GASTAR EXPLORATION LTD Form SC 13D/A December 11, 2009

> UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

OMB APPROVAL

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SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

Gastar Exploration Ltd.

(Name of Issuer)

Common Shares, no par value

(Title of Class of Securities)

367299104

(CUSIP Number)

Warren T. Lazarow,

Esq. Paul S. Scrivano, Esq.

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LLP O'Melveny & Myers LLP

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Menlo Park,

CA 94025 7 Times Square

(650)

473-2600 New York, NY 10036

(212) 326-2000

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

December 10, 2009

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of sections 240.13d-1(e), 240.13d-1(f) or 140.13d-1(g), check the following box. [X]

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See section 240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

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		1.	Names of Reporting Person	ns			
	Palo Alto Investors, Inc.						
2 (b)		Check the Appropriate Bo	ox if a Member of a Group (Se	ee Instructions)			
		3. SEC	Use Only				
4. Source of Fur	4. Source of Funds (See Instructions) AF						
5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)							
6. Citizenship or Place of Organization California							
Number of Shares	7.	Sole Voting Power 0	ı				
Beneficially Owned by	· · ·						
Each Reporting Person With	9. 10.	Sole Dispositive Power Shared Dispositive Power	0 4,674,744				
11.	Aggrega	ate Amount Beneficially Owned	by Each Reporting Person	4,674,744			
12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)							
13. Percent of C	13. Percent of Class Represented by Amount in Row (11) 9.3%						
14. Type of Rep	14. Type of Reporting Person (See Instructions) CO, HC						

		1.	Names of Reportin	ng Persons		
	Palo Alto Investors, LLC					
2	2. (b)	Check the Appropriate E	Box if a Member of a Go	roup (See Instruct	ions)	
		3. SE	C Use Only			
4. Source of Fu	nds (See	: Instructions)		AF		
5.	5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)					
6. Citizenship o	or Place	of Organization		California		
Number of Shares	7.	Sole Voting Power		0		
Beneficially Owned by	8.	Shared Voting Power		4,674,744		
Each Reporting Person With	9. 10.	Sole Dispositive Power Shared Dispositive Power	0	4,674,744		
11.	Aggrega	te Amount Beneficially Owned	by Each Reporting Per	son	4,674,744	
12		Check if the Aggregate Am Ins	nount in Row (11) Exclustructions)	udes Certain Shar	es (See	
13. Percent of Class Represented by Amount in Row (11) 9.3%						
14. Type of Reporting Person (See Instructions) IA, OO						

	1. Names of Reporting Persons					
	William Leland Edwards					
2. (b)		Check the Appropriate Box (a)	Check the Appropriate Box if a Member of a Group (See Instructions) (a) X			
		3. SEC	Use Only			
4. Source of Fu	nds (See	Instructions)	AF			
5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)						
6. Citizenship o	r Place o	of Organization	U.S.A.			
Number of	7.	Sole Voting Power	28,000			
Shares Beneficially Owned by	8.	Shared Voting Power	4,674,744			
Each Reporting Person With	9. 10.	Sole Dispositive Power Shared Dispositive Power	28,000 4,674,744			
11.	Aggreg	ate Amount Beneficially Owned b	by Each Reporting Person	4,702,744		
			unt in Row (11) Excludes Certain Share ons)	es (See		
13. Percent of Class Represented by Amount in Row (11) 9.4%						
14. Type of Reporting Person (See Instructions) IN, HC						

		1.	Names of Reporting	g Persons		
		Anthony	y Joonkyoo Yun, MD			
2.	(b)	Check the Appropriat (a)	te Box if a Member of a Gro	oup (See Instructions)		
		3.	SEC Use Only			
4. Source of Fur	ıds (See	e Instructions)		AF		
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)					
6. Citizenship or	· Place o	of Organization		U.S.A.		
Number of Shares Beneficially	7. 8.	Sole Voting Power Shared Voting Power		0 4,674,744		
Owned by Each Reporting Person With	9. 10.	Sole Dispositive Power Shared Dispositive Pow	rer	0 4,674,744		
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 4,67					
			Amount in Row (11) Exclu Instructions)	des Certain Shares (See		
13. Percent of Class Represented by Amount in Row (11) 9.3%						
14. Type of Reporting Person (See Instructions) IN, HC						

