

Supplemental Retirement Plan  
 Historical Valuation Results - January 1

2008 2009 2010 2011

**Participant Summary**

<b>1. Active Participants</b>				
(a) count	49	52	60	60
(b) average age	53.1	53.1	52.0	50.0
(c) average service	18.2	18.2	19.1	17.0
(d) average future working lifetime	6.3	6.3	6.3	8.8
(e) average earnings (prior year)	315,000	325,000	350,000	350,000
<b>2. Deferred Vested Participants</b>				
(a) count	-	-	-	-
<b>3. Pensioners (incl beneficiaries)</b>				
(a) count	20	30	30	30
(b) average age	69.0	66.0	66.0	66.1
(c) average annual benefit	21,100	22,000	22,000	22,000

**Valuation Results (numbers in \$000's) \***

<b>1. Reconciliation of funded status at valuation date:</b>				
(a) Accrued Benefit Obligation	(47,091)	(50,223)	(66,249)	(80,454)
(b) Fair Value of Assets	-	-	-	-
(c) Funded Status: (a) + (b)	(47,091)	(50,223)	(66,249)	(80,454)
<b>2. Service Cost</b>	1,211	1,508	1,841	1,791
<b>3. Benefit Payments</b>	224	660	660	660
<b>4. Actuarial Basis</b>				
(a) Discount rate	5.25%	7.50%	6.50%	5.50%
(b) Salary scale	3.50%	3.50%	3.50%	3.50%
(c) CPI	3.00%	3.00%	2.50%	2.50%
(d) All other assumptions	Same as the Salaried Plan			

\* 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**  
Historical Going Concern Actuarial Valuation Results

**2008                      2009                      2010                      2011**

**Participant Summary - January 1**

<i>Active Participants</i>				
(a) count	6,253	6,321	6,395	6,225
(b) average age	46.3	46.0	46.1	46.1
(c) average service	17.2	17.0	17.3	17.3
(d) average future working lifetime	10.8	10.8	10.8	10.8
(e) average plan earnings (prior year)	49,000	49,500	51,000	53,100
<i>Deferred Vested Participants</i>				
(a) count	-	-	-	-
<i>Pensioners (incl beneficiaries)</i>				
(a) count	1,060	1,081	1,120	1,135
(b) average age	71.8	70.0	68.0	68.0
(c) average annual benefit	11,200	12,200	13,400	13,400

**Plan Assets (numbers in \$000's) \***

<i>Change in Plan Assets during Prior Year:</i>				
Market Value of Assets at January 1 of prior year	444,857	471,638	432,988	488,942
Employer Contributions during prior year	42,000	100,000	100,000	100,000
Benefit Payments during prior year	(12,000)	(15,000)	(17,000)	(17,000)
Expenses during prior year	-	-	-	-
Investment return during prior year	(3,219)	(123,650)	(27,046)	34,479
Market Value of Assets at January 1 of current year	471,638	432,988	488,942	606,421
Rate of return during prior year	-1%	-24%	-6%	6.5%
<i>Average Portfolio Mix During Prior Year:</i>				
(a) Domestic Large Cap Equities	30%	32%	30%	30%
(b) Domestic Small Cap Equities	27%	25%	10%	10%
(c) Domestic Fixed Income	27%	23%	35%	35%
(d) International Equities	11%	15%	20%	20%
(e) Real Estate	3%	3%	0%	0%
(f) Cash	2%	2%	5%	5%
(g) Total	100%	100%	100%	100%
<i>Asset Class Returns during Prior Year:</i>				
(a) Domestic Large Cap Equities	-3%	-30%	-12%	12%
(b) Domestic Small Cap Equities	-2%	-45%	-5%	5%
(c) Domestic Fixed Income	4%	8%	1%	1%
(d) International Equities	-5%	-35%	-10%	10%
(e) Real Estate	5%	5%	3%	3%
(f) Cash	3%	3%	1%	1%

\* numbers may not add due to rounding

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

2008                      2009                      2010                      2011

