STATE OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES 800 NE Oregon Street #28, Portland OR 97232

WELL SUMMARY REPORT

seceived 11/2/00

(In compliance with rules and regulations pursuant to ORS 520)

NW Natural			Northwest Natural Gas							IW 24C-23-65					
(Company or Operator)			(Lease)							(Well No.)					
Sec. 23	T. 6N R. 5W Surve				yed Coordinates (if directional, BHL & SHL):						SHL; 967.7' North &				
	East from the SW corner of section 23, T6N; R5W, BHL; 5							61' S & 136' E from surface location							
				,, 101	1, 110 11, 1), JUL	1 5 cc 1	- D I II O	111 SUI 1	acc location	1		_		
Wildcat: (or) Fiel					d Name: Calvin Creek Storage Field						County: Columbia				
							Sig	nature: 🕳	4.	المل المل	1				
Date:	12/18/00					Position: Construction Manager									
Commenced drilling: 4/20/00 Co					mpleted drilling: 5/13/00 P&A										
Total depth:	l depth:														
Logs run: Ar	ray Induction	, BHC So	nic,GR, S	SP, FM	IS, USI, C	CCL									
<u> </u>															
	Size of		Size of		Wt. in 1		os. Gra		le .				Amount of		
	hole		casing			per ft.		Туре	;	Depth				cement	
	17 1/2	,,	13 3/8"		54.5#/ft		H-4)	44	445'		337 sx		
CASING															
RECORD	12 1/4	,,	8 5/8"			32#/ft		K-55		1720		6'		0 sx	
		 .												<u> </u>	
				, <u> </u>						_	_				
						-		<u> </u>				<u>,</u>			
		Geological Marker							Depth						
Plugs 2591' – 1842'					Keasey						ŀ	585' MD			
					Cowlitz							1404' MD	-		
Junk					Clark & Wilson							1725' MD			
	TIES WID														
										-		, -			
		1													
	Size of	İ	From							Method of P		Perforating		· · ·	
	Casing	F			To		Shots/f		Jet	Jet B		Bullet		Slotted Liner	
Perforations	5 1/2"		1851'		1706				+	- 1 5				X	
or									+		+		+		
Liner				"						<u></u>			+		
					3.9. 1				1						
		· · · · · · · · · · · · · · · · · · ·					-								
	Date	I	ean Oil			Percen	t	F.T.P.		F.C.P.		S.I.T.P.		S.I.C.P.	
Initial	Date	- 001/03	obl/day		ity	Water					<u>,</u>				
Production															

wellsumm.doc 12/27/00