

Well Name **SC#11**  
 Operator **Kinder Morgan Energy**  
 Contractor **Express Drilling service**  
 Rig No **EXP 12**  
 Unit System **API pre-defined system**

# Well Summary Report

**Well Data**

Spud Date	02/20/2007	Fluids/Products: Drilling Cost	\$ 185,023.65
TD Date	04/02/2007	Fluids/Products: Completion Cost	\$ 0.00
Project		Solids Control/Waste Management Cost	\$ 0.00
Days on Well	41	Fluids/Products: Cementing Cost	\$ 0.00
From Date	02/21/2007	Prod Lost/Damaged Cost	\$ 0.00
To Date	04/02/2007	Engineer Services Cost	\$ 38,225.00
Drilling Days	29	Equipment Cost	\$ 0.00
Rotating / Drilling Hours	370.5/358.5	Transport/Packaging	\$ 3,916.00
Average ROP	ft/hr 22.2	Other Cost	\$ 1,314.40
Maximum Density	ppg 10.20	Total Well Cost	\$ 228,479.05
Total Measured Depth	ft 8,709	Planned Cost	\$ 112,065.32
True Vertical Depth	ft 8,674	Fluid Cost Per Fluid Volume	\$/bbl 21.43
Distance Drilled	ft 7,967	Fluid Cost Per Length Drilled	\$/ft 23.49
Maximum Deviation	deg 0.00	Fluid Cost/Vol of Hole Drilled	\$/bbl 253.27
Max. Horz. Displacement	ft 0	Total Additions/Hole Drilled	bbl/bbl 11.816
Bottom Hole Temp		Total Additions/Length Drilled	bbl/ft 1.096

**Casing Design**

Description	Set Date & Time	Top MD ft	Top TVD ft	End MD ft	End TVD ft	CSG OD in	CSG ID in	Max. Hole Size in	Hole MD ft	Hole TVD ft
9.625 K-55 36.0	02/27/2007 6:00	0	0	3,212	3,212	9.625	8.921	12.250	3,212	3,212
7 C-90 29.0	03/17/2007 1:00	0	0	7,696	7,696	7.000	6.184	8.750	7,696	7,696

**Fluid Program**

Int #	Fluid Type	Interval Days	BHT Deg F	Max. Dens ppg	Whole fluid + Mix products	Other material charges	Other charges	Total Interval Cost \$		
								Plan	Actual	Variance
1	Fresh Water	9		8.60	10,729.15		13,214.00	14,913.00	23,943.15	9,030.15
2	Fresh Water	5		9.20	5,459.91	0.00	7,170.00	12,287.00	12,629.91	342.91
3	Fresh Water	11		10.20	156,711.64	3,121.70	13,417.00	52,929.04	173,250.34	120,321.30
	Saturated Salt									
4	Fresh Water	9		8.50	7,705.17		6,255.00	15,968.00	13,960.17	-2,007.83
5	Fresh Water	7		8.40	2,610.48	0.00	2,085.00	15,968.28	4,695.48	-11,272.80
<b>Total Well Cost \$</b>					<b>183,216.35</b>	<b>3,121.70</b>	<b>42,141.00</b>	<b>112,065.32</b>	<b>228,479.05</b>	<b>116,413.73</b>

## Total Cost Breakdown

	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	55.00	38,225.00
<b>SubTotal</b>			<b>\$ 38,225.00</b>
<b>Other</b>			
OXYGON	6 gal pail	8.00	1,314.40
<b>SubTotal</b>			<b>\$ 1,314.40</b>
<b>Transport/Packaging Cost</b>			
Pallets	each	89.00	1,958.00
Shrink wrap	each	89.00	1,958.00
<b>SubTotal</b>			<b>\$ 3,916.00</b>
<b>Fluids/Products: Drilling Cost</b>			
aluminum stearate	25 lb bag	1.00	94.10
AQUAGEL GOLD SEAL	50 lb bag	420.00	2,923.20
BARACAT	5 gal can	24.00	3,196.32
BARA-DEFOAM 1	5 gal can	21.00	4,071.90
bicarbonate of soda	50 lb bag	19.00	386.46
caustic soda	50 lb bag	350.00	12,358.50
CLAY GRABBER	5 gal can	1.00	256.13
CRYSTAL-DRIL	5 gal can	28.00	5,557.44
DA320	55 gal drum	27.00	35,476.11
Drilling Paper	40 lb bag	119.00	2,133.67
ENVIRO-TORQ	55 gal drum	6.00	7,806.00
FIBERTEX	40 lb bag	56.00	1,006.88
FILTER-CHEK	50 lb bag	48.00	4,786.56
IMPERMEX	50 lb bag	80.00	2,801.60
lime	50 lb bag	20.00	239.40
LIQUI-DRIL	5 gal can	28.00	2,810.64
N-SEAL	30 lb bag	2.00	111.72
N-VIS L	5 gal can	16.00	5,883.84
OXYGON	6 gal pail	11.00	1,807.30
soda ash	50 lb bag	1.00	14.04
sodium chloride	50 lb bag	1,459.00	12,357.73
SOURSCAV	45 lb box	240.00	74,457.60
WALL-NUT MEDIUM	50 lb bag	1.00	23.79
ZEOGEL	50 lb bag	304.00	4,462.72
<b>SubTotal</b>			<b>\$ 185,023.65</b>
<b>Total Well Cost:</b>			<b>\$ 228,479.05</b>

## Net Well Cost Breakdown

Cost Breakdown I \$	Interval 01	Interval 02	Interval 03	Interval 04	Interval 05	Total
Fluid/Product: Drilling	10,729.15	5,459.91	158,518.94	7,705.17	2,610.48	185,023.65
Fluid/Product: Comp/Filtration						
Solids Control/Waste Management Cost						
Fluids/Products: Cementing Cost						
Engineering Services	12,510.00	6,950.00	10,425.00	6,255.00	2,085.00	38,225.00
Fluid/Product: Lost Damage						
Other Cost			1,314.40			1,314.40
Equipment Cost						
Transport/Packaging Cost	704.00	220.00	2,992.00			3,916.00
<b>Total Cost</b>	<b>23,943.15</b>	<b>12,629.91</b>	<b>173,250.34</b>	<b>13,960.17</b>	<b>4,695.48</b>	<b>228,479.05</b>

Cost Breakdown II \$	Interval 01	Interval 02	Interval 03	Interval 04	Interval 05	Total
Total Products Cost	10,729.15	5,459.91	159,833.34	7,705.17	2,610.48	186,338.05
Total Fluids Cost						
Total Charges Cost	13,214.00	7,170.00	13,417.00	6,255.00	2,085.00	42,141.00
Allocated To / From Other Interval	0.00				0.00	
<b>Total Cost</b>	<b>23,943.15</b>	<b>12,629.91</b>	<b>173,250.34</b>	<b>13,960.17</b>	<b>4,695.48</b>	<b>228,479.05</b>
Planned Cost	14,913.00	12,287.00	52,929.04	15,968.00	15,968.28	112,065.32
Variance	9,030.15	342.91	120,321.30	-2,007.83	-11,272.80	116,413.73

Volume Breakdown bbl	Interval 01	Interval 02	Interval 03	Interval 04	Interval 05	Total
Total Base Fluids Addition						
Total Chemical Addition	27.3	14.1	209.9	10.7	7.9	269.9
Total Barite Addition						
Total Water Addition	1,943.3	1,252.0	2,857.9	841.8	1,565.7	8,460.8
Total Fluid Built	1,970.6	1,266.1	3,067.8	852.5	1,573.7	8,730.7
Total Fluid Received						
Total Influx Addition						
Not Used In Interval				-2,440.0		
<b>Total Fluid Volume</b>	<b>1,970.6</b>	<b>3,054.5</b>	<b>5,384.2</b>	<b>863.3</b>	<b>2,264.7</b>	<b>8,730.7</b>

United States  
Limestone

McElmo Dome  
Colorado

Baroid Fluid Services  
8-36N-18W  
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Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Inventory Report

Interval # 01	From Date 02/21/2007			Top of Interval 478 ft			
Max. Hole Size / Bit Size 12.250 / 12.250 in	To Date 03/01/2007			Bottom of Interval 3,264 ft			
Product Name	Units	Starting	Received	Used	Returned	Ending	Weight lb
aluminum stearate	25 lb bag		20.0			20.0	500.00
AQUAGEL GOLD SEAL	50 lb bag		554.0	250.0		304.0	15,200.00
BARACAT	5 gal can		32.0	6.0		26.0	1,119.98
BARA-DEFOAM 1	5 gal can		22.0			22.0	899.05
BARAZAN D	25 lb bag		83.0			83.0	2,075.00
BAROLIFT	7.5 lb case		5.0			5.0	37.50
bicarbonate of soda	50 lb bag		74.0			74.0	3,700.00
Black Magic SFT	55 lb bag		17.0			17.0	935.00
caustic soda	50 lb bag		44.0	1.0		43.0	2,150.00
Cedar Fiber	40 lb bag		20.0			20.0	800.00
CLAY GRABBER	5 gal can		15.0	1.0		14.0	607.15
CRYSTAL-DRIL	5 gal can		32.0	27.0		5.0	221.01
DA320	55 gal drum		10.0			10.0	5,366.79
DEXTRID LT	50 lb bag		20.0			20.0	1,000.00
Drilling Paper	40 lb bag		228.0	39.0		189.0	7,560.00
ENVIRO-TORQ	55 gal drum		6.0	1.0		5.0	2,155.89
EZ-MUD	5 gal can		32.0			32.0	1,401.12
FIBERTEX	40 lb bag		292.0	30.0		262.0	10,480.00
HOLEPLUG 3/4	50 lb bag		48.0			48.0	2,400.00
lime	50 lb bag		200.0		147.0	53.0	2,650.00
LIQUI-DRIL	5 gal can		3.0			3.0	125.10
NO-SULF	50 lb bag		20.0			20.0	1,000.00
N-SEAL	30 lb bag		159.0			159.0	4,770.00
N-VIS L	5 gal can		30.0			30.0	1,351.08
OXYGON	6 gal pail		28.0			28.0	1,681.34
soda ash	50 lb bag		152.0			152.0	7,600.00
sodium chloride	50 lb bag		29.0			29.0	1,450.00
WALL-NUT MEDIUM	50 lb bag		48.0			48.0	2,400.00
X-TEND II	2 lb bag		25.0			25.0	50.00
ZEOGEL	50 lb bag		61.0			61.0	3,050.00
<b>Total Weight of Products in Stock lb</b>							<b>84,736.02</b>
<b>Total Weight of Products in Stock, Metric Tons</b>							<b>38.44</b>

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## Interval Inventory Report

Interval # 02	From Date 03/02/2007			Top of Interval 3,264 ft			
Max. Hole Size / Bit Size 8.750 / 8.750 in	To Date 03/06/2007			Bottom of Interval 5,642 ft			
Product Name	Units	Starting	Received	Used	Returned	Ending	Weight lb
aluminum stearate	25 lb bag	20.0				20.0	500.00
AQUAGEL GOLD SEAL	50 lb bag	304.0			56.0	248.0	12,400.00
BARACAT	5 gal can	26.0			14.0	12.0	516.91
BARA-DEFOAM 1	5 gal can	22.0			5.0	17.0	694.72
BARAZAN D	25 lb bag	83.0				83.0	2,075.00
BAROLIFT	7.5 lb case	5.0				5.0	37.50
bicarbonate of soda	50 lb bag	74.0			4.0	70.0	3,500.00
Black Magic SFT	55 lb bag	17.0				17.0	935.00
caustic soda	50 lb bag	43.0				43.0	2,150.00
Cedar Fiber	40 lb bag	20.0				20.0	800.00
CLAY GRABBER	5 gal can	14.0				14.0	607.15
CRYSTAL-DRIL	5 gal can	5.0			1.0	4.0	176.81
DA320	55 gal drum	10.0				10.0	5,366.79
DEXTRID LT	50 lb bag	20.0				20.0	1,000.00
Drilling Paper	40 lb bag	189.0			25.0	164.0	6,560.00
ENVIRO-TORQ	55 gal drum	5.0				5.0	2,155.89
EZ-MUD	5 gal can	32.0				32.0	1,401.12
FIBERTEX	40 lb bag	262.0			21.0	241.0	9,640.00
HOLEPLUG 3/4	50 lb bag	48.0				48.0	2,400.00
lime	50 lb bag	53.0				53.0	2,650.00
LIQUI-DRIL	5 gal can	3.0				3.0	125.10
NO-SULF	50 lb bag	20.0				20.0	1,000.00
N-SEAL	30 lb bag	159.0				159.0	4,770.00
N-VIS L	5 gal can	30.0			1.0	29.0	1,306.04
OXYGON	6 gal pail	28.0				28.0	1,681.34
soda ash	50 lb bag	152.0			1.0	151.0	7,550.00
sodium chloride	50 lb bag	29.0				29.0	1,450.00
WALL-NUT MEDIUM	50 lb bag	48.0				48.0	2,400.00
X-TEND II	2 lb bag	25.0				25.0	50.00
ZEOGEL	50 lb bag	61.0	100.0		51.0	110.0	5,500.00
<b>Total Weight of Products in Stock lb</b>							<b>81,399.38</b>
<b>Total Weight of Products in Stock, Metric Tons</b>							<b>36.92</b>

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## Interval Inventory Report

Interval # 03	From Date 03/07/2007			Top of Interval 5,900 ft			
Max. Hole Size / Bit Size 8.750 / 8.750 in	To Date 03/17/2007			Bottom of Interval 7,700 ft			
Product Name	Units	Starting	Received	Used	Returned	Ending	Weight lb
aluminum stearate	25 lb bag	20.0				20.0	500.00
AQUAGEL GOLD SEAL	50 lb bag	248.0				248.0	12,400.00
BARACAT	5 gal can	12.0				12.0	516.91
BARA-DEFOAM 1	5 gal can	17.0			16.0	1.0	40.87
BARAZAN D	25 lb bag	83.0				83.0	2,075.00
BAROLIFT	7.5 lb case	5.0			5.0		
bicarbonate of soda	50 lb bag	70.0				70.0	3,500.00
Black Magic SFT	55 lb bag	17.0				17.0	935.00
caustic soda	50 lb bag	43.0	399.0	332.0		110.0	5,500.00
Cedar Fiber	40 lb bag	20.0				20.0	800.00
CLAY GRABBER	5 gal can	14.0				14.0	607.15
CRYSTAL-DRIL	5 gal can	4.0				4.0	176.81
DA320	55 gal drum	10.0	18.0	27.0		1.0	536.68
DEXTRID LT	50 lb bag	20.0			20.0		
Drilling Paper	40 lb bag	164.0			38.0	126.0	5,040.00
ENVIRO-TORQ	55 gal drum	5.0	4.0	5.0		4.0	1,724.71
EZ-MUD	5 gal can	32.0				32.0	1,401.12
FIBERTEX	40 lb bag	241.0			5.0	236.0	9,440.00
FILTER-CHEK	50 lb bag		103.0	39.0		64.0	3,200.00
HOLEPLUG 3/4	50 lb bag	48.0				48.0	2,400.00
IMPERMEX	50 lb bag		150.0	72.0		78.0	3,900.00
lime	50 lb bag	53.0				53.0	2,650.00
LIQUI-DRIL	5 gal can	3.0	32.0	28.0		7.0	291.90
NO-SULF	50 lb bag	20.0				20.0	1,000.00
N-SEAL	30 lb bag	159.0				159.0	4,770.00
N-VIS L	5 gal can	29.0				29.0	1,306.04
OXYGON	6 gal pail	28.0			19.0	9.0	540.43
soda ash	50 lb bag	151.0				151.0	7,550.00
sodium chloride	50 lb bag	29.0	1,470.0	1,459.0		40.0	2,000.00
SOURSCAV	45 lb box		240.0	240.0			
WALL-NUT MEDIUM	50 lb bag	48.0				48.0	2,400.00
X-TEND II	2 lb bag	25.0			25.0		
ZEOGEL	50 lb bag	110.0	300.0	211.0		199.0	9,950.00
<b>Total Weight of Products in Stock lb</b>							<b>87,152.63</b>
<b>Total Weight of Products in Stock, Metric Tons</b>							<b>39.53</b>

