



**Freeport McMoRan Corporation**  
**Vote Yes: Disclosures on Urban Drilling Practices**

**Annual Meeting: June 8th, 2016**

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**SUMMARY**

The Proposal requests the Company report to shareholders on the actions being taken to reduce and mitigate potential health harms, environmental harms, and negative community impacts arising from the Company's use of non-conventional extraction methods to enhance oil production in urban areas. Shareholders understand that Freeport implements a variety of methods to enhance oil production, including the use of acid, gravel, and water flooding, in the Los Angeles Basin as well as steam injection in the San Joaquin Basin. The company or its predecessor has also conducted hydraulic fracturing in Inglewood as recently as 2013, which operations may still pose environmental health risks to vulnerable communities. The Company has failed to inform shareholders about the actions it is taking to mitigate the environmental and community impact risks associated with these urban drilling operations.

The use of non-conventional techniques to enhance oil production from wells in close proximity to homes and schools has created significant controversy and concern as reflected by community actions, substantial media attention, and legal controversy. Calls for bans and moratoria on hydraulic fracturing are increasing in California, just as they have been across the U.S. Freeport's unconventional extraction methods are already causing major controversy and reputational harm. If Freeport were to cause a significant accident in one of the densely populated urban areas in which it is conducting unconventional extraction, the repercussions could readily and negatively impact the Company, including causing widespread reputational damage, increased regulatory scrutiny, inability to obtain permits for current or future operations, reduced profits, bans or moratoria across California, and potentially significant legal costs, among others.

The Proposal's objective is for the Company to provide shareholders with key information on how it is managing the risks posed by these controversial operations in urban locations. Southern California Gas' record-breaking methane leak, in the heart of Los Angeles, is a timely and stark reminder of the reputational damage the Company's urban oil drilling can create, and the costs it can incur, for operational failures. Shareholders deserve transparency about the company's practices to mitigate the health harms and other risks of its urban extraction operations. We urge you to vote "yes" for this resolution.

**RESOLVE CLAUSE**

**BE IT RESOLVED:** Shareholders request that the Board of Directors report on company actions being taken (excluding actions taken to comply with law) to reduce and mitigate potential health harms, environmental harms, and negative community impacts that arise from Freeport's enhanced oil recovery operations (such as hydraulic fracturing, steam injection, gravel packing, and acidizing) in urban areas of California. This report



should be prepared at reasonable cost, omitting confidential information, by November 30, 2016.

## RATIONALE FOR A YES VOTE

- 1) **The health and environmental impacts of enhanced oil recovery methods, especially those in urban regions in California, are facing increased regulatory scrutiny and social concern.** Freeport has significant oil operations in the Los Angeles Basin, a focal point for social concerns about the health impacts of non-conventional drilling methods.
- 2) **Freeport has significant urban drilling operations in California that face resistance from front-line communities, posing increased risks to the company.** Community resistance and concerns of environmental and health impacts remains strong at Freeport's urban drilling operations, including the Jefferson, Murphy, and Inglewood oil drilling sites.
- 3) **The Company lacks disclosure on the actions being taken to reduce environmental and social risks associated with its enhanced oil recovery operations in urban regions.** The risks of urban drilling, especially those operations that use hydraulic fracturing, acidizing, and other non-conventional techniques are recognized, yet Freeport has not disclosed its practices to reduce these risk to shareholders.

