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Mewbourne Oil Co

Eddy County, New Mexico

Sec 8, T18S, R27E

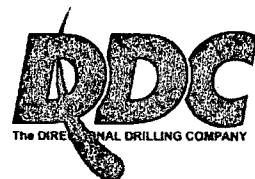
Peterson 7 IL Federal Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

01 April, 2013



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well: Peterson 7 IL Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3400.0usft (Patterson #41)
Site:	Sec 8, T18S, R27E	MD Reference:	WELL @ 3400.0usft (Patterson #41)
Well:	Peterson 7 IL Federal Com #1H	North Reference:	Grid:
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1; Single User Db

Project:	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site: Sec 8, T18S, R27E					
Site Position:		Northing:	640,151.35 usft	Latitude:	32° 45' 35.520 N
From:	Map	Easting:	507,742.98 usft	Longitude:	104° 18' 29.324 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.01 °

Well	Peterson 7 IL Federal Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	640,151.35 usft	Latitude:	32° 45' 35.520 N
	+E/-W	0.0 usft	Easting:	507,742.98 usft	Longitude:	104° 18' 29.324 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,381.0 usft

Wellbore:	Wellbore #1
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/13/2013	7.75	60.51	48,683

Design:	Wellbore #1
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	270.94

Survey Program		Date 4/1/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	2,111.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
2,221.0	7,625.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	100.0	1.30	16.20	100.0	1.1	0.3	-0.3	1.30	1.30	0.00
	200.0	2.02	328.72	200.0	3.7	-0.3	0.3	1.49	0.72	-47.48
	300.0	2.67	313.20	299.9	6.8	-2.9	3.0	0.90	0.65	-15.52
	400.0	2.99	304.45	399.7	9.9	-6.7	6.9	0.54	0.32	-8.75
	500.0	2.51	296.31	499.6	12.3	-10.9	11.1	0.62	-0.48	-8.14
	600.0	2.39	285.78	599.5	13.8	-14.8	15.1	0.47	-0.12	-10.53
	700.0	2.56	278.34	699.4	14.7	-19.0	19.3	0.36	0.17	-7.44
	800.0	2.74	269.58	799.3	15.0	-23.6	23.9	0.44	0.18	-8.76
	900.0	1.49	258.43	899.3	14.8	-27.3	27.5	1.31	-1.25	-11.15

