







DEEP

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

DATE: 10/30/02 API #: 047-077-00161

At

Well Operator's Report of Well Work

Farm name: Messenger Limited Partnership)	Operator Well	l No.: <u>Terra A</u>	lta Sou	th Well 7531
LOCATION: Elevation: 2,281.40	,	Quadrangle:	Au	rora	
District: Union	(County:	Dra	eston	
Latitude:Feet South	of 39 Deg	20 Min	. 55 Sec		
LongitudeFeet West	of 70 Deg.	36 Min			
rect west			Sec	i .	
Company: Columbia Gas Transmission Address: PO Box 1273	Casing Tubing	drilling	3	well	Cement fill up Cu. Ft.
	13-3/8"		33'		30 sks/Surf
Charleston, WV 25325-1273	9-5/8"	2,127	2,127		616 sks/Surf
Agent: Paul Amick	7"	5,647	5,647'		~220 cu ft
Inspector: Randall Mick/ Steven Mossor	4-1/2"**	* 5,630°	5,630'		130.9 cu ft
Date Permit Issued: 06/28/2001					
Date Well Work Commenced: 08/22/01					
Date Well Work Completed: 10/17/02					
Verbal Plugging:				,	
Date Permission granted on:					
Rotary X Cable Rig					
Total Depth (feet): 6,020'					RECEIVED
Fresh Water Depth (ft.): N/A				Of	fice of Oil & Gae
rresh water Depth (it.): N/A					Permitting
Call W. A. D. H. (C.) P. H.					
Salt Water Depth (ft.) N/A:				N	DV 0 1 2002
Is coal being mined in area (N/Y)? No				_ w	Department of
Coal Depths (ft.): N/A				Enviro	nmental Protection
OPEN FLOW DATA		·	·		
Producing formation Chert/Orisk	anv Pav zone	depth (ft) 5.6	647'-5.816'/5	828'-5	980,
Gas: Initial open flow 590 M	CE/d Oil: Initia	Lopen flow	Rb1/d	<u>,020 2</u>	,200
Final open flow 370 MCF/d	Final one flow	open now	DUI/U	1	
Time of open flow between in it is	1 mai open nov	v	DUI/U		
Time of open flow between initia	i and final tests	3	_Hours		
Static rock Pressure 2150 ps	ing (surface pres	sure) after <u>1</u>	<u>2</u> Hours		
C 1 1 1 2					
Second producing formation	P	ay zone depth	ı (ft)		
Gas: Initial open flow MCF/	d Oil: Initial on	en flow	Bhl/d		
Final open flow MCF/	d Final open	flow	Bbl/d		
Time of open flow between initia	l and final tests		Hours		
Static rock Pressurepsig (surface pressure	e) after	_Hours		
NOTE: ON BACK OF THIS FORM PUT	THE FOLLOWI	NG: 1). DETA	AILS OF PERF	ORATE	ED
INTERVALS, FRACTURING OR STIMU	LATING. PHYS	ICAL CHANG	FE ETC 2) T	HE WE	II
LOG WHICH IS A SYSTEMATIC DETA	ILED GEOLOG	ICAL RECOR	D OF ALL FO	RMAT	IONS.
INCLUDING COAL ENCOUNTERED BY	THE WELLBOY	RE.			,
, און אין ני	1/ / /	5			
Signed:	y. HOVINK	2			
By: William H.	Foraker				a 90
Date:	/30/02		- -	NOV	2 7 2003

DATE: 10/30/02 API#: 047-077-00161

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Formation	Top (MD KB)	Bottom (MD KB)
Siltstone and Shale	0	5113'
Tully Lime	5113'	5139'
Shale	5139'	5630'
Onondaga Lime	5630'	5647'
Chert	5647'	5816'
Shale	5816'	5828'
Oriskany	5828'	5980'
Helderberg	5980'	
Total Depth		6020'

Summary of Permit Work on Existing Storage Well:

Moved in Twin Drilling Rig #5 (Service Rig) on 08/22/01.