### 1. **The health and environmental impacts of enhanced oil recovery methods, especially those in urban regions, are facing increased regulatory scrutiny and social concern.**

Enhanced oil production methods are controversial nationally, and have been under increased scrutiny in California.<sup>1</sup> Hydraulic fracturing, acidizing, and other enhanced oil production techniques commonly use toxic chemicals in the fluids used to fracture subterranean rock and to dissolve, using acids and chemicals, minerals between rocks, freeing oil for extraction. These toxic chemicals, including benzene and hydrochloric acid, can contaminate water supplies and cause or increase air pollution, resulting in human and environmental health harms. A 2015 study testing 329 hydraulic fracturing wells in California found that 98% of the wells exceed federal and state water quality standards for benzene, a carcinogen, and that benzene levels average over 700 times the federal limit.<sup>2</sup> Studies have also identified hundreds of unlined waste water pits in California which can contaminate surface water and groundwater in aquifers.<sup>3</sup> Millions of gallons of oil waste water from hydraulic fracturing has been allegedly illegally pumped into protected aquifers through injection wells, resulting in at least one legal action in 2015.<sup>4</sup>

Chemicals used in enhanced oil recovery, including crystallized silica and formaldehyde, can also contaminate air, and have been proven to cause serious health harms.<sup>5</sup> Between June 2013 to 2014,

<sup>1</sup> Huffpost Los Angeles. California Offshore Fracking More Widespread Than Anyone Believed. Oct, 2013.

[http://www.huffingtonpost.com/2013/10/21/california-offshore-fracking\\_n\\_4136956.html](http://www.huffingtonpost.com/2013/10/21/california-offshore-fracking_n_4136956.html)

<sup>2</sup> Los Angeles Times. High levels of benzene found in fracking waste water. Feb, 2015.

<http://www.latimes.com/local/california/la-me-fracking-20150211-story.html>

<sup>3</sup> Los Angeles Times. Hundreds of illicit oil wastewater pits found in Kern County. Feb, 2015.

<http://www.latimes.com/local/lanow/la-me-ln-pits-oil-wastewater-20150226-story.html>

<sup>4</sup> Center for Biological Diversity. Lawsuit Seeks to Halt Illegal Dumping of Toxic Oil Waste Into California's Imperiled Water Supplies. May, 2015. [https://www.biologicaldiversity.org/news/press\\_releases/2015/oil-waste-05-07-2015.html](https://www.biologicaldiversity.org/news/press_releases/2015/oil-waste-05-07-2015.html)

<sup>5</sup> See TEDX The Endocrine Disruption Exchange. Chemicals in Oil and Gas Operations. Health Effects Spreadsheet and Summary. <http://endocrinedisruption.org/chemicals-in-natural-gas-operations/chemicals-and-health>

California oil companies, including Freeport, reported using more than 45 million pounds of such chemicals – including 44 different airborne toxins – in Los Angeles and Orange counties alone.<sup>6</sup> The large number of controversies around non-conventional and enhanced oil recovery techniques in California has escalated public concern and calls for increased regulations.

Freeport’s enhanced oil production operations in urban locations magnify the associated risks due to the large numbers of people living in close proximity to operations and subject to potential harm. Potential health harms could include costly litigation given the density of the population in the urban areas where thousands of potential plaintiffs exist. In addition, in urban areas, impacts such as truck traffic, air pollution, and potential water pollution, for example, are magnified due to density, already poor air quality, and the high number of people that will be impacted by any drinking water degradation.

The Los Angeles basin, where Freeport has substantial operations, is a focal point for the urban drilling debate across the nation and has been the subject of significant media coverage, public demonstrations, litigation, and efforts to ban fracturing and acidization in the area.<sup>7,8</sup> Regulatory agencies have also expressed concern; an internal report issued by the Division of Oil, Gas and Geothermal Resources assessing oil wells in the L.A. region found that “47% of well records did not contain information vital to understanding the integrity of the well” and “that testing and methods to ensure that fluids injected into the ground don’t contaminate aquifers or drinking water sources are inadequate and need to be updated.”<sup>9</sup>

## **2. Freeport has significant urban drilling operations in California that face resistance from front-line communities, posing increased risks to the company**

Freeport is one of the largest oil producers in California and an operator of multiple urban drilling sites, including the Inglewood Oil Field. The Inglewood Oil Field is the largest urban oil field in the country and is located amidst the residences of 300,000 people.<sup>10</sup> Other Freeport oil operations in Los Angeles include the Jefferson and Murphy drill sites, which are surrounded by homes and are located within in a half-mile of multiple schools and day care centers.<sup>11</sup> The enhanced oil production methods Freeport uses in urban areas raise important health and environmental risks that could escalate and negatively impact the Company’s oil and gas portfolio and threaten the Company’s social license to operate locally, in California and, potentially nationwide and worldwide.