DDC Survey Report



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Project:	Eddy County New Mexico	TVD Reference:	WELL @ 3400.0usft (Patterson #41)
Site:	Sec 8 T18S R27E	MD Reference:	WELL @ 3400.0usft (Patterson #41)
Well:	Peterson 7 IL Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	1.14	280.13	999.2	14.7	-29.6	29.8	0.60	-0.35	21.70
1,100.0	1.28	271.13	1,099.2	14.9	-31.7	31.9	0.24	0.14	-9.00
1,200.0	0.72	279.12	1,199.2	15.0	-33.4	33.6	0.58	-0.56	7.99
1,300.0	0.95	291.46	1,299.2	15.4	-34.8	35.0	0.29	0.23	12.34
1,400.0	1.32	288.07	1,399.2	16.1	-36.7	36.9	0.38	0.37	-3.39
1,500.0	0.92	299.36	1,499.2	16.8	-38.4	38.7	0.45	-0.40	11.29
1,600.0	0.96	276.38	1,599.1	17.3	-40.0	40.3	0.38	0.04	-22.98
1,700.0	0.99	303.93	1,699.1	17.9	-41.5	41.8	0.47	0.03	27.55
1,800.0	0.61	302.50	1,799.1	18.6	-42.7	43.0	0.38	-0.38	-1.43
1,900.0	0.63	270.64	1,899.1	18.9	-43.7	44.0	0.34	0.02	-31.86
2,000.0	0.61	284.19	1,999.1	19.1	-44.8	45.1	0.15	-0.02	13.55
2,100.0	0.58	272.09	2,099.1	19.2	-45.8	46.1	0.13	-0.03	-12.10
TIE IN @ 2111' MD / 2110.1' TVD									
2,111.0	0.48	260.40	2,110.1	19.2	-45.9	46.2	1.33	-0.91	-106.27
2,221.0	0.50	292.90	2,220.1	19.3	-46.8	47.1	0.25	0.02	29.55
2,253.0	1.50	282.50	2,252.1	19.5	-47.3	47.6	3.16	3.13	-32.50
2,284.0	5.00	272.60	2,283.0	19.6	-49.1	49.4	11.39	11.29	-31.94
2,316.0	9.10	267.70	2,314.8	19.6	-53.0	53.3	12.94	12.81	-15.31
2,347.0	13.10	266.00	2,345.2	19.2	-58.9	59.2	12.94	12.90	-5.48
2,379.0	17.10	265.10	2,376.1	18.6	-67.2	67.5	12.52	12.50	-2.81
2,410.0	20.80	265.30	2,405.4	17.7	-77.3	77.6	11.94	11.94	0.65
2,442.0	24.30	266.00	2,435.0	16.8	-89.5	89.8	10.97	10.94	2.19
2,474.0	27.50	267.20	2,463.7	16.0	-103.5	103.7	10.13	10.00	3.75
2,505.0	30.40	269.10	2,490.9	15.5	-118.5	118.7	9.81	9.35	6.13
2,537.0	33.60	270.20	2,518.0	15.4	-135.4	135.6	10.16	10.00	3.44
CROSSED LEASE LINE @ 2560' MD / 2536.9' TVD									
2,560.0	35.97	270.05	2,536.9	15.4	-148.5	148.8	10.33	10.32	-0.66
2,568.0	36.80	270.00	2,543.3	15.4	-153.3	153.5	10.33	10.32	-0.61
2,600.0	40.10	269.50	2,568.4	15.4	-173.2	173.4	10.36	10.31	-1.56
2,631.0	43.40	270.00	2,591.5	15.3	-193.8	194.0	10.70	10.65	1.61
2,663.0	46.80	270.70	2,614.1	15.4	-216.5	216.7	10.74	10.63	2.19
2,694.0	50.10	271.10	2,634.7	15.8	-239.7	239.9	10.69	10.65	1.29
2,726.0	53.80	270.70	2,654.4	16.2	-264.9	265.1	11.60	11.56	-1.25
2,757.0	57.30	270.20	2,671.9	16.4	-290.4	290.7	11.37	11.29	-1.61
2,789.0	60.80	269.60	2,688.4	16.3	-317.9	318.1	11.05	10.94	-1.88
2,820.0	64.70	269.30	2,702.6	16.1	-345.4	345.6	12.61	12.58	-0.97
2,852.0	68.20	270.40	2,715.3	16.0	-374.7	375.0	11.38	10.94	3.44
2,883.0	71.80	271.40	2,725.9	16.4	-403.9	404.1	12.00	11.61	3.23
2,915.0	75.60	272.10	2,734.9	17.4	-434.6	434.8	12.06	11.88	2.19
2,946.0	79.70	272.60	2,741.5	18.6	-464.8	465.1	13.32	13.23	1.61
CROSSED HARD LINE @ 2962' MD / 2744.1' TVD									
2,962.0	81.75	273.00	2,744.1	19.4	-480.6	480.8	13.05	12.81	2.51
2,978.0	83.80	273.40	2,746.1	20.3	-496.4	496.7	13.05	12.81	2.49

