

1.0 INTRODUCTION

Figure 1 - Nova Scotia Offshore Drilling Activity

Well Type	Well Name		Operator	Drilling Rig	Lat	Long	Spud date	Termination Date	Water Depth (m)	Actual Performance						
										Actual Well MD (m)	Total Days on Contract	Days pre-spud	Days Spud to TD	Post-TD Eval, P&A, De-mob Days	Number of Hole Sections	Average Overall ROP achieved (m/day)
SNP	Panuke	F-09	PanCanadian	RG 3	43°48'22.47"	60°45'57.64'	23-Aug-00	11-Nov-00	42	3823	85	3	56	26	5	68
SNP	Panuke	M-79	PanCanadian	RG 4	43°48'48.81"	60°41'47.42'	12-Jul-00	2-Oct-00	44	4598	81	0	78	3	4	58
SNP	Musquodoboie	E-23	PanCanadian	RG 5	43°42'15.82"	60°49'09.99'	1-Jul-01	2-Sep-01	47	3823	67	5	51	11	4	74
SNP	Queensland	M-88	PanCanadian	RG 5	43°47'55.26"	60°43'11.90'	14-Dec-01	10-Feb-02	38	4443	65	3	54	9	5	82
SNP	Marquis	L-35	Canadian Sup.	RG 5	44°04'37.57"	60°20'52.72'	6-Jul-02	26-Aug-02	48	4552	53	5	46	2	5	97
SNP	Margaree	F-70	EnCana Corp.	RG 5	43°49'16.94"	60°40'20.18'	21-May-03	6-Aug-03	43	3677	80	3	50	28	4	73
SNP	MarCoh	D-41	EnCana Corp.	RG 5	43°50'09.48"	60°37'21.56'	28-Aug-03	23-Oct-03	43	3625	61	2	43	16	4	83
SNP	Dominion	J-14	Encana-Marauder	RG 6	43°53'33.58"	60°31'54.21'	18-Nov-05	30-Dec-05	30	3700	82	3	66	13	4	56
SOP	Emma	N-03	Mobil Oil	Galaxy II	44°02'47.78"	60°00'53.78'	2-Aug-00	1-Nov-00	51	4600	94	3	73	18	4	63
SOP	Adamant	N-97	Mobil et al	Galaxy II	43°56'48.08"	60°14'27.66'	5-Nov-00	4-Feb-01	17	4708	94	3	62	29	4	76
SOP	Southampton	A-25	PanCanadian	RG 5	43°34'09.66"	60°18'16.67'	3-Sep-01	12-Dec-01	47	5058	102	1	82	19	5	61
SOP	Mariner	I-85	Candian Sup/	RG 5	44°04'30.74"	59°42'07.20'	19-Nov-03	16-Mar-04	56	5408	128	2	93	33	5	57
SOP	Cree	I-34	ExxonMobil	RG 5	43°43'41.48"	60°34'42.62'	15-May-04	14-Aug-04	57	3945	98	4	82	12	5	47
SGP	Onondaga	B-84	Shell Canada	Galaxy II	43°43'08.92"	60°12'41.51'	17-Nov-01	12-May-02	60	5019	180	3	153	23	6	32
DWL	Annapolis	B-24	Marathon Cda	West Navion	43°23'07.91"	59°48'38.15'	26-Dec-01	24-Apr-02	1737	3496	132	12	89	43	3	20
DWL	Torbrook	C-15	EnCana Corp.	Erik Raude	42°34'02.60"	62°17'35.64'	16-Nov-02	14-Jan-03	1675	3600	74	14	45	15	3	43
DWL	Balvenie	B-79	Imperial Oil	Erik Raude	43°08'01.29"	60°10'56.84'	6-Jul-03	6-Sep-03	1803	4750	67	4	52	11	5	57
DWH	Newburn	H-23	Chevron Cda	DW	43°12'16.43"	60°48'21.20'	22-May-02	21-Aug-02	977	6070	93	0	80	13	6	64
DWH	Annapolis	G-24	Marathon Cda	West Navion	43°23'22.94"	59°48'29.19'	17-Apr-02	16-Aug-02	1711	6182	133	0	114	19	7	39
DWH	Weymouth	A-45	EnCana Shell	Erik Raude	43°04'01.38"	60°36'14.07'	27-Oct-03	8-Mar-04	1690	6520	204	0	195	19	8	25
DWH	Crimson	F-81	Marathon Cda	DW Pathfinder	43°20'22.29"	59°42'57.03'	18-Jun-04	27-Aug-04	2092	6676	95.7	12	63	19	7	73