There has been significant resistance from communities in close proximity to Freeport urban drilling operations. At the Murphy Drill site, the frontline community has documented, on a public website, excessive odors, community members suffering from respiratory problems, chronic nosebleeds, skin

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<sup>6</sup> The Center for Biological Diversity. Air Toxics One-Year Report: Oil Companies Used Millions of Pounds of Air-Polluting Chemicals in Los Angeles Basin Neighborhoods. June, 2014.

[https://www.biologicaldiversity.org/campaigns/california\\_fracking/pdfs/14\\_6\\_9\\_Air\\_Toxics\\_One\\_Year\\_Report.pdf](https://www.biologicaldiversity.org/campaigns/california_fracking/pdfs/14_6_9_Air_Toxics_One_Year_Report.pdf)

<sup>7</sup> New York Times. The Danger of Urban Oil Drilling. Nov, 2015. <http://www.nytimes.com/2015/11/28/opinion/the-danger-of-urban-oil-drilling.html>

<sup>8</sup> Los Angeles Times. L.A. lawmakers press for action on fracking ban despite new report. November, 2014.

<http://www.latimes.com/local/lanow/la-me-ln-planning-fracking-ban-20141113-story.html>

<sup>9</sup> Los Angeles Times. Oil well oversight in L.A. Basin is ‘inconsistent,’ audit finds. Oct, 2015.

<http://www.latimes.com/local/california/la-me-oil-report-health-20151009-story.html>

<sup>10</sup> Baldwin Hills Oil Watch. Fracking in Culver City. <http://baldwinhillsoilwatch.org/>

<sup>11</sup> Liberty Hill. Drilling Down: Community Consequences of Expanded Oil Development in Los Angeles. 2015.

[http://www.libertyhill.org/sites/libertyhillfoundation/files/Drilling%20Down%20Report\\_1.pdf](http://www.libertyhill.org/sites/libertyhillfoundation/files/Drilling%20Down%20Report_1.pdf)



irritation, and headaches.<sup>12</sup> The Air Quality Management District responded to public complaints at the Murphy drill site and found a natural gas leak exceeding 400% of the allowable limit in the area.<sup>13</sup> Community opposition is current; one of the community groups protesting Freeport's operations include the Holman Methodist Church, which organized a march of hundreds of children to the Murphy and Jefferson drill site.<sup>14</sup>

Community opposition has also been strong at the Jefferson drilling site, which is 85 feet from homes, 145 feet from a church, and 770 feet from an elementary school.<sup>15</sup> From 2013-2014, Freeport reported using 133,766 pounds of corrosive acids and toxic chemicals at the Jefferson Drill site, where the frontline community has raised concerns regarding strong chemical odors and health impacts.<sup>16,17</sup> Front line communities of the Jefferson site have also provided documents to the Los Angeles Planning Committee claiming Freeport McMoRan's violation of various zoning ordinances, infringements, and treatment of the community with "reckless regard."<sup>18</sup> This letter provides images and statements documenting the alleged community impacts and zoning ordinance violations, which is further supported by other appeals submitted to the Los Angeles Planning Committee.<sup>19</sup>

As the largest urban drill site in the country, the Inglewood Oil Field is facing significant community opposition. This oil field has been the focus of many public demonstrations; famous actors, like Mark Ruffalo and Leonardo DiCaprio, have become outspoken activists raising awareness of the threats facing communities like those subject to Freeport's drilling.<sup>20</sup>

The Company cites a study suggesting that there is no "statistical difference in mortality or acute illness rates between the neighborhoods surrounding the Inglewood Oil Field and any other part of the Los Angeles Basin." The merit of these studies remain in question. The California Committee of Science and Technology stated that the study's methods were unsound and that the "study design is insufficient for