**Going Concern Valuation - January 1 (numbers in \$000's) \***

<b>1. Actuarial Accrued Liability:</b>								
Active Multiplier	\$	80	\$	80	\$	80	\$	80
(a) Active participants		441,771		496,187		543,526		587,192
(b) Deferred vested participants		-		-		-		-
(c) Pensioners		118,720		146,389		172,592		182,508
(d) Total		560,491		642,576		716,118		769,700
<b>2. Actuarial Value of Assets</b>		471,638		432,988		488,942		606,421
<b>3. Unfunded Actuarial Accrued Liability: (1d)-(2)</b>		88,853		209,588		227,176		163,279
<b>4. Normal Cost (beg. Of year)</b>		25,684		29,187		31,418		33,942
<b>5. Change in Unfunded AAL during prior year:</b>								
(a) Unfunded AAL at prior valuation date		88,534		88,853		209,588		227,176
(b) Adjustment for interest		5,976		5,775		13,623		14,766
(c) Normal Cost w/interest less contributions		(16,566)		(75,896)		(72,165)		(69,790)
(d) (Gain)/Loss on investment		34,259		157,069		57,888		-
(e) (Gain)/Loss on termination		(10,400)		(6,000)		(8,000)		12,000
(f) (Gain)/Loss on salary increases less than expected		-		-		-		-
(g) (Gain)/Loss on mortality		(1,900)		(1,900)		(3,900)		(28,000)
(h) (Gain)/Loss on retirement		(550)		(400)		(600)		(26,000)
(i) (Gain)/Loss on assumption changes		-		-		-		33,000
(j) (Gain)/Loss on expenses		-		-		-		-
(k) (Gain)/Loss on all other factors		(10,501)		42,087		30,742		127
(l) Change in active benefit multiplier		-		-		-		-
(m) Unfunded AAL at current valuation date		88,853		209,588		227,176		163,279
<b>6. Actuarial Basis</b>								
(a) Interest		6.50%		6.50%		6.50%		6.00%
(b) Salary scale		N/A		N/A		N/A		N/A
(c) Consumer Price Index		3.00%		3.00%		2.50%		2.50%
(d) Mortality		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 any						
(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 Full-Time Hourly Union Pension Plan**  
**Solvency Valuation Results**

**2009                      2010                      2011**

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

<b>1. Actuarial Accrued Liability:</b>			
(a) Active participants	763,519	860,119	837,254
(b) Deferred vested participants	-		
(c) Pensioners	176,722	210,112	212,926
(d) Total	940,241	1,070,231	1,050,180
<b>2. Market Value of Assets</b>			
	432,988	488,942	606,421
<b>3. Solvency Deficiency: (1d)-(2)</b>			
	507,253	581,289	443,759
<b>4. Actuarial Basis</b>			
(a) Interest - Benefit paid by lump sum	3.8% for 10 years 5.4% thereafter	3.7% for 10 years 5.4% thereafter	3.7% for 10 years 5% thereafter
(a) Interest - Benefit settled by annuity purchase	4.85%	4.5%	4.5%
(b) Mortality	UP 1994 AA15	UP 1994 AA20	UP 1994 AA20
(c) Retirement age	The age that produces the largest value		
(d) Proportion married and age difference	80% with spouse, Male spouses are 3 years older		
(e) Asset Valuation Method	Market value of assets		
(f) Actuarial Cost Method	Unit Credit		

\* numbers may not add due to rounding

**National Oil Full-Time Hourly Union Pension Plan  
Reconciliation of Plan Participants (2008 - 2011)**

	<u>Active</u>	<u>Pensioners/ Beneficiaries</u>	<u>Total</u>
<b>1. Participants as of January 1, 2008</b>	<b>6,253</b>	<b>1,060</b>	<b>7,313</b>
- New Entrants/Rehires	170	-	170
- Terminated Nonvested	(30)	-	(30)
- Terminated Vested (Lump Sum Cashout)	(40)	-	(40)
- Retirement	(30)	30	-
- Death w/ Beneficiary	(2)	2	-
- Death w/o Beneficiary	-	(11)	(11)
- Net change	68	21	89
<b>2. Participants as of January 1, 2009</b>	<b>6,321</b>	<b>1,081</b>	<b>7,402</b>
- New Entrants/Rehires	220	-	220
- Terminated Nonvested	(50)	-	(50)
- Terminated Vested (Lump Sum Cashout)	(50)	-	(50)
- Retirement	(40)	40	-
- Death w/ Beneficiary	(6)	6	-
- Death w/o Beneficiary	-	(7)	(7)
- Net change	74	39	113
<b>3. Participants as of January 1, 2010</b>	<b>6,395</b>	<b>1,120</b>	<b>7,515</b>
- 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)
<b>4. Participants as of January 1, 2011</b>	<b>6,225</b>	<b>1,135</b>	<b>7,360</b>