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## Interval Inventory Report

Interval # 04	From Date 03/18/2007			Top of Interval 7,696 ft			
Max. Hole Size / Bit Size 6.000 / 6.000 in	To Date 03/26/2007			Bottom of Interval 7,616 ft			
Product Name	Units	Starting	Received	Used	Returned	Ending	Weight lb
aluminum stearate	25 lb bag	20.0				20.0	500.00
AQUAGEL GOLD SEAL	50 lb bag	248.0		54.0		194.0	9,700.00
BARACAT	5 gal can	12.0		1.0		11.0	473.84
BARA-DEFOAM 1	5 gal can	1.0				1.0	40.87
BARAZAN D	25 lb bag	83.0				83.0	2,075.00
BAROLIFT	7.5 lb case						
bicarbonate of soda	50 lb bag	70.0		12.0		58.0	2,900.00
Black Magic SFT	55 lb bag	17.0				17.0	935.00
caustic soda	50 lb bag	110.0	40.0	12.0		138.0	6,900.00
Cedar Fiber	40 lb bag	20.0				20.0	800.00
CLAY GRABBER	5 gal can	14.0				14.0	607.15
CRYSTAL-DRIL	5 gal can	4.0				4.0	176.81
DA320	55 gal drum	1.0				1.0	536.68
DEXTRID LT	50 lb bag						
Drilling Paper	40 lb bag	126.0		16.0		110.0	4,400.00
ENVIRO-TORQ	55 gal drum	4.0				4.0	1,724.71
EZ-MUD	5 gal can	32.0				32.0	1,401.12
FIBERTEX	40 lb bag	236.0				236.0	9,440.00
FILTER-CHEK	50 lb bag	64.0		6.0		58.0	2,900.00
HOLEPLUG 3/4	50 lb bag	48.0				48.0	2,400.00
IMPERMEX	50 lb bag	78.0		8.0		70.0	3,500.00
lime	50 lb bag	53.0	200.0			253.0	12,650.00
LIQUI-DRIL	5 gal can	7.0				7.0	291.90
NO-SULF	50 lb bag	20.0				20.0	1,000.00
N-SEAL	30 lb bag	159.0				159.0	4,770.00
N-VIS L	5 gal can	29.0		14.0		15.0	675.54
OXYGON	6 gal pail	9.0				9.0	540.43
soda ash	50 lb bag	151.0				151.0	7,550.00
sodium chloride	50 lb bag	40.0				40.0	2,000.00
SOURSCAV	45 lb box						
WALL-NUT MEDIUM	50 lb bag	48.0		1.0		47.0	2,350.00
X-TEND II	2 lb bag						
ZEOGEL	50 lb bag	199.0		13.0		186.0	9,300.00
<b>Total Weight of Products in Stock lb</b>							<b>92,539.05</b>
<b>Total Weight of Products in Stock, Metric Tons</b>							<b>41.98</b>

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## Interval Inventory Report

Interval # 05	From Date 03/27/2007			Top of Interval 7,706 ft			
Max. Hole Size / Bit Size 4.750 / 4.750 in	To Date 04/02/2007			Bottom of Interval 8,709 ft			
Product Name	Units	Starting	Received	Used	Returned	Ending	Weight lb
aluminum stearate	25 lb bag	20.0		1.0		19.0	475.00
AQUAGEL GOLD SEAL	50 lb bag	194.0		60.0		134.0	6,700.00
BARACAT	5 gal can	11.0		3.0		8.0	344.61
BARA-DEFOAM 1	5 gal can	1.0				1.0	40.87
BARAZAN D	25 lb bag	83.0				83.0	2,075.00
BAROLIFT	7.5 lb case						
bicarbonate of soda	50 lb bag	58.0		3.0		55.0	2,750.00
Black Magic SFT	55 lb bag	17.0				17.0	935.00
caustic soda	50 lb bag	138.0		5.0		133.0	6,650.00
Cedar Fiber	40 lb bag	20.0				20.0	800.00
CLAY GRABBER	5 gal can	14.0				14.0	607.15
CRYSTAL-DRIL	5 gal can	4.0				4.0	176.81
DA320	55 gal drum	1.0				1.0	536.68
DEXTRID LT	50 lb bag						
Drilling Paper	40 lb bag	110.0		1.0		109.0	4,360.00
ENVIRO-TORQ	55 gal drum	4.0				4.0	1,724.71
EZ-MUD	5 gal can	32.0				32.0	1,401.12
FIBERTEX	40 lb bag	236.0				236.0	9,440.00
FILTER-CHEK	50 lb bag	58.0		3.0		55.0	2,750.00
HOLEPLUG 3/4	50 lb bag	48.0				48.0	2,400.00
IMPERMEX	50 lb bag	70.0				70.0	3,500.00
lime	50 lb bag	253.0		20.0		233.0	11,650.00
LIQUI-DRIL	5 gal can	7.0				7.0	291.90
NO-SULF	50 lb bag	20.0				20.0	1,000.00
N-SEAL	30 lb bag	159.0		2.0		157.0	4,710.00
N-VIS L	5 gal can	15.0		1.0		14.0	630.50
OXYGON	6 gal pail	9.0				9.0	540.43
soda ash	50 lb bag	151.0				151.0	7,550.00
sodium chloride	50 lb bag	40.0				40.0	2,000.00
SOURSCAV	45 lb box						
WALL-NUT MEDIUM	50 lb bag	47.0				47.0	2,350.00
X-TEND II	2 lb bag						
ZEOGEL	50 lb bag	186.0		29.0		157.0	7,850.00
<b>Total Weight of Products in Stock lb</b>							<b>86,239.78</b>
<b>Total Weight of Products in Stock, Metric Tons</b>							<b>39.12</b>

## Conclusions And Recommendations

### Conclusions

The SC#11 is a CO2 well that was drilled for Kinder Morgan Energy in Montezuma county Colorado.

**Section 1-**The surface hole was drilled to depth of 3264' using fresh water, with high viscosity/LCM sweeps for whole cleaning and water loss. The sweeps consisted of 15-20 ppb of AQUAGEL GS for viscosity and 2-3 ppb of drilling paper for lost circulation. Casing was set at 3212' without any issues.

**Section 2-** The next section of the well used the same fluid set as the surface hole, fresh water and high viscosity/LCM sweeps. This section was drilled to a depth of 5900'.

**Section 3-** The third section of this well was drilled to depth of 7900' using saturated NaCl brine because of the Paradox salt and Killer shale formations. We ran sweeps of 15-20 ppb of ZEOGEL and 2-3 ppb of drilling paper for hole cleaning and lost circulation, and 30 gal of ENVIRO-TORQ. In this section of the well H2S is a big concern and needed to be controlled due to safety concerns. This was done using 2.5 ppb of SOURSCAV and 6 ppb of DA320 which is a Zinc Lignosulfonate. We did have some H2S alarms at the shakers because of gas intrusions. The dissolved H2S in the water was kept below 10 ppm and only reached 80 ppm on one occasion due to a large gas intrusion in the number 7 killer shale and the fact that the gas buster was not working properly. As mentioned before when we were drilling through the number 7 killer shale we took a large gas intrusion and the gas buster was not working properly, so there was large concentrations of H2S on locations around 200 ppm which is a safety hazard. Although the concentrations in the air were high the concentrations in the water coming out of the flow line were 0. This is important because it indicates that the gas on location was due to faulty equipment and not the mud.

**Section 4-** The 4th section of this well was the pilot hole. This was drilled using fresh water with no sweeps, because the company man specified that we were not running any sweeps including ENVIRO-TORQ. The pilot hole was drilled to depth of 7891'. While logging this portion of the well the logging tools became stuck and had to be left in the hole. They were later fished out. After the tools were fished out we ran sweeps of N-VIS-L and drilling paper to clean out the hole and stop any water loss that might be occurring. We also added IMPERMEX and FILTER CHEK to lower the water loss. After this had been done the logs went to bottom without any problems. The pilot hole was cemented and when we went into dress off the cement we discovered that the cement had not set. This had to be drilled out and cemented again.

**Section 5-** After the cement was dressed off the curve was drill starting at a depth of 7706' and ending at a depth of 8000'. Five feet before we reached the TD of 8000' the bit became stuck due to differential pressure. This could be remedied using water loss additive like IMPERMEX and FILTER CHEK, but the company man did not want to try this approach. So ultimately the bit was freed displacing the water in the hole with nitrogen. Once the bit was freed and inspected the production hole was drilled using under balanced drilling methods. The production hole was drill to a depth of 1000', which is the desired length we were shooting for.

### Recommendations

- Baroid recommends the use of a 200 bbl premix tank for mixing high viscosity / LCM sweeps because of the potential to save time versus mixing individual pills through the 40 bbl pill tank.
- Larger reserve pits should be used for drilling future wells because of the inability to add more water and help settle the solids on the SC#11
- Baroid recommends using BARACAT to settle solids in the reserve pit rather than CRYSTAL DRIL because it is much better at settling solids.
- Brine used in the Paradox Salt section of the well should not be production brine because the calcium levels buffer attempts to raise pH. If production brine is used, avoid using lime since it will not dissolve and will act as a buffer.
- The volume of brine in the reserve pit needs to be determined more accurately in order to treat with the appropriate levels of product. This is particularly important when treating H2S with specific amounts of

## Conclusions And Recommendations

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SOURSCAV or Zinc Chelate.

- Great care should be taken to make sure the surface equipment such as the gas buster and other equipment that deal with the H<sub>2</sub>S, are working properly to avoid a build up of gas on location.
- EZ-SPOT should be kept on location while drilling the Killer Shales in the event of stuck pipe.
- Fibrous LCM is not needed for mud losses in the salt section, but works good for hole cleaning. There were no noticeable mud losses while drilling the salt section of the SC#11
- ENVIRO-TORQ should be utilized in the salt section as well as the curve and lateral sections to help lubricate the hole and increase ROP.
- Utilize IMPERMEX along with FILTER-CHEK for improved filtration control in the salt section of the well. IMPERMEX and FILTER CHEK are more effective in high levels of soluble calcium.
- IMPERMEX and FILTER-CHEK should be utilized in fresh water for drilling the pilot hole and curve for improved control of water loss. This will help remedy the differential sticking that were experienced on the SC#11

# Interval Summary

<b>Interval #</b>	<b>1</b>	<b>Max Bit Size: 12.250 in</b>	<b>Hole Size Avg/Max</b>	<b>12.250 / 12.250 in</b>
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Interval Start Date	02/21/2007	Planned Cost	\$	14,913.00
Interval End Date	03/01/2007	Total Interval Cost	\$	23,943.15
Interval TD Date	02/26/2007	Program Variance	\$	9,030.15
Drilling Days	6.00	Other material charges		
Rotating/Hours	114.50 / 108.00	Total Fluids Cost	\$	10,729.15
Interval Top MD/TVD	ft 478 / 478	Total Charges Cost	\$	13,214.00
Interval End MD/TVD	ft 3,264 / 3,264	Total Cementing Cost	\$	0.00
Footage	ft 2,786	Fluid Cost Per Vol Unit	\$/bbl	5.44
Average ROP	ft/hr 26	Fluid Cost/Hole Drilled	\$/ft	3.85
Max Hole Angle	degrees 0.00	Fluid Cost/Vol Drilled	\$/bbl	26.42
Casing Size	in 9.625	Fluid Built	bbl	1,970.6
Casing Shoe MD	ft 3,212	Total Additions/Vol Drilled	bbl/bbl	4.85
Casing Length	ft 3,212	Total Additions/Hole Drilled	bbl/ft	0.71
Bottom Hole Temp		Fluid Loss/Vol Drilled	bbl/bbl	0.00
Max Fluid Density	ppg 8.60	Fluid Loss/Hole Drilled	bbl/ft	0.00

## Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
<b>Viscosifier/Suspension Agent</b>				
AQUAGEL GOLD SEAL	Fresh Water	50 lb bag	250.000	1,740.00
			<b>Total</b>	<b>\$ 1,740.00</b>
<b>Shale Control</b>				
BARACAT	Fresh Water	5 gal can	6.000	799.08
			<b>Total</b>	<b>\$ 799.08</b>
<b>Alkalinity Control</b>				
caustic soda	Fresh Water	50 lb bag	1.000	35.31
			<b>Total</b>	<b>\$ 35.31</b>
<b>Lost Circulation/Bridging Agent</b>				
Drilling Paper	Fresh Water	40 lb bag	39.000	699.27
FIBERTEX	Fresh Water	40 lb bag	30.000	539.40
			<b>Total</b>	<b>\$ 1,238.67</b>
<b>Lubricant</b>				
ENVIRO-TORQ	Fresh Water	55 gal drum	1.000	1,301.00
			<b>Total</b>	<b>\$ 1,301.00</b>
<b>Flocculant</b>				
CLAY GRABBER	Fresh Water	5 gal can	1.000	256.13
CRYSTAL-DRIL	Fresh Water	5 gal can	27.000	5,358.96
			<b>Total</b>	<b>\$ 5,615.09</b>

# Interval Summary

<b>Interval #</b>	<b>2</b>	<b>Max Bit Size: 8.750 in</b>	<b>Hole Size Avg/Max</b>	<b>8.750 / 8.750 in</b>
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Interval Start Date	03/02/2007	Planned Cost	\$	12,287.00
Interval End Date	03/06/2007	Total Interval Cost	\$	12,629.91
Interval TD Date	03/06/2007	Program Variance	\$	342.91
Drilling Days	5.00	Other material charges	\$	0.00
Rotating/Hours	100.50 / 100.50	Total Fluids Cost	\$	5,459.91
Interval Top MD/TVD	ft 3,264 / 3,264	Total Charges Cost	\$	7,170.00
Interval End MD/TVD	ft 5,642 / 5,642	Total Cementing Cost	\$	0.00
Footage	ft 2,378	Fluid Cost Per Vol Unit	\$/bbl	1.79
Average ROP	ft/hr 24	Fluid Cost/Hole Drilled	\$/ft	2.30
Max Hole Angle	degrees 0.00	Fluid Cost/Vol Drilled	\$/bbl	30.87
Casing Size	in 9.625	Fluid Built	bbl	1,266.1
Casing Shoe MD	ft 3,212	Total Additions/Vol Drilled	bbl/bbl	17.27
Casing Length	ft 3,212	Total Additions/Hole Drilled	bbl/ft	1.28
Bottom Hole Temp		Fluid Loss/Vol Drilled	bbl/bbl	0.00
Max Fluid Density	ppg 9.20	Fluid Loss/Hole Drilled	bbl/ft	0.00

## Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
<b>Viscosifier/Suspension Agent</b>				
N-VIS L	Fresh Water	5 gal can	1.000	367.74
AQUAGEL GOLD SEAL	Fresh Water	50 lb bag	56.000	389.76
ZEOGEL	Fresh Water	50 lb bag	51.000	748.68
			<b>Total</b>	<b>\$ 1,506.18</b>
<b>Defoamer</b>				
BARA-DEFOAM 1	Fresh Water	5 gal can	5.000	969.50
			<b>Total</b>	<b>\$ 969.50</b>
<b>Shale Control</b>				
BARACAT	Fresh Water	5 gal can	14.000	1,864.52
			<b>Total</b>	<b>\$ 1,864.52</b>
<b>Alkalinity Control</b>				
bicarbonate of soda	Fresh Water	50 lb bag	4.000	81.36
soda ash	Fresh Water	50 lb bag	1.000	14.04
			<b>Total</b>	<b>\$ 95.40</b>
<b>Lost Circulation/Bridging Agent</b>				
Drilling Paper	Fresh Water	40 lb bag	25.000	448.25
FIBERTEX	Fresh Water	40 lb bag	21.000	377.58
			<b>Total</b>	<b>\$ 825.83</b>
<b>Flocculant</b>				
CRYSTAL-DRIL	Fresh Water	5 gal can	1.000	198.48
			<b>Total</b>	<b>\$ 198.48</b>

# Interval Summary

<b>Interval #</b>	<b>3</b>	<b>Max Bit Size: 8.750 in</b>	<b>Hole Size Avg/Max</b>	<b>8.750 / 8.750 in</b>
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Interval Start Date	03/07/2007	Planned Cost	\$	52,929.04
Interval End Date	03/17/2007	Total Interval Cost	\$	173,250.34
Interval TD Date	03/15/2007	Program Variance	\$	120,321.30
Drilling Days	9.00	Other material charges	\$	3,121.70
Rotating/Hours	127.00 / 125.00	Total Fluids Cost	\$	156,711.64
Interval Top MD/TVD	ft 5,900 / 5,900	Total Charges Cost	\$	13,417.00
Interval End MD/TVD	ft 7,700 / 7,700	Total Cementing Cost	\$	0.00
Footage	ft 1,800	Fluid Cost Per Vol Unit	\$/bbl	29.11
Average ROP	ft/hr 14	Fluid Cost/Hole Drilled	\$/ft	87.06
Max Hole Angle	degrees 0.00	Fluid Cost/Vol Drilled	\$/bbl	1,170.57
Casing Size	in 7.000	Fluid Built	bbl	3,067.8
Casing Shoe MD	ft 7,696	Total Additions/Vol Drilled	bbl/bbl	40.22
Casing Length	ft 7,696	Total Additions/Hole Drilled	bbl/ft	2.99
Bottom Hole Temp		Fluid Loss/Vol Drilled	bbl/bbl	0.63
Max Fluid Density	ppg 10.20	Fluid Loss/Hole Drilled	bbl/ft	0.05

## Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
<b>Defoamer</b>				
BARA-DEFOAM 1	Fresh Water	5 gal can	1.000	193.90
BARA-DEFOAM 1	Saturated Salt	5 gal can	15.000	2,908.50
			<b>Total</b>	<b>\$ 3,102.40</b>
<b>Alkalinity Control</b>				
caustic soda	Saturated Salt	50 lb bag	332.000	11,722.92
			<b>Total</b>	<b>\$ 11,722.92</b>
<b>Corrosion Inhibitor</b>				
OXYGON	No Fluid	6 gal pail	19.000	3,121.70
DA320	Saturated Salt	55 gal drum	27.000	35,476.11
			<b>Total</b>	<b>\$ 38,597.81</b>
<b>Lost Circulation/Bridging Agent</b>				
Drilling Paper	Fresh Water	40 lb bag	2.000	35.86
Drilling Paper	Saturated Salt	40 lb bag	36.000	645.48
FIBERTEX	Fresh Water	40 lb bag	2.000	35.96
FIBERTEX	Saturated Salt	40 lb bag	3.000	53.94
			<b>Total</b>	<b>\$ 771.24</b>
<b>Lubricant</b>				
ENVIRO-TORQ	Saturated Salt	55 gal drum	5.000	6,505.00
			<b>Total</b>	<b>\$ 6,505.00</b>
<b>Filtration Control</b>				
FILTER-CHEK	Saturated Salt	50 lb bag	39.000	3,889.08
IMPERMEX	Saturated Salt	50 lb bag	72.000	2,521.44
			<b>Total</b>	<b>\$ 6,410.52</b>
<b>ROP Enhancer</b>				
LIQUI-DRIL	Saturated Salt	5 gal can	28.000	2,810.64
			<b>Total</b>	<b>\$ 2,810.64</b>
<b>Weighting Material</b>				

# Interval Summary

sodium chloride	Saturated Salt	50 lb bag	1,459.000	12,357.73
			<b>Total</b>	<b>\$ 12,357.73</b>
<b>Other</b>				
SOURSCAV	Saturated Salt	45 lb box	240.000	74,457.60
			<b>Total</b>	<b>\$ 74,457.60</b>
<b>Viscosifier/Suspension Agent</b>				
ZEOGEL	Fresh Water	50 lb bag	21.000	308.28
ZEOGEL	Saturated Salt	50 lb bag	190.000	2,789.20
			<b>Total</b>	<b>\$ 3,097.48</b>

# Interval Summary

<b>Interval #</b>	<b>4</b>	<b>Max Bit Size: 6.000 in</b>	<b>Hole Size Avg/Max</b>	<b>6.000 / 6.000 in</b>
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Interval Start Date	03/18/2007	Planned Cost	\$	15,968.00
Interval End Date	03/26/2007	Total Interval Cost	\$	13,960.17
Interval TD Date	03/26/2007	Program Variance	\$	-2,007.83
Drilling Days	7.00	Other material charges		
Rotating/Hours	14.50 / 12.50	Total Fluids Cost	\$	7,705.17
Interval Top MD/TVD	ft 7,696 / 7,696	Total Charges Cost	\$	6,255.00
Interval End MD/TVD	ft 7,616 / 7,616	Total Cementing Cost	\$	0.00
Footage	ft 0	Fluid Cost Per Vol Unit	\$/bbl	8.93
Average ROP	ft/hr 0	Fluid Cost/Hole Drilled	\$/ft	0.00
Max Hole Angle	degrees 0.00	Fluid Cost/Vol Drilled	\$/bbl	0.00
Casing Size	in 7.000	Fluid Built	bbl	852.5
Casing Shoe MD	ft 7,696	Total Additions/Vol Drilled	bbl/bbl	0.00
Casing Length	ft 7,696	Total Additions/Hole Drilled	bbl/ft	0.00
Bottom Hole Temp		Fluid Loss/Vol Drilled	bbl/bbl	0.00
Max Fluid Density	ppg 8.50	Fluid Loss/Hole Drilled	bbl/ft	0.00

## Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
<b>Viscosifier/Suspension Agent</b>				
N-VIS L	Fresh Water	5 gal can	14.000	5,148.36
AQUAGEL GOLD SEAL	Fresh Water	50 lb bag	54.000	375.84
ZEOGEL	Fresh Water	50 lb bag	13.000	190.84
			<b>Total</b>	<b>\$ 5,715.04</b>
<b>Shale Control</b>				
BARACAT	Fresh Water	5 gal can	1.000	133.18
			<b>Total</b>	<b>\$ 133.18</b>
<b>Alkalinity Control</b>				
bicarbonate of soda	Fresh Water	50 lb bag	12.000	244.08
caustic soda	Fresh Water	50 lb bag	12.000	423.72
			<b>Total</b>	<b>\$ 667.80</b>
<b>Lost Circulation/Bridging Agent</b>				
Drilling Paper	Fresh Water	40 lb bag	16.000	286.88
WALL-NUT MEDIUM	Fresh Water	50 lb bag	1.000	23.79
			<b>Total</b>	<b>\$ 310.67</b>
<b>Filtration Control</b>				
FILTER-CHEK	Fresh Water	50 lb bag	6.000	598.32
IMPERMEX	Fresh Water	50 lb bag	8.000	280.16
			<b>Total</b>	<b>\$ 878.48</b>

# Interval Summary

<b>Interval #</b>	<b>5</b>	<b>Max Bit Size: 4.750 in</b>	<b>Hole Size Avg/Max</b>	<b>4.750 / 4.750 in</b>
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Interval Start Date	03/27/2007	Planned Cost	\$	15,968.28
Interval End Date	04/02/2007	Total Interval Cost	\$	4,695.48
Interval TD Date	03/29/2007	Program Variance	\$	-11,272.80
Drilling Days	2.00	Other material charges	\$	0.00
Rotating/Hours	14.00 / 12.50	Total Fluids Cost	\$	2,610.48
Interval Top MD/TVD	ft 7,706 / 7,705	Total Charges Cost	\$	2,085.00
Interval End MD/TVD	ft 8,709 / 8,674	Total Cementing Cost	\$	0.00
Footage	ft 1,003	Fluid Cost Per Vol Unit	\$/bbl	1.15
Average ROP	ft/hr 80	Fluid Cost/Hole Drilled	\$/ft	2.60
Max Hole Angle	degrees 0.00	Fluid Cost/Vol Drilled	\$/bbl	118.75
Casing Size	in 7.000	Fluid Built	bbl	1,573.7
Casing Shoe MD	ft 7,696	Total Additions/Vol Drilled	bbl/bbl	103.02
Casing Length	ft 7,696	Total Additions/Hole Drilled	bbl/ft	2.26
Bottom Hole Temp		Fluid Loss/Vol Drilled	bbl/bbl	0.00
Max Fluid Density	ppg 8.40	Fluid Loss/Hole Drilled	bbl/ft	0.00

## Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
<b>Viscosifier/Suspension Agent</b>				
N-VIS L	Fresh Water	5 gal can	1.000	367.74
AQUAGEL GOLD SEAL	Fresh Water	50 lb bag	60.000	417.60
ZEOGEL	Fresh Water	50 lb bag	29.000	425.72
			<b>Total</b>	<b>\$ 1,211.06</b>
<b>Defoamer</b>				
aluminum stearate	Fresh Water	25 lb bag	1.000	94.10
			<b>Total</b>	<b>\$ 94.10</b>
<b>Shale Control</b>				
BARACAT	Fresh Water	5 gal can	3.000	399.54
			<b>Total</b>	<b>\$ 399.54</b>
<b>Alkalinity Control</b>				
bicarbonate of soda	Fresh Water	50 lb bag	3.000	61.02
caustic soda	Fresh Water	50 lb bag	5.000	176.55
lime	Fresh Water	50 lb bag	20.000	239.40
			<b>Total</b>	<b>\$ 476.97</b>
<b>Lost Circulation/Bridging Agent</b>				
Drilling Paper	Fresh Water	40 lb bag	1.000	17.93
N-SEAL	Fresh Water	30 lb bag	2.000	111.72
			<b>Total</b>	<b>\$ 129.65</b>
<b>Filtration Control</b>				
FILTER-CHEK	Fresh Water	50 lb bag	3.000	299.16
			<b>Total</b>	<b>\$ 299.16</b>

## Interval Discussion

Interval	01	From Date	2/21/2007	Top of Interval	478	ft
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	3/1/2007	Bottom of Interval	3,264	ft

**12 1/4" Hole Section** from 0 ft to 3,264" in 6 Days  
**Set 9 5/8" Casing @ 3212"**  
Drilling Fluid Fresh water w/ HV / LCM sweeps  
Formations Entrada, Chinle, Shinarump, Cutler  
Average ROP 26 ft/hr

**Objective**

The objective of this interval was to:

- Drill to a TD of 3,225' using fresh water/HV/LCM sweeps
- Successfully set 9 5/8" surface casing.
- Clean the hole, as well as provide well bore stability and remedy any lost returns encountered.
- Drill the interval without incident as planned within cost and time estimates

**Rig Abstract/Summary**

- **Time breakdowns**  
 Drilling 108 hr  
 Circulating 6 hr  
 Reaming 6.5 hr  
 Rig service 4 hr  
 Rig repair 2 hr  
 Tripping 16 hr  
 Run casing 10.5 hr
- **Trips:** Tripped out of the hole on 2/22/07 to change. The condition of the hole was stable.
- On 2/24/07 a wiper trip was performed at TD. Tight spots were found at 2700'-2900' so additional reaming was required to ensure the hole was clean and stable
- On 2/25/07 finished tripping out of the hole.
- Casing was run to a depth of 3,212' without any issues
- There were no delays in drilling operations due to drilling fluid properties or performance.

**Issues Discussion**

- Every 60 -100 ft of new hole drilled 20 bbl HV/LCM sweeps were used to maintain circulation as well as for hole cleaning.
- During this interval we drilled through a lot of red clay formations which resulted in the clay settling in the reserve pits. This becomes a problem when the clay is hydrated it takes up a lot of space. Some consideration should be given for possibly using a larger reserve pit for water additions while drilling.
- We found that BARACAT worked a lot better for settling solids than the CRYSTAL-DRIL
- Drilling continued to TD without any further issues.

**Cost Evaluation**

- Total Interval cost \$23,943.15
- Cost / ft \$3.85
- Cost / bbl \$5.44

## Interval Discussion

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### Maintenance Treatments

- 1 can of CRYSTAL DRIL was used every 200 ft at the reserve pit to settle solids.
- 20bbl HV/LCM sweeps were made using 12 ppb of AQUAGEL GS and 2 ppb of Drilling paper

### Solids Control Evaluation

- Circulation was maintained through the reserve pits using CRYSTAL-DRIL to settle solids.
- We found that BARACAT settle solids much better than CRYSTAL-DRIL so Baroid recommends that BARACAT be used on all future wells
- Baroid also recommends that circulation be run over the shakers to remove all the large solids before it gets to the reserve pit.
- Baroid also recommends that the volume of the reserve pits be increased to avoid the problems that we encountered on this well.

### Logistics - Inventory Management

- There was no inventory, transportation, or logistical issues during this interval.