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<sup>12</sup> Stand – L.A. The Murphy Site. <http://www.stand.la/murphy.html>

<sup>13</sup> Stand – L.A. The Murphy Site. <http://www.stand.la/murphy.html>

<sup>14</sup> Redeemer Community Partnership. Kids Advocacy Day. <http://www.redeemercp.org/#!/Kids-Advocacy-Day/c6a0/55ce085b0cf2b503a1a415d4>; Aljazeera America. California communities mount protests against fracking, oil drilling. July, 2015. [http://america.aljazeera.com/articles/2015/7/24/california-communities-mount-protests-against-fracking-oil-drilling.html?utm\\_campaign=americatonight&utm\\_source=twitter&utm\\_medium=SocialFlow](http://america.aljazeera.com/articles/2015/7/24/california-communities-mount-protests-against-fracking-oil-drilling.html?utm_campaign=americatonight&utm_source=twitter&utm_medium=SocialFlow)

<sup>15</sup> Center for Biological Diversity. Air Toxics One-Year Report: Oil Companies Used Millions of Pounds of Air-Polluting Chemicals in Los Angeles Basin Neighborhoods. June, 2014, p. 6.

[https://www.biologicaldiversity.org/campaigns/california\\_fracking/pdfs/14\\_6\\_9\\_Air\\_Toxics\\_One\\_Year\\_Report.pdf](https://www.biologicaldiversity.org/campaigns/california_fracking/pdfs/14_6_9_Air_Toxics_One_Year_Report.pdf)

<sup>16</sup> Liberty Hill. Drilling Down: Community Consequences of Expanded Oil Development in Los Angeles. 2015.

[http://www.libertyhill.org/sites/libertyhillfoundation/files/Drilling%20Down%20Report\\_1.pdf](http://www.libertyhill.org/sites/libertyhillfoundation/files/Drilling%20Down%20Report_1.pdf)

<sup>17</sup> Stand – L.A. The Jefferson Site. <http://www.stand.la/jefferson.html>

<sup>18</sup> Make Jefferson Beautiful. Public Comment: RE: ZA 17528(PA4).

[http://makejeffersonbeautiful.weebly.com/uploads/4/9/7/8/49781361/2013-09-20\\_-\\_community\\_leadership\\_letter\\_upload\\_size.pdf](http://makejeffersonbeautiful.weebly.com/uploads/4/9/7/8/49781361/2013-09-20_-_community_leadership_letter_upload_size.pdf)

<sup>19</sup> Jefferson Park United. Case No. ZA 15227 (O) (PA4) – Review of Plans, Gas Plant Expansion, Amendment of Appeal.

[http://jeffersonparkunited.org/sites/jeffersonparkunited.org/files/user160/pdf\\_nodes/Peckman%20Appeal%20FMOG%20CEB%20140324%20\(Rdctd\).pdf](http://jeffersonparkunited.org/sites/jeffersonparkunited.org/files/user160/pdf_nodes/Peckman%20Appeal%20FMOG%20CEB%20140324%20(Rdctd).pdf)

<sup>20</sup> Tina Daunt, "Why Mark Ruffalo Led a Tour of Los Angeles' Oil and Gas Drilling Operations", *GOOD*, march 1<sup>st</sup>, 2016, <https://www.good.is/articles/ruffalo-lear-dicaprio-los-angeles-urban-oil-wells-fracking>; Christine Shearer, "Fracking in California Raises New and Old Concerns", *TruthOut*, May 30, 2012, <http://www.truth-out.org/news/item/9438-fracking-in-california-raises-new-and-old-concerns>



establishing causality and has many major limitations.”<sup>21</sup> Other critics note the study only addresses the near-term effects and fails to address long-term health impacts.