Pulled and retired existing 2-3/8" tubing on 08/27/01.

Cleaned well out to 6,015' RKB on 08/29/02.

Ran CBL and Vertilog on 7"09/04/01. Log indicated problem with 7" casing.

Ran new 4-1/2" 11.6#/ft J-55 casingto 5,630'GL on 08/15/02.

Cemented 4-1/2" casing with 130.9 cu ft standard cement with 5% salt on 08/16/02.

Stimulated Chert/Oriskany with foamed acid frac on 10/16/02: 200 gals 28% FE acid, 7,000gals 20% 65Q foamed FE acid, 7,000 gals 15% 65Q foamed FE acid, 8,000 gals 65Q foam, 126 gals water.

Permit No.....

Open Flow 24



STATE OF WEST VIRGINIA N 26 1972

Ho City

闪 Rotary Spudder

Cable Tools

Storage

Oil or Gas Well (Ga

Perf. top (See

Perf. bottom Reverse

Perf. top Side)

Perf. bottom...

Quadrangle Kingwood

Press. 161

Company Columbia Gas Transmission Corporation

Farm Henry E. Ark Acres 72

Well No. X-76-S 7531 Elev. 2281

The surface of tract is owned in fee by..... Address..... Mineral rights are owned by _____Address

Date Shot...... From..... To......

Volume 762 Cu. Ft. Rock Pressure lbs. hrs.

WELL ACIDIZED (DETAILS) (See Reverse Side)

Address P. O. Bon 1067, Elkins, W. Va.

District Union County Preston

Location (waters) Big Run

Drilling commenced July 21, 1971

Drilling completed August 6, 1971

WELL RECORD

16

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION /2

	····		TRIVE)	
Casing and Tubing	Used in Drilling	Left in Well	Packers	
Size	Ground I	evel	THE STATE OF THE S	
			Kind of Packer	
3/8	33'	33'		
			Size of	
4 9 5/8"	2127'	2127'		
<i>\$</i> 7''	5647.	5647'	Depth set	
3/16				
	W			

6003'

Attach	copy	of	cementing	record.

2 3/8" 6003

Liners Used.....

retain copy of commenting reco.				
CASING CEMENTED	SIZE	No.	Ft	Dat
Amount of cement used (bags)				
Name of Service Co. Down	ell		*************	
Traine of Service Co				

COAL	WV2 FUCOR	NIEKED ALNO	neFEE1	INCHE
·	FEET	INCHES	FEET	INCHE
•	FEET	INCHES	FEET.	INCHE

WELL FRACTURED (DETAILS).....

ن 8,690 أ RESULT AFTER TREATMENT (Initial open Flow or bbls.)..... 8,690,000 ROCK PRESSURE AFTER TREATMENT 2110 HOURS

Fresh Water. Salt Water ..

Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth	Remarks
S11tstone					Measured	from K.B.	
and Shale			0	5113'	•		
Tully Lime			5113'	5139'			A
Sha1e			5139'	5630'			
Onondaga L	ime		5630'	5647'	,		
Chert - Hu	ntersuille		5647	5816'	Gas		
Chert - Ha	SACMO!		5816'	5828'			
Oriskany			5828'	5980'	5630	5828	5980
Hel derbe r g			5980'		2281	3547	3698
Total Dep	th			6020'	3349	334	
			. *	(A85)			
4 4	·				;		