Table 1 - Nova Scotia Offshore Key Performance Metrics

Well Category	Well Depth (m)			Well Time (Days spud-TD)			Effective ROP (m/day)			% NPT			No of Wait On Weather Days		
	Min	Max	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average
SNP	3625	4598	4030	43	78	55	56	97	74	3%	21%	11%	0	3.6	1.2
SOP	3945	5408	4744	62	93	78	47	76	61	8%	31%	17%	0	4.7	1.4
SGP	5019			153			32			33%			0		
DWL	3496	4750	3949	45	89	62	20	57	40	24%	72%	54%	0	4.5	1.5
DWH	6070	6676	6362	63	195	113	25	73	50	14%	37%	27%	0	0.6	0.2
All Wells	3496	6676	4669	43	195	77	20	97	59	3%	72%	28%	0	4.7	1.0

2.0 NORMAL PRESSURE SHELF WELLS

The normal pressure wells are characterized by the lowest NPT of the well types at 7.4 days. The NPT casual factors are scattered with well control problem time noticeable absent. At an average well duration of 60 days and a Technical Limit time to TD of 32 days, this well type is the shortest and least costly well type.

2.1 Average and Technical Limit Performance

- Shortest and least costly well type
- Average well duration of 60 days
- Technical Limit time to TD of 32 days

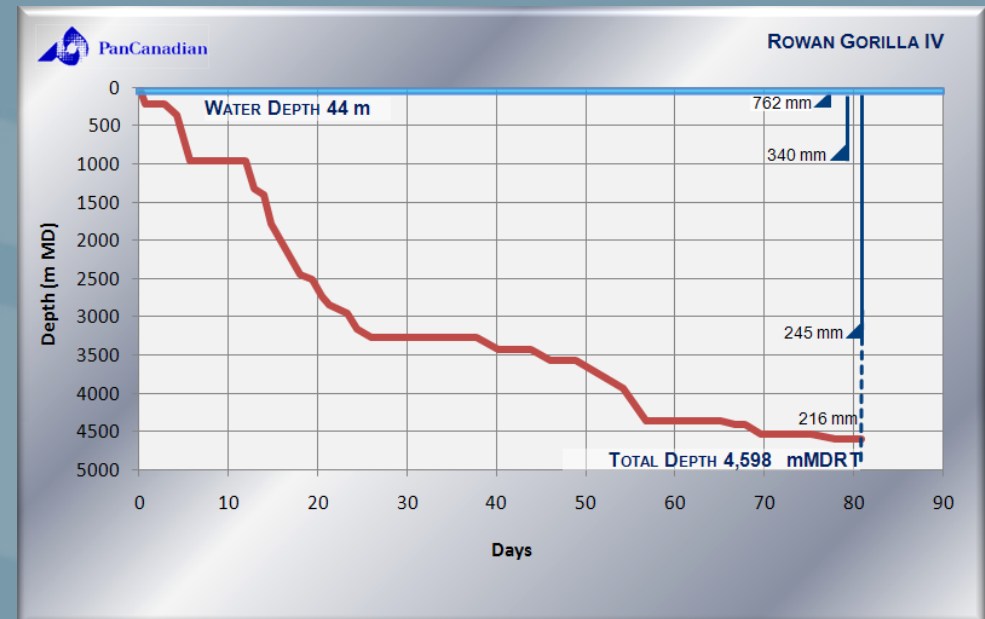
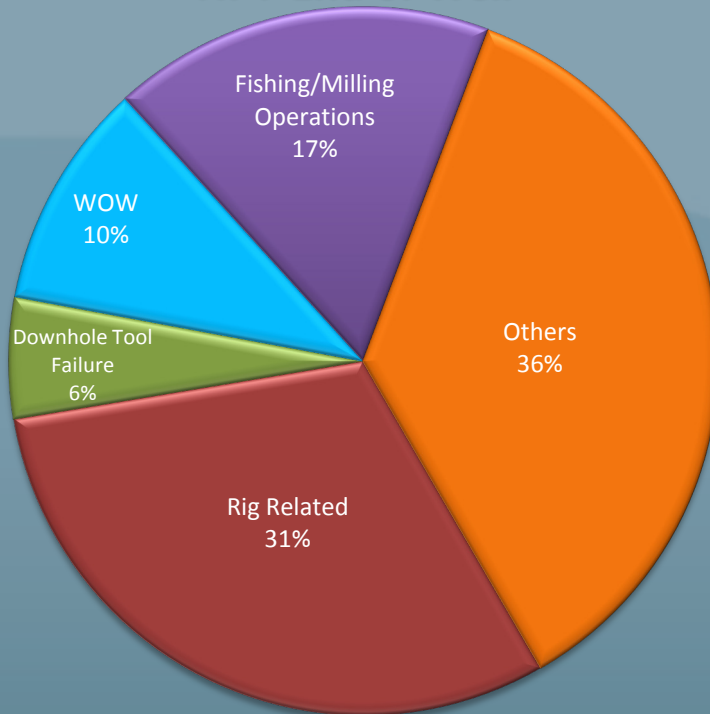