Despite the study’s findings, community resistance and qualitative evidence of harm remains persistent<sup>22</sup> and community opposition remains strong at Freeport urban drilling sites. The company has stated that it regularly engages with urban communities, yet this had not alleviated community concern. Additionally, in many cases, the Company’s urban neighbors are low-income individuals from underserved communities who do not have access to the resources necessary to carry out epidemiological studies. The Company certainly is aware of this. The requested disclosures are well founded in public opposition and potential for health, community, and environmental risks facing the company and should be transparently addressed.

**3. The Company lacks disclosure on the actions being taken to reduce environmental and social risk associated with its enhanced oil recovery operations in urban regions.**

Despite operating oil extraction sites which subject frontline communities in one of the biggest cities in the U.S. to serious public and environmental health risks, the Company does not disclose if or what actions it is taking to recognize or manage such risks. Freeport’s website, annual reports, and other publically available documents fail to address whether the Company is taking any action to reduce the impacts of its enhanced oil recovery drilling in urban locations.<sup>23</sup> These risks create the real possibility of a significant catastrophe in one of the U.S.’ largest cities. Accordingly, Freeport is exposed to a significant level of reputational risk, litigation risk, risks of fines and damages, and ultimately public opposition that could threaten its social license to operate across California and potentially across operations outside of California.

The Company admits that the Los Angeles operations are risky: “Our oil and gas operations are also subject to operating hazards, including well blowouts, cratering, explosions, fires, uncontrollable flows of oil, gas or well fluids and pipeline ruptures, as well as natural disasters such as earthquakes, mudslides and hurricanes. *Our operations in California, including transportation of oil by pipelines within the city and county of Los Angeles, are especially susceptible to damage from earthquakes and involve increased risks of personal injury, property damage and marketing interruptions because of the population density of southern California.*”<sup>24</sup> [emphasis added]. Despite acknowledging these risks, Freeport does not produce relevant disclosures on its practices to minimize the environmental and social impact of its urban drilling operations.

Freeport disclosures of its urban drilling operations are not comprehensive. For example, before the release of its 2016 proxy addressing this resolution,<sup>25</sup> Freeport had no relevant disclosures on its website or investor reports that stated that it has not used hydraulic fracturing in the Los Angeles Basin since

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<sup>21</sup> California Council on Science and Technology. A Case Study of the Petroleum Geological Potential and Potential Public Health Risks Associated with Hydraulic Fracturing and Oil and Gas Development in The Los Angeles Basin <http://ccst.us/publications/2015/vol-III-chapter-4.pdf> p. 217

<sup>22</sup> Los Angeles Times. Amid protests, report finds no harm from fracking. Oct, 2012.

<http://articles.latimes.com/2012/oct/16/local/la-me-fracking-baldwin-hills-20121016>

<sup>23</sup> Freeport McMoRan Website. <http://www.fcx.com/>

<sup>24</sup> Freeport McMoRan. 2014 10k p.51 <https://www.sec.gov/Archives/edgar/data/831259/000083125915000016/a2014form10-k.htm>

<sup>25</sup> Freeport McMoRan. 2016 Proxy Statement. P. 78, <http://d1lge852tjigow.cloudfront.net/CIK-0000831259/8ffd6afc-a761-4d3d-b293-5eef928bda54.pdf?noexit=true>



January, 2014. Additional information would benefit shareholders, especially considering previous reports that hydraulic fracturing has been used in the area. In 2012, a report by Cardno ENTRIX found that there were 23 wells in the Inglewood oil field using hydraulic fracturing, and the California Council on Science and Technology estimated that 100% of the wells in the Inglewood Oil Field are supported by hydraulic fracturing, frac-packing, or high-rate gravel packing (HRGP).<sup>26</sup> Other third party sources also suggest that Freeport McMoRan engaged in hydraulic fracturing after taking ownership of the site and commonly associates hydraulic fracturing with the company.<sup>27</sup> Additionally, before 2013, there were multiple hydraulic fracturing tests done at the Inglewood site, *with the results indicating that future hydraulic fracturing development should be viable in the future as well as safe*.<sup>28</sup> Regulators have also studied the effects of hydraulic fracturing at the Inglewood site due to “the high likelihood of enhancement techniques” being used in the near future, subsequently finding the differing result that “significant and unavoidable” environmental damage can be expected at this field as a result of fracking.<sup>29</sup> Additional information on the types of drilling methods Freeport is using and the practices the Company is taking to minimize the risk associate with these drilling operations would benefit shareholders.