		1. Names of	of Reporting Persons		
Palo Alto Small Cap Master Fund, L.P.					
2		Check the Appropriate Box if a Mem (a)	ber of a Group (See Instruction	ns)	
	3.	SEC Use Only			
4. Source of Fu	nds (See Instr	ructions)	AF		
5.	Check if D	isclosure of Legal Proceedings Is Requi	red Pursuant to Items 2(d) or 2	(e)	
6. Citizenship o	or Place of Or	ganization	Cayman Islands		
Number of Shares	7. S	ole Voting Power	0		
Beneficially Owned by Each Reporting	8. S 1,757,172	hared Voting Power			
Person With		ole Dispositive Power Shared Dispositive Power	0 1,757,172		
11.	Aggregate A	mount Beneficially Owned by Each Rep	porting Person	1,757,172	
12.	. (Check if the Aggregate Amount in Row Instructions)	(11) Excludes Certain Shares	(See	
13. Percent of C	Class Represe	nted by Amount in Row (11)	3.5%		
14. Type of Rep	porting Person	n (See Instructions)	PN		

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		1.	Names of Reporting	Persons		
	Palo Alto Small Cap Fund, L.P.					
2.	(b)	Check the Appropria	te Box if a Member of a Groot	up (See Instructions)		
	(3.	SEC Use Only			
4. Source of Fun	nds (See In	nstructions)	2	AF		
5.	Check it	Disclosure of Legal Proce	eedings Is Required Pursuant	to Items 2(d) or 2(e)		
6. Citizenship or	Place of	Organization	De	elaware		
Number of Shares	7.	Sole Voting Power		0		
Beneficially Owned by Each Reporting	8. 1,497,4	Shared Voting Power 62				
Person With	9. 10.	Sole Dispositive Power Shared Dispositive Pow	/er	0 1,497,462		
11.	Aggregate	e Amount Beneficially Ow	ned by Each Reporting Perso	on 1,497,462		
12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)						
13.Percent of C	lass Repr	esented by Amount in Row	v (11) 3	.0%		
14. Type of Rep	14. Type of Reporting Person (See Instructions) PN					

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Item 1. Security and Issuer

This statement relates to the Common Shares, no par value (the "Stock") of Gastar Exploration Ltd. (the "Issuer"). The principal executive office of the Issuer is located at 1331 Lamar Street, Suite 1080, Houston, Texas 77010.

Item 2. Identity and Background

The persons filing this statement and the persons enumerated in Instruction C of Schedule 13D and, where applicable, their respective places of organization, general partners, directors, executive officers and controlling persons, and the information regarding them, are as follows:

- (a) William Leland Edwards, Palo Alto Investors, LLC ("PAI LLC"), Palo Alto Investors, Inc. ("PAI Corp"), Palo Alto Small Cap Master Fund, L.P. ("Small Cap Master"), Palo Alto Small Cap Fund, L.P. ("Small Cap") and Anthony Joonkyoo Yun, MD (collectively, the "Filers").
 - (b) The business address of the Filers (other than Small Cap Master) is:

470 University Avenue, Palo Alto, CA 94301

The business address of Small Cap Master is:

Citco Fund Services (Bermuda) Limited, Washington Mall West, 2nd Floor, 7 Reid Street, Hamilton HM 11, Bermuda

(c)Present principal occupation or employment or the Filers and the name, principal business and address of any corporation or other organization in which such employment is conducted:

PAI LLC is an investment adviser registered with the Securities and Exchange Commission and is the general partner of, and investment adviser to, investment limited partnerships, including without limitation Small Cap Master and Small Cap. The sole manager of PAI LLC is PAI Corp. Mr. Edwards is the controlling shareholder of PAI Corp and the controlling owner of PAI LLC. Mr. Yun is the president of PAI Corp and PAI LLC. Small Cap Master invests in securities of companies, and Small Cap invests in securities of companies indirectly as a limited partner of Small Cap Master.