DDC Survey Report



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Site:	Sec 8, T18S, R27E	MD Reference:	WELL @ 3400.0usft (Patterson #41)
Well:	Peterson 7 IL Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,003.0	87.10	273.50	2,748.1	21.8	-521.3	521.6	13.21	13.20	0.40
3,095.0	89.60	275.10	2,750.8	28.7	-613.0	613.4	3.23	2.72	1.74
3,158.0	90.40	274.90	2,750.8	34.2	-675.8	676.2	1.31	1.27	-0.32
3,221.0	90.20	273.20	2,750.4	38.6	-738.6	739.1	2.72	-0.32	-2.70
3,285.0	90.80	271.90	2,749.9	41.5	-802.5	803.1	2.24	0.94	-2.03
3,348.0	91.20	269.60	2,748.8	42.3	-865.5	866.1	3.71	0.63	-3.65
3,411.0	91.50	269.50	2,747.3	41.8	-928.5	929.0	0.50	0.48	-0.16
3,475.0	91.90	269.50	2,745.4	41.2	-992.5	993.0	0.63	0.63	0.00
3,538.0	90.50	269.50	2,744.1	40.7	-1,055.4	1,056.0	2.22	-2.22	0.00
3,601.0	90.70	269.30	2,743.4	40.0	-1,118.4	1,118.9	0.45	0.32	-0.32
3,665.0	90.90	269.00	2,742.5	39.1	-1,182.4	1,182.9	0.56	0.31	-0.47
3,728.0	90.80	269.00	2,741.6	38.0	-1,245.4	1,245.9	0.16	-0.16	0.00
3,790.0	90.60	269.00	2,740.8	36.9	-1,307.4	1,307.8	0.32	-0.32	0.00
3,854.0	90.90	269.80	2,740.0	36.2	-1,371.4	1,371.8	1.33	0.47	1.25
3,917.0	90.80	269.80	2,739.1	36.0	-1,434.4	1,434.8	0.16	-0.16	0.00
3,949.0	91.50	270.90	2,738.4	36.2	-1,466.4	1,466.8	4.07	2.19	3.44
4,012.0	91.60	270.70	2,736.7	37.1	-1,529.3	1,529.7	0.35	0.16	-0.32
4,075.0	91.70	270.70	2,734.9	37.9	-1,592.3	1,592.7	0.16	0.16	0.00
4,138.0	91.50	270.70	2,733.1	38.6	-1,655.3	1,655.7	0.32	-0.32	0.00
4,202.0	91.60	270.70	2,731.4	39.4	-1,719.2	1,719.7	0.16	0.16	0.00
4,265.0	91.60	270.50	2,729.7	40.1	-1,782.2	1,782.6	0.32	0.00	-0.32
4,328.0	91.40	270.70	2,728.0	40.7	-1,845.2	1,845.6	0.45	-0.32	0.32
4,423.0	91.30	270.90	2,725.8	42.0	-1,940.2	1,940.6	0.24	-0.11	0.21
4,518.0	91.20	271.20	2,723.7	43.8	-2,035.1	2,035.6	0.33	-0.11	0.32
4,613.0	90.80	270.50	2,722.0	45.2	-2,130.1	2,130.5	0.85	-0.42	-0.74
4,708.0	90.70	270.20	2,720.8	45.8	-2,225.1	2,225.5	0.33	-0.11	-0.32
4,803.0	91.60	270.40	2,718.9	46.3	-2,320.1	2,320.5	0.97	0.95	0.21
4,898.0	93.00	272.10	2,715.1	48.3	-2,415.0	2,415.4	2.32	1.47	1.79
4,992.0	91.50	270.50	2,711.4	50.5	-2,508.9	2,509.3	2.33	-1.60	-1.70
5,087.0	91.60	270.20	2,708.8	51.1	-2,603.8	2,604.3	0.33	0.11	-0.32
5,182.0	90.60	269.80	2,707.0	51.1	-2,698.8	2,699.3	1.13	-1.05	-0.42
5,277.0	90.60	269.00	2,706.0	50.1	-2,793.8	2,794.2	0.84	0.00	-0.84
5,372.0	92.00	269.60	2,703.8	48.9	-2,888.8	2,889.2	1.60	1.47	0.63
5,467.0	92.10	270.20	2,700.4	48.7	-2,983.7	2,984.1	0.64	0.11	0.63
5,562.0	92.00	270.20	2,697.0	49.1	-3,078.6	3,079.0	0.11	-0.11	0.00
5,655.0	91.80	272.50	2,694.0	51.3	-3,171.5	3,172.0	2.48	-0.22	2.47
5,745.0	92.20	272.60	2,690.8	55.3	-3,261.4	3,261.9	0.46	0.44	0.11
5,837.0	91.00	271.40	2,688.2	58.5	-3,353.3	3,353.8	1.84	-1.30	-1.30
5,929.0	90.80	270.50	2,686.8	60.0	-3,445.3	3,445.8	1.00	-0.22	-0.98
6,022.0	90.30	270.70	2,685.9	61.0	-3,538.3	3,538.8	0.58	-0.54	0.22
6,111.0	89.70	270.20	2,685.9	61.7	-3,627.3	3,627.8	0.88	-0.67	-0.56
6,203.0	91.00	270.40	2,685.3	62.1	-3,719.3	3,719.8	1.43	1.41	0.22
6,295.0	91.60	270.70	2,683.3	63.0	-3,811.2	3,811.8	0.73	-0.65	0.33
6,387.0	92.20	271.10	2,680.2	64.5	-3,903.2	3,903.7	0.78	0.65	0.43