## PEER COMPARISON

In comparison to peers using enhanced and non-conventional oil drilling techniques, Freeport has insufficient disclosures. For example, BHP, Apache, and Hess give a variety of disclosures relating to quantitative measure taken to reduce risk of hydraulic fracturing impacts to water, air, and communities and have completed over 50% of the 39 comprehensive information requests from the 2015 report *Disclosing the Facts: Transparency and Risk in Hydraulic Fracturing Operations*.<sup>30</sup> If the criteria from this report were applied to Freeport McMoRan, it would have merited few, if any points for disclosures.

Although this request for specific disclosures on Freeport’s urban drilling impacts asks for information on the range of unconventional operations being used by Freeport, it requests a similar level of specific detail on whether the Company is taking best actions to reduce the potential harms associated with its activities. Even on an issue where the Company does provide some disclosure, it does not provide specific information about how it aggregates and addresses community complaints as so many other peer companies do, including BHP, EOG, EQT, BP, ConocoPhillips, Encana, Shell, and Anadarko.<sup>31</sup> In general, Freeport is significantly lagging in reporting the impacts of its enhanced and non-conventional techniques to extract oil and additional information would be beneficial to shareholders.

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<sup>26</sup> California Council on Science and Technology. A Case Study of the Petroleum Geological Potential and Potential Public Health Risks Associated with Hydraulic Fracturing and Oil and Gas Development in The Los Angeles Basin (pg 238). <http://ccst.us/publications/2015/vol-III-chapter-4.pdf>

<sup>27</sup> Baldwin Hills Oil Watch. Fracking in Culver City. <http://baldwinhillssoilwatch.org/>; California Frack Facts. Urban Oil Extraction. <http://www.cafrackfacts.org/fracking-in-california/urban-oil-extraction/>

<sup>28</sup> Freeport McMoRan: Inglewood Oil Field. Hydraulic Fracturing Study. Oct, 2012. (pg 3-31) <http://www.inglewoodoilfield.com/res/docs/102012study/Hydraulic%20Fracturing%20Study%20Inglewood%20Field10102012.pdf>

<sup>29</sup> KCET. Report: Fracking Imperils Southern California Residents, Wildlife. January, 2015.

<http://www.kcet.org/news/redo/rewire/natural-gas/report-fracking-imperils-southern-california-residents-wildlife.html>

<sup>30</sup> “Disclosing the Facts: Transparency and Risk in Hydraulic Fracturing Operations”, *As You Sow, Boston Common, Investor Environmental Health Network*, Accessed April 20<sup>th</sup>, 2016, <http://disclosingthefacts.org/>

<sup>31</sup> “Disclosing the Facts: Transparency and Risk in Hydraulic Fracturing Operations”, *As You Sow, Boston Common, Investor Environmental Health Network*, Accessed April 20<sup>th</sup>, 2016, <http://disclosingthefacts.org/>



AS YOU SOW

2016 Proxy Memo  
Freeport McMoRan  
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## CONCLUSION

In conclusion, Freeport is highly exposed to the social, regulatory and reputational risks associated with their urban drilling practices using enhanced and non-conventional drilling methods. The company has failed to disclose the actions they are taking to minimize these risk and mitigate the potential for environmental and social impacts. Additionally, residents near the Company's urban drilling operations remain concerned of the health impacts, have protested and appealed for increased regulation. Shareholders deserve more disclosure on this topic issue. For these reasons, we urge you to vote "Yes" for this resolution.