- NPT casual factors are scattered with well control problem time noticeably absent.
- Lowest NPT of the well types at 7.4 days

2.2 Wells in Category

As follows:

NPT-End of Well



AVENUES FOR IMPROVEMENT

- Rig Reliability
- Optimize BOP Stack Configuration

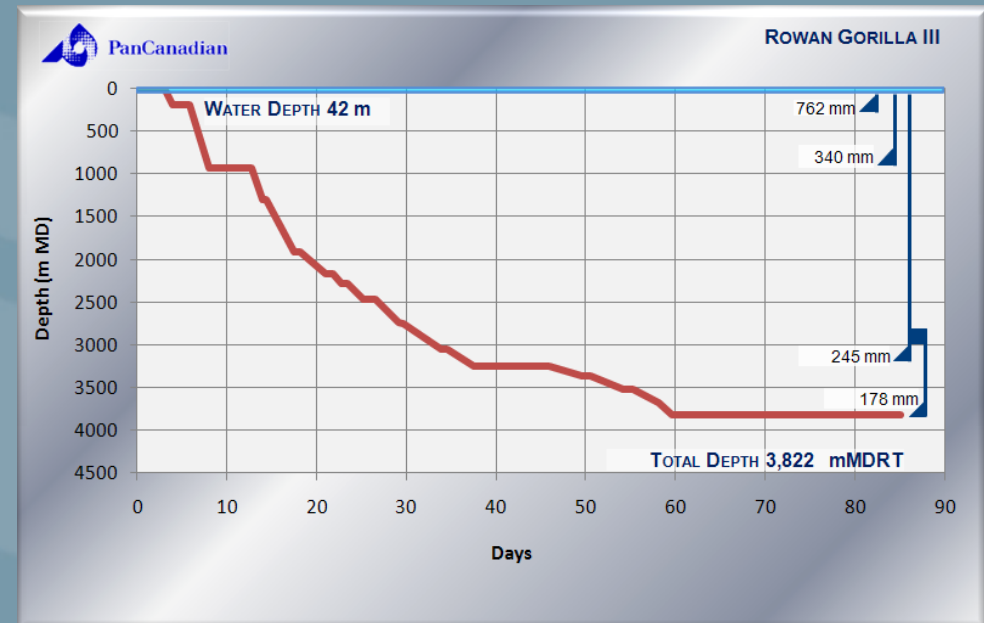
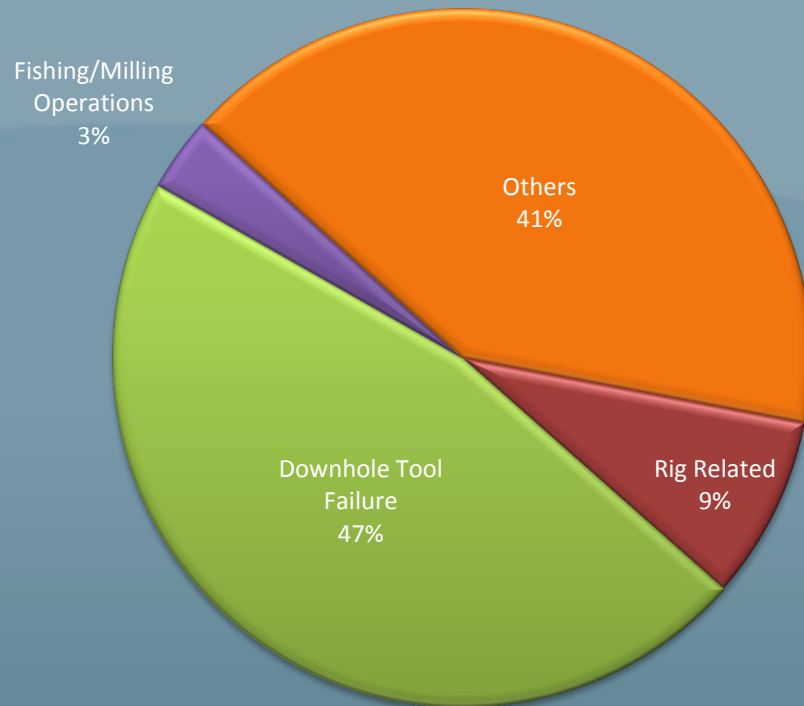
REASONS FOR NPT

- RR - SCR and Top Drive Problems
- Re-configured BOP Stack
- Fishing for coring BHA

TIME DISTRIBUTION, DAYS

TIME DISTRIBUTION, DAYS	END OF WELL
Total Time	85.1
NPT	14.8
Total Time less NPT	70.4
% NPT	17%