Formation	Color	Hard or Soft	Top / 2	Bottom	Oil, Gas or Water	Depth Found	Remarks
NOTE:					Province and the Space of Spac		
13 3/8"	48#/ft., _2% CaCl.	H-40, Casing July 21, 197	cemented to	surface with nd level, 50	h 30 sacks o kelly bushi	f neat cemen	t plus
9 5/8"	36#/ft., July 26,	K-55 casing 1971. Casing eads off and	cemented to set at 2127	surface with	616 2001-2 1	-1-4	% CaCl.
7"	1 drum Ba	K-55 Seal-lo t plus Kolit roid's B-33 62' kelly bu	. Casing se	19/1. Gel	Drilling mud	to surface	
2 3/8"	nipple, (bottom.	J-55, Seal- l) Baker BFC August 5, 19 ff, 6050' th	71. 6003' g	liidine eleev	a Cliditaal	01 1 - 1 /	01 66
Perforatio	ns:						
	Chert	and Or <u>i</u> skany	open hole.				
Logging:							
	Gamma- (190	Ray, Collar 1 0' - 6020') 2	og and temp lugust 5, 19	erature. 71.			
	Gamma-1 (5450	Ray - Tracer)' - 6025') /	ugust 17, 19	771.			
Stimulation	1:						
	August	14, 1971	·				
	200 Pumped Pumped	O# rock pres in 28 BBls o in 110 barre unloaded, No	ls of fresh	The place of	love of cook	أفيد فيست فيمسي	•
SI (Sure America)	August	16, 1971					
	20% HCI	ell treated acid, 2000 g acid, 5000 ater. 2300#	allons or (J	-160, 150# A	nd J-145, 50	0#), 5000 ga	7.1
Section 1.	F1n	al open flow	. 2110# roc	k pressure,	8.690 M damp		y.
one de la constante de la cons							·.
Contact medical medical engineers	to Color or appearing to						
RESECUENT ATTACKS	Control of the Contro		. ,				
	7.7			`			
·					Control Control		•
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Control of the Contro							
							Ap

Date January 20, 19_72

APPROVEICOlumbia Gas Transmission Corporation Owner

By Christer Superintendent

Production and Storage Superintendent

STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION SECTION OF OIL AND GAS

WELL WORK PERMIT

This permit, issued to COLUMBIA GAS TRANSMISSION CORP.
is evidence of permission granted to perform the specified well work at the location described on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given to the Oil and Gas Inspector PHILLIP TRACY at 304-543-7389 prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be reported to 1-800-654-3312.

Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and in addition may result in civil and/or criminal penalties.

Well work to be conducted under this permit shall be commenced within two (2) years from date of issue.

Theodore M. Streit Chief

By: 74 M

Title:		

Operator's Well No: TERRA ALTA 7531

Farm Name: MESSENGER LTD. PTSHP.

API Well Number: 47-77-00161 F

Date Issued : 02/16/98

Expires two (2) years from issue date.

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

	1)	Well Operator:	COLUM	BIA GAS T	RANSMISSION	CORPORATI	ON 12450	
345	2)	Operator's Well	Number : <u>Terra Alt</u>	a South Stg #7	531 (API 47-077-	<u>00161)</u> 3) El	evation : 2,18	1.36 feet
2484	4)	Well type: (a)	Oil/	or	Gas_X_/			
		(b)	If Gas: Production	on/ Undergr Deep <u>X</u> /			7	
	5)	Proposed Target Fo	ormation (s) :		Chert/ Oriskany		JAN 3 ACT	
	6)	Proposed Total I	Depth : 6,020		fe	eet	ce of S	
	7)	Approximate fresh	n water strata dep	oths :	none recorded			
	8)	Approximate salt	water strata depti	ns :	none recorded		0	
	9)	Approximate coal	seam depths:			NONE		
	10)	Does land conta	ain coal seams	tributary to	active mine ?	Yes/ No	<u>X</u> _/	
	11) Proposed Well Work: Columbia proposes to kill the well with a freshwater polymer based mud system. Remove the tubing string and reconfigure the wellhead. The well will be cleaned out to TD and logged with open hole and cased hole logs. A 4-1/2" liner (casing string) will be run to surface and cemented in place. The well will be acidized across the Oriskany section as determined by the well logs. The well will then be cleaned up, flow tested a placed back in service.						n to surface and	
	12)		CASING ANI	TUBING 1	PROGRAM			
		TYPE	SPECIFICATIO	ons	FOOTAGE INTERVALS			CEMENT
			Size	Grade	Weight per ft.	For drilling	Left in well	Fill - up (cu. ft.)
		conductor	13-3/8"	H-40	48#	33'	33'	Cmt to surf 30 sks cmt
		Fresh Water	9-5/8"	K-55	36#	2,127'	2,127'	Cmt to Surf w/ 616 sacks cmt
		Coal						
		Intermediate						
		Production		K-55	23#	5,647'	5,647	Cmt w/~220cu ft
		Tubing	2-3/8" (T	O BE RETIRE J-55	D) 4.6#	6,003'	6,003	
		Liners						
	PAG	CKERS : Kind_						
		Sizes Depths	set					
5/	' <u></u> -			For Divisi	on of Oil and	Gas Use Or	nly	
			☐ Well Worl W - 9 ☐ W	k Permit 🔲	Reclamation Fi	und	☐ WP	

