

**PATENT ASSIGNMENT**

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Harold J. VINEGAR	09/03/2011
Mark Gregory PICHA	09/06/2011
Lanny Gene SCHOELING	09/27/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SHELL OIL COMPANY
<b>Street Address:</b>	P.O. BOX 2463
<b>Internal Address:</b>	ONE SHELL PLAZA
<b>City:</b>	Houston
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	772522463
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7640980
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(713)241-6617
<b>Phone:</b>	7132412151
<b>Email:</b>	cathy.callen@shell.com
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Correspondent Name:</b>	SHELL OIL COMPANY
<b>Address Line 1:</b>	P.O. BOX 2463
<b>Address Line 2:</b>	ONE SHELL PLAZA
<b>Address Line 4:</b>	Houston, TEXAS 772522463
<b>ATTORNEY DOCKET NUMBER:</b>	TH2717-03
<b>NAME OF SUBMITTER:</b>	Marcella D. Watkins

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Total Attachments: 4

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ASSIGNMENT

WHEREAS, we, Harold J. Vinegar, Mark Gregory Picha, and Lanny Gene Schoeling, have made a certain improvement in THERMAL PROCESSES FOR SUBSURFACE FORMATIONS for which a United States Patent application was filed and assigned serial no. 12/080,928 and has since been granted and assigned Patent No. 7,640,980 thereon, and identified as TH2717 03(US), have been executed by us, and,

WHEREAS, SHELL OIL COMPANY, a Delaware Corporation, has equitable rights in and to this invention and desires to confirm such rights and to acquire all right, title and interest in and to said invention;

NOW THEREFORE, for valuable consideration received, we hereby sell, assign, and transfer to said SHELL OIL COMPANY, its successors and assigns, all right, title and interest in and to said invention in the United States and in all other countries throughout the world; including without limitation those in and to the above-named application and any continuation, substitute or division application thereof and the patent or patents which may be issued thereon in the United States and any reissue of any such patent, and those in and to any application or patent or utility model in any and all such other countries of the world, and further including the right to file further applications in all countries throughout the world in the name of SHELL OIL COMPANY or whomsoever that company may nominate, and to claim the priority of the above-named United States application under the International Convention of Paris of 1883.

With respect to any country where for the filing of such an application and/or the transfer of priority rights a separate deed of sale, assignment or transfer is required, we will undertake at the request of SHELL OIL COMPANY to execute such separate deed to SHELL OIL COMPANY or to whomsoever that company may nominate.

And we hereby agree that we will upon request execute any instrument which SHELL OIL COMPANY desires to carry this assignment in effect, and perfect the title transferred hereby, or to prosecute any of the above-mentioned United States applications or any foreign application on this invention.

And the Commissioner of Patents of the United States is hereby authorized to issue Letters Patent on said above-named application and on any continuation, substitute or division thereof to SHELL OIL COMPANY.

IN TESTIMONY WHEREOF, we have hereunto subscribed our names.

Harold J. Vinegar  
HAROLD J. VINEGAR  
9/3/2011  
Date

Witnesses:  
Robert Vinegar  
(Witness)  
Mark Picha  
(Witness)

\_\_\_\_\_  
MARK GREGORY PICH

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
LANNY GENE SCHOELING

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Witness)

ASSIGNMENT

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NOW THEREFORE, for valuable consideration received, we hereby sell, assign, and transfer to said SHELL OIL COMPANY, its successors and assigns, all right, title and interest in and to said invention in the United States and in all other countries throughout the world; including without limitation those in and to the above-named application and any continuation, substitute or division application thereof and the patent or patents which may be issued thereon in the United States and any reissue of any such patent, and those in and to any application or patent or utility model in any and all such other countries of the world, and further including the right to file further applications in all countries throughout the world in the name of SHELL OIL COMPANY or whomsoever that company may nominate, and to claim the priority of the above-named United States application under the International Convention of Paris of 1883.

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IN TESTIMONY WHEREOF, we have hereunto subscribed our names.

Witnesses:

\_\_\_\_\_  
HAROLD J. VINEGAR

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
Date

\_\_\_\_\_  
(Witness)

*Mark Gregory Picha*

MARK GREGORY PICHA

*9/6/2011*  
Date

*Lanny Gene Schoeling*

LANNY GENE SCHOELING

*27 Sept 2011*  
Date

*Jeffrey A. East*  
(Witness)

*[Signature]*  
(Witness)

*Annunzio*  
(Witness)

*Barbara F. Ito*  
(Witness)