**National Oil Full-Time Hourly Union Pension Plan  
Age/Svc/Earnings as of January 1, 2011**

		<b>Service (Years)</b>						
		< 5	5-10	10-15	15-20	>20	Totals	
<b>Age (Years)</b>	< 25	# Participants	200	139	-	-	-	339
		Average Salary	40,000	45,000	-	-	-	42,100
	25-35	# Participants	256	105	91	62	-	514
		Average Salary	44,000	46,000	50,000	53,000	-	46,600
	35-45	# Participants	215	330	320	659	441	1,965
		Average Salary	49,000	45,400	53,400	54,300	55,900	52,400
	45-55	# Participants	120	160	315	688	895	2,178
		Average Salary	50,000	47,000	55,800	55,100	56,800	55,000
	55-65	# Participants	95	62	91	180	779	1,207
		Average Salary	49,000	49,600	56,200	56,900	58,200	56,700
	> 65	# Participants	7	6	5	3	1	22
		Average Salary	51,000	50,000	57,800	55,000	60,000	53,200
	Totals	# Participants	893	802	822	1,592	2,116	6,225
		Average Salary	45,700	46,100	54,300	54,900	57,100	53,100
		Avg Age	46.1					
		Avg Svc	17.3					
		Avg Salary	53,100					

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*

2008                      2009                      2010                      2011

**Participant Summary**

(a) number participating during prior year	6,250	6,500	7,000	6,800
(b) average age	30.9	28.9	29.2	30.8
(c) average base pay	26,000.00	29,000.00	30,000.00	31,000.00

**Plan Assets (numbers in \$000's) \***

<i>Change in Plan Assets during Prior Year:</i>				
Market Value of Assets at January 1 of prior year	57,871	73,760	71,556	96,044
Employee Contributions during prior year	6,500	7,540	8,400	8,432
Company Contributions during prior year	10,563	12,253	13,650	13,702
Benefit Payments during prior year	(5,625)	(5,850)	(6,300)	(6,120)
Expenses during prior year	-	-	-	-
Investment return during prior year	4,451	(16,146)	8,737	7,284
Market Value of Assets at January 1 of current year	73,760	71,556	96,044	119,341
Rate of return during prior year	7%	-20%	11%	7%

\* numbers may not add due to rounding

National Oil Full-Time Salaried and Union Retiree Health Benefit Program

Eligibility	Immediate
Earliest Retirement Age	55 and 10 years of service
Retirement benefit	Retirees and their spouses may elect to participate in a self insured health plan, with 100% of cost paid by the employer
Death benefit	Coverage continues for the life of the spouse after death of an eligible employee
Benefits Covered - Pre 65	\$0 deductible; \$0 copay No lifetime maximum Office visits Hospital visits Surgery Prescription drugs
Benefits Covered - Post 65	\$0 deductible; \$0 copay No lifetime maximum Office visits Hospital visits Surgery Prescription drugs Government Benefits carve out

**Retiree Health and Welfare Program  
Historical Valuation Results**

	2008	2009	2010	2011
<b>Valuation Results - January 1 (numbers in \$000's) *</b>				
<b>1. Reconciliation of funded status at valuation date:</b>				
(a) Accrued Benefit Obligation				
(i) actives	(847,616)	(858,653)	(1,396,669)	(1,929,494)
(ii) retirees	(513,360)	(585,386)	(719,754)	(923,781)
(iii) total	(1,360,976)	(1,444,039)	(2,116,424)	(2,853,275)
(b) Market Value of Assets	0	0	0	0
(c) Surplus: (a) + (b)	(1,360,976)	(1,444,039)	(2,116,424)	(2,853,275)
<b>2. Service Cost (beg. of year)</b>	<b>52,976</b>	<b>53,666</b>	<b>87,292</b>	<b>148,423</b>
<b>3. Benefit Payments</b>	<b>27,000</b>	<b>30,000</b>	<b>32,000</b>	<b>40,000</b>
<b>4. Actuarial Basis</b>				
(a) Discount rate	5.25%	7.50%	6.50%	5.50%
(b) Return on assets	N/A	N/A	N/A	N/A
(c) Medical trend				
Initial rate	6.00%	7.00%	10.00%	10.00%
Annual decrease	0.50%	0.50%	0.50%	0.50%
Ultimate rate	4.50%	4.50%	5.00%	5.00%
Year ultimate trend rate reached	2011	2014	2020	2020
(d) CPI	3.00%	3.00%	2.50%	2.50%
(e) Per capita claims cost	9,500	10,500	12,000	12,000
(f) Retirement assumption	Age 62 with 10 years of service			
(g) All other demographic assumptions	Same as those used for pension plans			

\* numbers may not add due to rounding