

**RICHARDSON OPERATING COMPANY
AUTHORITY FOR EXPEDITURES**

Exhibit 4A

Well Name: ROPCO #9-1 SECTION 9 PC NE/4, FC E/2
Location: T29N R14W
Proposed Depth: 900' Fruitland Coal
1200' Pictured Cliffs

Date: 09/28/2000
Objective Formation: Commingled Pictured Cliffs
and Fruitland Coal

I. Drilling Costs (Included Run Casing)

Survey and Permits	.....
Title Opinion	.....
* Drilling (incl. water and mud) 1200' @ 15.00/ft.	...
BOP Rental	.....
Dirt Work	.....
Pit Lining	.....
Surface Casing 200' @ 7.18/ft.	.....
Casing Head	.....
Cement Surface	.....
Power Tongs	.....
Casing 1200' @ 5.50/ft.	.....
Trucking	.....
Logs	.....
Engineering	.....
Cement Longstring	.....

Total Cost to Run Casing

5.9375% Farmington, NM Tax

10% Contingency

Grand Total to Run Casing

II. Completion Costs

Rig Anchors	.....
Logs	.....
Perf.	.....
Wellhead & Fittings	.....
Tubing 1200' @ 2.50/ft.	.....
Stimulation	.....
Tool Rental	.....
Trucking	.....
Battery Installation	.....
Restore Location	.....
Engineering	.....
Treater, Separator	.....
Flowline	.....
Tank & Fittings	.....
Gravel	.....
Workover Rig	.....
Completion Fluids	.....
Pipeline Hookup	.....
Division Order Opinion	.....
Frac Tank Rental	.....
Flowback	.....
Fence Location	.....

Total Completion Costs

5.9375% Farmington, NM Tax

10% Contingency

Drilling Costs

Grand Total Well Costs

Tangible	Intangible	Total	Fruitland Coal	Pictured Cliffs
	3,000		1,500	1,500
	3,000		1,500	1,500
	18,000		6,750	11,250
	750		375	375
	4,000		2,000	2,000
	2,800		1,400	1,400
1,436			718	718
1,500			750	750
	2,300		1,150	1,150
	1,000		500	500
6,600			2,475	4,125
	3,000		1,500	1,500
	3,750		1,875	1,875
	5,000		2,500	2,500
	4,000		1,500	2,500
9,536	50,600	60,136	26,493	33,643
		3,571	1,573	1,998
		6,371	2,807	3,564
		70,077	30,873	39,205
	750		375	375
	3,000		1,500	1,500
	3,500		1,750	1,750
4,000			2,000	2,000
3,000			1,125	1,875
	42,000		21,000	21,000
	2,300		1,150	1,150
	3,000		1,500	1,500
	6,000		3,000	3,000
	3,500		1,750	1,750
	5,800		2,900	2,900
5,300			2,650	2,650
4,000			2,000	2,000
4,500			2,250	2,250
	3,000		1,500	1,500
	10,000		5,000	5,000
	2,000		1,000	1,000
	13,000		6,500	6,500
	1,500		750	750
	2,500		1,250	1,250
	2,000		1,000	1,000
3,300			1,650	1,650
24,100	103,850	127,950	63,600	64,350
		7,597	3,776	3,821
		13,555	6,738	6,817
		70,077	30,873	39,205
		219,179	104,986	114,192

**RICHARDSON OPERATING COMPANY
AUTHORITY FOR EXPEDITURES**

Well Name: ROPCO 9-2 SECTION 9-SE/4
Location: T29N R14W, San Juan County, NM
Proposed Depth: 1200'

Date: 09/29/2000
Objective Formation: Pictured Cliffs

I. Drilling Costs (Included Run Casing)

Survey and Permits
Title Opinion
Drilling (incl. water and mud) 1200' @ 15.00/ft.
BOP Rental
Dirt Work
Pit Lining
Surface Casing 200' @ 7.18/ft.
Casing Head
Cement Surface
Power Tongs
Casing 1200' @ 5.50/ft.
Trucking
Logs
Engineering
Cement Longstring
Total Cost to Run Casing
5.9375% Farmington, NM Tax
10% Contingency
Grand Total to Run Casing