## Interval Discussion

Interval	02	From Date	3/2/2007	Top of Interval	3,264 ft
Max. Hole Size / Bit Size	8.750 / 8.750 in	To Date	3/6/2007	Bottom of Interval	5,642 ft

**8 3/4" Hole Section from 3,225' to 5800' in 4 Days**

**Drilling Fluid** Fresh water w/HV/LCM sweeps  
**Formations** Upper Hermosa, Paradox, Desert Creek  
**Average ROP** 24 ft/hr

**Objective**

The objective of this interval was to:

- Drill to a depth of 5800' using fresh water/HV/LCM sweeps
- displace the fresh water with saturated NaCl brine
- Run HV/LCM sweeps every 60' of new hole drilled for lost circulation and hole cleaning
- clean the hole and provide well bore stability and remedy any lost returns encountered
- Drill the interval without incident as planned within cost and time estimates

**Rig Abstract/Summary**

- **Time breakdowns**  
 Drilling 100.5 hr  
 Circulating 1 hr  
 Reaming 0 hr  
 Rig service 6.5 hr  
 Rig repair 0  
 Tripping 5 hr  
 Run casing 0 hr
- **Trips:** After reaching a depth of 5900' on 3/06/07 the crew pulled out of the hole to inspect the drill collars and change the bit from a PDC bit to a Tri cone

**Issues Discussion**

- While drilling the previous section and this section the clay that we have drilled out has settled in the pits in a flocculated state which has become a problem because there is not enough water to drill with so the clay has begun to be used for the drilling fluid and while going through the pumps has become aerated
- The above mentioned issue needs to be addressed in future wells. This issue could be resolved with larger reserve pits to allow more water to separate the solids.

**Cost Evaluation**

- Total Interval cost \$12,629.91
- Cost / ft \$2.30
- Cost / bbl \$1.79

**Maintenance Treatments**

- Because of the above mentioned issue of the reserve pit being full of clay we closed the system in and circulated through the steel pits.

## Interval Discussion

- The fluid was run over the shakers and the sand trap was emptied every connection.
- BARACAT was used at the sand trap to effectively settle solids in the respective pit
- 20bbl HV/LCM sweeps were made using 12 ppb of AQUAGEL GS and 2 ppb of Drilling paper

Properties	Programmed	Actual (Typical)
Density, ppg	8.3-8.5	8.4
PV @ 120F, cP	1-2	3.5
API Filt, ml/30 min	NC	NC
pH	8-10	8.7
LGS, % by vol	<1	.5

### Solids Control Evaluation

- Circulation was maintained through the reserve pits at first until the clay content became too concentrated and we had to circulate through the steel pits.
- After closing the system in we ran the mud through the shakers and after watching the solids control equipment run I do not have much faith in the solids control equipment.

### Logistics - Inventory Management

- There was no inventory, transportation, or logistical issues during this interval.

## Interval Discussion

Interval	03	From Date	3/7/2007	Top of Interval	5,900 ft
Max. Hole Size / Bit Size	8.750 / 8.750 in	To Date	3/17/2007	Bottom of Interval	7,700 ft

**8 3/4" Hole Section from 5800' to 7900' in 10 Days**

**Set 7" Casing @ 7696'**

**Drilling Fluid** Saturated NaCl brine/IMPERMEX w/ HV / LCM sweeps

**Formations** Paradox Salt, Killer Shales, Base Salt, Lower Hermosa, Molas, Leadville

**Average ROP** 14 ft/hr

**Objective**

The objective of this interval was to:

- Displace the fresh water with saturated NaCl brine.
- Drill to TD of 7900' using NaCl brine.
- Drill through the Killer Shales with known H2S gas and maintain a fluid concentration below 10ppm.
- Clean the hole and provide well bore stability and remedy any lost returns encountered.
- Successfully run 7 in. chrome casing.
- Drill the interval without incident as planned within cost and time estimates.

**Rig Abstract/Summary**

- **Time breakdowns**  
 Drilling 125 hr  
 Circulating 24 hr  
 Reaming 2 hr  
 Rig service 3 hr  
 Rig repair 12.5 hr  
 Tripping 35.5 hr  
 Run casing 27.5 hr
- **Trips:** On 3/12/07 the crew tripped out of the hole to pick up the Gamma Ray Tools
- On 3/13/07 the crew tripped out of the hole to 5800' to work on the top drive. This was done because of the paradox salt and the killer shales.
- **Casing:** The 7" chrome casing was set a depth of 7696' without any issues.
- There were no delays in drilling operations due to drilling fluid properties or performance.

**Issues Discussion**

- While drilling in the Killer Shales we had several H2S alarms through out this interval, because of gas intrusions that had circulated to the surface.
- The NaCl brine we used for this interval was production brine that contained excessive amounts of Calcium (which acts as a buffer for the pH). We could not attain a pH higher than a 10.2 due to the calcium.
- One of the issues that we had on this well is the fact that we started drilling before the water had been treated with the scavengers.
- We had approximately 2 ppb of SOURSCAV in the water and this is capable of treating 1500 ppm of H2S in the water. This was the case, until we drilled the #7 shale when we took a large gas

## Interval Discussion

intrusion. And the concentration of the water went up. At this point we started adding zinc lignosulfonate.

- **One issue that caused the large concentrations of H2S gas on location was that the gas buster was not working because it was plugged up as well as the possum bellies and were not working properly.**
- Due to the fact that the safety man is in charge of safety on location it was told to Baroid that he was in charge of the amount of scavenger being put in the water. So if the mud cost comes into question it should be noted that Kinder Morgan accepted and enforced this.

### Cost Evaluation

- Total Interval cost     \$173,250.34
- Cost / ft                 \$87.06
- Cost / bbl                \$29.11

### Maintenance Treatments

- The pH was maintained at a 9.5-10.2 using Caustic Soda (approximately 350 sacks)
- 3 ppb of SOURSCAV was used for an H2S scavenger
- 5 ppb of DA320 was used as an H2S scavenger because the safety man and Kinder Morgan specified that it be used
- .5 ppb of OXYGON was used as an oxygen scavenger.
- 2 ppb of IMPERMEX was used for fluid loss (80 sacks)
- 1.2 ppb of FILTER-CHEK was used for fluid loss
- 20bbl HV/LCM sweeps were made using 12 ppb of ZEOGEL and 2-3 ppb of Drilling paper

Properties	Programmed	Actual (Typical)
Density, ppg	9.8-10.2	10.1
PV @ 120F, cP	1-4	2
API Filt, ml/30 min	<12	11
pH	11.0-11.5	9.5
Chlorides, mg/l	188,000	188,000
LGS, % by vol	1	1.8
HGS, % by vol	0	0

### Solids Control Evaluation

- Circulation was maintained through the reserve pits

### Logistics - Inventory Management

- There was no inventory, transportation, or logistical issues during this interval.

## Interval Discussion

Interval	04	From Date	3/18/2007	Top of Interval	7,696 ft
Max. Hole Size / Bit Size	6.000 / 6.000 in	To Date	3/26/2007	Bottom of Interval	7,616 ft

**6" Hole Section from 7694' to 7869' in 8 Days**

**Pilot hole**

**Drilling Fluid** Fresh water with HV/ENVIRO-TORQ sweeps

**Formations** Leadville

**Average ROP** 26.2 ft/hr

**Objective**

The objective of this interval was to:

- Displace the saturated NaCl brine with fresh water
- Successfully drill the pilot hole
- Drill to TD of 7869' using fresh water with HV/ENVIRO-TORQ
- Clean the hole and provide well bore stability
- Drill the interval without incident as planned within cost and time estimates

**Rig Abstract/Summary**

- **Time breakdowns**  
 Drilling 12.5 hr  
 Circulating 17.5 hr  
 Reaming 2 hr  
 Rig service 4.5 hr  
 Rig repair 0 hr  
 Tripping 66.5 hr  
 Run casing 0 hr
- **Trips:** From 3/19/07 to 3/21/07 the crew tripped in and out of the hole multiple times to fish the logging tools that were left in the hole when the logging tools became stuck. Also tripping for hole conditioning was necessary as well.
- **Casing:** There is no casing in this interval of the well. A cement plug was placed in the pilot hole and dressed off for side entry to drill the horizontal section

**Issues Discussion**

- When the pilot hole was logged the logging tools became stuck due to what was believed to be differential sticking. This can be solved two different ways, 1 to use a fluid loss additive to lower the water loss thereby reducing the vacuum at the bottom of the hole, and 2 to reduce the amount of water in the annulus and also reduce the hydrostatic pressure. After attempting to clean the hole several times and doing so the logs still became stuck so Baroid recommended and added IMPERMEX and FILTER-CHEK to lower water loss. At the same time the hydrostatic pressure was reduced by allowing the annulus to remain low on water. When both of these actions were taken the logs went all the way to bottom without any problems.

**Cost Evaluation**

- Total Interval cost \$13,960.17
- Cost / ft \$ NA
- Cost / bbl \$ 8.93

## Interval Discussion

### Maintenance Treatments

- The pH was maintained at a 10.0-10.5 due to cement in the water
- We added 1 ppb of IMPERMEX and .5 ppb of FILTER-CHEK to lower the water loss while logging the well.

Properties	Programmed	Actual (Typical)
Density, ppg	8.3-8.4	8.4
PV @ 120F, cP	1-2	1
API Filt, ml/30 min	NC	4.8
pH	8-9	10-10.5
LGS, % by vol	<2	.5

### Solids Control Evaluation

- Circulation was maintained through steel pits and the shale shakers were utilized to remove solids.
- BARACAT was added at the sand pit to settle solids
- The sand pit was emptied 2 times during this section of the well.

### Logistics - Inventory Management

- There was no inventory, transportation, or logistical issues during this interval.

## Interval Discussion

Interval	05	From Date	3/27/2007	Top of Interval	7,706 ft
Max. Hole Size / Bit Size	4.750 / 4.750 in	To Date	4/2/2007	Bottom of Interval	8,709 ft

**4 3/4" Hole Section from 7706' to 8709' in 4 Days**

**Curve**

**Drilling Fluid** Drilling under balanced with fresh water

**Formations** Leadville

**Average ROP** 80 ft/hr

**Objective**

The objective of this interval was to:

- Successfully drill the curve in preparation for drilling the horizontal section of the well
- Drill to TD of 8709' (1000' horizontal) under balanced with fresh water
- Clean the hole and provide well bore stability
- Drill the interval without incident as planned within cost and time estimates

**Rig Abstract/Summary**

- **Time breakdowns**  
 Drilling 12.5 hr  
 Circulating 3.5 hr  
 Reaming 1.5 hr  
 Rig service 1 hr  
 Rig repair 2 hr  
 Tripping 26 hr  
 Run casing 0 hr
- **Trips:** On 3/27/07 after reaching a depth of 7709' the Weatherford logs got caught up in the drill pipe. So the crew tripped out of the hole to determine the cause of the hang up. It was determined that the corrosion rings were the cause of the hang up.
- On 3/28/07 the crew tripped out of the hole because the mud motor was not responding and needed to be replaced.
- **Casing:** There is no casing in this interval of the well.

**Issues Discussion**

- One of the issues in this interval is the formation that we are interested in, the Leadville is very porous and mud losses were expected so when the curve was finished the drilling continued under balanced.
- In this section when we reached the depth of approximately 8000' with 5' left to drill in the curve the bit became stuck. It was believed that bit was differentially stuck due to some water loss, about 4-8bbl per hr. This can be remedied by adding IMPERMEX and FILTER-CHEK but the company man opted not to take that course of action. After displacing the water in the annulus with nitrogen from Weatherford under balanced crews the bit came unstuck and they tripped out of the hole to inspect the mud motor. The curve was finished and the company man released Baroid from the well.

**Cost Evaluation**

- Total Interval cost \$4,659.57

## Interval Discussion

- Cost / ft        \$2.57
- Cost / bbl      \$1.13

### Maintenance Treatments

- The pH was maintained at a 10.5-11.5 using Caustic Soda
- BARACAT was used to settle solids in the reserve pit.

Properties	Programmed	Actual (Typical)
Density, ppg	8.3-8.4	8.4
PV @ 120F, cP	1-2	1
API Filt, ml/30 min	NC	NC
pH	8-9	10.5
LGS, % by vol	<2	.5

### Solids Control Evaluation

- Circulation was maintained through the reserve pits

### Logistics - Inventory Management

- There was no inventory, transportation, or logistical issues during this interval.

Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Cost Breakdown

Interval # 01	From Date	02/21/2007	Top of Interval	478 ft
Max. Hole Size / Bit Size 12.250 / 12.250 in	To Date	03/01/2007	Bottom of Interval	3,264 ft

Material	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	18.00	12510.00
<b>SubTotal</b>			<b>\$ 12,510.00</b>

<b>Transport/Packaging Cost</b>			
Pallets	each	16.00	352.00
Shrink wrap	each	16.00	352.00
<b>SubTotal</b>			<b>\$ 704.00</b>

<b>Fluids/Products: Drilling Cost</b>			
AQUAGEL GOLD SEAL	50 lb bag	250.00	1740.00
BARACAT	5 gal can	6.00	799.08
caustic soda	50 lb bag	1.00	35.31
CLAY GRABBER	5 gal can	1.00	256.13
CRYSTAL-DRIL	5 gal can	27.00	5358.96
Drilling Paper	40 lb bag	39.00	699.27
ENVIRO-TORQ	55 gal drum	1.00	1301.00
FIBERTEX	40 lb bag	30.00	539.40
<b>SubTotal</b>			<b>\$ 10,729.15</b>
<b>Interval Total Cost</b>			<b>\$ 23,943.15</b>

Charged To/From Other Interval	\$	0.00
Net Description Total Cost	\$	23,943.15
Programmed Cost	\$	14,913.00
Program Variance	\$	9,030.15

Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Cost Breakdown

Interval # 02	From Date	03/02/2007 Top of Interval	3,264 ft
Max. Hole Size / Bit Size 8.750 / 8.750 in	To Date	03/06/2007 Bottom of Interval	5,642 ft

Material	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	10.00	6950.00
<b>SubTotal</b>			<b>\$ 6,950.00</b>

<b>Transport/Packaging Cost</b>			
Pallets	each	5.00	110.00
Shrink wrap	each	5.00	110.00
<b>SubTotal</b>			<b>\$ 220.00</b>

<b>Fluids/Products: Drilling Cost</b>			
AQUAGEL GOLD SEAL	50 lb bag	56.00	389.76
BARACAT	5 gal can	14.00	1864.52
BARA-DEFOAM 1	5 gal can	5.00	969.50
bicarbonate of soda	50 lb bag	4.00	81.36
CRYSTAL-DRIL	5 gal can	1.00	198.48
Drilling Paper	40 lb bag	25.00	448.25
FIBERTEX	40 lb bag	21.00	377.58
N-VIS L	5 gal can	1.00	367.74
soda ash	50 lb bag	1.00	14.04
ZEOGEL	50 lb bag	51.00	748.68
<b>SubTotal</b>			<b>\$ 5,459.91</b>
<b>Interval Total Cost</b>			<b>\$ 12,629.91</b>

Charged To/From Other Interval	\$	
Net Description Total Cost	\$	12,629.91
Programmed Cost	\$	12,287.00
Program Variance	\$	342.91

Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Cost Breakdown

Interval # 03	From Date	03/07/2007	Top of Interval	5,900 ft
Max. Hole Size / Bit Size 8.750 / 8.750 in	To Date	03/17/2007	Bottom of Interval	7,700 ft

Material	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	15.00	10425.00
<b>SubTotal</b>			<b>\$ 10,425.00</b>

<b>Other</b>			
OXYGON	6 gal pail	8.00	1314.40
<b>SubTotal</b>			<b>\$ 1,314.40</b>

<b>Transport/Packaging Cost</b>			
Pallets	each	68.00	1496.00
Shrink wrap	each	68.00	1496.00
<b>SubTotal</b>			<b>\$ 2,992.00</b>