NPT- End of Well



AVENUES FOR IMPROVEMENT

- Downhole tool reliability
- Pre-planning - Approval Timing

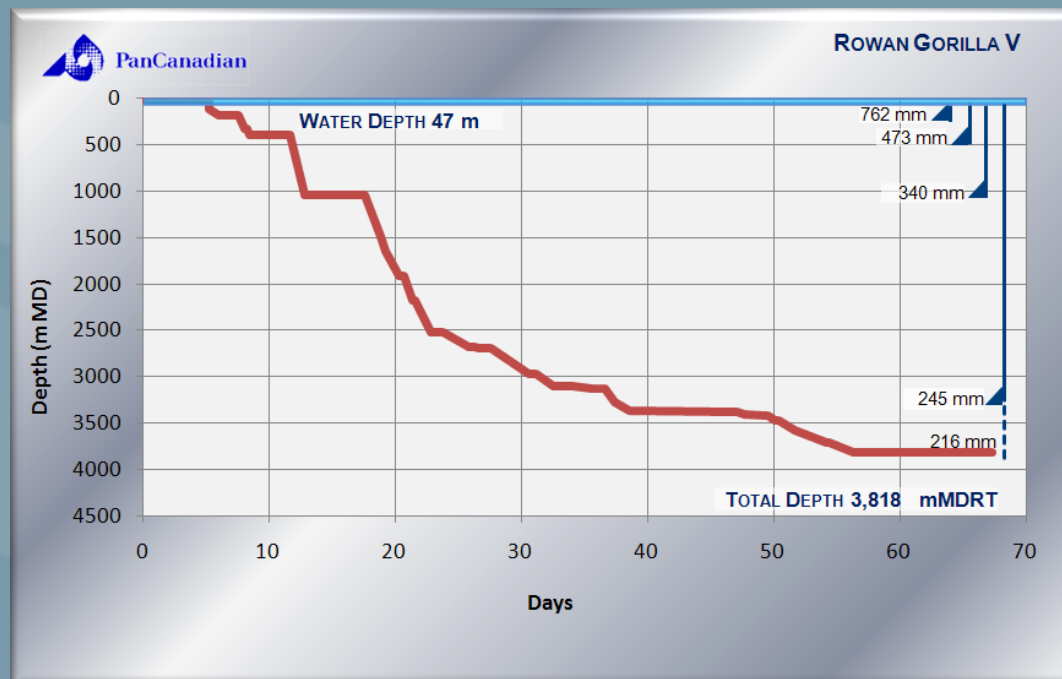
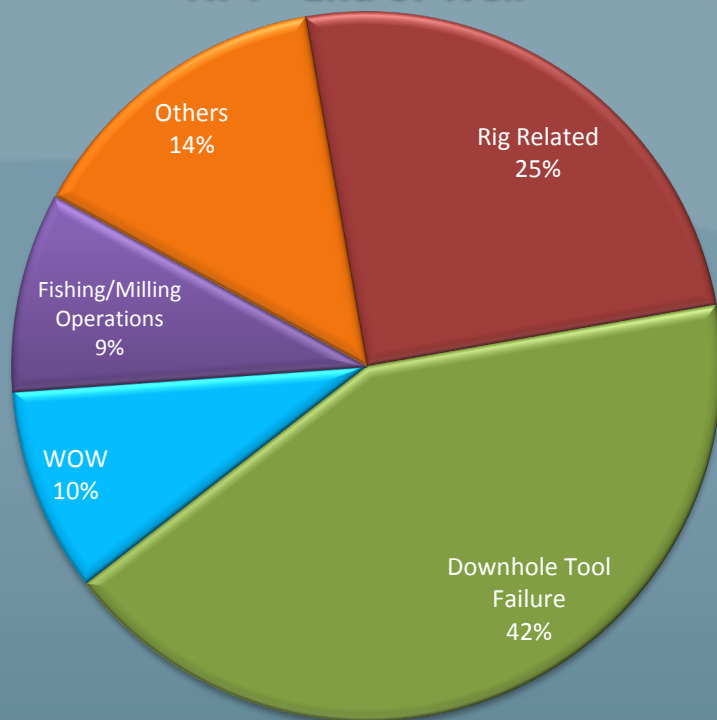
REASONS FOR NPT

- Downhole tool failure
- Seabed coring delayed spud

TIME DISTRIBUTION, DAYS

TIME DISTRIBUTION, DAYS	END OF WELL
Total Time	86.3
NPT	6.6
Total Time less NPT	79.6
% NPT	8%