DDC Survey Report



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Project:	Eddy County New Mexico	TVD Reference:	WELL @ 3400.0usft (Patterson #41)
Site:	Sec 8, T18S, R27E	MD Reference:	WELL @ 3400.0usft (Patterson #41)
Well:	Peterson 7 IL Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

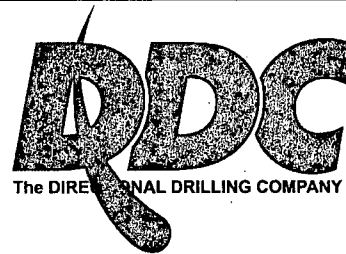
Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,479.0	92.30	271.10	2,676.6	66.2	-3,995.1	3,995.6	0.11	0.11	0.00	
6,573.0	91.80	270.40	2,673.2	67.5	-4,089.0	4,089.6	0.91	-0.53	-0.74	
6,668.0	90.90	269.10	2,671.0	67.1	-4,184.0	4,184.5	1.66	-0.95	-1.37	
6,763.0	91.00	269.00	2,669.4	65.5	-4,279.0	4,279.5	0.15	0.11	-0.11	
6,857.0	92.30	271.20	2,666.7	65.6	-4,372.9	4,373.4	2.72	1.38	2.34	
6,952.0	91.80	270.50	2,663.3	67.0	-4,467.8	4,468.3	0.91	-0.53	-0.74	
7,047.0	91.60	270.00	2,660.5	67.5	-4,562.8	4,563.3	0.57	-0.21	-0.53	
7,142.0	91.40	271.60	2,658.0	68.8	-4,657.8	4,658.3	1.70	-0.21	1.68	
7,236.0	90.50	270.40	2,656.5	70.4	-4,751.7	4,752.2	1.60	-0.96	-1.28	
7,331.0	90.70	271.90	2,655.5	72.3	-4,846.7	4,847.2	1.59	0.21	1.58	
7,426.0	90.70	271.60	2,654.3	75.2	-4,941.6	4,942.2	0.32	0.00	-0.32	
7,521.0	90.20	271.60	2,653.6	77.9	-5,036.6	5,037.2	0.53	-0.53	0.00	
7,575.0	90.10	271.60	2,653.4	79.4	-5,090.6	5,091.2	0.19	-0.19	0.00	
TD @ 7625' MD / 2653.3' TVD										
7,625.0	90.10	271.60	2,653.3	80.8	-5,140.6	5,141.2	0.00	0.00	0.00	

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
2,111.0	2,110.1	19.2	-45.9	TIE IN @ 2111' MD / 2110.1' TVD
2,560.0	2,536.9	15.4	-148.5	CROSSED LEASE LINE @ 2560' MD / 2536.9' TVD
2,962.0	2,744.1	19.4	-480.6	CROSSED HARDLINE @ 2962' MD / 2744.1' TVD
7,625.0	2,653.3	80.8	-5,140.6	TD @ 7625' MD / 2653.3' TVD

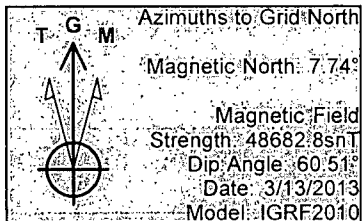
Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mewbourne Oil Co
 Peterson 7 IL Federal Com #1H
 Eddy County, New Mexico
 Rig: Patterson #41
 Created By: TIFFANI MIZELL
 Date: 4/1/2013

Peterson 7 IL Federal Com #1H
 Eddy County, New Mexico
 Q130028 & WT-13218
 Design #2