<b>Fluids/Products: Drilling Cost</b>			
BARA-DEFOAM 1	5 gal can	16.00	3102.40
caustic soda	50 lb bag	332.00	11722.92
DA320	55 gal drum	27.00	35476.11
Drilling Paper	40 lb bag	38.00	681.34
ENVIRO-TORQ	55 gal drum	5.00	6505.00
FIBERTEX	40 lb bag	5.00	89.90
FILTER-CHEK	50 lb bag	39.00	3889.08
IMPERMEX	50 lb bag	72.00	2521.44
LIQUI-DRIL	5 gal can	28.00	2810.64
OXYGON	6 gal pail	11.00	1807.30
sodium chloride	50 lb bag	1,459.00	12357.73
SOURSCAV	45 lb box	240.00	74457.60
ZEOGEL	50 lb bag	211.00	3097.48
<b>SubTotal</b>			<b>\$ 158,518.94</b>
<b>Interval Total Cost</b>			<b>\$ 173,250.34</b>

<b>Charged To/From Other Interval</b>	<b>\$</b>	<b>0.00</b>
<b>Net Description Total Cost</b>	<b>\$</b>	<b>173,250.34</b>
<b>Programmed Cost</b>	<b>\$</b>	<b>52,929.04</b>
<b>Program Variance</b>	<b>\$</b>	<b>120,321.30</b>

Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Cost Breakdown

Interval # 04	From Date 03/18/2007	Top of Interval	7,696 ft
Max. Hole Size / Bit Size 6.000 / 6.000 in	To Date 03/26/2007	Bottom of Interval	7,616 ft

Material	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	9.00	6255.00
<b>SubTotal</b>			<b>\$ 6,255.00</b>

<b>Fluids/Products: Drilling Cost</b>			
AQUAGEL GOLD SEAL	50 lb bag	54.00	375.84
BARACAT	5 gal can	1.00	133.18
bicarbonate of soda	50 lb bag	12.00	244.08
caustic soda	50 lb bag	12.00	423.72
Drilling Paper	40 lb bag	16.00	286.88
FILTER-CHEK	50 lb bag	6.00	598.32
IMPERMEX	50 lb bag	8.00	280.16
N-VIS L	5 gal can	14.00	5148.36
WALL-NUT MEDIUM	50 lb bag	1.00	23.79
ZEOGEL	50 lb bag	13.00	190.84
<b>SubTotal</b>			<b>\$ 7,705.17</b>
<b>Interval Total Cost</b>			<b>\$ 13,960.17</b>
<b>Charged To/From Other Interval</b>			<b>\$ 0.00</b>
<b>Net Description Total Cost</b>			<b>\$ 13,960.17</b>
<b>Programmed Cost</b>			<b>\$ 15,968.00</b>
<b>Program Variance</b>			<b>\$ -2,007.83</b>

Well Name SC#11  
 Operator Kinder Morgan Energy  
 Contractor Express Drilling service  
 Rig No EXP 12  
 Unit System API pre-defined system

## Interval Cost Breakdown

Interval # 05	From Date	03/27/2007	Top of Interval	7,706 ft
Max. Hole Size / Bit Size 4.750 / 4.750 in	To Date	04/02/2007	Bottom of Interval	8,709 ft

Material	Unit Size	Quantity	Total Cost
<b>Engineering/Services</b>			
Engineer 24 hour service	day(s)	3.00	2085.00
<b>SubTotal</b>			<b>\$ 2,085.00</b>

<b>Fluids/Products: Drilling Cost</b>			
aluminum stearate	25 lb bag	1.00	94.10
AQUAGEL GOLD SEAL	50 lb bag	60.00	417.60
BARACAT	5 gal can	3.00	399.54
bicarbonate of soda	50 lb bag	3.00	61.02
caustic soda	50 lb bag	5.00	176.55
Drilling Paper	40 lb bag	1.00	17.93
FILTER-CHEK	50 lb bag	3.00	299.16
lime	50 lb bag	20.00	239.40
N-SEAL	30 lb bag	2.00	111.72
N-VIS L	5 gal can	1.00	367.74
ZEOGEL	50 lb bag	29.00	425.72
<b>SubTotal</b>			<b>\$ 2,610.48</b>
<b>Interval Total Cost</b>			<b>\$ 4,695.48</b>

Charged To/From Other Interval	\$	
Net Description Total Cost	\$	4,695.48
Programmed Cost	\$	15,968.28
Program Variance	\$	-11,272.80

**Baroid Fluid Services**

**Drilling Fluids Well Recap**

Well Name	SC#11	Country	United States	Legal Description	8-36N-18W	Total MD/TVD	ft 8709. / 8674.	Casing OD	9.625	Set	@	MD	3,212	Baroid Mud Engineers	Jay Christensen 505-486-1439
Operator	Kinder Morgan Energy	State / Region	Colorado	Basin	San Juan	Drilling Days	29		7.000	@		7,696		Randy Phipps 505-330-8033	Matt Jensen 505-486-3049
Contractor	Express Drilling service	County	Montezuma	Spud Date	02/20/2007	Total Days	38							Baroid Tech Rep	
Rig Name	EXP 12	Field or Block	McElmo Dome	TD Date	04/02/2007	Unit System	API pre-defined system						API No	Christensen 505-486-1439 Jay	

Date	Depth ft	FL Temp Deg F	Density ppg	Funn Visc sec/qt	Rheology				Filtration				Filtrate Analysis					MBT ppb Eq.	Sand % by vol	Retort Analysis				Rheometer Dial Readings						Daily Activity				
					PV	lbs/100 ft2			API	HTHP	Cake API	Cake HTHP	Temp Deg F	pH	Pm ml	Pf ml	Mf ml			Cl mg/l	Total Hardne ss mg/l	Corr Solid	LGS	NAP Base	Water	600	300	200	100		6	3		
						cP	YP	10S																									10M	30M
02/21/2007	301	60	8.40	28	2	1				20.0					8.70			0	700	120.0		0.01	0.5	0.5		99.2	5.0	3.0						Drilling
02/22/2007	1,031	60	8.40	29	2	1				20.0					8.70			0	800	120.0		0.01	0.5	0.5		99.2	5.0	3.0						Drilling
02/23/2007	1,790	60	8.40	27	2	1				20.0					8.70			0	800	120.0		0.01	0.5	0.5		99.2	5.0	3.0						Drilling
02/24/2007	2,201	60	8.40	28	2	1				20.0					8.70			0	800	120.0		0.01	0.5	0.5		99.2	5.0	3.0						Drilling
02/25/2007	2,810	60	8.40	28	2	1				20.0					8.70			0	800	120.0		0.01	0.5	0.5		99.2	5.0	3.0						Drilling
02/26/2007	3,264	50	8.60	29	2	1				20.0					8.90			0	3,700	720.0		0.01	1.8	1.9		97.8	5.0	3.0						Tripping
02/27/2007	3,264	60	8.50	27	2	1				20.0					8.90		0	0	800	400.0		0.01	1.2	1.2		98.5	5.0	3.0						Squeeze Cement
02/28/2007	3,263	60	8.60	28	2	1				20.0					11.20	0	0	0	600	400.0	15.0	0.10	2.0	2.0		97.7	5.0	3.0						Testing B.O.P.
03/01/2007	3,263	60	8.60	28	2	1				20.0					11.60	1	0	0	1,300	320.0		0.10	2.0	2.1		97.7	5.0	3.0						Repair rig
03/02/2007	3,290	50	8.60	28	2	1	1	1							12.50	13	2	2	1,400	480.0		0.10	1.9	1.9		97.8	5.0	3.0						Drilling
03/03/2007	3,780	60	8.60	28	2	1	1	1							12.50	6	2	2	1,500	480.0		0.10	2.0	2.1		97.7	5.0	3.0						Drilling
03/04/2007	2,695	65	8.40	37	7	13	16	16		20.0			2		12.60	9	2	3	1,100	280.0		3.50	0.5	0.5		99.2	27.0	20.0						Drilling
03/05/2007	5,128	80	8.60	28	2					20.0					8.70	0	0	0	20,600	5,000.0		0.01	0.5	0.5		98.3	4.0	2.0						Drilling
03/06/2007	5,599	80	8.80	28	2	1				20.0			1		7.70	1	0	0	11,000	2,280.0	2.5	0.01	2.7	2.7		96.6	5.0	3.0						Drilling
03/08/2007	6,075	70	10.10	30	2	1				20.0					7.20			0	189,000	36,560.0		0.10	1.0	1.0		87.7	5.0	3.0						Drilling

Product Name	Units	Received	Used	Cost	End	Fluid Volume Breakdown				Conclusions & Recommendations			
						Additions	bbl	Losses	bbl				
Engineer 24 hour service	Day(s)			55 \$ 38,225.00						Conclusions			
Pallets	each		89	\$ 1,958.00		Base Fluid	0	Downhole	0	The SC#11 is a CO2 well that was drilled for Kinder Morgan Energy in Montezuma county Colorado.			
Shrink wrap	each		89	\$ 1,958.00		Water	8,461	Solids Control	84	Section 1-The surface hole was drilled to depth of 3264' using fresh water, with high viscosity/LCM sweeps for whole cleaning and water loss. The sweeps consisted of 15-20 ppb of AQUAGEL GS for viscosity and 2-3 ppb of drilling paper for lost circulation. Casing was set at 3212' without any issues.			
aluminum stearate	25 lb bag		20	\$ 94.10	19	Barite	0	Miscellaneous	0	Section 2- The next section of the well used the same fluid set as the surface hole, fresh water and high viscosity/LCM sweeps This section was drilled to a depth of 5900'.			
AQUAGEL GOLD SEAL	50 lb bag		554	\$ 2,923.20	134	Chemicals	270	Dump non SCE	5,214	Section 3- The third section of this well was drilled to depth of 7900' using saturated NaCl brine because of the Paradox salt and Killer shale formations. We ran sweeps of 15-20 ppb of ZEOGEL and 2-3 ppb of drilling paper for hole cleaning and lost circulation, and 30 gal of ENVIRO-TORQ. In this section of the well H2S is a big concern and needed to be controlled due to safety concerns. This was done using 2.5 ppb of SOURSCAV and 6 ppb of DA320 which is a Zinc Lignosulfonate. We did have some H2S alarms at the shakers because of gas intrusions. The disc			
BARACAT	5 gal can		32	\$ 3,196.32	8	Fluid Built	8,731	Returned	1,170	Section 4- The 4th section of this well was the pilot hole. This was drilled usi			
BARA-DEFOAM 1	5 Gal can		22	\$ 4,071.90	1	Influx	0			Section 5- After the cement was dressed off the curve was drill starting at a			
bicarbonate of soda	50 lb bag		74	\$ 386.46	55	Received	0			Recommendations			
caustic soda	50 lb bag		483	\$ 12,358.50	133	Total additions	8,731	Total Losses	6,468				
CLAY GRABBER	5 Gal can		15	\$ 256.13	14								
CRYSTAL-DRIL	5 Gal can		32	\$ 5,557.44	4								
DA320	55 Gal drum		28	\$ 35,476.11	1	Products Cost			\$ 183,216.35				
Drilling Paper	40 lb bag		228	\$ 2,133.67	109	Other Product Cost			\$ 3,121.70				
ENVIRO-TORQ	55 gal drum		10	\$ 7,806.00	4	Engineering/ Other Cost			\$ 42,141.00				
FIBERTEX	40 lb bag		292	\$ 1,006.88	236	Planned Well Cost			\$ 112,065.32				
FILTER-CHEK	50 lb bag		103	\$ 4,786.56	55	Program Variance			\$ (116,413.73)				
IMPERMEX	50 lb bag		150	\$ 2,801.60	70	Total Well Cost			\$ 228,479.05				

Fluid Property Recap : Water-Based Fluid

Date	Depth ft	FL Temp Deg F	Density ppg	Funn Visc sec/qt	Rheology 50 Deg F				Filtration					Filtrate Analysis					MBT ppb Eq.	Sand % by vol	Retort Analysis				Rheometer Dial Readings								
					PV cP	lbs/100 ft2				API ml/30 min	HTHP ml/30 min	Cake API 32nd in	Temp Deg F	pH	Pm ml	Pf ml	Mf ml	Cl mg/l			Total Hardness mg/l	% by vol				600	300	200	100	6	3		
						YP	10S	10M	30M													Corr Solid	LGS	NAP Base	Water								
<b>Interval # 01</b>					<b>From Date</b>					<b>02/21/2007</b>					<b>Top of Interval</b>					<b>478 ft</b>													
<b>Max. Hole Size / Bit Size</b>					<b>12.250 / 12.250 in</b>					<b>To Date</b>					<b>03/01/2007</b>					<b>Bottom of Interval</b>					<b>3,264 ft</b>								
02/21/2007	301	60	8.40	28	2	1				20.0					8.70			0.23	700	120		0.01	0.53	0.531		99.2	5.0	3.0					
02/22/2007	1,031	60	8.40	29	2	1				20.0					8.70			0.25	800	120		0.01	0.53	0.533		99.2	5.0	3.0					
02/23/2007	1,790	60	8.40	27	2	1				20.0					8.70			0.24	800	120		0.01	0.53	0.533		99.2	5.0	3.0					
02/24/2007	2,201	60	8.40	28	2	1				20.0					7.40			0.25	800	120		0.01	0.53	0.533		99.2	5.0	3.0					
02/25/2007	2,810	60	8.40	28	2	1				20.0					8.70			0.28	800	120		0.01	0.53	0.533		99.2	5.0	3.0					
02/26/2007	3,264	50	8.60	29	2	1				20.0					8.90			0.28	3,700	720		0.01	1.82	1.852		97.8	5.0	3.0					
02/27/2007	3,264	60	8.50	27	2	1				20.0					8.90	0.05	0.36	0.36	800	400		0.01	1.23	1.189		98.5	5.0	3.0					
02/28/2007	3,263	60	8.60	28	2	1				20.0					11.20	0.18	0.21	0.41	600	400	15.0	0.10	2.04	2.042		97.7	5.0	3.0					
03/01/2007	3,263	60	8.60	28	2	1				20.0					11.60	0.60	0.26	0.46	1,300	320		0.10	2.02	2.051		97.7	5.0	3.0					
<b>Interval # 02</b>					<b>From Date</b>					<b>03/02/2007</b>					<b>Top of Interval</b>					<b>3,264 ft</b>													
<b>Max. Hole Size / Bit Size</b>					<b>8.750 / 8.750 in</b>					<b>To Date</b>					<b>03/06/2007</b>					<b>Bottom of Interval</b>					<b>5,642 ft</b>								
03/02/2007	2,771	52	8.50	28	2	1									12.50	3.40	0.80	1.17	1,600	520		0.10	1.2	1.197		98.5	5.0	3.0					
03/02/2007	3,245	52	8.60	38	6	10	1	4		20.0		2			12.40	2.50	1.00	1.10	1,500	600		0.10	1.91	1.852		97.8	22.0	16.0					
03/02/2007	0		9.20																105,000				-0.48	-0.32		94.4							
03/02/2007	3,290	50	8.60	28	2	1	1	1							12.50	13.00	1.90	2.00	1,400	480		0.10	1.91	1.851		97.8	5.0	3.0					
03/03/2007	3,745	58	8.40	28	2	1	1	1							12.50	6.50	2.10	2.40	1,500	480		0.10	0.5	0.541		99.2	5.0	3.0					
03/03/2007	3,780	60	8.60	28	2	1	1	1							12.50	6.30	2.00	2.35	1,500	480		0.10	2.01	2.053		97.7	5.0	3.0					
03/03/2007	3,700	58	8.60	39	4	10	7	9	11	20.0		2			12.30	4.70	2.40	3.40	1,500	80		0.10	2.01	2.053		97.7	18.0	14.0					
03/04/2007	4,695	65	8.40	35	6	9	15	16		20.0		2			12.60	7.50	1.96	2.30	1,100	240		2.50	0.52	0.537		99.2	21.0	15.0					
03/04/2007	2,695	65	8.40	37	7	13	16	16		20.0		2			12.60	8.80	1.80	2.60	1,100	280		3.50	0.52	0.537		99.2	27.0	20.0					
03/05/2007	5,128	80	8.60	28	2					20.0					8.70	0.06	0.04	0.16	20,600	5,000		0.01	0.51	0.481		98.3	4.0	2.0					
03/05/2007	5,136	80	8.70	28	2					20.0					8.70	0.45	0.06	0.20	20,600	5,000	2.5	0.01	1.32	1.34		97.5	4.0	2.0					
03/05/2007	4,838	80	8.70	55	10	25				20.0		3			10.10	0.80	0.31	0.51	41,000	7,480		0.01	-0.09	-0.04		97.8	45.0	35.0					
03/06/2007	5,369	80	8.60	42	9	10				20.0		2			8.40		0.03	0.17	26,000	5,600		0.01	0.13	0.098		98.4	28.0	19.0					
03/06/2007	5,599	80	8.80	28	2	1				20.0		1			7.70	1.20		0.13	11,000	2,280	2.5	0.01	2.7	2.656		96.6	5.0	3.0					