NPT - End of Well



AVENUES FOR IMPROVEMENT

- Downhole Tool reliability
- Rig Reliability

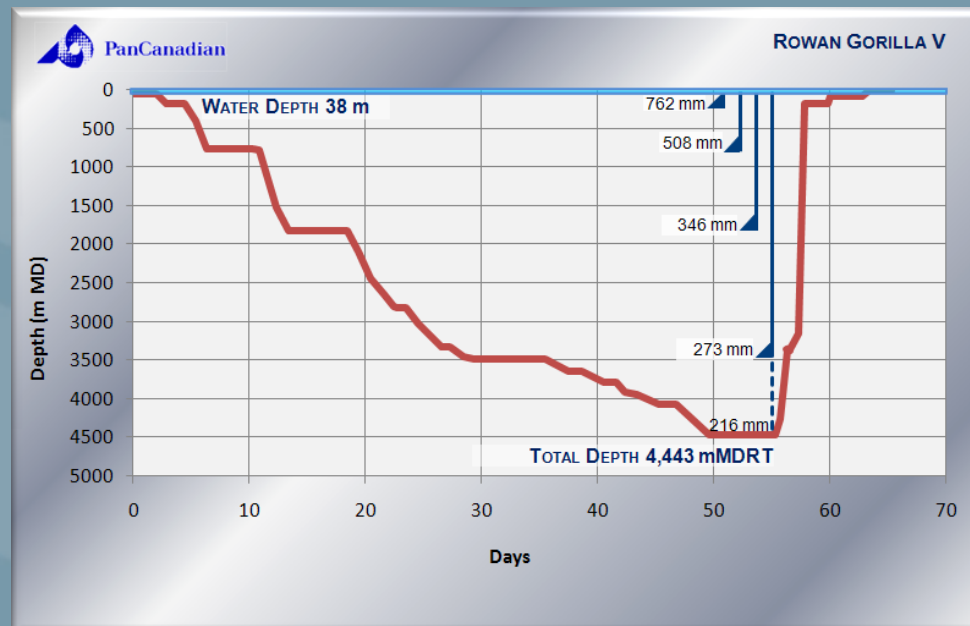
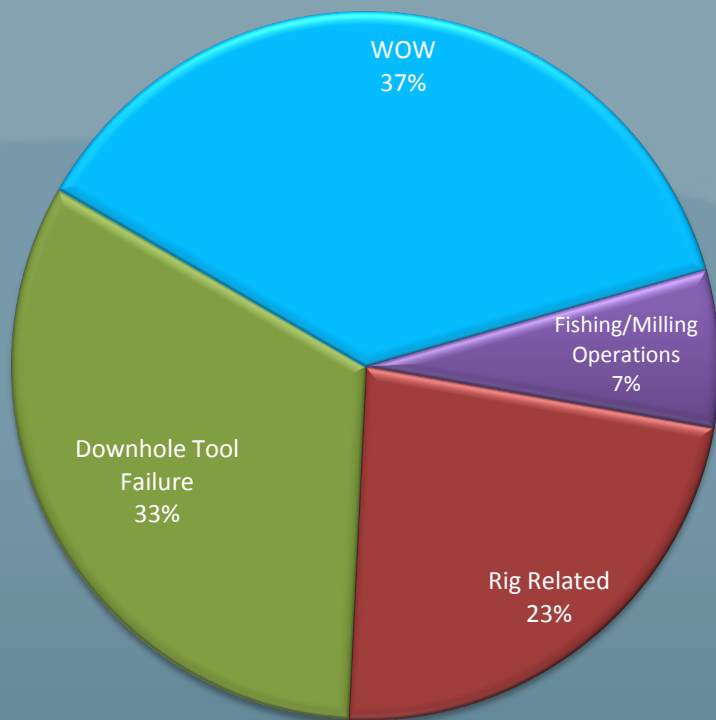
REASONS FOR NPT