- (d) During the last five years, none of the Filers has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Filers was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
 - (f) Mr. Edwards and Mr. Yun are United States citizens.

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CUSIP No. 367299104

Item 3. Source and Amount of Funds or Other Consideration

The source and amount of funds used in purchasing the Stock were as follows:

Purchaser Source of Funds Amount
PAI LLC Funds Under Management \$20,522,124

Item 4. Purpose of Transaction

The Filers acquired the Stock for investment purposes and had previously reported their ownership of the Stock of the Issuer on Schedule 13G. The Filers have determined to convert the reporting of their ownership of the Stock of the Issuer to a filing on Schedule 13D in order to obtain flexibility to express their views and to take actions with respect to the Issuer, its business, the Stock and the directors and officers of the Issuer. The Filers have discussed with the Issuer the potential for several proactive measures concerning the Issuer, including changes to the board of directors and management of the Issuer and other strategic alternatives, and the Filers intend to continue engaging in those discussions with the Issuer. Depending on various factors, the Filers could determine to take one or more, or to support one or more, of the actions described in the next paragraph, including without limitation one or more of the actions described in paragraphs (a) through (j) of Item 4 of Schedule 13D.

In pursuing their investment purposes, the Filers may from time to time further purchase, hold, vote, trade, dispose of, engage in option, swap or other derivative securities transactions with respect to or otherwise deal in the Stock at times, and in such manner, as they deem advisable to benefit from changes in the Stock's market price, changes in the Issuer's operations, business strategy or prospects, or from sale or merger of the Issuer. To evaluate such alternatives, the Filers routinely will monitor the Issuer's operations, prospects, business development, management, competitive and strategic matters, capital structure and prevailing market conditions, as well as alternative investment opportunities, the Filers' liquidity requirements and other investment considerations. Consistent with their investment research methods and evaluation criteria, the Filers may discuss such matters with the Issuer's management, Board of Directors, other shareholders, industry analysts, existing or potential strategic partners or competitors, investment and financing professionals, sources of credit and other investors. Such factors and discussions may affect materially, and result in, the Filers' modifying their ownership of the Stock, exchanging information with the Issuer pursuant to appropriate confidentiality or similar agreements, proposing changes in the Issuer's operations, governance or capitalization, or in proposing or taking one or more of the actions described in paragraphs (a) through (j) of Item 4 of Schedule 13D. Except as described herein, the Filers have no present plan or proposal that would include any of the actions described in paragraphs (a) through (j) of Item 4 of Schedule 13D. The Filers may reconsider and change their plans or proposals relating to the Stock at any time.

Item 5. Interest in Securities of the Issuer

(a), (b), (d) Each Filer's beneficial ownership of the Stock on the date of this report is reflected on that Filer's cover page. PAI LLC is an investment adviser with the power to invest in, vote and dispose of the Stock on behalf of its clients. Its clients have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Stock. No client individually holds more than 5% of the outstanding Stock. Mr. Edwards is the controlling shareholder of PAI Corp, which is the sole manager of PAI LLC, and is the controlling owner of PAI LLC. Mr. Yun is the president of PAI Corp and PAI LLC. The Filers are filing this Schedule 13D jointly, but not as members of a group, and each of them expressly disclaims membership in a group. Each Filer disclaims beneficial ownership of the Stock except to the extent of that Filer's pecuniary interest therein.

(c) Listed below are all the transactions in the Stock by the Filers during the last 60 days. There were no other transactions in the Stock by the Filers during such period.