**Fluid Property Recap : Water-Based Fluid**

Date	Depth ft	FL Temp Deg F	Density ppg	Funn Visc sec/qt	Rheology 50 Deg F				Filtration					Filtrate Analysis					MBT ppb Eq.	Sand % by vol	Retort Analysis				Rheometer Dial Readings								
					PV cP	lbs/100 ft2				API ml/30 min	HTHP ml/30 min	Cake API 32nd in	Cake HTHP	Temp Deg F	pH	Pm ml	Pf ml	Mf ml			Cl mg/l	Total Hardness mg/l	% by vol				600	300	200	100	6	3	
						YP	10S	10M	30M														Corr Solid	LGS	NAP Base	Water							
03/06/2007	5,636	80	8.80	29	2	1			20.0		1			7.70	1.25		0.15	11,000	2,400		0.01	2.7	2.656		96.6	5.0	3.0						
<b>Interval # 03</b>					<b>From Date</b>					<b>03/07/2007</b>					<b>Top of Interval</b>					<b>5,900 ft</b>													
<b>Max. Hole Size / Bit Size</b>					<b>8.750 / 8.750 in</b>					<b>To Date</b>					<b>03/17/2007</b>					<b>Bottom of Interval</b>					<b>7,700 ft</b>								
03/08/2007	6,075	70	10.10	30	2	1			20.0					7.20			0.45	189,000	36,560		0.10	0.99	1.027		87.7	5.0	3.0						
03/08/2007	6,160	70	10.10	30	2	1			20.0					7.10			0.42	189,000	36,000		0.01	0.99	1.027		87.7	5.0	3.0						
03/09/2007	6,479	70	10.20	30	2	1			11.2					9.20	1.75	0.85	2.05	189,000	40,000		0.01	1.78	1.761		87	5.0	3.0						
03/09/2007	6,481	70	10.20	30	2	1			28.0					9.10	1.67	0.85	2.00	188,000	38,000		0.01	1.85	1.837		87	5.0	3.0						
03/09/2007	6,257	65	10.10	44	9	10			20.0		1			7.90			0.35	187,000	36,000		0.01	1.14	1.18		87.7	28.0	19.0						
03/10/2007	7,009	70	10.20	30	2	1			20.0					9.40	2.62	1.85	3.25	188,000	32,000		0.01	1.85	1.837		87	5.0	3.0						
03/10/2007	6,993	70	10.10	30	2	1			20.0					10.40	7.52	3.84	4.30	188,000	32,000		0.01	1.06	1.104		87.7	5.0	3.0						
03/11/2007	7,399	70	10.10	30	2	1			20.0					9.40	2.55	1.87	3.75	188,000	32,000		0.01	1.06	1.104		87.7	5.0	3.0						
03/11/2007	7,407	70	10.20	31	2	1			20.0					9.30	2.75	1.90	3.85	188,000	32,000		0.01	1.85	1.837		87	5.0	3.0						
03/12/2007	7,432	70	10.10	30	2	1			20.0					9.30	2.50	1.80	3.70	188,000	32,000		0.01	1.06	1.104		87.7	5.0	3.0						
03/13/2007	7,570	71	10.10	31	2	1			20.0					9.40	2.70	0.50	2.42	188,000	32,000		0.01	1.06	1.104		87.7	5.0	3.0						
03/13/2007	7,570	71	10.20	32	2	1			20.0					9.50	2.63	1.50	3.40	188,000	32,000		0.01	1.85	1.837		87	5.0	3.0						
03/14/2007	7,665	76	10.20	32	2	1			20.0					10.50	4.50	3.80	5.00	188,000	34,000		0.01	1.85	1.837		87	5.0	3.0						
03/14/2007	7,669	76	10.20	31	2	1			20.0					4.00	4.00	3.30	4.80	188,000	34,000		0.01	1.85	1.837		87	5.0	3.0						
03/15/2007	7,700	65	10.20	32	2	2			18.0					10.20	3.80	3.00	4.40	188,000	34,000		0.01	1.85	1.837		87	6.0	4.0						
03/16/2007	7,700		10.20	32	2	2			20.0					9.50	2.40	1.43	3.21	188,000	34,000		0.01	1.85	1.837		87	6.0	4.0						
<b>Interval # 04</b>					<b>From Date</b>					<b>03/18/2007</b>					<b>Top of Interval</b>					<b>7,696 ft</b>													
<b>Max. Hole Size / Bit Size</b>					<b>6.000 / 6.000 in</b>					<b>To Date</b>					<b>03/26/2007</b>					<b>Bottom of Interval</b>					<b>7,616 ft</b>								
03/18/2007	7,696	64	8.40	28	1									9.40		0.07	0.27	1,900	280		0.01	0.39	0.342		99.3	2.0	1.0						
03/19/2007	7,775		8.40	28	1	1			20.0					11.10	0.07	0.08	0.15	5,900	480		0.01	0.12	0.119		99.4	3.0	2.0						
03/20/2007	7,891	68	8.50	29	1	1			20.0					11.00	0.17	0.08	0.21	10,000	3,400		0.01	0.53	0.507		98.8	3.0	2.0						
03/21/2007	7,888		8.50	29	1	1			20.0					10.90	0.16	0.08	0.20	9,800	3,400		0.01	0.54	0.511		98.8	3.0	2.0						
03/22/2007	7,888	70	8.40	29	2				20.0					8.30		0.02	0.10	5,700	960		0.01	0.13	0.122		99.4	4.0	2.0						
03/23/2007	7,888	80	8.40	30	2	2			8.0					10.00	0.10	0.02	0.20	4,300	640		0.01	0.29	0.336		99.3	6.0	4.0						

**Fluid Property Recap : Water-Based Fluid**

Date	Depth ft	FL Temp Deg F	Density ppg	Funn Visc sec/qt	Rheology 50 Deg F				Filtration					Filtrate Analysis					MBT ppb Eq.	Sand % by vol	Retort Analysis				Rheometer Dial Readings										
					PV cP	lbs/100 ft2				API ml/30 min	HTHP ml/30 min	Cake API 32nd in	Cake HTHP	Temp Deg F	pH	Pm ml	Pf ml	Mf ml			Cl mg/l	Total Hardness mg/l	% by vol				600	300	200	100	6	3			
						YP	10S	10M	30M														Corr Solid	LGS	NAP Base	Water									
03/24/2007	7,624	70	8.50	30	3	2				19.2					12.10	6.40	0.35	0.53	4,700	680		0.01	0.97	0.99		98.6	8.0	5.0							
03/25/2007	7,888	70	8.40	30	3	2				20.0					11.80	6.00	0.33	0.51	4,700	600		2.00	0.17	0.13		99.4	8.0	5.0							
03/26/2007	7,521	75	8.40	28	2	1				20.0					12.30	6.00	1.00	1.25	4,700	720		1.00	0.17	0.13		99.4	5.0	3.0							
03/26/2007	7,545	75	8.50	28	2	1				20.0					12.50	6.00	1.30	1.80	4,700	760		1.00	0.97	0.99		98.6	5.0	3.0							
<b>Interval # 05</b>					<b>From Date</b>					<b>03/27/2007</b>					<b>Top of Interval</b>					<b>7,706</b>		<b>ft</b>													
<b>Max. Hole Size / Bit Size</b>					<b>4.750 / 4.750 in</b>					<b>To Date</b>					<b>04/02/2007</b>					<b>Bottom of Interval</b>					<b>8,709</b>		<b>ft</b>								
03/27/2007	7,685	70	8.40	27	2	1				20.0					12.00	0.16	0.20	0.31	700	120		0.01	0.53	0.531		99.2	5.0	3.0							
03/28/2007	7,709	58	8.40	30	2	1				20.0					12.20	0.32	0.35	0.48	1,100	200		0.01	0.52	0.538		99.2	5.0	3.0							
03/29/2007	7,778	50	8.40	28	2	1				20.0					12.10	0.30	0.30	0.40	900	160		0.01	0.53	0.535		99.2	5.0	3.0							
03/29/2007	7,787	50	8.40	28	2	1				20.0					11.80	0.10	0.11	0.20	900	120		0.01	0.53	0.535		99.2	5.0	3.0							

# Operations Log Recap

Interval	01	From Date	001	Top of Interval	478 ft
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	009	Bottom of Interval	3,264 ft
For Report	# 001	On	02/21/2007	Operation at Depth	478 ft
Rig Activity	Make up BHA Rig service Test mud motor Commence drilling 12.25 in hole @1000 hrs from 0 ft to 191 ft Drill from 191 ft to 500 ft  HV/LCM Sweeps 20 bbl 148 ft @1532 hrs 20 bbl 233 ft @2302 hrs				
Activity	Drilling				
Fluid Treatment	Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-100 ft. of new hole drilled  Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBERPLUG				
For Report	# 002	On	02/22/2007	Operation at Depth	1,192 ft
Rig Activity	Survey @ 500 ft Drill 532 ft to 84 ft Rig service Drill 804 ft to 990 ft Drill 990 ft to 1044 ft Pump soft lie Attempt to pull out of hole pipe stuck @ 995 ft POOH looking for washout Inspect bit and test mud motor TIH to 803 ft Wash and ream 803 ft to 1044 ft Drill 1044 ft to 1083 ft Survey @1053 ft Drill 1083 ft to 1239 ft  Sweeps 20 bbl 300 ft @0138 hrs 20 bbl 385 ft @0320 hrs 20 bbl 478 ft @0557 hrs 20 bbl 532 ft @0755 hrs 20 bbl 659 ft @1100 hrs 20 bbl 780 ft @1250 hrs 20 bbl 910 ft @1640 hrs 20 bbl 1031 ft @1915 hrs				
Activity	Drilling				
Fluid Treatment	Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-100 ft. of new hole drilled  Sweeps should include: 10-12 sx of AQUAGEL GS				

# Operations Log Recap

Interval	01	From Date	001	Top of Interval	478 ft
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	009	Bottom of Interval	3,264 ft
		3-4 sx of Drilling Paper 3-4 sx of FIBERPLUG			
For Report	# 003	On	02/23/2007	Operation at Depth	1,989 ft
Rig Activity	Drill 1208 ft to 1637 ft Wire line survey @1544 ft Circulate hole (tight spot) Drill 1637 ft to 1692 ft Rig service Drill 1692 ft to 1710 ft Drill 1710 1842 ft Drill 1842 ft to 2018 ft  HV/LCM Sweeps 20 bbl 1233 ft @0723 hrs 20 bbl 1368 ft @0956 hrs 20 bbl 1379 ft @1008 hrs 20 bbl 1496 ft @1150 hrs 20 bbl 1577 ft @1318 hrs 20 bbl 1689 ft @1705 hrs 20 bbl 1721 ft @1951 hrs 20 bbl 1818 ft @2257 hrs				
Activity	Drilling				
Fluid Treatment	Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-100 ft. of new hole drilled  Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBERPLUG				
For Report	# 004	On	02/24/2007	Operation at Depth	2,412 ft
Rig Activity	Drill 2018 ft 2078 ft Survey @ 2077 ft Rig service Drill 2078 ft to 2201 ft Circulate bottoms up @ 2201 ft TOO H TOO H (Change bits) TIH make up bit #2 Wash and ream 2111 ft to 2201 ft Drill 2201 ft to 2236 ft Drill 2236 ft to 2438 ft  Sweeps 20 bbl 1910 ft @ 0238 hrs 20 bbl 2004 ft @ 0617 hrs 20 bbl 2089 ft @ 1011 hrs 40 bbl 2198 ft @ 1650 hrs (ENVIRO-TORQ)				
Activity	Drilling				
Fluid Treatment	Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-100 ft. of new hole drilled  Add ENVRO-TORQ to sweeps to help lubricate the hole				

# Operations Log Recap

Interval	01	From Date	001	Top of Interval	478 ft	
Max. Hole Size / Bit Size	12.250 / 12.250	in	To Date	009	Bottom of Interval	3,264 ft
			Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBERPLUG			
For Report	# 005	On	02/25/2007	Operation at Depth	2,997 ft	
Rig Activity	Drill 2438 ft to 2577 ft Wire line survey Drill 2577 ft to 2672 ft Rig service Drill 2672 ft to 2762 ft Work on top drive Drill 2762 ft to 2841 ft Pull 2 stands, check unloader valve on top drive TIH wash and ream 2811 ft to 2841 ft Drill 2841 ft to 2848 ft Drill 2848 ft to 3030 ft Sweeps 40 bbl 2287 ft @ 0135 hrs (ENVIRO-TORQ) 40 bbl 2389 ft @ 0507 hrs (ENVIRO-TORQ) 20 bbl 2467 ft @ 0807 hrs 20 bbl 2653 ft @ 1349 hrs 20 bbl 2831 ft @ 2158 hrs					
Activity	Drilling					
Fluid Treatment	Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-100 ft. of new hole drilled  Add ENVIRO-TORQ to sweeps to help lubricate the hole  Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBER PLUG					
For Report	# 006	On	02/26/2007	Operation at Depth	3,264 ft	
Rig Activity	Drill 3038 ft to 3044 ft Survey @2982 ft Rig Service Drill 3044 ft to 3237 ft Drill 3237 ft to 3264 ft TD Pump 40 bbl sweep bottoms up Run survey @3200 ft Pump 40 bbl sweep bottoms up TOOH 26 stands to 1150 ft Tight spot (2700-2900) TOOH (842) TIH 842 ft to 2705 ft (tight spot) Build sweep ream@2793 ft  Sweeps 20 bbl 2937 ft @0304 hrs 20 bbl 3027 ft @0626 hrs 40 bbl 3074 ft @1030 hrs 40 bbl 3119 ft @1345 hrs 20 bbl 3176 ft @1642 hrs 20 bbl 3214 ft @1807 hrs 40 bbl 3264 ft @1940 hrs					