Page I of	1) Date: <u>November 5, 199/</u>

. 2) Operator's Well Number

7531

3) API Well No.: 47 - <u>077</u> -

47 - <u>077</u> - <u>00161</u> - State County Permit No.

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT DIVISION OF ENVIROMENTAL PROTECTION OFFICE OF OIL & GAS NOTICE OF APPLICATION FOR A WELL WORK PERMIT

	NOTICE OF AFFLICATION FOR A WELL WORK PERMIT	
	in the second	
4)	Surface Owner(s) to be served: 5) (a) Coal Operator	
	(a) Name The Messenger Limited Partnership Name	
	Address 876 Dennett Road Address Address	
	Oakland, Md. 21550	
	(b) Name(b) Coal Owner (s) with Declaration	
	Address Name The Messenger Limited Partnership	
	Address 876 Dennett Road	
	(c) Name Oakland, Md. 21550	
	Address Name	
	Address	
6)	Inspector Philip Tracy (c) Coal Lessee with Declaration	
,	Address Route 2 Box 37-A Name Name	
	Montrose, West Virginia 26283 Address	
	Telephone (304)	
	TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT	
	Included is the lease or leases or other continuing contract by which I hold the right to extract	oil and
or ga	as OR	on and
_		C 337.
	X Included is the information required by Chapter 22, Article 6, Section 8 (d) of the Code	i west
viig	ginia (see Page 2)	
	I certify that as required under Chapter 22 of the West Virginia Code I have served copies	of this
	ce and application, a location plat and accompanying documents pages 1 through on the	above:
name	ned parties by:	
	Personal Service (Affidavit attached)	
	X Certified Mail (Postmarked postal receipt attached)	
	Publication (Notice of Publication attached)	
	Tableation (Notice of Labitation attached)	
	I have read and understand Chapter 22-6 and 38 CSR 11-18 and I agree to the terms and cor	nditions
of an	ny permit issued under this application.	
	I certify under penalty of law that I have peronally examined and am familiar with the infor	mation
	mitted on this application form and all attachments, and that based on my inquiry of those ind	
	nediatley responsible for obtaining the information is true, accurate and complete.	ivadais
******	I am aware that there are significant penalties for submitting false information, include	li-a - 41
		ing me
poss	sibility of fine and imprisonment.	
****	Well Operator Columbis Gas/Transmission Corporation	
NOT	OFFICIAL SEAL By: Ruhard J. Uly TARY PURLIF STATE OF WEST VIRGINIA T. T	
1401	JUDY M. HENLEY Its: Manager - Well DENICES	
	1700 MacCORKLE AVENUE, S. E. Address P.O. Box 1273	
	30X 1273. CHARLESTON, WV 25325-1273 Charleston, WV 25325-1273	
YM ndram	Telephone (304) 357-3034	
Subs	esribed and sworn before me this //th day of November, 19 97	
Juos	Sudy M. Menley Notary Public	
<u> </u>		
IVIY (commission expires $\frac{7100.221999}{}$	