- Downhole Tool Failure
- Rig Repair

TIME DISTRIBUTION, DAYS

	END OF WELL
Total Time	66.5
NPT	7.6
Total Time less NPT	58.9
% NPT	11%

NPT-End of Well



AVENUES FOR IMPROVEMENT

- Downhole Tool Reliability
- Rig reliability

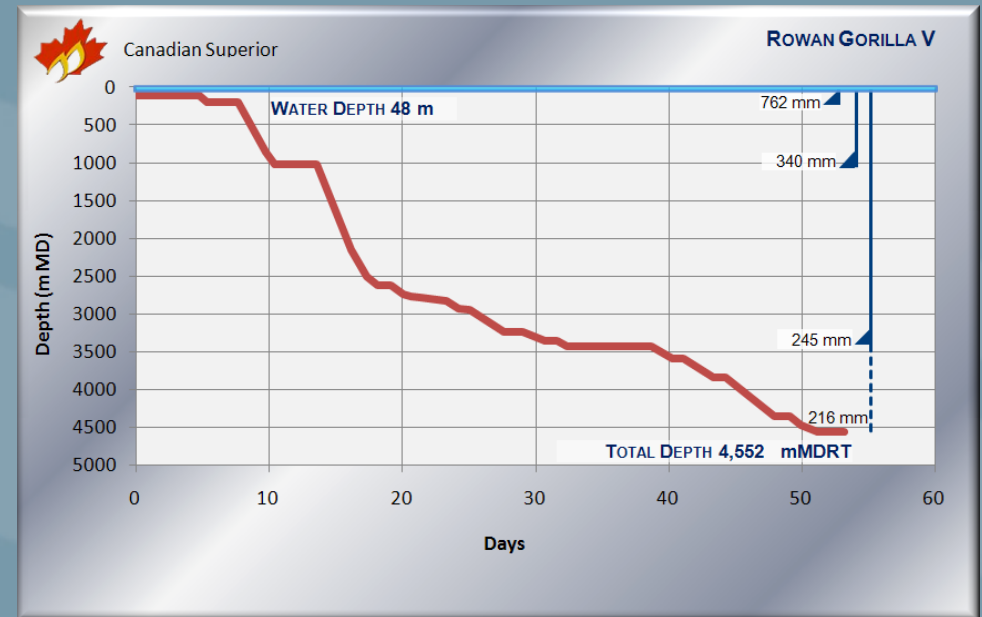
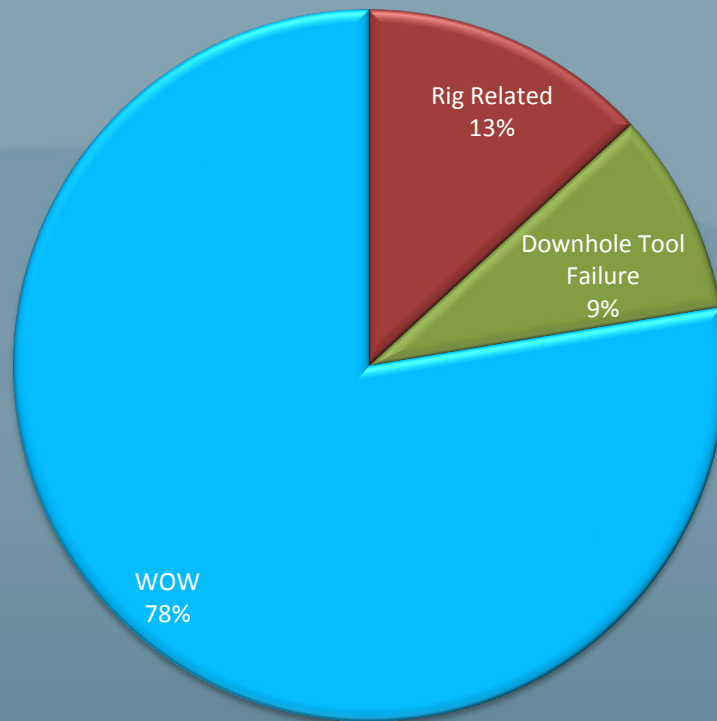
REASONS FOR NPT

- WOW
- Rig Repair
- Downhole Tool Failure

TIME DISTRIBUTION, DAYS

TIME DISTRIBUTION, DAYS	END OF WELL
Total Time	65.5
NPT	4.1
Total Time less NPT	61.4
% NPT	6%

NPT-End of Well



AVENUES FOR IMPROVEMENT

- Downhole Tool Optimization

REASONS FOR NPT

- WOW
- Rig Repair

TIME DISTRIBUTION, DAYS

	END OF WELL
Total Time	49.3
NPT	1.6
Total Time less NPT	47.8
% NPT	3%