# Operations Log Recap

Interval	01	From Date	001	Top of Interval	478 ft	
Max. Hole Size / Bit Size	12.250 / 12.250	in	To Date	009	Bottom of Interval	3,264 ft
		40 bbl 3264 ft @2118 hrs				
Activity		Tripping				
Fluid Treatment		Add 1, 5 gallon bucket of CRYSTAL-DRIL every 200 ft of new hole drilled. Run HV/LCM sweep every 60-100 ft. of new hole drilled Add ENVIRO-TORQ to sweeps to help lubricate the hole Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBER PLUG				
For Report	# 007	On	02/27/2007	Operation at Depth	3,264 ft	
Rig Activity		Rig service Pump 40 bbl sweep TOO (tight hole) Held safety meeting w/lay sown crew Lay down 4- 8" DC/Shock sub/mud motor Rig up casing crew /held safety meeting Run 9 5/8 in casing Wash down casing 3130 ft to 3263 Circulate 9 5/8 in casing 3253 ft Rig up Halliburton cement Squeeze cement				
Activity		Squeeze Cement				
Fluid Treatment		No treatments needed at this time				
For Report	# 008	On	02/28/2007	Operation at Depth	3,264 ft	
Rig Activity		Pump cement/set plug @3212 Rig sown diverter line, HCR valve, flowline Back off landing Lay down Hydrill and conductor Rig up Halliburton/ pump cement top off to surface Install well head Nipple up BOP Test BOP				
Activity		Testing B.O.P.				
Fluid Treatment		Add BARACAT to settle solids				
For Report	# 009	On	03/01/2007	Operation at Depth	3,264 ft	
Rig Activity		Nipple up BOP Test BOP Install wear bushings Make up drill pipe stands Work on wear bushings Finish making up drill pipe stands				
Activity		Repair rig				
Fluid Treatment		Add 1, 5 gallon bucket of BARACAT every 200 ft of new hole drilled. Run HV/LCM sweep every 60-100 ft. of new hole drilled				

# Operations Log Recap

Interval	01		From Date	001	Top of Interval	478	ft
Max. Hole Size / Bit Size	12.250 / 12.250	in	To Date	009	Bottom of Interval	3,264	ft
			Add ENVRO-TORQ to sweeps to help lubricate the hole				
			Sweeps should include: 10-12 sx of AQUAGEL GS 3-4 sx of Drilling Paper 3-4 sx of FIBERPLUG				

# Operations Log Recap

Interval	02	From Date	010	Top of Interval	3,264 ft
Max. Hole Size / Bit Size	8.750 / 8.750 in	To Date	014	Bottom of Interval	5,642 ft
For Report	# 010	On	03/02/2007	Operation at Depth	3,344 ft
Rig Activity	<p>TIH to 2100 ft Thaw kelly lines TIH and tag cement at 2481 ft Change out saver sub Install rotating rubber Drill cement to 2690 ft Service rig Currently drilling ahead at 3344 ft</p> <p>We continued pumping 20 bbl sweeps every 60-90 ft and have had no trouble maintaining full returns</p> <p>Sweeps were mad as follows: 38 vis 6PV / 10 YP 6 ppb LCM</p> <p>Sweeps were pumped at the following depths and times 2:00 am / 20 bbls / 3200 ft 3:30 am / 20 bbls / 3260 ft 5:20 am / 20 bbls / 3325 ft</p>				
Activity	Drilling				
Fluid Treatment	<p>Add 1, 5 gallon bucket of BARACAT every 200 ft of new hole drilled.</p> <p>Run HV/LCM sweep every 60-100 ft. of new hole drilled</p> <p>Add ENVRO-TORQ to sweeps to help lubricate the hole</p> <p>Sweeps should include: 12 sx of AQUAGEL GS 3 sx of Drilling Paper 3 sx of FIBERPLUG</p>				
For Report	# 011	On	03/03/2007	Operation at Depth	4,040 ft
Rig Activity	<p>Drilled ahead to 3360 ft Serviced rig Cleaned the top drive radiator Drilled ahead to 3720 ft Survey at 3687 ft - .5 deg Currently drilling ahead at 4040 ft</p> <p>We continued pumping 20 bbl sweeps every 60-90 ft and have had no trouble maintaining full returns</p> <p>Sweeps were mad as follows: 40 vis 4PV / 10 YP 6 ppb LCM</p> <p>Sweeps were pumped at the following depths and times 8:15 am / 20 bbls / 3400 ft 11:20 am / 20 bbls / 3500 ft 2:00 pm / 20 bbls / 3595 ft</p>				

# Operations Log Recap

Interval	02	From Date	010	Top of Interval	3,264 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	014	Bottom of Interval	5,642 ft
			6:45 pm / 20 bbls / 3682 ft 7:15 pm / 20 bbls / 3705 ft 10:00 pm / 20 bbls / 3780 ft 1:40 am / 20 bbls / 3905 ft 4:50 am / 20 bbls / 4000 ft			
Activity			Drilling			
Fluid Treatment			Add 1, 5 gallon bucket of BARACAT every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-90 ft. of new hole drilled  Add ENVRO-TORQ to sweeps to help lubricate the hole  Sweeps should include: 2 sx Sodium Bicarbonate (mixed first) 12 sx of AQUAGEL GS 3 sx of Drilling Paper 3 sx of FIBERPLUG			
<b>For Report</b>	<b># 012</b>	<b>On</b>	<b>03/04/2007</b>	<b>Operation at Depth</b>	<b>4,722 ft</b>	
Rig Activity			Drill 4067 ft to 4281 ft Survey @4249 ft Rig service Drill 4281 ft to 4440 ft Drill 4440 ft to 4590 ft Drill 4590 ft to 4750 ft  Sweeps 0140 hrs-20 bbl-3906 ft 0456 hrs-20 bbl-3998 ft 0840 hrs-20 bbl-4099 ft 1125 hrs-20 bbl-4190 ft 1237 hrs-20 bbl-4254 ft 1626 hrs-20 bbl-4342 ft 1856 hrs-20 bbl-4437 ft 2035 hrs-20 bbl-4490 ft			
Activity			Drilling			
Fluid Treatment			Add 1, 5 gallon bucket of BARACAT every 200 ft of new hole drilled.  Run HV/LCM sweep every 60-90 ft. of new hole drilled  Add ENVRO-TORQ to sweeps to help lubricate the hole  Sweeps should include: 2 sx Sodium Bicarbonate (mixed first) 12 sx of AQUAGEL GS 3 sx of Drilling Paper 3 sx of FIBERPLUG			
<b>For Report</b>	<b># 013</b>	<b>On</b>	<b>03/05/2007</b>	<b>Operation at Depth</b>	<b>5,185 ft</b>	
Rig Activity			Drill 4736 ft to 4749 ft Clean pumps TOOH to 3224 ft Clean pumps and mud tanks TIH to 4728 ft Displace hole with 8.4 ppg water Drill 4749 ft to 4841 ft Survey @4808			

# Operations Log Recap

Interval	02	From Date	010	Top of Interval	3,264 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	014	Bottom of Interval	5,642 ft
			Rig service Drill 4841 ft to 4900 ft Drill 4900 ft to 5052 ft Drill 5050 ft to 5200 ft  Sweeps 0038 hrs-20 bbl-4616 ft 0341 hrs-20 bbl-4675 ft 1719 hrs-20 bbl-4842 ft 2027 hrs-20 bbl-4941 ft 2218 hrs-20 bbl-5011 ft			
Activity			Drilling			
Fluid Treatment			Dilute with water to make up for losses over the shakers and down hole. Add 1, 5 gallon bucket of BARACAT at the sand trap to settle solids Empty sand trap as often as dictated  Run HV/LCM sweep every 60-90 ft. of new hole drilled  Add ENVRO-TORQ to sweeps to help lubricate the hole  Sweeps should include: 15 sx of ZEOGEL 4-5 sx of Drilling Paper			
<b>For Report</b>	<b># 014</b>	<b>On</b>	<b>03/06/2007</b>	<b>Operation at Depth</b>	<b>5,642 ft</b>	
Rig Activity			Drill 5200 ft to 5309 ft Survey @5277 ft Rig service Drill 5309 ft to 5429 ft Drill 5429 ft to 5495 ft Run survey @5465 ft Drill 5495 ft to 5532 ft Drill 5532 ft to 5700  Sweeps 0136 hrs-20 bbl-5092 ft 0554 hrs-20 bbl-5180 ft 0938 hrs-40 bbl-5270 ft 1605 hrs-40 bbl-1605 ft 1947 hrs-20 bbl-5455 ft 2328 hrs-20 bbl-5519 ft			
Activity			Drilling			
Fluid Treatment			Maximize solids control Dilute with water to make up for losses over the shakers and down hole. Add 1, 5 gallon bucket of BARACAT at the sand trap to settle solids Empty sand trap as often as dictated  Run HV/LCM sweep every 60-90 ft. of new hole drilled  Add ENVRO-TORQ to sweeps to help lubricate the hole  Sweeps should include: 15 sx of ZEOGEL 4-5 sx of Drilling Paper			

# Operations Log Recap

Well Name  
Operator  
Contractor  
Rig No  
Unit System

SC#11  
Kinder Morgan Energy  
Express Drilling service  
EXP 12  
API pre-defined system

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# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft
Max. Hole Size / Bit Size	8.750 / 8.750 in	To Date	025	Bottom of Interval	7,700 ft
For Report	# 015	On	03/07/2007	Operation at Depth	5,900 ft
Rig Activity	Drill 5685 ft to 5900 ft Pump 40 bbl HV sweep/Circulate bottoms up TOOH Safety meeting with scope inspector Inspect DC, Jars, BHDC Make up bit and TIH  Sweeps 0107 hrs-20 bbl-5560 ft 0347 hrs-20 bbl-5622 ft 1131 hrs-40 bbl-5776 ft 1525 hrs-40 bbl-5857 ft 1842 hrs-40 bbl-5900 ft				
Activity	Tripping				
Fluid Treatment	No treatments needed at this time				
For Report	# 016	On	03/08/2007	Operation at Depth	6,200 ft
Rig Activity	Rig service TIH to 1600 ft Repair flowline, clean pits, fill pits with brine TIH to 5900 ft Displace hole with brine Drill 5900 ft to 5920 ft Drill 5920 ft to 5962 ft Survey @5931 ft Drill 5962 ft to 5973 ft Drill 5973 ft to 5992 ft Circulate an mix salt Drill 5992 ft to 6200 ft  Sweeps 2019 hrs-20 bbl-5941 ft				
Activity	Drilling				
Fluid Treatment	Continue pumping 40 bbl Sweeps every 60-100 feet drilled 10 sx ZEOGEL 4 sx DRILLING PAPER 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 5 boxes of SOURSCAV (for H2S) 2 sx IMPERMEX (for fluid loss) 1 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1-5 gallon can of LIQUI-DRIL  Maintain pH of 10.5 or higher using caustic soda				
For Report	# 017	On	03/09/2007	Operation at Depth	6,486 ft
Rig Activity	Unplug the gas buster Repair gas buster Drill 6200 ft to 6268 ft Rig service Drill 6268 ft to 6359 ft				

# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	025	Bottom of Interval	7,700 ft
	Drill 6359 ft to 6495 ft					
	Sweeps 0439 hrs-20 bbl-6470 ft 1355 hrs-20 bbl-6238 ft 1717 hrs-20 bbl-6299 ft 2228 hrs-40 bbl-6431 ft					
Activity	Drilling					
Fluid Treatment	Continue pumping 40 bbl Sweeps every 60-100 feet drilled 8 sx ZEOGEL 4 sx DRILLING PAPER 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 2 boxes of SOURSCAV (for H2S) 2 sx IMPERMEX (for fluid loss) 1 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1-5 gallon can of LIQUI-DRIL  Maintain pH of 10.5 or higher using caustic soda					
<b>For Report</b>	<b># 018</b>	<b>On</b>	<b>03/10/2007</b>	<b>Operation at Depth</b>	<b>7,048 ft</b>	
Rig Activity	Drill 6500 ft to 6677 ft Circulate H2S gas out Replace rotating rubber Drill 6677 ft to 6860 ft Drill 6860 ft to 7100 ft  Sweeps 0123 hrs-40 bbl-6470 ft 0530 hrs-40 bbl-6488 ft 1101 hrs-20 bbl-6584 ft 1253 hrs-20 bbl-1253 ft 2213 hrs-40 bbl-6815 ft					
Activity	Drilling					
Fluid Treatment	Continue pumping 40 bbl Sweeps every 60-100 feet drilled 8 sx ZEOGEL 4 sx DRILLING PAPER 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 4 boxes of SOURSCAV (for H2S) 2 sx IMPERMEX (for fluid loss) 1 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1-5 gallon can of LIQUI-DRIL  Maintain pH of 10.5 or higher using caustic soda					
<b>For Report</b>	<b># 019</b>	<b>On</b>	<b>03/11/2007</b>	<b>Operation at Depth</b>	<b>7,422 ft</b>	
Rig Activity	Drill 7100 ft to 7237 ft Rig service Drill 7237 ft to 7300 ft Drill 7300 ft to 7378 ft Drill 7378 ft to 7423 ft (Drain gas buster every hour)					

# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	025	Bottom of Interval	7,700 ft
		Sweeps 0021 hrs-40 bbl-6867 ft 0151 hrs-20 bbl-6926 ft 0342 hrs-20 bbl-6997 ft 0519 hrs-40 bbl-7028 ft 0800 hrs-20 bbl-7148 ft 1229 hrs-40 bbl-7205 ft 1724 hrs-40 bbl-7275 ft 2027 hrs-40 bbl-7321 ft				
Activity		Drilling				
Fluid Treatment		Continue pumping 40 bbl Sweeps every 60-100 feet drilled 8 sx ZEOGEL 4 sx DRILLING PAPER 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 4 boxes of SOURSCAV (for H2S) 2 sx IMPERMEX (for fluid loss) 1 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1-5 gallon can of LIQUI-DRIL 1-55 gal drum DA320  Maintain pH of 10.5 or higher using caustic soda				
<b>For Report</b>	<b># 020</b>	<b>On</b>	<b>03/12/2007</b>	<b>Operation at Depth</b>	<b>7,432 ft</b>	
Rig Activity		Drill 7423 ft to 7432 ft Circulate bottoms up TOH 7432 ft to 6151 ft Free elevators stuck on hard band below tool joint TOH 6151 ft to 3170 ft Cut 116 ft of drill line/slipped 85 ft back on TOH Lay down 1 joint DP/Pick up Gamma Ray tools TIH DC/ test tools TIH  Sweeps 0008 hrs-40 bbl-7381 ft 0401 hrs-40 bbl-7411 ft				
Activity		Tripping				
Fluid Treatment		Continue pumping 40 bbl Sweeps every 60-100 feet drilled 10-15 sx ZEOGEL 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 4 boxes of SOURSCAV (for H2S) 2 sx IMPERMEX (for fluid loss) 1 sx FILTER-CHEK (for fluid loss) 1 can OXYGON  Add for H2S 1-55 gal drum DA320 every 2-4 hrs  Maintain pH of 10.5 or higher using caustic soda				

# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft
Max. Hole Size / Bit Size	8.750 / 8.750 in	To Date	025	Bottom of Interval	7,700 ft
For Report	# 021	On	03/13/2007	Operation at Depth	7,570 ft
Rig Activity	Wash and ream 7148 ft to 7432 ft Circulate bottoms up (no H2S ) Drill 7432 ft to 7527 ft Rig service Drill 7527 ft to 7537 ft Drill 7537 ft to 7570 ft TOH to 5800 ft Change packing in top drive TIH 7570  Sweeps 1439 hrs-40 bbl-7500 ft				
Activity	Tripping				
Fluid Treatment	Continue pumping 40 bbl Sweeps every 60-100 feet drilled 10-15 sx ZEOGEL 25-30 gal ENVIRO-TORQ  Every 2 hrs add: 3 sx IMPERMEX (for fluid loss) 2 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1 can LIQUIDRIL  Add for H2S every 2 Hrs 2 boxes of SOURSCAV 1-55 gal drum DA320 every 2-4 hrs  Maintain pH of 10.5 or higher using caustic soda				
For Report	# 022	On	03/14/2007	Operation at Depth	7,672 ft
Rig Activity	Drill 7580 ft to 7618 ft Rig service Drill 7618 ft to 7619 ft Circulate bottoms up for samples Drill 7619 ft to 7629 ft Circulate bottoms up for samples Drill 7629 ft to 7634 ft Drill 7634 ft to 7639 ft Circulate bottoms up for samples Drill 7639 ft to 7649 ft Circulate bottoms up for sample Drill 7649 ft to 7659 ft Circulate bottoms up for samples Drill 7659 ft to 7669 ft Circulate bottoms up for samples Drill 7669 ft to 7672 ft  Sweeps 0130 hrs-40 bbl-7592 ft				
Activity	Drilling				
Fluid Treatment	Continue pumping 40 bbl Sweeps every 60-100 feet drilled 10-15 sx ZEOGEL 25-30 gal ENVIRO-TORQ  Every 2 hrs add:				

# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	025	Bottom of Interval	7,700 ft
		3 sx IMPERMEX (for fluid loss) 2 sx FILTER-CHEK (for fluid loss) 1 can OXYGON 1 can LIQUIDRIL  Add for H2S every 2 Hrs 1-55 gal drum DA320 every 4 hrs  Maintain pH of 10.5 or higher using caustic soda				
<b>For Report</b>	<b># 023</b>	<b>On</b>	<b>03/15/2007</b>	<b>Operation at Depth</b>	<b>7,700 ft</b>	
Rig Activity	Circulate bottom up Re log hole 7652 ft to 7682 ft Stand by for orders Drill 7679 ft to 7690 ft Circulate bottoms up Drill 7690 ft to 7900 ft Circulate bottoms up/ Re log 7675 ft to 7900 ft Circulate/ wait for sample Short trip 7575 ft to 7700 Mix and pump sweep/ circulate bottoms up Pump sweep/Circulate bottoms up Spot HV pill @ 7700 ft 1500 strokes TOH/Lay down 4.5" DP  Sweeps 0130 hrs-40 bbl-7659 ft 1852 hrs-40 bbl-7700 ft 1955 hrs-40 bbl-7700 ft HV Pill 2146 hrs-40 bbl-7700 ft					
Activity	Tripping					
Fluid Treatment	Add for H2S 1-55 gal drum DA320 every 2-4 hrs  Maintain pH of 10.5 or higher using caustic soda					
<b>For Report</b>	<b># 024</b>	<b>On</b>	<b>03/16/2007</b>	<b>Operation at Depth</b>	<b>7,700 ft</b>	
Rig Activity	Rig down L/D machine Rig up polychrome tools Pull wear bushings Rig up casing crew Run casing to 851' Run chrome casing Crew change/continue to run casing Run chrome casing Fill Pipe @ 3800' Run chrome casing					
Activity	Run casing and cement					
Fluid Treatment	Add for H2S 1-55 gal drum DA320 every 2-4 hrs  Maintain pH of 10.5 or higher using caustic soda					
<b>For Report</b>	<b># 025</b>	<b>On</b>	<b>03/17/2007</b>	<b>Operation at Depth</b>	<b>7,700 ft</b>	
Rig Activity	Run casing 6300 ft to 6682 ft Fill pipe/ run casing 6682 ft to 7696 ft					

# Operations Log Recap

Interval	03	From Date	015	Top of Interval	5,900 ft	
Max. Hole Size / Bit Size	8.750 / 8.750	in	To Date	025	Bottom of Interval	7,700 ft
	Circulate out H2S 20 ppm at surface Rig down casing crews Stand by for cementers Rig up cementers Rig up cementers Run cement Rig down Halliburton Wait on cement Nipple down stack to set casing slips					
Activity	Nipple up B.O.P.					
Fluid Treatment	No treatments needed at this time					

# Operations Log Recap

Interval	04	From Date	026	Top of Interval	7,696 ft	
Max. Hole Size / Bit Size	6.000 / 6.000	in	To Date	034	Bottom of Interval	7,616 ft
For Report	# 026	On	03/18/2007	Operation at Depth	7,696 ft	
Rig Activity	Wait on cement/monitor flow Check for flow/ had flow @panic line Wait on cement/ change swab liners 6"-4.5" Checked for flow @ panic line Attempt to nipple down Rig service While waiting on cement/fixed rotary counter on top drive/changed swab liners Nipple down BOP/ pick up stack Set 7" casing slips 175 K hang off weight Cut 7" casing Nipple up BOP Change 4.5 rams with 3.5 rams install 2 7/8 rams Change elevators					
Activity	Wait on...					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If nessesary settle solids using BARACAT  Empty sand trap at every connection					
For Report	# 027	On	03/19/2007	Operation at Depth	7,775 ft	
Rig Activity	Make up bit #6 TIH 4.75" DC and 3.5" DP to 534 ft Break circulation to check float (held 10 min safety meeting) rig up Pick up machine P/U 3.5" DP 534 ft to 2228 ft Rig service While waiting on welder to fix pick up machine/Finish change swabs and liner in #1 pump Pick up 3.5" DP 2228 ft to 6053 ft Pick up and run 3.5" DP (tagged cement @7560 ft Fill pipe / break circulation Close top pipe rams/ test casing and pipe rams @ 1000 psi Drill out cement and float 7560 ft to 7770 ft Drill 7770 ft to 7775 ft					
Activity	Drilling					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If nessesary settle solids using BARACAT  Empty sand trap at every connection					
For Report	# 028	On	03/20/2007	Operation at Depth	7,888 ft	
Rig Activity	Drill 7800 ft to 7888 ft Circulate bottoms up Pump sweep circulate bottoms up TOH Rig up Wire line logs Run wire line logs Wire line stuck @7848 ft					

# Operations Log Recap

Interval	04	From Date	026	Top of Interval	7,696 ft	
Max. Hole Size / Bit Size	6.000 / 6.000	in	To Date	034	Bottom of Interval	7,616 ft
Activity	Pull out top rope socket/pull out of hole/rig down Halliburton wire line truck Wait on fishing tools/ monitor well					
Activity	Wait on...					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If nessesary settle solids using BARACAT  Empty sand trap at every connection					
<b>For Report</b>	<b># 029</b>	<b>On</b>	<b>03/21/2007</b>	<b>Operation at Depth</b>	<b>7,888 ft</b>	
Rig Activity	Pick up fishing tools TIH tag fish @ 7811 ft Attempt to hook on to fish TOH parted fish @fishing neck Reload over shot TIH to 3275 ft TIH to 7811 ft Wash over and latch onto fish Jarred fish Jarred fish free/ TOH Finish TOH Fish parted (recover 3' of tool) Slip and cut 100' of drill line Wait for wash over fishing tools (monitor well)					
Activity	Wait on...					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If nessesary settle solids using BARACAT  Empty sand trap at every connection					
<b>For Report</b>	<b># 030</b>	<b>On</b>	<b>03/22/2007</b>	<b>Operation at Depth</b>	<b>7,888 ft</b>	
Rig Activity	Pick up fishing tools TIH 7839 ft Fill pipe and wash over fish 7795 ft to 7839 ft TOH (caught fish) Breakdown fish/ Lay down fishing tools Lay down wash over pipe TIH 5200 ft Break circulation @ 5200 ft Finish TIH 7700 ft Wash and ream 7700 ft to 7888 ft Circulate and condition mud (2 sweeps) TOH 7888 ft  Sweeps 0224 hrs-40 bbl- 63 vis 3.5 ppb paper 0345 hrs-40 bbl- 60 vis 2.5 ppb paper					
Activity	Tripping					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment					

# Operations Log Recap

Interval	04	From Date	026	Top of Interval	7,696 ft	
Max. Hole Size / Bit Size	6.000 / 6.000	in	To Date	034	Bottom of Interval	7,616 ft
		If necessary settle solids using BARACAT Empty sand trap at every connection				
<b>For Report</b>	<b># 031</b>	<b>On</b>	<b>03/23/2007</b>	<b>Operation at Depth</b>	<b>7,888 ft</b>	
Rig Activity	TOH 278 ft (held safety meeting)/Function test BOP/Rig up wire line logs TIH 7744 ft Fill pipe and wash and ream 7744 ft to 7888 ft Mix and pump sweep/circulate bottoms up Condition /circulate mud/pump sweeps around Condition/ circulate mud TOH from 7888 ft Rig up Halliburton wire line logs Log with CCL Gamma Density tools  Sweeps #1 1930 hrs-40 bbl 70 viscosity with 2 ppb paper #2 2116 hrs-40 bbl 156 viscosity with 2 ppb paper  600-80 PV-25 300-65 YP-40 Gels 53/60					
Activity	Wire Line logs					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If necessary settle solids using BARACAT  Empty sand trap at every connection  Sweeps should include 4 cans N-VIS-L 4 Sx Paper					
<b>For Report</b>	<b># 032</b>	<b>On</b>	<b>03/24/2007</b>	<b>Operation at Depth</b>	<b>7,888 ft</b>	
Rig Activity	Rig down wire line logs Pick up 2 7/8" fiber glass tubing TIH (held 10 min safety meeting) TOH from 7888 ft Rig service TIH TIH Wait on cement TIH tag cement @ 7509 ft					
Activity	Drill out					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If necessary settle solids using BARACAT  Empty sand trap at every connection					

# Operations Log Recap

Interval	04	From Date	026	Top of Interval	7,696 ft	
Max. Hole Size / Bit Size	6.000 / 6.000	in	To Date	034	Bottom of Interval	7,616 ft
Use Sodium Bicarbonate/Soda Ash to treat out calcium form cement						
<b>For Report # 033</b>	<b>On 03/25/2007</b>	<b>Operation at Depth</b>		<b>7,888 ft</b>		
Rig Activity	Circulate bottoms up Drill out 2 7/8" fiber glass tube 7839 ft to 7888 ft Mix and pump sweep/circulate bottoms up Stand by for gyro TOH to 7686 ft Rig up wire line gyro Run wire line gyro Rig down wire line gyro Rig service TOH Wait on fiber glass tubing  Sweep 1000 hrs-40 bbl 3 ppb drilling paper Vis-50 600/300- 40/31 PV/YP- 9/22					
Activity	Tripping					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda  Maintain solids control equipment  If necessary settle solids using BARACAT  Empty sand trap at every connection					
<b>For Report # 034</b>	<b>On 03/26/2007</b>	<b>Operation at Depth</b>		<b>7,696 ft</b>		
Rig Activity	Rig service TIH Safety meeting with Halliburton Set cement plug and redress Wait on cement waiting on cement (work on rig inspection) Wait on cement TIH (wait on cement) TIH (wait on cement) TIH tag cement @ 7462 ft Drill out cement 7662 ft to 7616 ft					
Activity	Drill out					
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda or dilute with water  Maintain solids control equipment  If necessary settle solids using BARACAT  Empty sand trap at every connection					

# Operations Log Recap

Interval	05	From Date	035	Top of Interval	7,706 ft
Max. Hole Size / Bit Size	4.750 / 4.750	To Date	038	Bottom of Interval	8,709 ft
For Report	# 035	On	03/27/2007	Operation at Depth	7,706 ft
Rig Activity	Circulate bottoms up Lay down 4 stands of 3.5" DP TOO/ Lay down 12 4.5" DC Rig service Safety meeting with Weatheford Pick up directional tools/make up BHA Pick up directional tools/make up BHA TIH fill pipe @ 3000' and 6000' TIH Slip and cut 108' of drill line Pick up and make up side entesy sub Held safety meeting with Weatheford Rig up wire line				
Activity	Wait on...				
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda or dilute with water  Maintain solids control equipment  If necessary settle solids using BARACAT  Empty sand trap at every connection  Run HIGH VIS/ENVIRO-TORQ sweeps every 50' of new hole drilled or as necessary				
For Report	# 036	On	03/28/2007	Operation at Depth	7,709 ft
Rig Activity	Rig down wire line logs Rig service TOO/ H Run wire line Check gyro UBHO sub TIH to 3176 ft Run wire line 3176 ft TIH TIH Change rotating rubber Make up side entry sub Run wire line Time drill 7706 ft to 7707 ft Drift check/gyro Time drill 7707 ft to 7709 ft Pull wire line				
Activity	Wire Line logs				
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda or dilute with water  Settle solids using BARACAT  Run HIGH VIS/ENVIRO-TORQ sweeps every 50' of new hole drilled or as necessary				
For Report	# 037	On	03/29/2007	Operation at Depth	7,795 ft
Rig Activity	TOO/ H Lay down mud motor Pick up mud motor TIH to 3171 ft Break circulation @3171 ft				

# Operations Log Recap

Interval	05	From Date	035	Top of Interval	7,706 ft
Max. Hole Size / Bit Size	4.750 / 4.750	To Date	038	Bottom of Interval	8,709 ft
	in	TIH Break circulation @ 7674 ft Safety meeting with Weatherford wire line in hole w/gyro Wash to bottom Slide drill 7709 ft to 7770 ft Rig down gyro wire line and side entry sub Fill pits with water Wash to bottom Slide drill 7770 ft to 7793 ft			
Activity	Drilling				
Fluid Treatment	Maintain pH @ 9.5-10.0 using caustic soda or dilute with water  Settle solids using BARACAT  Run HIGH VIS/ENVIRO-TORQ sweeps every 50' of new hole drilled or as necessary				
<b>For Report</b>	<b># 038</b>	<b>On</b>	<b>04/02/2007</b>	<b>Operation at Depth</b>	<b>8,709 ft</b>
Rig Activity	END OF WELL				
Activity	Tripping				
Fluid Treatment	END OF WELL				

## Personnel Register

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### Account Manager

Brian Nordquist (281-988-2214)

### PSL Operations Manager

Leonard Morales (505-325-1896)

### Engineers

Jay Christensen (505-486-1439)

Matt Jensen (505-486-3049)

Randy Phipps (505-330-8033)