II. Completion Costs

Rig Anchors
Logs
Perf.
Wellhead & Fittings
Tubing 1200' @ 2.50/ft.
Stimulation
Tool Rental
Trucking
Battery Installation
Restore Location
Engineering
Treater, Separator
Flowline
Tank & Fittings
Gravel
Workover Rig
Completion Fluids
Division Order Opinion
Pipeline Hookup
Frac Tank Rental
Flowback
Fence Location
Total Completion Costs
5.9375% Farmington, NM Tax
10% Contingency
Drilling Costs
Grand Total Well Costs

Tangible	Intangible	Total	Actual
	3,000		
	1,500		
	18,000		
	750		
	4,000		
	2,800		
1,436			
1,500			
	2,300		
	1,000		
6,600			
	3,000		
	3,500		
	3,000		
	4,000		
9,536	46,850	56,386	
		3,348	
		5,973	
		65,707	
	750		
	2,500		
	2,000		
4,000			
3,000			
	22,000		
	2,300		
	3,000		
	6,000		
	3,500		
	3,250		
5,300			
4,000			
4,500			
3,000			
	5,000		
	1,000		
	1,000		
	13,000		
	1,250		
	1,000		
3,300			
27,100	67,550	94,650	
		5,620	
		10,027	
		65,707	
		176,004	

**RICHARDSON OPERATING COMPANY
AUTHORITY FOR EXPEDITURES**

Exhibit 4C

REVISED 10/3/00

Well Name: ROPCO #9-3 SECTION 9 PC SW/4, FC W/2
Location: T29N R14W
Proposed Depth: 900' Fruitland Coal
1200' Pictured Cliffs

Date: 10/03/2000
Objective Formation: Commingled Pictured Cliffs
and Fruitland Coal

I. Drilling Costs (Included Run Casing)

Survey and Permits	.....
Title Opinion	.....
* Drilling (incl. water and mud) 1200' @ 15.00/ft.	.....
BOP Rental	.....
Dirt Work	.....
Pit Lining	.....
Surface Casing 200' @ 7.18/ft.	.....
Casing Head	.....
Cement Surface	.....
Power Tongs	.....
Casing 1200' @ 5.50/ft.	.....
Trucking	.....
Logs	.....
Engineering	.....
Cement Longstring	.....
Total Cost to Run Casing	.....
5.9375% Farmington, NM Tax	.....
10% Contingency	.....
Grand Total to Run Casing	.....

Tangible	Intangible	Total	Fruitland Coal	Pictured Cliffs
	3,000		1,500	1,500
	3,000		1,500	1,500
	18,000		6,750	11,250
	750		375	375
	4,000		2,000	2,000
	2,800		1,400	1,400
1,436			718	718
1,500			750	750
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6,600			2,475	4,125
	3,000		1,500	1,500
	3,750		1,875	1,875
	5,000		2,500	2,500
	4,000		1,500	2,500
9,536	50,600	60,136	26,493	33,643
		3,571	1,573	1,998
		6,371	2,807	3,564
		70,077	30,873	39,205
	750		375	375
	3,000		1,500	1,500
	3,500		1,750	1,750
4,000			2,000	2,000
3,000			1,125	1,875
	42,000		21,000	21,000
	2,300		1,150	1,150
	3,000		1,500	1,500
	6,000		3,000	3,000
	3,500		1,750	1,750
	5,800		2,900	2,900
5,300			2,650	2,650
4,000			2,000	2,000
4,500			2,250	2,250
	3,000		1,500	1,500
	10,000		5,000	5,000
	2,000		1,000	1,000
	13,000		6,500	6,500
	1,500		750	750
	2,500		1,250	1,250
	2,000		1,000	1,000
3,300			1,650	1,650
24,100	103,850	127,950	63,600	64,350
		7,597	3,776	3,821
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		70,077	30,873	39,205
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II. Completion Costs

Rig Anchors
Logs
Perf.
Wellhead & Fittings
Tubing 1200' @ 2.50/ft.
Stimulation	.....
Tool Rental	.....
Trucking	.....
Battery Installation	.....
Restore Location	.....
Engineering	.....
Treater, Separator	.....
Flowline	.....
Tank & Fittings	.....
Gravel	.....
Workover Rig	.....
Completion Fluids
Pipeline Hookup
Division Order Opinion
Frac Tank Rental
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Fence Location
Total Completion Costs
5.9375% Farmington, NM Tax
10% Contingency
Drilling Costs	.....
Grand Total Well Costs	.....