Mewbourne Oil Company

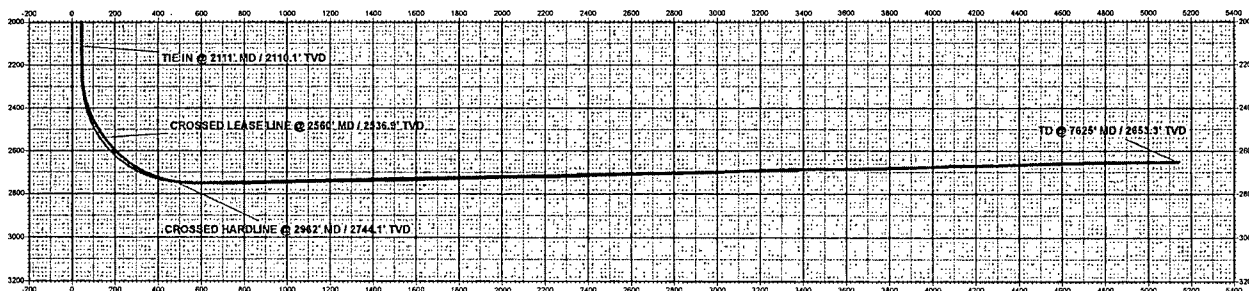
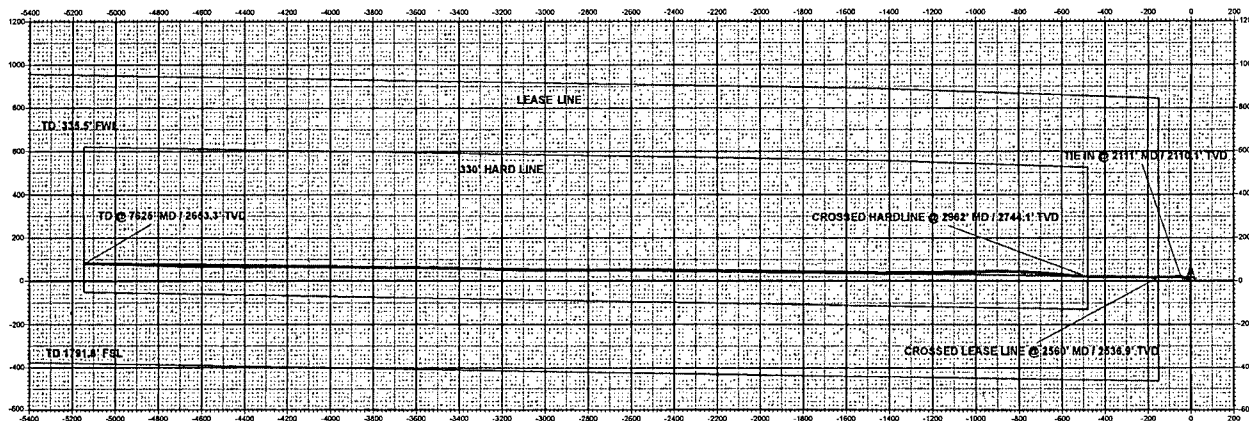


PROJECT DETAILS: Eddy County, New Mexico	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Peterson 7 IL Federal Com #1H				
	Ground Level:	3381.0		
+N/-S	+E/-W	North	East	Latitude
0.0	0.0	640161.35	807742.99	32° 45' 36.620 N
				104° 18' 29.324 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	North	East	Latitude
PBHL Peterson 7 IL Federal Com #1H Design #1	2646.0	84.2	-6146.0	640235.52	502596.95	32° 45' 36.361 N
- plan hits target center						

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
2111.0	0.49	260.40	2110.1	15.2	-45.9	46.2	84.4	TIE IN @ 2111' MD / 2110.1' TVD	
2560.0	35.97	270.05	2536.9	15.4	-148.5	148.8	157.4	CROSSED LEASE LINE @ 2560' MD / 2536.9' TVD	
2962.0	81.75	273.00	2744.1	19.4	-480.5	480.8	489.4	CROSSED HARDLINE @ 2962' MD / 2744.1' TVD	
7625.0	90.10	271.60	2653.3	80.8	-6140.6	6141.2	6150.8	TD @ 7625' MD / 2653.3' TVD	



Vertical Section at 270.94° (200 usf/in)