Number of Shares

Filer		Date Transaction Average Price Per Share		Purchased or Sold
PAI LLC Small Cap	12/10/2009	Sale	2,500,000	\$4.24
Master	12/10/2009	Sale	1,500,000	\$4.24

Item 6. Contracts, Arrangement, Understandings or Relationships with Respect to Securities of the Issuer

PAI LLC is the general partner of investment partnerships, including Small Cap Master and Small Cap, pursuant to agreements of limited partnership that grant to PAI LLC the authority, among other things, to invest the funds of such investment partnerships in the Stock, to vote and dispose of the Stock and to file this statement on behalf of such investment partnerships. Pursuant to such agreements, PAI LLC is entitled to allocations based on assets under management and realized and unrealized gains.

Item 7. Material to Be Filed as Exhibits

Exhibit A Agreement Regarding Joint Filing of Statement on Schedule 13D or 13G

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CUSIP No. 367299104

SIGNATURES

After reasonable inquiry and to the best of my knowledge, I certify that the information set forth in this statement is true, complete and correct.

Dated: December 11, 2009

PALO ALTO INVESTORS, INC. PALO ALTO INVESTORS, LLC

By: /s/ Mark By: /s/ Mark

Shamia Shamia

Mark Shamia, Chief Operating Officer

Mark Shamia, Chief Operating Officer

PALO ALTO SMALL CAP MASTER FUND, PALO ALTO SMALL CAP FUND, L.P.

L.P. By: Palo Alto Investors, LLC, General

By: Palo Alto Investors, LLC, General Partner

Partner By: Palo Alto Investors, Manager

By: Palo Alto Investors, Manager By: /s/ Mark

By: /s/ Mark Shamia

Shamia Mark Shamia, Chief Operating Officer

Mark Shamia, Chief Operating Officer

/s/ Anthony Joonkyoo /s/ William Leland

Yun Edwards

Anthony Joonkyoo Yun, MD William Leland Edwards

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EXHIBIT A AGREEMENT REGARDING JOINT FILING OF STATEMENT ON SCHEDULE 13D OR 13G

The undersigned agree to file jointly with the Securities and Exchange Commission (the "SEC") any and all statements on Schedule 13D or Schedule 13G (and any amendments or supplements thereto) required under section 13(d) of the Securities Exchange Act of 1934, as amended, in connection with purchases and sales by the undersigned of the securities of any issuer until such time as the undersigned file with the SEC a statement terminating this Agreement Regarding Joint Filing of Statement on Schedule 13D or 13G. For that purpose, the undersigned hereby constitute and appoint Palo Alto Investors, LLC, a California limited liability company, as their true and lawful agent and attorney-in-fact, with full power and authority for and on behalf of the undersigned to prepare or cause to be prepared, sign, file with the SEC and furnish to any other person all certificates, instruments, agreements and documents necessary to comply with section 13(d) and section 16(a) of the Securities Exchange Act of 1934, as amended, in connection with said purchases and sales, and to do and perform every act necessary and proper to be done incident to the exercise of the foregoing power, as fully as the undersigned might or could do if personally present, until such time as the undersigned file with the SEC a statement terminating this Agreement Regarding Joint Filing of Statement on Schedule 13D or 13G.

Dated: November 9, 2009

PALO ALTO INVESTORS, INC. PALO ALTO INVESTORS, LLC

By: /S/ Mark Shamia, Chief Operating By: /S/ Mark Shamia, Chief Operating

Officer Officer

PALO ALTO SMALL CAP MASTER FUND, PALO ALTO SMALL CAP FUND, L.P.

L.P. By: Palo Alto Investors, LLC, General

By: Palo Alto Investors, LLC, General Partner

Partner By: Palo Alto Investors, Manager

By: Palo Alto Investors, Manager By: /s/ Mark

By: /s/ Mark Shamia

Shamia Mark Shamia, Chief Operating Officer

Mark Shamia, Chief Operating Officer

/S/ Anthony Joonkyoo Yun, MD /S/ William Leland Edwards